

BASS LAKE HILLS SPECIFIC PLAN CONDITIONS OF APPROVAL AMENDMENTS EL DORADO COUNTY

Addendum and Initial Study of Environmental Significance

Prepared for
County of El Dorado
Community Development Agency-
Development Services Division
2850 Fairlane Court
Placerville, CA 95667

February 2016

BL Road, LLC
3001 I Street, Suite 300
Sacramento, CA 95816



Exhibit P

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Prepared for
County of El Dorado
and
BL Road, LLC

February 2016

Prepared by
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County of El Dorado
Community Development Agency-Development Services Division
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INITIAL STUDY OF ENVIRONMENTAL SIGNIFICANCE

Project Title/File Number Bass Lake Hills Specific Plan – Hawk View, Bell Woods, and Bell Ranch Conditions of Approval Amendments
File Numbers: Hawk View TM00-1371-R, Bell Woods TM01-1380-R, and Bell Ranch TM96-1321-R-3

Site Address North of U.S. Highway 50 / Bass Lake Road Interchange

APN 115-040-16 (Hawk View), 119-020-050 (Bell Woods), 119-020-52 (Bell Ranch)

Project Applicant BL Road, LLC
3001 I Street, Suite 300
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Property Owner Multiple

Previously Prepared Environmental Documents:

- Bass Lake Road Study Area Program Environmental Impact Report, **SCH #: 1990020375** (certified March 17, 1992);
- Bass Lake Hills Specific Plan EIR Addendum (approved November 7, 1995);
- Hawk View Mitigated Negative Declaration, **SCH #: 2005012107** (certified May 24, 2005);
- Bell Woods Mitigated Negative Declaration, **SCH #: 2005032044** (certified May 24, 2005); and
- Bell Ranch Mitigated Negative Declaration, **SCH #: 2005022144** (certified January 12, 2006).

INTRODUCTION: This Initial Study has been prepared to identify and assess the anticipated environmental impacts of the proposed revisions to, and the one-year extension of, the three approved tentative maps (Hawk View, Bell Woods, and Bell Ranch) within the Bass Lake Hills Specific Plan (BLHSP) area of El Dorado County. This document relies on previous environmental documents and site-specific studies prepared to address in detail the effects or impacts associated with the project (see Appendices A-C and the list of environmental documents provided immediately above). Where documents were submitted by consultants working for the applicant, County staff reviewed and analyzed such documents in order to determine whether, based on their own professional judgment and expertise, such documents were accurate and objective. Staff has only relied on documents that reflect their independent judgment and has not accepted at face value representations made by consultants for the applicant.

This document has been prepared to satisfy the California Environmental Quality Act (CEQA), (Public Resources Code, Section 21000 et seq.) and the State CEQA Guidelines (14 CCR 15000 et seq.). CEQA requires that all state and local government agencies consider the environmental consequences of projects over which they have discretionary authority before acting on those projects.

The initial study is a public document used by the decision-making lead agency to determine the nature and extent of the environmental effects of the project. Where, as here, environmental documents addressing an earlier version of the project have been previously prepared (and, for the EIRs and MNDs, certified), the lead agency considers the adequacy of the prior documents in light of the current modified version of the project and the changed circumstances since the time of the preparation of those prior documents. Pursuant to State CEQA Guidelines §§15162-15163, if the lead agency determines, based on substantial evidence, that any aspect of the project, either individually or cumulatively, will require major revisions to the previous EIR due either to a new significant effect or a substantial increase in the severity of a previously identified significant effect on the environment, the lead agency is required to prepare an Supplemental or Subsequent EIR to analyze the project, regardless of whether the overall effect of the project changes are adverse or beneficial. Pursuant to State CEQA Guidelines §15164, if the agency finds no basis for requiring the preparation of either a Supplemental or Subsequent EIR, an EIR Addendum shall be prepared.

PROJECT DESCRIPTION: The BLHSP area is located in El Dorado County, between the communities of El Dorado Hills and Cameron Park. The project site is roughly bounded by U.S. Highway 50 to the south, the El Dorado Hills Specific Plan Area (Serrano) to the west, Bass Lake to the north, and the community of Cameron Park to the east. **Figure 1** shows the location of the project site in the Sacramento region. **Figure 2** shows the location of the project site within the immediate vicinity.

The project consists of revisions to three approved tentative maps (Hawk View, Bell Woods, and Bell Ranch) within the Bass Lake Hills Specific Plan area of El Dorado County. The applicants have submitted revisions to the approved conditions of approval (COAs) of the three maps, and a minor amendment to the Bell Ranch tentative map to accommodate revisions to lot configurations of a small number of lots. The applicants have also submitted a request to extend the tentative maps for one additional year. The tentative maps together provided for the construction of 281 single family residential units, as well as a number of infrastructure improvements, such as road improvements, improvements at the Highway 50/Bass Lake Road interchange, traffic signals, parks, water and sewer lines, and drainage facilities. The amended COAs, if approved, would refine the sequence and timing of required infrastructure improvements, changing the order in which improvements are made. In addition, minor alterations to infrastructure improvements are proposed that would facilitate incremental development of the tentative maps. In some cases, conditions for unneeded improvements or infrastructure would be removed from the three maps. In other cases, new conditions were added to address new or existing impacts. A more detailed description of the currently proposed project is provided below, under the section entitled “Project Description.”

The Bass Lake Road Study Area (BLRSA) Final Program EIR (PEIR) was certified by the El Dorado County Board of Supervisors on March 17, 1992. Subsequently, on November 7, 1995, the County approved an Addendum to the 1992 BLRSA Final PEIR as part of the approval of the BLHSP, which covered a nearly identical geographic area.

The proposed BLHSP project includes separate phases of development. A tentative subdivision map is required to implement each of the identified phases. At the time tentative subdivision maps are proposed, the County will prepare a site-specific analysis of the development phase’s impacts, particularly with respect to that phase’s compliance with the development standards set forth in the Final PEIR and incorporated into the BLHSP (Pub. Res. Code §21083.3; State CEQA Guidelines §§15168, 15183). Thus, a site-specific analysis in the form of an Initial Study, Mitigated Negative Declaration, and Mitigation Monitoring and Reporting Program were prepared for the three projects that have been undertaken pursuant to the BLHSP (Hawk View, Bell Woods, and Bell Ranch).

The El Dorado County Board of Supervisors certified MNDs and adopted COAs for Hawk View and Bell Woods on May 24, 2005, and, on January 12, 2006, the same actions were taken for Bell Ranch. In the case of all environmental documents prepared subsequent to the BLRSA Final PEIR, it was determined that each project would still contribute to the significant and unavoidable impacts associated with implementation of the BLHSP, but the projects would not result in new significant and unavoidable impacts or increase the severity of previously identified significant and unavoidable impacts.

Further, the County restated and readopted its previous findings associated with the Statement of Overriding considerations provided in Resolution No. 288-95 for the BLRSA Final PEIR.

ENVIRONMENTAL SETTING: The approximately 1,196 acre BLHSP project site is largely undeveloped, with a few scattered home sites within the plan area. The BLHSP is in an area that has experienced residential growth for a number of years, with Serrano in El Dorado Hills to the west and the Cameron Park community to the east. The Hollow Oak subdivision, located approximately one mile east of Bass Lake Road, is the only residential development within the Specific Plan area; there are 99 single family homes on approximately 39 acres in the Hollow Oak subdivision. Other recent development activity in the Specific Plan area has taken place in anticipation of future development, which includes: realignment and reconstruction of Bass Lake Road from Hollow Oak to Serrano Parkway; construction of two four-million gallon water tanks by El Dorado Irrigation District at the north end of the Bell Ranch project; installation of several water transmission lines; construction of El Dorado Hills Fire Station No. 86; construction of the Holy Trinity Catholic Church and School, acquisition of the school site by the Buckeye School District; street and pad grading of the Hawk View subdivision has been started, clearing and grubbing of the Bell Woods property in anticipation of grading; and grading of Morrison Road as part of underground utility line installation.

The undeveloped portions of the BLHSP area are largely open grazing land and rural residences. There is an approximately 6.5 acre farm located in the triangle created by Bass Lake Hills Road, Old Bass Lake Hills Road, and Highway 50. The open grasslands on the site also include several large oak trees, typically located in ephemeral drainages that cross the site.

Since the certification of the BLRSA Final PEIR in 1992, lands around the site have experienced additional new development. Lands to the east, in Cameron Park, have been developing slowly since the 1960s, but the most recent development has occurred northeast of the Specific Plan area, near Bass Lake, in the Hills of El Dorado, Woodridge, and Bridlewood Canyon neighborhoods. Lands to the west have also undergone substantial new development in the Serrano project that has been developed in the El Dorado Hills Specific Plan area which was approved with an EIR in 1988.

DETERMINATION: In reviewing the site-specific information provided for this project, the El Dorado County Community Development Agency has analyzed the potential environmental impacts either created by this project, as currently proposed, or resulting from changed circumstances, and has determined that, with implementation of the identified mitigation measures, as described herein, would not give rise to any new significant effects or any substantial increase in the severity of any previously identified significant effects. The project applicants have agreed to implement mitigation measures outlined in the previous environmental documents as identified in this Addendum, as well as new mitigation measures identified in this 2016 Addendum.

As demonstrated in the initial study checklist, the County has determined that there is no legal or evidentiary basis for the preparation of a Supplemental or Subsequent EIR pursuant to State CEQA Guidelines §§15162 and 15163, and that an Addendum to the BLRSA 1992 PEIR, pursuant to State CEQA Guidelines §15164, is the appropriate environmental document for the proposed project.

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All referenced documentation is available for review by members of the public during normal weekday business hours at the El Dorado County, Community Development Agency-Development Services Division, 2850 Fairlane Court, Placerville, CA 95667.

INTRODUCTION

BL Road, LLC, is seeking approval of a range of amendments to the prior-approved conditions of approval (COA or COAs) for three tentative maps within the Bass Lake Hills Specific Plan (BLHSP) area of El Dorado County. The amended COAs (see Appendix D), if approved, would refine the sequence and timing of certain infrastructure improvements and would add or alter or realign several interim infrastructure improvements to facilitate incremental development of the tentative maps. BL Road, LLC is also requesting a one-year extension on each of the three tentative maps. Pursuant to CEQA, El Dorado County is the lead agency responsible for carrying out or approving the project, as revised, and causing this Addendum to be prepared.

In 1992, the County certified the Bass Lake Hills Study Area (BLHSA) Final Program EIR (PEIR) that addressed the potential effects of development within an approximately 1,200-acre study area. Three years later, in 1995, the County approved an Addendum to the 1992 BLRSA Final PEIR as part of the approval of the BLHSP, which covered a nearly identical geographic area.

In 2005, the County prepared and adopted Mitigated Negative Declarations (MNDs) for, and subsequently approved, three tentative maps (Hawk View, Bell Woods, and Bell Ranch). The tentative maps together provided for the construction of 281 single family residential units, as well as a number of infrastructure improvements, such as road improvements, interchange ramps, traffic signals, parks, water and sewer lines, and drainage facilities.

Pursuant to Section 9.4 of the BLHSP dated November 1995 and Section 3.2 of the BLHSP Development Agreement adopted in August 1996, a Public Facilities Financing Plan (PFFP) was finalized in June 2004. The PFFP identified a ‘critical mass’ level of 300 residential units based on input from the El Dorado County Department of Transportation (now known as the Community Development Agency, Transportation Division) and identified improvements that were to be constructed prior to reaching the critical mass level. A phasing plan was developed in the PFFP. Phase 1 included the Hollow Oak subdivision, a 99-unit single-family residential subdivision within the eastern area of the plan area. Phase 1A would include up to 201 units of any combination from the Bell Ranch, Bell Woods, and Hawk View subdivisions. Phases 2 and 3 would include the remaining units beyond the critical mass to full build-out. The Hollow Oak subdivision and its required Phase 1 improvements were constructed beginning in 2005.

Following approval of the tentative maps, improvement plans were prepared for subdivision improvements, construction of Bass Lake Road, and other related off-site improvements. Some of the right-of-way for the off-site improvements, including Bass Lake Road, has been acquired. Other development-related activities have taken place in and around the plan area, including: realignment and reconstruction of Bass Lake Road from Hollow Oak to Serrano Parkway; construction of two four-million gallon water tanks by El Dorado Irrigation District (EID) at the north end of the Bell Ranch subdivision; installation of several water transmission lines; construction of El Dorado Hills Fire Station No. 86; construction of the Holy Trinity Catholic Church and School; acquisition of the proposed school site by the Buckeye School District; street and pad grading of the Hawk View subdivision has been started; clearing and grubbing of the Bell Woods subdivision in anticipation of grading; and grading of Morrison Road as part of underground utility line installation. Due to the economic recession, development of the Hawk View, Bell Woods, and Bell Ranch tentative maps have not moved forward with vertical construction.

PROJECT BACKGROUND

Previously Prepared Environmental Documents Addressing the BLHSP Project Site

1992 BLRSA Final PEIR

As previously mentioned, several prior CEQA documents relevant to the proposed project have been prepared and certified. Additional detail regarding these documents is provided below.

Bass Lake Road Study Area Program EIR

El Dorado County circulated a Notice of Preparation (NOP) for the Bass Lake Road Study Area (BLRSA) on April 20, 1990. Comments were received and the NOP public comment period closed on May 25, 1990.

In June 1991, El Dorado County released the Draft Program Environmental Impact Report (Draft PEIR) (SCH #1990020375). Numerous comment letters were received, and the Final PEIR was adopted in January 1992. The Draft PEIR analyzed the development of 2,847 dwelling units on approximately 1,223 acres and included mitigation to reduce impacts; however, impacts to the following areas were determined to be significant after mitigation: vegetation and wildlife; land use; population and housing; traffic; utilities (water); public services (fire and schools); and visual and aesthetic resources.

As summarized above, pursuant to State CEQA Guidelines §15150, the BLRSA Final PEIR is hereby incorporated by reference.

Addendum to Bass Lake Road Study Area Program EIR (Bass Lake Hills Specific Plan)

As part of the approval process for the BLHSP, El Dorado County prepared an Addendum to the 1992 Final PEIR. The BLHSP and Addendum were approved in November 1995. The Addendum analyzed the impacts of the BLHSP, which reduced the amount of development to 1,458 dwelling units on approximately 1,196 acres. Environmental topic areas in the Addendum presented the impacts analyzed in the Final PEIR and the significance following Final PEIR mitigation. The Addendum discussed specific standards and policies included in the Specific Plan that would further mitigate impacts within each topic area. The analysis concluded with an overall significance conclusion for each topic area, demonstrating that no new or substantially more severe environmental impacts would occur as a result of the approved BLHSP.

As summarized above, pursuant to State CEQA Guidelines §15150, the 1995 Addendum to the BLRSA Final PEIR is hereby incorporated by reference.

Hawk View Project Mitigated Negative Declaration

In January 2005, El Dorado County published a Draft Initial Study/Mitigated Negative Declaration (IS/MND) for the Hawk View Project. The Hawk View Project is a subdivision in the northwest corner of the BLHSP. The Hawk View site is approximately 40.10 acres and would include 114 single-family homes.

The IS/MND noted that Hawk View is part of the BLHSP PFFP and, along with the Bell Ranch and Bell Woods projects, constitute Phase 1A of the PFFP, which would include up to 201 units of any combination from the Bell Ranch, Bell Woods, and Hawk View subdivisions (Phase 1 included the Hollow Oak subdivision, a 99-unit single-family residential subdivision within the eastern area of the plan area, and Phase 2 and 3 would include the remaining units beyond the critical mass to full build-out). The PFFP identified a 'critical mass' level of 300 residential units based on input from the Transportation Division and identified improvements that were to be constructed prior to reaching the critical mass level. The Hollow Oak subdivision and its required Phase 1 improvements were constructed beginning in 2005. Accordingly, the Hawk View project (and the other two Phase 1A projects) were conditioned to require implementation of a series of Phase 1A improvements that would be implemented, irrespective of whether the other two projects proceeded; meaning each of the projects was conditioned with the full weight of the improvements that the three projects would collectively be required to complete. The improvements were noted to have been addressed in the 1992 BLRSA Final PEIR and the 1995 Addendum that supported the BLHSP approval. The improvements that were subject to the COA included:

- Reconstruct Bass Lake Road (two lanes with median, and grade for future four-lane facility) as required in the BLHSP from Hollow Oak Road to Highway 50 (F-B). Provide underground utilities as required.
- Construct bike lane and sidewalks along Bass Lake Road from Hollow Oak Road to Highway 50.

- Finish median and other improvements on Bass Lake Road from Hollow Oak Road to Serrano Parkway as required by the BLHSP. Provide underground utilities as required.
- Construct Country Club Drive (G-H) with frontage improvements.
- Construct Silver Dove Way to school site (Q-G) with frontage improvements.
- Construct Silver Dove Way (C-D) if Hawk View is included in the critical mass projects.
- Construct school infrastructure (water and sewer).
- Construct Morrison Road (J-I) without off-site frontage improvements if Bell Ranch is in the critical mass projects.
- Construct traffic signals on Bass Lake Road if required by traffic warrants.
- Construct or complete funding for Highway 50/Bass Lake Road Interchange ramp improvements and ramp metering.
- Acquire approximately two acres for the park-and-ride lot and construct a portion of the lot.
- Acquire land for an 8.7-acre sports park.
- Planning and design of sports park.

Following the public comment period, El Dorado County prepared a Final IS/MND that included minor text changes to the draft document. No comment letters were received during the public comment period. The Final IS/MND included a Mitigation Monitoring and Reporting Program (MMRP). The MMRP included mitigation measures from the IS/MND, as well as from the BLRSA Final PEIR.

The Hawk View Project IS/MND incorporated by reference the 1992 Final PEIR and the 1995 Addendum. The IS/MND included a discussion of each impact found to be significant in the 1992 Final PEIR and 1995 Addendum, and analyzed the relative impact of the Hawk View Project for each of those impact topics.

As summarized above, pursuant to State CEQA Guidelines §15150, the Hawk View Project Mitigated Negative Declaration is hereby incorporated by reference.

Bell Ranch Project Mitigated Negative Declaration

In February 2005, El Dorado County published a Draft IS/MND for the Bell Ranch Project. The Bell Ranch Project is a subdivision in the southeast corner of the BLHSP. The Bell Ranch site is approximately 112.14 acres and would include 113 single-family homes, 9 landscape lots, one open space lot, and one park. The Bell Ranch project included the same COAs as noted above for the Hawk View project.

El Dorado County received 9 comment letters regarding the Draft IS/MND. The Final IS/MND was published in April 2005 and included responses to the comments, as well as and changes to the draft document. The Final IS/MND included an MMRP that included mitigation measures from the IS/MND and the BLRSA Final PEIR.

As summarized above, pursuant to State CEQA Guidelines §15150, the Bell Ranch Project Mitigated Negative Declaration is hereby incorporated by reference.

Bell Woods Project Mitigated Negative Declaration

In February 2005, El Dorado County published a Draft IS/MND for the Bell Woods Project. The Bell Woods Project is a subdivision in the northeast corner of the BLHSP. The Bell Woods site is approximately 34.28 acres and would include 54 single-family homes. The Bell Woods project included the same COAs as noted above for the Hawk View project.

El Dorado County received 9 comment letters regarding the Draft IS/MND. The Final IS/MND was published in April 2005 and included responses to the comments, as well as changes to the draft document. The Final IS/MND included an MMRP that included mitigation measures from the IS/MND and the BLRSA Final PEIR.

As summarized above, pursuant to State CEQA Guidelines §15150, the Bell Woods Project Mitigated Negative Declaration is hereby incorporated by reference.

PROJECT DESCRIPTION

Project Location

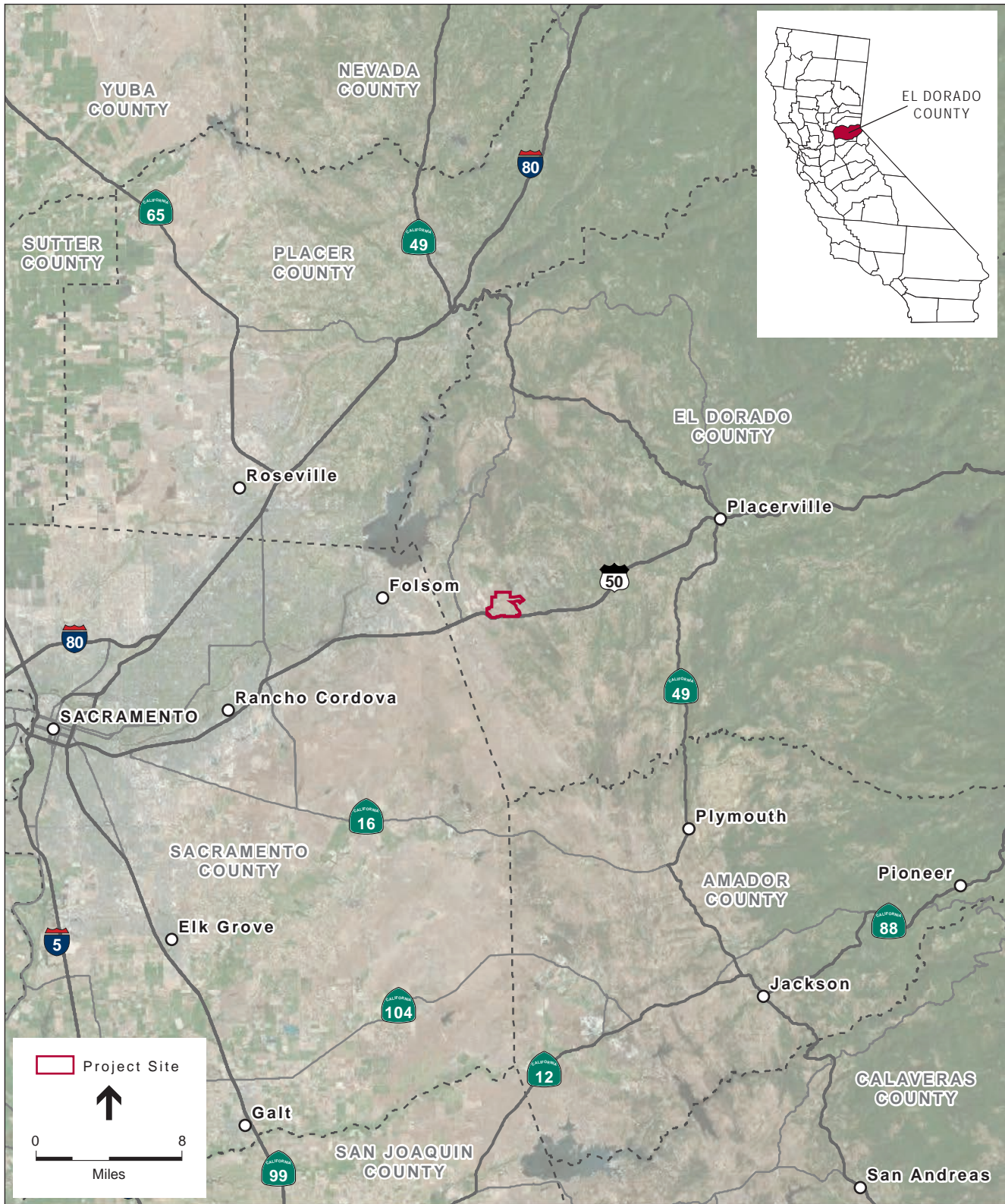
The BLHSP project site is located in El Dorado County, between the communities of El Dorado Hills and Cameron Park. The project site is roughly bound by Highway 50 to the south, the El Dorado Hills Specific Plan Area (Serrano) to the west, Bass Lake to the north, and the community of Cameron Park to the east. **Figure 1** shows the location of the project site in the Sacramento region. **Figures 2 and 3** show the location of the project site within the immediate vicinity.

Project Elements

The proposed project would result in amendments to the prior-approved COAs for three tentative maps (Hawk View, Bell Woods, and Bell Ranch) within the Bass Lake Hills Specific Plan area of El Dorado County. The tentative maps together provided for the construction of 281 single family residential units, as well as a number of infrastructure improvements, such as road improvements, improvements at the Highway 50/Bass Lake Road interchange ramps, traffic signals, parks, water and sewer lines, and drainage facilities. The amended COAs, if approved, would refine the sequence and timing of certain infrastructure improvements and would add or alter or realign several interim infrastructure improvements to facilitate incremental development of the tentative maps. The proposed amendments and the new COAs are described in the following section entitled “COA Amendments.” Whenever the term “COA Amendments” is used in this document, it includes both the proposed amendments and the new COAs. BL Road, LLC is also requesting minor amendments to the Bell Ranch tentative map to reconfigure six lots, revise the size of five others, and add one lot to accommodate construction of a detention basin and add a play field site in the southwest corner of the site. The tentative maps are currently set to expire in May 2017. To accommodate construction of the projects, BL Road, LLC is also requesting a one-year extension on each of the three tentative maps.

COA Amendments

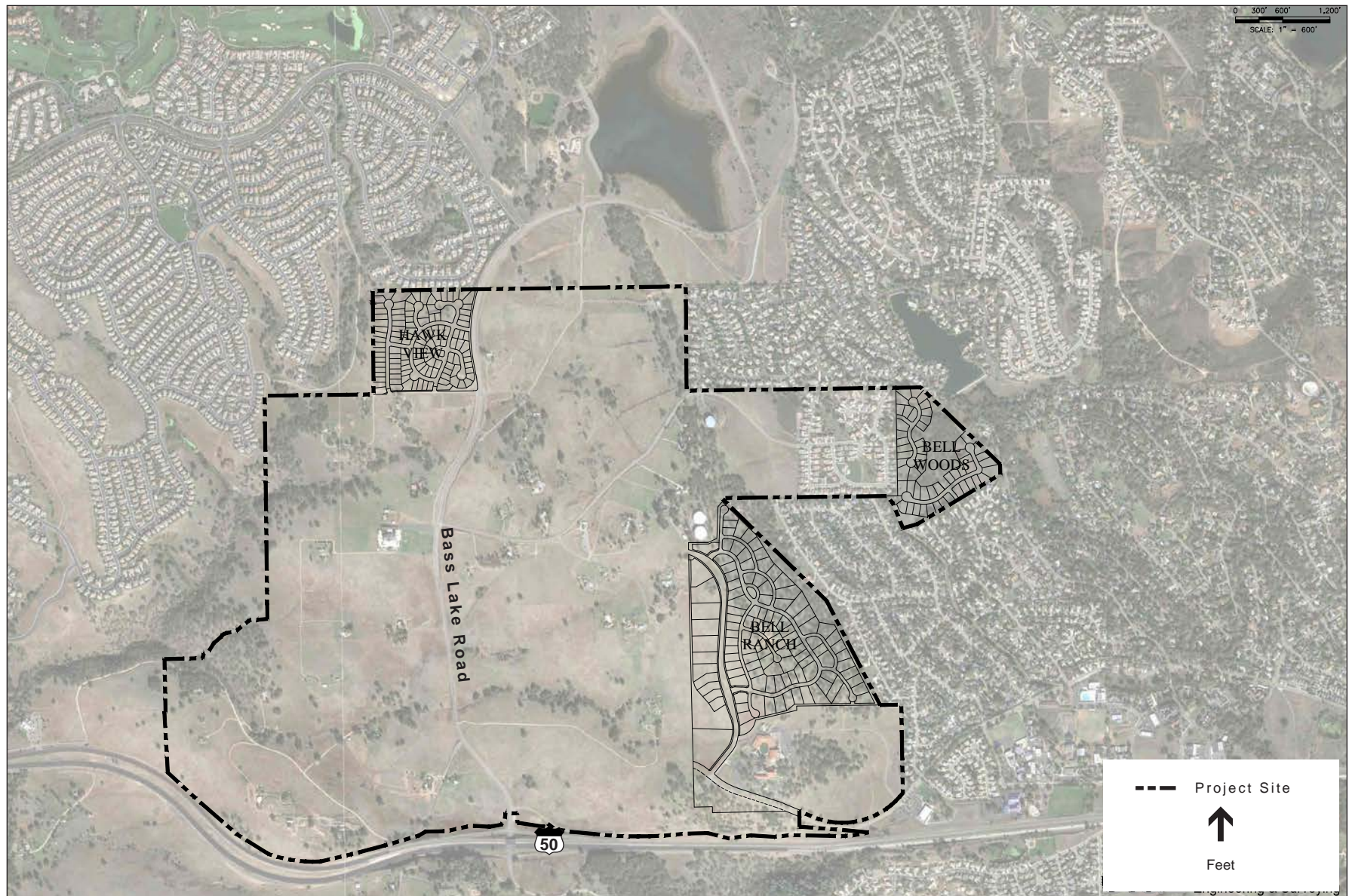
COAs were adopted with approval of each of the three tentative maps. COAs for Hawk View and Bell Woods were adopted by the El Dorado County Board of Supervisors on May 24, 2005, while the COA for Bell Ranch was approved by the El Dorado County Planning Commission on January 12, 2006. Changing the conditions of approval as described below and shown in **Figure 4** would change the order in which improvements are made. In many cases, conditions would be removed from Hawk View, Bell Woods and Bell Ranch as updated technical documents or public agencies have indicated that they are no longer necessary or at least not necessary in the near future, while in other cases, new conditions have been added. The following discussion summarizes the changes to the COAs for each of the three tentative maps.



SOURCE: i-cubed, 1999; ESRI, 2014; ESA, 2015

Bass Lake Hills Project . 140843

Figure 1
Project Vicinity

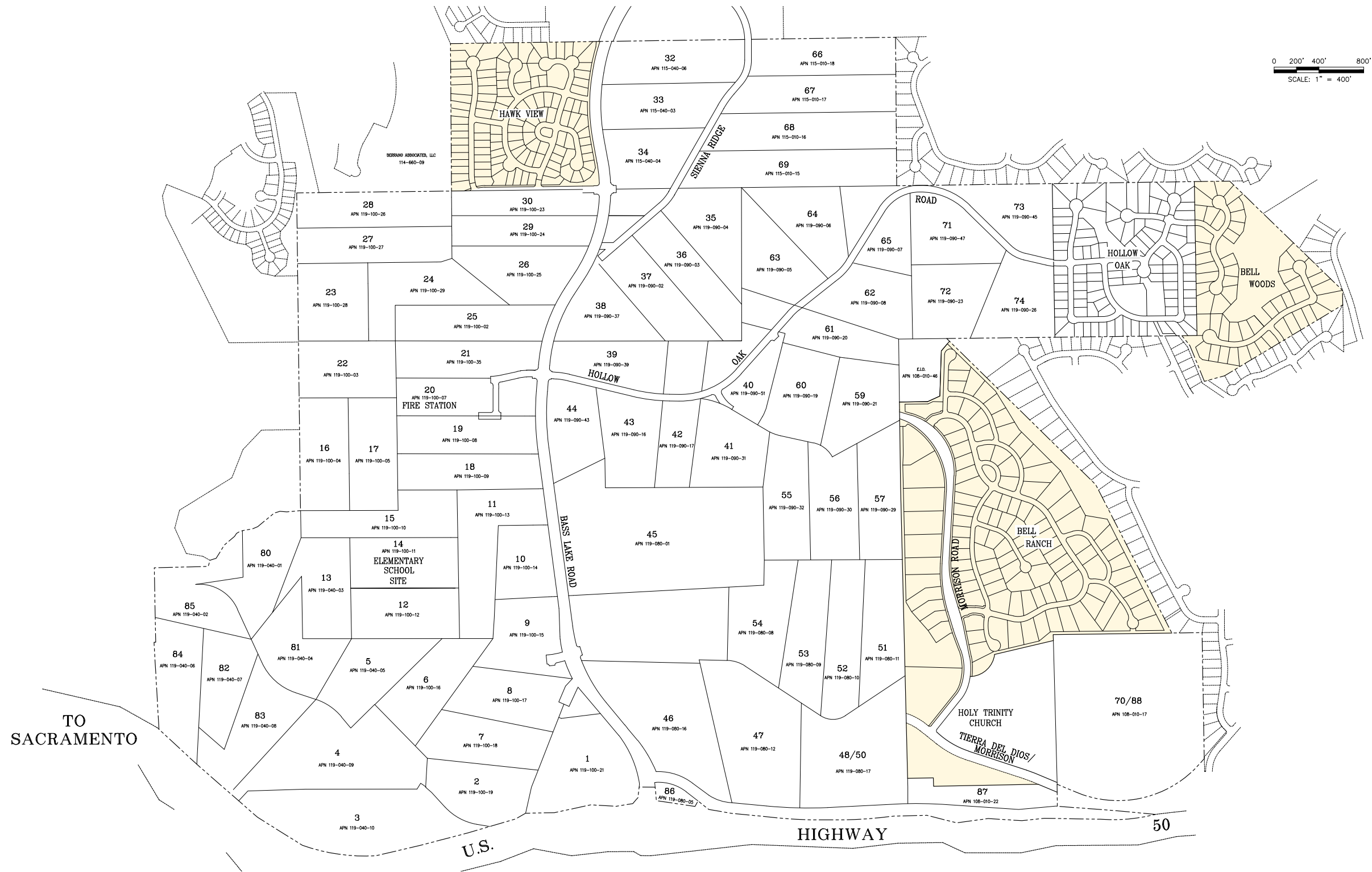


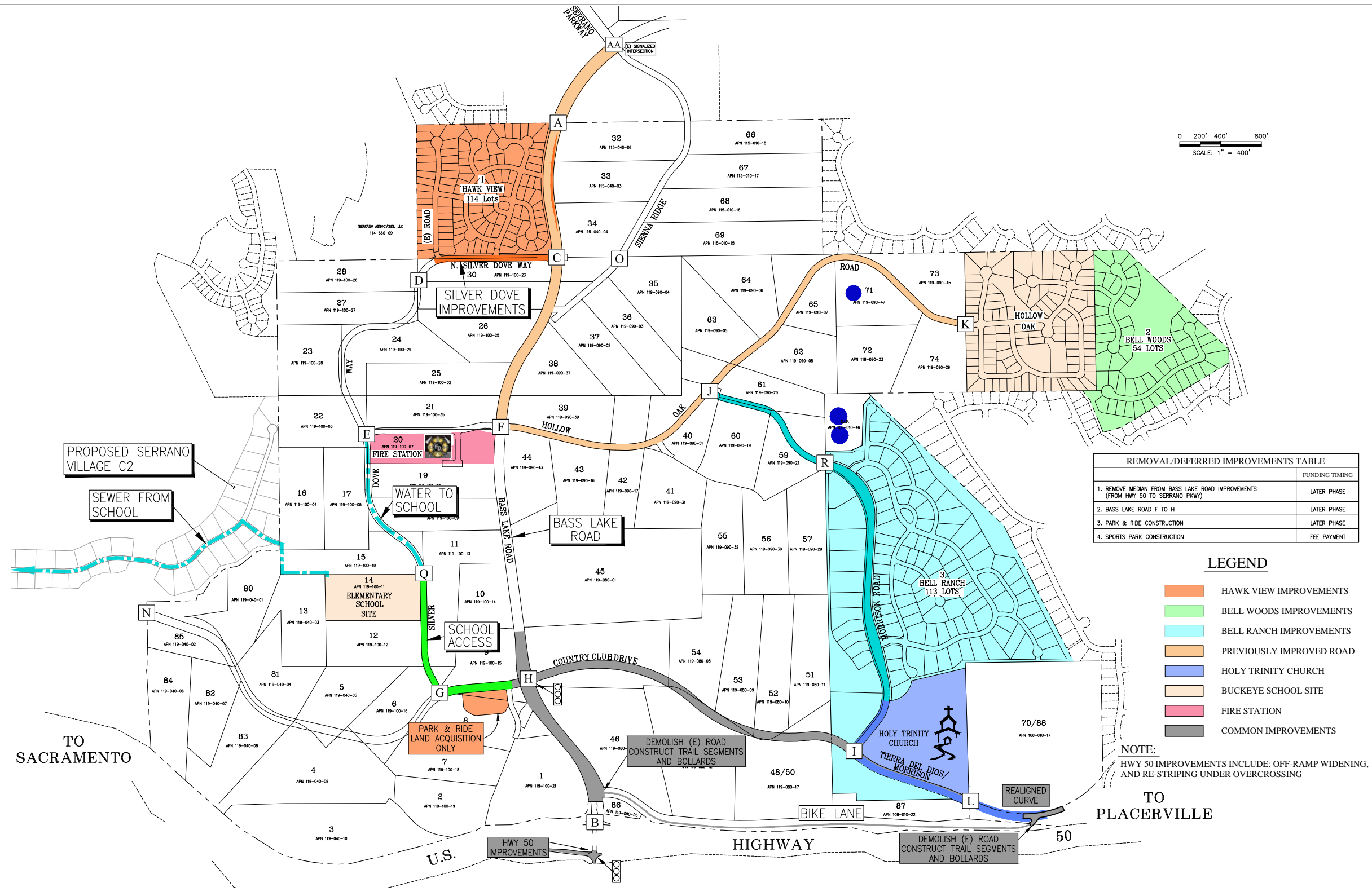
SOURCE: CTA Engineering & Surveying, 2015

Bass Lake Hills Project . 140843

Figure 2
Study Area

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Hawk View

Table 1 provides a summary of changes to the Hawk View COA, and **Figure 5** depicts these elements within the project site.

The proposed project would amend the text of the approved Hawk View COAs as follows:

1. The amendments to these conditions of approval and this tentative subdivision map time extension are based upon and limited to compliance with the project description, the Planning Commission hearing exhibits marked Exhibits A-O, dated March 24, 2016, and conditions of approval set forth below. Any deviations from the project description, exhibits or conditions must be reviewed and approved by the County for conformity with this approval. Deviations may require approved changes to the permit and/or further environmental review. Deviations without the above-described approval will constitute a violation of permit approval.

The project description is as follows:

Amendments to the conditions of approval as listed below and one one-year time extension to approved tentative subdivision map (TM00-1371 Hawk View) in accordance with Section 120.74.030 of the El Dorado County Subdivision Ordinance and Bass Lake Hills Specific Plan.

The grading, development, use, and maintenance of the property, the size, shape, arrangement, and location of structures, parking areas and landscape areas, and the protection and preservation of resources shall conform to the project description above and the hearing exhibits and conditions of approval below. The property and any portions thereof shall be sold, leased or financed in compliance with this project description and the approved hearing exhibits and conditions of approval hereto. All plans must be submitted for review and approval and shall be implemented as approved by the County.

4. Development Plan PD00-0007 for Hawk View (Exhibit K) shall be in substantial compliance with the Hawk View tentative map and shall conform to the development standards of the R1-PD zoning district with the exception of a coverage limitation of 45 percent and the following revised setbacks: Side – 5 feet minimum (not height dependent), Street Side – 15 feet minimum fronting street.
6. Consistency with County Codes and Standards: The developer shall obtain approval of project improvement plans and cost estimates consistent with the Subdivision Design and Improvement Standards Manual (as may be modified by these Conditions of Approval or by approved Design Waivers) from the County Transportation Division, and pay all applicable fees prior to filing of the final map.

Additionally, the project improvement plans and grading plans shall conform to the County Grading, Erosion and Sediment Control Ordinance, Grading Design Manual, the Drainage Manual, Off-Street Parking and Loading Ordinance, all applicable State of California Water Quality Orders, the State of California Handicapped Accessibility Standards, and the California Manual on Uniform Traffic Control Devices (MUTCD).

Curb Returns: All curb returns shall include pedestrian ramps with truncated domes conforming to Caltrans Standard Plan A88A, including a 4 foot sidewalk/landing at the back of the ramp. Alternate plans satisfying the current accessibility standards may be used, subject to review and approval by County.

14. Encroachment Permit(s): The applicant shall obtain an encroachment permit from County and shall construct the project roadway encroachments to the following Standards:
 - “B-Road” access to Bass Lake Road – Construct to Standard Plan 103D.
 - “A-Road” access to Silver Dove Way – Construct to Standard Plan 103C.
 - “E-Road” access to Silver Dove Way – Construct to Standard Plan 103C.
15. Off-site Improvements (Acquisition): As specified elsewhere in these Conditions of Approval, the applicant is required to perform off-site improvements. If the applicant does not secure, or cannot secure sufficient title or interest for lands where said off-site improvements are required, and prior to filing of any final or parcel map, the

applicant shall enter into an agreement with the County pursuant to Government Code Section 66462.5. The agreement will allow the County to acquire the title or interests necessary to complete the required off-site improvements. The Form, Terms and Conditions of the agreement are subject to review and approval by County Counsel.

The agreement requires the applicant: pay all costs incurred by County associated with the acquisition of the title or interest; provide a cash deposit, letter of credit, or other securities acceptable to the County in an amount sufficient to pay such costs, including legal costs; If the costs of construction of the off-site improvements are not already contained in a Subdivision Improvement Agreement or Road Improvement Agreement, the applicant shall provide securities sufficient to complete the required improvements, including but not limited to, direct construction costs, construction management and surveying costs, inspection costs incurred by County, and a 20% contingency; provides a legal description and exhibit map for each title or interest necessary, prepared by a licensed Civil Engineer or Land Surveyor; provides an appraisal for each title or interest to be acquired, prepared by a certified appraiser; Approved improvement plans, specifications and contract documents of the off-site improvements, prepared by a Civil Engineer.

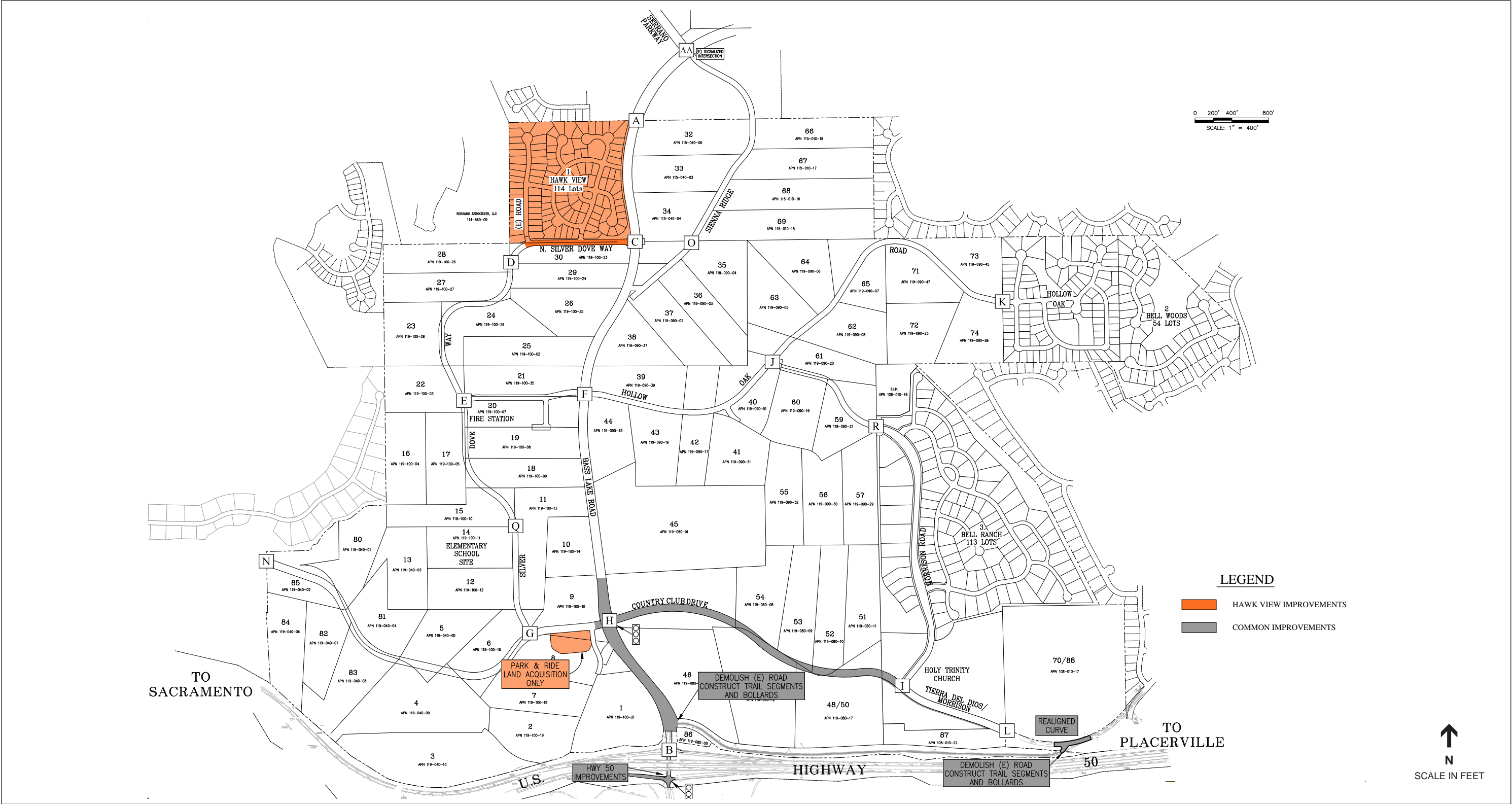
16. Vehicular Access Restriction: A vehicular access restriction shall be designated along Bass Lake Road and Silver Dove Way for the frontage of the project except for the proposed roadway access points.
17. Road Design Standards: The applicant shall construct all roads in conformance with the County Design and Improvements Standards Manual (DISM) and the Bass Lake Hills Specific Plan (BLHSP), modified as shown on the Tentative Map and as presented in Table 1 (the requirements outlined in Table 1 are minimums):

ROAD NAME	REFERENCE	ROAD WIDTH	EXCEPTIONS/NOTES
Bass Lake Road (project frontage)	Specific Plan and approved TM	18' in each direction with 8' nominal median	Typical section as shown on Tentative Map, with Landscape Berm, meandering PCC walk and privacy fence. Section may be modified at the discretion of the County Engineer.
Silver Dove Way (Hawk View Road)	Specific Plan and Approved Tentative Map, Modified per this condition.	30 feet (55-foot R/W- 30 feet on project frontage, 25 feet on opposite side of centerline), plus utility/slope easements	Construct ½ width improvements (18 feet from centerline to face of curb on project side (westbound)) - Type 2 vertical curb and gutter, with 6 ft. sidewalk. Construct eastbound side to 12 foot lane plus 2 foot AB shoulder.
Project Secondary Local Roads(A, B, D, and E Roads)	Specific Plan and Approved Tentative Map, Modified per this condition.	32 feet (50 foot R/W), plus utility/slope easements	Type 1 rolled curb and gutter with 4 foot sidewalks
Project Cul-de-sacs (A, B, C, and E Courts)	Specific Plan and Std. Plans 101B	28 feet (50 foot R/W), plus utility/slope easements	Type 1 rolled curb and gutter with 4 foot sidewalks (see note R-1 below)

* Road widths are measured from curb face to curb face or edge of pavement to edge of pavement if no curb. Curb face for rolled curb and gutter is 6" from the back of curb. Curbs adjacent to open space lots shall be Type 2 Vertical curb and gutter.

Note R-1: The following Design Waivers were included in the prior approved Tentative Map:

1. All sidewalks on the local roads reduced from 6 feet to 4 feet and meander as shown.
2. The proposed centerline radii for A and B Court and F Drive are to be modified to 120-feet, 185-feet and 63-feet respectively.



SOURCE: CTA Engineering and Surveying, 2015

Bass Lake Hills Project . 140843
Figure 5
Hawk View COA Amendments

18. Offer of Dedication: The project shall offer to dedicate, in fee, for the required rights of way shown in Table 1 with the final map. Said offer shall include all appurtenant slope, drainage, pedestrian, public utility, or other public service easements as determined necessary by the County.

The offer(s) will be accepted by the County, provided that a County Service Area Zone of Benefit has been created and funded to provide for maintenance of the roadways. At the option of the Subdivider, the Internal Roadways may be maintained privately by a Homeowner's Association or other entity acceptable to County and may be gated. In which case, the above listed offers of dedication will be rejected by the County. Bass Lake Road is an existing County maintained road, shown on General Plan Exhibit TC-1, and will be accepted by County without a maintenance entity.

Rights of way for off-site improvements on Silver Dove Way may be obtained as an easement for road, drainage, pedestrian and public utility services in lieu of fee, if approved by the County Engineer (land south of centerline on adjacent parcel).

21. Bass Lake Specific Plan Primary Local Roads: Silver Dove Way shall be constructed from "E-Road" to Bass Lake Road adjacent to the project. Silver Dove Way is identified in the BLHSP as a Primary Local Road, and is subject to the provisions of the PFFP.
22. The Project shall construct a left turn pocket on Bass Lake Road at the "B-Road" access, subject to review and approval of the Transportation Division. At the option of the developer, this access may be constructed as a right-in, right-out only access, in which case no left turn pocket shall be required.
23. Maintenance Entity: The proposed project must form an entity for the maintenance of public and private roads and drainage facilities. If there is an existing entity, the property owner shall modify the document if the current document does not sufficiently address maintenance of the roads of the current project. Transportation Division shall review the document forming the entity to ensure the provisions are adequate prior to filing of the final map.

Bass Lake Road and Country Club Drive are existing County maintained roads shown on General Plan Exhibit TC-1 and will be accepted by County without a Maintenance Entity.

Common Fence/Wall Maintenance: The responsibility and access rights for maintenance of any fences and walls constructed on property lines shall be included in the Covenants Codes and Restrictions (CC&Rs).

24. Off-Site Improvements - Specific Plan Urban Collectors and Major Transportation Facilities:
- A. The Project shall be responsible for design, Plans, Specifications and Estimate (PS&E), utility relocation, right of way acquisition, and construction of improvements to Bass Lake Road from US50 to the realigned Country Club Drive (aka Tierra De Dios, aka City Lights Drive). This segment is identified as "B" to "H" on the BLHSP Area Public Facilities Financing Plan (PFFP) Exhibits, and includes the following assumptions:
- i. Is a portion of the 2015 County Capital Improvement Program (CIP) Project #66109;
 - ii. Is a BLHSP Urban Collector;
 - iii. Grading will be consistent with the ultimate 4-lane facility;
 - iv. Construct a divided two lane highway with median, 18 Feet of pavement in each direction. Typical section as shown on approved Tentative Map.
 - v. It is recognized that Bass Lake Road will require improvements for some distance north of the realigned Country Club Drive Intersection to achieve conformance of the revised profile with the existing roadway. The exact distance is to be determined with the final Improvement Plans.
 - vi. The reconstruction shall generally be consistent with the alignment and profile shown on the improvement plans entitled, Bass Lake Road Reconstruction From Highway 50 to Hollow Oak Road, Project #66109, approved by the County Engineer on June 20, 2007, and modified to accomplish the anticipated work required at this time.
 - vii. The project plans shall include conduits for future landscape irrigation and electrical lines.

- B. Project shall be responsible for the design, PS&E, utility relocation, right of way acquisition, and construction of the new Country Club Drive (aka Tierra De Dios) on an alignment substantially consistent with the BLHSP, and includes the following assumptions:
- i. Is identified in the 2015 County CIP as Project #GP126;
 - ii. Is a BLHSP Urban Collector;
 - iii. Is a two-lane road, 36 feet in width (plus left turn pockets);
 - iv. Has a 35-40 mph design speed, and;
 - v. Includes conversion of the existing segment of Country Club Drive into a Class I bike path/Multi-use trail: Approximately 100 feet of pavement will be removed at either end; A new paved trail eight (8) feet in width shall be placed at each end to provide connectivity to adjacent facilities; Bollards shall be installed to prevent motor vehicle access; striping and signing shall be provided subject to review and approval by TD.
- C. Project shall be responsible for the design, PS&E, utility relocation, right of way acquisition, and construction of the realignment of Country Club Drive at its existing intersection with Tierra De Dios Drive (east end of Tierra De Dios Drive) consistent with the intent of the BLHSP, and includes the following assumptions:
- i. Is a BLHSP Urban Collector;
 - ii. Is a two-lane road, 36 feet in width, and;
 - iii. Has a 35-40 mph design speed.
- D. Project shall be responsible for the design, PS&E, utility relocation, right of way acquisition, and construction of intersection improvements at the intersection of Bass Lake Road and the realigned Country Club Drive Intersection, and includes the following assumptions:
- i. Northbound approach to include one through lane and a 200 foot right turn lane;
 - ii. Southbound approach to include one through lane and a 300 foot left turn lane;
 - iii. Westbound approach to include one through lane and a 300 foot left turn lane, and;
 - iv. Signalization of the intersection of Bass Lake Road and the realigned Country Club Drive.
- E. Project shall be responsible for the design, PS&E, utility relocation, right of way acquisition, and construction of improvements at the intersection of Bass Lake Road and the US50 at Bass Lake Road interchange ramps. and includes the following assumptions:
- i. Eastbound ramp / Bass Lake Road intersection
 - a. Widen / restripe eastbound off-ramp to provide two approach lanes for a distance of 240 feet;
 - b. Widen / restripe Bass Lake Road to provide two lanes northbound, and one lane southbound from eastbound ramp to westbound ramp, and;
 - c. Signalize eastbound off-ramp terminus intersection with Bass Lake Road.
 - ii. Westbound ramp / Bass Lake Road intersection
 - a. Provide two northbound approach lanes (see item 3.E.i.b above);
 - b. Provide free-right lane from westbound off-ramp to northbound Bass Lake Road (existing configuration);
 - c. Provide departure merge lane northbound Bass Lake Road (merging two lanes into one);
 - d. Provide one southbound approach lane, and one 300-foot right-turn lane to westbound on-ramp, and;
 - e. Side Street Stop Control (existing).
 - iii. Timing of US50 at Bass Lake Road interchange ramp Improvements
 - a. In order to ensure proper timing of the construction of the improvements identified for the US50 at Bass Lake Road interchange ramps, the subdivider shall perform a supplemental traffic analysis in conjunction with each final map application to determine Level of Service (LOS) of the interchange and ramps, to include existing traffic plus traffic generated by each final map.

- b. If the supplemental traffic analysis indicates that the County's LOS policies would be exceeded by the existing traffic plus traffic generated by that final map, the applicant shall construct the improvements prior to issuance of the first certificate of occupancy for any lot within that final map.
- c. If the County's LOS policies are not exceeded upon application for the last final map within the project, the project applicant shall pay its TIM fees toward the installation of proposed roadway improvements. In which case, payment of TIM fees is considered to be the project's proportionate fair share towards mitigation of this impact.
- d. If the necessary improvements are constructed by the County or others prior to triggering of mitigation by the project, payment of TIM fees is considered to be the projects proportionate fair share towards mitigation of this impact.

F. Financing and Reimbursement

- i. Project may be reimbursed for the costs of any improvements listed above in items A through E, to the extent such improvements are included in the County's Traffic Impact Mitigation (TIM) Fee Program, in accordance with the County's TIM Fee Reimbursement Guidelines, and subject to a Road Improvement and Reimbursement Agreement between the Project and the County.
 - ii. If any improvements are included in the County's 10-year CIP and TIM Fee Program, and agreed to by the County in a Road Improvement and Reimbursement / Credit Agreement, the Project may receive full or partial credit for the cost of the work against TIM Fees that would otherwise be paid at issuance of building permits.
 - iii. If any improvements are included in the County's 10-year CIP and TIM Fee Program, and agreed to by County in a Road Improvement and Reimbursement / Credit Agreement, the Project may provide funding and Bid-Ready PS&E to County, for bidding and construction management by County.
 - iv. If any improvements are included in the BLHSP PFFP, such improvements may be credited to the project or eligible for reimbursement from the PFFP funds.
- G. With respect to the improvements to the public roadways required in this condition, either one of the following shall be done prior to issuance of a building permit: (a) the subdivider shall be under contract for construction of the required improvements with proper sureties in place, or (b) the subdivider shall have submitted to the County a bid-ready package (PS&E) and adequate funding for construction.
- H. The following requirements apply to all traffic signals identified in this condition.

In order to ensure proper timing for the installation of traffic signal controls, the applicant shall be responsible to perform traffic signal warrants with each final map at intersections identified for potential signalization in D and E above, in accordance with the Manual on Uniform Traffic Control Devices (version in effect at the time of application).

If traffic signal warrants are met at the time of application for final map (including the lots proposed by that final map), the applicant shall construct the improvements prior to issuance of the first certificate of occupancy for any lot within that final map.

If traffic signal warrants are not met upon application for the last final map within the project, the project applicant shall pay its TIM fees toward the installation of a traffic signal control at this intersection. In which case, payment of TIM fees is considered to be the project's proportionate fair share towards mitigation of this impact.

If the traffic signal control at an intersection is constructed by the County or others prior to triggering of mitigation by the project, payment of TIM fees and PFFP Fees is considered to be the projects proportionate fair share towards mitigation of this impact.

25. Onsite landscape and irrigation plans shall be included in the project improvement plans and cost estimates, and shall be reviewed by the El Dorado Hills Community Services District and be subject to review and approval by the El Dorado County Development Services Division; the Transportation Division will review the plans for matters concerning roadway safety and sight distance.
26. Drainage Study / NPDES Compliance: The project drainage facilities and system shall conform to the BLHSP, County Drainage Manual and County Storm Water Management Plan (SWMP)(2003). At the option of the subdivider, construction and/ or implementation of Site Design Measures, Source Control Measures, and/or Low Impact Development (LID) Design Standards consistent with the California State Water Resources Control Board (SWRCB) Water Quality Order No. 2013-0001-DWQ (Order) may be implemented in lieu of measures identified in the SWMP.

Water Quality Stamp: All new or reconstructed drainage inlets shall have a storm water quality message stamped into the concrete, conforming to the Storm Water Quality Design Manual for the Sacramento and South Placer Regions, Chapter 4, Fact Sheet SD-1. All stamps shall be approved by the El Dorado County inspector prior to being used.

27. Drainage (Cross-Lot): Cross lot drainage shall be avoided wherever possible. When concentrated cross lot drainage does occur or when the natural sheet flow drainage is increased by the project, it shall be contained within dedicated drainage easements. This drainage shall be conveyed via closed conduit or open channel, to either a natural drainage course of adequate size or an appropriately sized storm drain system. The Grading and Improvement plans shall show drainage easement for all on-site facilities where required.
28. The edge condition and grading along the Bass Lake Road frontage shall be completed in substantial conformance with the proposed tentative map revisions as shown on the Hawk View Bass Lake Road Frontage Modification exhibit dated January 2015.
30. The subdivider shall obtain irrevocable Offers of Dedication and/or drainage easements to the County for public drainage purposes, and shall process same through the County, for offsite easement rights across properties subject to the Specific Plan Development Agreement, to the Satisfaction of the Transportation Division, to accommodate any offsite storm water facilities needed to convey concentrated storm water from the project boundary downgradient to an existing established waterway. Subdivider shall design and install said offsite storm water facilities as necessary to the satisfaction of the Transportation Division.
31. [Deleted.]
32. Grading plans shall be prepared in substantial conformance with the preliminary grading plans submitted for Hawk View and submitted to the El Dorado County Resource Conservation District (RCD) and the Transportation Division. The RCD shall review and make appropriate recommendations to the County. Upon receipt of the review report by the RCD, the Transportation Division shall consider imposition of appropriate conditions for reducing or mitigating erosion and sedimentation from the project. The County shall issue no building permits until the Transportation Division approves the final grading and erosion control plans and the grading is completed.

Soils Report: At the time of the submittal of the grading or improvement plans, the applicant shall submit a soils and geologic hazards report (meeting the requirements for such reports provided in the El Dorado County Grading Ordinance) to, and receive approval from the Transportation Division. Grading design plans shall incorporate the findings of detailed geologic and geotechnical investigations and address, at a minimum, grading practices, compaction, slope stability of existing and proposed cuts and fills, erosion potential, ground water, pavement section based on TI and R values, and recommended design criteria for any retaining walls.

33. The timing of construction and method of revegetation shall be coordinated with the El Dorado County Resource Conservation District (RCD). If grading activities are not completed by September, the developer shall implement a temporary grading and erosion control plan. Such temporary plans shall be submitted to the RCD for review and

recommendation to the Transportation Division. The Transportation Division shall approve or conditionally approve such plans and cause the developer to implement said plan on or before October 15.

37. The potable water system for the purpose of fire protection for this residential development shall provide a minimum fire flow of 1,000 gpm with a minimum residential pressure of 20 psi for two-hour duration. This requirement is based upon a single family dwelling 6,200 square feet or less in size. All homes shall be fire sprinklered in accordance with NFPA 13D and Fire Department requirements. This fire flow rate shall be in excess of the maximum daily consumption rate for this development. A set of engineering calculations reflecting the fire flow capabilities of the system shall be supplied to the Fire Department for review and approval.
38. This development shall install Mueller Dry Barrel fire hydrants or any hydrant approved by the El Dorado Irrigation District for the purpose of providing water for fire protection. The spacing between hydrants in this development shall not exceed 500 feet. The exact location of each fire hydrant shall be determined by the Fire Department prior to the approval of the improvement plans.
39. To enhance nighttime visibility, each hydrant shall be painted with safety white enamel and marked in the roadway with a blue reflective marker as specified by the Fire Department and the Fire Safe Regulations which shall be included in the improvement plans.
40. In order to provide this development with adequate fire and emergency medical response during construction, all access roadways and fire hydrant systems shall be installed and in service prior to framing of any combustible members as specified by El Dorado Hills Fire Department Standard B-003.
42. During each phase of this project, a minimum of two independent access roadways shall be provided for each phase of the project, where required by the Fire Department.
48. The applicant shall prepare a Stormwater Pollution Plan (SWPPP) that incorporates Best Management Practices (BMPs) to contain pollutants on the project site and prevent pollutants from entering stormwater runoff. BMPs shall be incorporated into the construction contract documents. The SWPPP shall be prepared prior to approval of the improvement plans.
49. Project emissions of ROG, NOX, and PM-10 need to be quantified using either the URBEMIS 7G for windows 5.1.0 or similar model that is acceptable to the District. In addition, District Rule 223 addresses the regulation and mitigation measures for fugitive dust emissions - Rule 223 shall be adhered to during the construction process. In addition, prior to issuance of any grading or construction permits for the project, the applicant shall submit, as determined by the El Dorado County Air Quality Management District (AQMD), a Fugitive Dust Plan (FDP) application and/or an Asbestos Dust Mitigation Plan (ADMP) application may be required for submittal to and approval by the District prior to beginning project construction.
50. It is the understanding of the District that this area is known to have soil bearing asbestos. Therefore compliance with Title 17 Asbestos Airborne Toxic Control Measure for Construction, Grading, Quarrying, and Surface Mining Operations of the California Code of Regulations will be mandatory prior to approval of the improvement plans.
51. Project construction involves road development and should adhere to District Rule 224 Cutback and Emulsified Asphalt Paving Materials and the county ordinance concerning asbestos dust prior to the approval of the improvement plans.
52. A health risk assessment shall be prepared when the project will emit toxic air contaminants. Airborne toxic pollutants expected to be generated by the project must be identified. In addition, it must be determined if a project is to be located in an area which may impact existing or planned schools or facilities with the potential to emit toxic or hazardous pollutants. A potential airborne toxic pollutant to consider is asbestos in asbestos-containing serpentine. Applicant will assist the District in preparing a public notice in which the proposed project for which an application for a permit is made is fully described and complies to Health and Safety Code 42301.6. The risk assessment must address the pollutants and potential impacts on public health prior to approval of the improvement plans.

53. Burning of wastes that result from "Land Development Clearing" must be permitted through the Air Pollution Control District. Only vegetative waste materials may be disposed of using an open outdoor fire prior to approval of the improvement plans.
54. The project construction will involve the application of architectural coating, which shall adhere to District Rule 215 Architectural Coatings prior to approval of the improvement plans.
55. Prior to construction/installation of any new point source emissions units or non-permitted emission units (i.e., gasoline dispensing facility, boilers, internal combustion engines, etc.), authority to construct applications shall be submitted to the District. Submittal of applications shall include facility diagram(s), equipment specifications and emission factors prior to approval of the improvement plans.
57. The project is subject to the Quimby Act and dedication requirements for parkland based on El Dorado Hills standards of 5 acres per 1,000 residents population. Population density is based on 3.3 persons per home, which works out to 1.9-acres of parkland to be dedicated to the District before the filing of the final map. The subdivision is subject to parkland dedication in-lieu fees based on values supplied by the Assessor's Office and calculated in accordance with Section 120.12.090 of the County Code. The subdivider shall be subject to a \$150.00 appraisal fee payable to the El Dorado County Assessor for the determination of parkland dedication in-lieu fees. The required in-lieu fees, payable to El Dorado County, shall be remitted prior to Final Map recordation. A proof of payment shall be submitted to Planning Services.

The following conditions have been added:

45. This development shall be prohibited from installing any type of traffic calming device that utilizes a raised bump/dip section of roadway.
46. Any gate shall meet the El Dorado Hills Fire Department Gate Standard B-002.
68. The applicant shall acquire approximately two acres for the park-and-ride lot. The land shall be acquired prior to approval of the first final map. In the event that the eminent domain process must be implemented to acquire said land, this condition shall be deemed satisfied by applicant entering into an agreement for condemnation proceedings with the County Counsel together with a deposit of funds as required by County Counsel, or make other arrangements to the satisfaction of the Transportation Division.
69. The applicant shall acquire approximately two acres for the park-and-ride lot. The land shall be acquired prior to approval of the first final map. In the event that the eminent domain process must be implemented to acquire said land, this condition shall be deemed satisfied by applicant entering into an agreement for condemnation proceedings with the County Counsel together with a deposit of funds as required by County Counsel, or make other arrangements to the satisfaction of the Transportation Division.
70. Electronic Documentation: Upon completion of the improvements required, and prior to acceptance of the improvements by the County, the developer will provide a CD to the Transportation Division with the drainage report, structural wall calculations, and geotechnical reports in PDF format and the record drawings in TIF format.
71. Prior to issuance of the first building permit, the developer shall submit to the County a proposed update to the Bass Lake Hills Public Facilities Financing Plan, including an update to the plan area fee program.
72. Prior to recordation of a final map, a valid facility improvement letter (FIL) shall be issued by the El Dorado Irrigation District (EID) for the subdivision, a new Facility Plan Report (FPR) shall be reviewed and approved by the EID, and improvement plans shall be reviewed and approved by EID. Previously approved and expired plans and reports may be used as templates for new submittals to EID.
73. The applicant shall comply with the Mitigation Monitoring and Reporting Program (MMRP) as a condition of project approval. Implementation of the MMRP shall be enacted as set forth by Table 3.0-1 of the MMRP prepared for the project and attached hereto.

Table 1
Hawk View Modification of Conditions Summary

Original COA#	Improvement Description	Approved Conditions	Proposed Revisions
#1	Project approvals	Planning Commission date April 24, 2008 and five one-year time extensions	Planning Commission date March 24, 2016. One one-year time extension and approval of revised conditions.
#4	Development plan	Development to be in substantial compliance with approved tentative map	Add language that development shall conform to R1-PD zoning with a 45 percent coverage limitation and revised setbacks.
#6	Project plan approval	Plans to be consistent with Subdivision Design and Improvement Standards Manual	Add language that standards may be modified by these Conditions of Approval or Design Waivers. Also add language requiring conformity with other County ordinances and applicable State standards. Add text regarding curb returns.
#14	Encroachment	Requirements for encroachment onto Bass Lake Road	Add language requiring encroachment permits for three specified roadway encroachments to Bass Lake Road and Silver Dove Way and specific construction standards to be applied.
#15	Encroachment	Requirements for encroachment onto Silver Dove Way	Silver Dove Way encroachment added to COA #14. New text added to address requirement of applicant to secure title, pay costs incurred by the County, and/or complete off-site improvements.
#16	Vehicular access restrictions	Vehicular access restricted along Bass Lake Road and Silver Dove Way except for proposed encroachments	Minor changes for consistency with other subdivision COAs.
#17	Road design	Specifies road name, width, and exceptions/notes.	Road and ROW requirements changed to reflect current requirements. Updated requirements regarding sidewalk locations and size. Updated design notes to reflect current requirements and site-specific circumstances.
#18	ROW dedication	Irrevocable offer of dedication of rights of way (ROW) required and may be subject to a Zone of Benefit for maintenance purposes.	Dedication of ROW required as shown on tentative map. Internal roadways may be maintained by a private Homeowner's Association of other entity acceptable to the County. May be gated. ROW for Silver Dove Way may be dedicated as an easement in lieu of fee title.
#21	Silver Dove Way C-D	Build Silver Dove Way segment C-D.	Shorten by 300 feet +/-.
#22	Left Turn Pocket	Construct left turn pocket into project	Allow for optional construction of "right-in, right-out only" access, in lieu of full access with left turn pocket.
#23	Required improvements	Certificates of occupancy (COOs) shall not be issued until required improvements have been completed.	Original condition deleted in its entirety as it is no longer applicable. New condition (added at this location for convenience) requires maintenance entity prior to final map. Maintenance of common walls and fences to be included in Covenants, Codes, and Restrictions (CC&Rs).

Table 1
Hawk View Modification of Conditions Summary

Original COA#	Improvement Description	Approved Conditions	Proposed Revisions
#24 A, B, & C	Bass Lake Road	Build Bass Lake Road with full improvements, including bike lane and sidewalks.	Conditions deleted in their entirety and replaced with revised language. New requirements (COA #24.A) for Bass Lake Road include design, Plan, Specifications and Estimate (PS&E), utility relocation, ROW acquisition, and construction of improvements to Bass Lake Road from Highway 50 to the realigned Country Club Drive (also known as Tierra De Dios Drive or City Lights Drive). Revised COA also includes design specifications.
#24.D	Country Club Drive	Construct Country Club Drive with frontage improvements.	Condition deleted in its entirety and replaced with revised language. New requirements (COA #24.B) for the new Country Club Drive (also known as Tierra De Dios Drive) on an alignment substantially consistent with the BLHSP include design, PS&E, utility relocation, ROW acquisition, and construction. New requirements for the realignment of Country Club Drive (COA #24.C) at its existing intersection with Tierra De Dios Drive (east end of Tierra De Dios Drive) include design, PS&E, utility relocation, ROW acquisition, and construction. New conditions also include assumptions and design standards.
#24 E & F	Silver Dove Way	Construct Silver Dove Way to school site if Hawk View is included in critical mass projects.	Conditions deleted in their entirety and replaced with revised language. Requirements for ROW to school site have been included in Bell Woods (BW COA #22).
#24.G	School Site Infrastructure	Construct water and sewer infrastructure to school	Remove from Hawk View; obligation to secure right-of-way and provide plans to County remains on Bell Ranch (BR COA #23)
#24.H	Morrison Road	Construct Morrison Road (J-I)	Remove from Hawk View; remains obligation of Bell Ranch (BR COA #25)
#24.I	Signals	Construct traffic signals on Bass Lake Road if required by traffic warrants.	Condition deleted in its entirety. New requirements related to signals (COA #24.H) include timing and financing guidance.
#24.J	Highway 50/Bass Lake Road Interchange	Construct or complete funding for ramps at the Highway 50/Bass Lake Road interchange.	Condition removed in its entirety. New requirements for the Highway 50/Bass Lake Road interchange (COA #24.E) include design, PS&E, utility relocation, ROW acquisition, and construction. The new language also includes design specifications and timing guidance.
#24.K	Park and Ride Lot	Acquire 2 acres for site and construct portion of lot	Condition deleted in its entirety. Requirement for acquisition of land for the park-and-ride lot has been moved to COA #68.
#24 L & M	Sports Park	Acquire 8.7 acres of land for park site and plan and design park site	Condition removed in its entirety. Requirements for payment of in-lieu park fees are included in COA #57 and COA #58.

Table 1
Hawk View Modification of Conditions Summary

Original COA#	Improvement Description	Approved Conditions	Proposed Revisions
#25	Landscape and irrigation	Landscape and irrigation plans to be reviewed by EDCSD and approved by El Dorado County.	Clarify that condition applies to onsite landscaping and update County division names.
#26	Drainage facilities	Drainage plan and facilities plan to be designed according to County guidance and constructed with respective phase of construction.	Update that compliance is required with updated guidance. Provides that subdivider may implement low impact development (LID) or other SWRCB measures in lieu of measures identified in the SWMP.
#27	Drainage	Cross lot drainage to be avoided.	Add clarification of applicability to drainage increased by the project. Add that grading and improvement plans shall show drainage easement for on-site facilities.
#28	Drainage	County Service Area Zone of Benefit (ZOB) required to fund drainage maintenance and improvements.	All original text removed, including ZOB requirement (now contained in COA #23). New text requires Bass Lake Road frontage to be completed in conformance with revised tentative map as shown on the Hawk View Bass Lake Road Frontage Modification exhibit dated January 2015.
#30	Drainage	Subdivider required to obtain irrevocable Offers of Dedication to the County for public drainage.	Add “and/or drainage easements” following irrevocable Offers of Dedication. Minor text changes to reflect current County department/division names.
#31	Grading	Mass pad grading project application required to be sent to County Supervisor for comment.	Entire condition deleted as El Dorado County no longer follows this process.
#32	Grading plans	Grading plans to be submitted to County. No building permits to be issued until County approves final grading and erosion plans, and grading is completed.	Minor text changes to reflect current County department/division names. Add requirement for submittal of a soils and geologic hazards report.
#33	Construction and revegetation	Timing of construction and revegetation to be coordinated with RCD. Actions to be based on timing.	Minor text changes to reflect current County department/division names.
#37	Fire flow	Require minimum 1,000 gpm with minimum residential pressure of 20 psi for two-hour duration. Engineering calculations to be submitted for review and approval by the Fire Department.	Modification to maximum dwelling size used as basis for flow requirements. Add requirement that all homes be sprinklered.
#38	Fire hydrants	Requirement to install Mueller Dry Barrel fire hydrants and spacing to be determined by the Fire Department.	Add language allowing for any approved hydrant. Spacing to not exceed 500 feet, with exact location of each hydrant to be determined by the Fire Department prior to approval of the improvement plans.

Table 1
Hawk View Modification of Conditions Summary

Original COA#	Improvement Description	Approved Conditions	Proposed Revisions
#39	Fire hydrants	Require white enamel paint on hydrant and blue reflective marker in roadway.	Add that requirement shall be included on improvement plans.
#40	All access roadways	All access roadways and fire hydrant systems to be installed and in service prior to framing of any combustible materials.	Revise El Dorado Hills Fire Department Standard number identified in COA.
#42	Access roadways	Minimum of two independent access roadways shall be provided for each phase of the project.	Add “where required by the Fire Department” to the end of the COA.
#45	Traffic calming devices	N/A	New condition prohibits traffic calming devices that utilize a raised bump/dip section of roadway.
#46	Gates	N/A	New condition requiring that any gate shall meet Fire Department standards.
#48	Potential pollutants	Applicant will need to control non-stormwater discharges, including potential pollutants.	Entire text replaced with requirement to prepare a SWMPP prior to approval of improvement plans. The SWPPP shall include BMPs that shall also be included in construction contract documents.
#49	Air Emissions	Requires quantification of ROG, NOx, and PM10 emissions, application of mitigation measures for fugitive dust, and an asbestos mitigation plan prior to construction	Revise timing to prior to issuance of grading or construction permits. Minor text revisions to update plan application names to current versions.
#50	Asbestos	Requires mandatory compliance with California Code of Regulations regarding asbestos control measures.	Add that timing shall be prior to approval of improvement plans.
#51	Paving materials and asbestos dust	Construction activities should adhere to District rules regarding paving materials and county ordinance concerning asbestos dust.	Add that timing shall be prior to approval of improvement plans.
#52	Health risk assessment	Health risk assessment shall be prepared when the project will emit toxic air contaminants.	Add that timing shall be prior to approval of improvement plans.
#53	Burning of waste	Land clearing waste burning requires permit from the Air Pollution Control District. Only vegetative waste may be burned in an open outdoor fire.	Add that timing shall be prior to approval of improvement plans.
#54	Architectural coatings	Require adherence to District Rule 215.	Add that timing shall be prior to approval of improvement plans.
#55	Authority to construct	Require authority to construct applications, including specified contents.	Add that timing shall be prior to approval of improvement plans.

Table 1
Hawk View Modification of Conditions Summary

Original COA#	Improvement Description	Approved Conditions	Proposed Revisions
#55	Parks	Subdivision is subject to the Quimby Act, and the developer and CSD will negotiate in lieu fees.	Renumbered to COA #57. Requirement to negotiate in lieu fees replaced with requirement that in lieu fees shall be based on values supplied by the Assessor's Office and calculated in accordance with Section 120.12.090 of the County Code.
#68	Park-and-ride lot	N/A	New condition requiring applicant to acquire approximately two acres for a park-and-ride lot.
#69	Permits	N/A	New condition requiring applicant to provide all regulatory permits or agreements between the applicant and any State or Federal agency to the County.
#70	Documents	N/A	New condition requiring developer to provide County with reports and drawings in specified electronic formats.
#71	PFFP	N/A	New requirement on for all subdivisions that an update to the Bass Lake Hills PFFP shall be submitted prior to issuance of the first building permit.
#72	EID requirements	N/A	New condition added to address previously approved but expired FILs and FPRs and EID requirements for resubmittals.
#73	MMRP	N/A	New condition requiring compliance with the MMRP as a condition of project approval.
MM 3.12-1	Fire access	Requirements to provide adequate fire and emergency protection.	Remove measure as all requirements are included in revised COAs #37 through #46.
MM 3.15-2	Recycled water	Project is to use recycled water for landscape irrigation.	Remove; recycled water is not supported by EID.

Bell Woods

Table 2 provides a summary of changes to the Bell Woods COA, and **Figure 6** depicts these elements within the project site.

The proposed project would amend the text of the approved Bell Woods COAs as follows:

1. The amendments to these conditions of approval and this tentative subdivision map time extension is based upon and limited to compliance with the project description, the Planning Commission hearing exhibits marked Exhibits A-O, dated March 24, 2016, and conditions of approval set forth below. Any deviations from the project description, exhibits or conditions must be reviewed and approved by the County for conformity with this approval. Deviations may require approved changes to the permit and/or further environmental review. Deviations without the above-described approval will constitute a violation of permit approval.

The project description is as follows:

One-year time extension to approved tentative subdivision map (TM01-1380 Bell Woods) in accordance with Section 120.74.030 of the El Dorado County Subdivision Ordinance and Bass Lake Hills Specific Plan.

The grading, development, use, and maintenance of the property, the size, shape, arrangement, and location of structures, parking areas and landscape areas, and the protection and preservation of resources shall conform to the project description above and the hearing exhibits and revised conditions of approval below. The property and any portions thereof shall be sold, leased or financed in compliance with this project description and the approved hearing exhibits and conditions of approval hereto. All plans must be submitted for review and approval and shall be implemented as approved by the County.

3. The Development Plan PD 01-0008 for Bell Woods shall consist of the following: 54 single family lots ranging in size from 11,004 to 26,080 square feet, and 2 open space lots on 34.28 acres.
5. The Development Plan PD 01-0008 for Bell Woods shall conform to the development standards of the R1-PD zoning district with the exception of a coverage limitation of 45 percent and the following revised setbacks: Front – 20 feet minimum, Rear – 15 feet minimum, Side – 5 feet minimum (not height dependent), Street Side – 15 feet minimum fronting street.
7. Consistency with County Codes and Standards: The developer shall obtain approval of project improvement plans and cost estimates consistent with the Subdivision Design and Improvement Standards Manual (as may be modified by the Conditions of Approval or by approved Design Waivers) from the County Transportation Division and pay all applicable fees prior to filing of the final map.

Additionally, the project improvement plans and grading plans shall conform to the County Grading, Erosion and Sediment Control Ordinance, Grading Design Manual, the Drainage Manual, Off-Street Parking and Loading Ordinance, all applicable State of California Water Quality Orders, the State of California Handicapped Accessibility Standards, and the California Manual on Uniform Traffic Control Devices (MUTCD).

Curb Returns: All curb returns shall include pedestrian ramps with truncated domes conforming to Caltrans Standard Plan A88A, including a 4 foot sidewalk/landing at the back of the ramp. Alternate plans satisfying the current accessibility standards may be used, subject to review and approval by County.

15. Vehicular Access Restriction: A vehicular access restriction shall be designated along Covello Circle for the frontage of lots 1 and 31.
16. Road Design Standards: The applicant shall construct all roads in conformance with the County Design and Improvements Standards Manual (DISM) and the Bass Lake Hills Specific Plan (BLHSP), modified as shown on the Tentative Map and as presented in Table 1 (the requirements outlined in Table 1 are minimums).

ROAD NAME	REFERENCE	ROAD WIDTH	EXCEPTIONS/NOTES
Covello Circle	Specific Plan & Std Plan 101B	32 feet (50 foot R/W), plus utility/slope easements	25 MPH Design Speed Type 2 vertical curb & gutter, with 4 foot sidewalk one side
Nicole Drive	Specific Plan & Std Plan 101B	28 feet (50 foot R/W), plus utility/slope easements	25 MPH Design Speed Type 1 rolled curb & gutter with 4 foot sidewalks
Project Cul-de-sacs (A, B, C and D Courts)	Specific Plan & Std Plans 101B	28 feet (50 foot R/W), plus utility/slope easements	25 MPH Design Speed Type 1 rolled curb & gutter – no sidewalks

* Road widths in the preceding table are measured from curb face to curb face or edge of pavement if no curb. Curb face for rolled curb and gutter is 6" from the back of the curb.

Type 2 vertical Curb and Gutter required adjacent to open space, park, and non-frontage lots.

Sidewalks may be located outside the right-of-way and meander as a means to provide interest and variety in alignment. The alignment and design of the sidewalks shall be reviewed and approved by the Department of Transportation prior to filing the final map. Sidewalks shall be connected to any walk/trail systems in the project open space areas. Pedestrian easements are to be provided where necessary.

Note 1: Cul-de-sacs shall be to satisfaction of the Fire District and shall have no landscaping within the cul-de-sacs.

Note R-1: The following Design Waivers have been requested:

1. All sidewalks on the local roads reduced from 6 to 4 feet and may meander. This 4-wide sidewalk is required in the Bass Lake Hills Specific Plan. This Department recommends approval of the above requested design waiver.
2. The proposed lengths of C and D Court exceed 500 feet and the applicant requests lengths of approximately 600 feet and 750 feet respectively. The proposed lengths of A and B Court exceed 500' when the length of Nicole Drive is added. The Transportation Division recommends approval of the above requested design waiver.

17. [Deleted.]

18. Offer of Dedication: The project shall offer to dedicate, in fee, the rights of way for roadways shown in Table 1 with the final map. Said offer shall include all appurtenant slope, drainage, pedestrian, public utility, or other public service easements as determined necessary by the County.

The offer(s) will be accepted by the County, provided that a County Service Area Zone of Benefit has been created and funded to provide for maintenance of the roadways.

At the option of the subdivider, the roadways may be private, except that emergency access shall be public. In the event of the private roadways option, a Homeowners Association (or other mechanism approved by County) shall be formed for the purpose of maintaining the private roads and drainage facilities, in which case the above listed offers of dedication will be rejected by the County.

20. No freestanding walls, fences, or retaining walls are allowed in the road right-of-way except at the discretion of the Transportation Division.

23. [Deleted.]

24. Off-site Improvements (Acquisition): As specified elsewhere in these Conditions of Approval, the applicant is required to perform off-site improvements. If the applicant does not secure, or cannot secure sufficient title or interest for lands where said off-site improvements are required, and prior to filing of any final or parcel map, the applicant shall enter into an agreement with the County pursuant to Government Code Section 66462.5. The agreement will allow the County to acquire the title or interests necessary to complete the required off-site improvements. The Form, Terms and Conditions of the agreement are subject to review and approval by County Counsel.

The agreement requires the applicant: pay all costs incurred by County associated with the acquisition of the title or interest, provide a cash deposit, letter of credit, or other securities acceptable to the County in an amount sufficient to pay such costs, including legal costs; If the costs of construction of the off-site improvements are not already contained in a Subdivision Improvement Agreement or Road Improvement Agreement, the applicant shall provide securities sufficient to complete the required improvements, including but not limited to, direct construction costs, construction management and surveying costs, inspection costs incurred by County, and a 20% contingency; provides a legal description and exhibit map for each title or interest necessary, prepared by a licensed Civil Engineer or Land Surveyor; provides an appraisal for each title or interest to be acquired, prepared by a certified appraiser; Approved improvement plans, specifications and contract documents of the off-site improvements, prepared by a Civil Engineer.

25. Off-Site Improvements - Specific Plan Urban Collectors and Major Transportation Facilities:

- A. The Project shall be responsible for design, Plans, Specifications and Estimate (PS&E), utility relocation, right of way acquisition, and construction of improvements to Bass Lake Road from US50 to the realigned Country Club Drive (aka Tierra De Dios, aka City Lights Drive). This segment is identified as "B" to "H" on the BLHSP Area Public Facilities Financing Plan (PFFP) Exhibits, and includes the following assumptions:
 - i. Is a portion of the 2015 County Capital Improvement Program (CIP) Project #66109;
 - ii. Is a BLHSP Urban Collector;
 - iii. Grading will be consistent with the ultimate 4-lane facility;
 - iv. Construct a divided two lane highway with median, 18 Feet of pavement in each direction. Typical section as shown on approved Tentative Map for Hawk View Ridge Subdivision TM 00-1371R.
 - v. It is recognized that Bass Lake Road will require improvements for some distance north of the realigned Country Club Drive Intersection to achieve conformance of the revised profile with the existing roadway. The exact distance is to be determined with the final Improvement Plans.
 - vi. The reconstruction shall generally be consistent with the alignment and profile shown on the improvement plans entitled, Bass Lake Road Reconstruction From Highway 50 to Hollow Oak Road, Project #66109, approved by the County Engineer on June 20, 2007, and modified to accomplish the anticipated work required at this time.
 - vii. The project plans shall include conduits for future landscape irrigation and electrical lines.
- B. Project shall be responsible for the design, PS&E, utility relocation, right of way acquisition, and construction of the new Country Club Drive (aka Tierra De Dios) on an alignment substantially consistent with the BLHSP, and includes the following assumptions:
 - i. Is identified in the 2015 County CIP as Project #GP126;
 - ii. Is a BLHSP Urban Collector;
 - iii. Is a two-lane road, 36 feet in width (plus left turn pockets);
 - iv. Has a 35-40 mph design speed, and;
 - v. Includes conversion of the existing segment of Country Club Drive into a Class I bike path / Multi-use trail: Approximately 100 feet of pavement will be removed at either end; A new paved trail eight (8) feet in width shall be placed at each end to provide connectivity to adjacent facilities; Bollards shall be installed to prevent motor vehicle access; striping and signing shall be provided subject to review and approval by TD.
- C. Project shall be responsible for the design, PS&E, utility relocation, right of way acquisition, and construction of the realignment of Country Club Drive at its existing intersection with Tierra De Dios Drive (east end of Tierra De Dios Drive) consistent with the intent of the BLHSP, and includes the following assumptions:
 - i. Is a BLHSP Urban Collector;
 - ii. Is a two-lane road, 36 feet in width, and;
 - iii. Has a 35-40 mph design speed.

- D. Project shall be responsible for the design, PS&E, utility relocation, right of way acquisition, and construction of intersection improvements at the intersection of Bass Lake Road and the realigned Country Club Drive Intersection, and includes the following assumptions:
- i. Northbound approach to include one through lane and a 200 foot right turn lane;
 - ii. Southbound approach to include one through lane and a 300 foot left turn lane;
 - iii. Westbound approach to include one through lane and a 300 foot left turn lane, and;
 - iv. Signalization of the intersection of Bass Lake Road and the realigned Country Club Drive.
- E. Project shall be responsible for the design, PS&E, utility relocation, right of way acquisition, and construction of improvements at the intersection of Bass Lake Road and the US50 at Bass Lake Road interchange ramps and includes the following assumptions:
- i. Eastbound ramp / Bass Lake Road intersection
 - a. Widen / restripe eastbound off-ramp to provide two approach lanes for a distance of 240 feet;
 - b. Widen / restripe Bass Lake Road to provide two lanes northbound, and one lane southbound from eastbound ramp to westbound ramp, and;
 - c. Signalize eastbound off-ramp terminus intersection with Bass Lake Road.
 - ii. Westbound ramp / Bass Lake Road intersection
 - a. Provide two northbound approach lanes (see item 3.E.i.b above);
 - b. Provide free-right lane from westbound off-ramp to northbound Bass Lake Road (existing configuration);
 - c. Provide departure merge lane northbound Bass Lake Road (merging two lanes into one);
 - d. Provide one southbound approach lane, and one 300-foot right-turn lane to westbound on-ramp, and;
 - e. Side Street Stop Control (existing).
 - iii. Timing of US50 at Bass Lake Road interchange ramp Improvements
 - a. In order to ensure proper timing of the construction of the improvements identified for the US50 at Bass Lake Road interchange ramps, the subdivider shall perform a supplemental traffic analysis in conjunction with each final map application to determine Level of Service (LOS) of the interchange and ramps, to include existing traffic plus traffic generated by each final map.
 - b. If the supplemental traffic analysis indicates that the County's LOS policies would be exceeded by the existing traffic plus traffic generated by that final map, the applicant shall construct the improvements prior to issuance of the first certificate of occupancy for any lot within that final map.
 - c. If the County's LOS policies are not exceeded upon application for the last final map within the project, the project applicant shall pay its TIM fees toward the installation of proposed roadway improvements. In which case, payment of TIM fees is considered to be the project's proportionate fair share towards mitigation of this impact.
 - d. If the necessary improvements are constructed by the County or others prior to triggering of mitigation by the project, payment of TIM fees is considered to be the projects proportionate fair share towards mitigation of this impact.
- F. Financing and Reimbursement
- i. Project may be reimbursed for the costs of any improvements listed above in items A through E, to the extent such improvements are included in the County's Traffic Impact Mitigation (TIM) Fee Program, in accordance with the County's TIM Fee Reimbursement Guidelines, and subject to a Road Improvement and Reimbursement Agreement between the Project and the County.
 - ii. If any improvements are included in the County's 10-year CIP and TIM Fee Program, and agreed to by the County in a Road Improvement and Reimbursement / Credit Agreement, the Project may receive full or

partial credit for the cost of the work against TIM Fees that would otherwise be paid at issuance of building permits.

- iii. If any improvements are included in the County's 10-year CIP and TIM Fee Program, and agreed to by County in a Road Improvement and Reimbursement / Credit Agreement, the Project may provide funding and Bid-Ready PS&E to County, for bidding and construction management by County.
 - iv. If any improvements are included in the BLHSP PFFP, such improvements may be credited to the project or eligible for reimbursement from the PFFP funds.
- G. With respect to the improvements to the public roadways required in this condition, either one of the following shall be done prior to issuance of a building permit: (a) the subdivider shall be under contract for construction of the required improvements with proper sureties in place, or (b) the subdivider shall have submitted to the County a bid-ready package (PS&E) and adequate funding for construction.
- H. The following requirements apply to all traffic signals identified in this condition.

In order to ensure proper timing for the installation of traffic signal controls, the applicant shall be responsible to perform traffic signal warrants with each final map at intersections identified for potential signalization in D and E above, in accordance with the Manual on Uniform Traffic Control Devices (version in effect at the time of application).

If traffic signal warrants are met at the time of application for final map (including the lots proposed by that final map), the applicant shall construct the improvements prior to issuance of the first certificate of occupancy for any lot within that final map.

If traffic signal warrants are not met upon application for the last final map within the project, the project applicant shall pay its TIM fees toward the installation of a traffic signal control at this intersection. In which case, payment of TIM fees is considered to be the project's proportionate fair share towards mitigation of this impact.

If the traffic signal control at an intersection is constructed by the County or others prior to triggering of mitigation by the project, payment of TIM fees and PFFP Fees is considered to be the projects proportionate fair share towards mitigation of this impact.

26. [Deleted.]

27. The applicant shall provide the County with improvement plans and all necessary right-of-way prior to the first certificate of occupancy for the school site access along Country Club Drive (G-H) and Silver Dove Way (Q-G).

In the event that the eminent domain process must be implemented to acquire right-of way, this right-of-way requirement shall be deemed satisfied by the developer entering into an agreement for condemnation proceedings with County Counsel together with a deposit of funds as required by County Counsel, or alternative arrangement to the satisfaction of the Transportation Division.

28. [Deleted.]

29. Encroachment Permit(s): The applicant shall obtain an encroachment permit from County for work connecting to existing Covello Circle and Salt Wash Way.

30. Common Fence/Wall Maintenance: The responsibility and access rights for maintenance of any fences and walls constructed on property lines shall be included in the Covenants Codes and Restrictions (CC&Rs).

31. Onsite landscape and irrigation plans shall be included in the project improvement plans and cost estimates and shall be reviewed by the Cameron Park Community Services District and be subject to review and approval by El Dorado

County Development Services Division; the Transportation Division will review the plans for matters concerning roadway safety and sight distance.

34. Drainage Study/NPDES Compliance: The project drainage plan facilities and systems shall conform to the BLHSP, County Drainage Manual and County Storm Water Management Plan (SWMP)(2003).

At the option of the subdivider, construction and/ or implementation of Site Design Measures, Source Control Measures, and/or Low Impact Development (LID) Design Standards consistent with the California State Water Resources Control Board (SWRCB) Water Quality Order No. 2013-0001-DWQ (Order) may be implemented in lieu of measures identified in the SWMP.

Water Quality Stamp: All new or reconstructed drainage inlets shall have a storm water quality message stamped into the concrete, conforming to the Storm Water Quality Design Manual for the Sacramento and South Placer Regions, Chapter 4, Fact Sheet SD-1. All stamps shall be approved by the El Dorado County inspector prior to being used.

35. Drainage (Cross Lot): Cross lot drainage shall be avoided wherever possible. When concentrated cross lot drainage does occur or when the natural sheet flow drainage is increased by the project, it shall be contained within dedicated drainage easements. This drainage shall be conveyed via closed conduit or open channel, to either a natural drainage course of adequate size or an appropriately sized storm drain system. The Grading and Improvement plans shall show drainage easements for all on-site drainage facilities where required.

36. The proposed project must form an entity for the maintenance of public and private roads and drainage facilities. If there is an existing entity, the property owner shall modify the document if the current document does not sufficiently address maintenance of the roads of the current project. Transportation Division shall review the document forming the entity to ensure the provisions are adequate prior to filing of the final map.

Bass Lake Road and Country Club Drive are existing County maintained roads shown on General Plan Exhibit TC-1 and will be accepted by County without a Maintenance Entity.

38. The subdivider shall obtain irrevocable Offers of Dedication and/or drainage easements to the County for public drainage purposes, and shall process same through the County, for offsite easement rights across properties subject to the Specific Plan Development Agreement, to the satisfaction of the Transportation Division, to accommodate any offsite storm water facilities needed to convey concentrated storm water from the project boundary downgradient to an existing established waterway. Subdivider shall design and install any offsite storm water facilities as necessary to the satisfaction of the Transportation Division.

39. [Deleted.]

41. Grading plans shall be prepared in substantial conformance with the preliminary grading plans submitted for Bell Woods and submitted to the El Dorado County Resource Conservation District (RCD) and the Transportation Division. The RCD shall review and make appropriate recommendations to the County. Upon receipt of the review report by the RCD, the Transportation Division shall consider imposition of appropriate conditions for reducing or mitigating erosion and sedimentation from the project. The County shall issue no building permits until the Transportation Division approves the final grading and erosion control plans and the grading is completed.

Soils Report: At the time of the submittal of the grading or improvement plans, the applicant shall submit a soils and geologic hazards report (meeting the requirements for such reports provided in the El Dorado County Grading Ordinance) to, and receive approval from the Transportation Division. Grading design plans shall incorporate the findings of detailed geologic and geotechnical investigations and address, at a minimum, grading practices, compaction, slope stability of existing and proposed cuts and fills, erosion potential, ground water, pavement section based on TI and R values, and recommended design criteria for any retaining walls.

42. The timing of construction and method of revegetation shall be coordinated with the El Dorado County Resource Conservation District (RCD). If grading activities are not completed by September, the developer shall implement a

temporary grading and erosion control plan. Such temporary plans shall be submitted to the RCD for review and recommendation to the Transportation Division. The Transportation Division shall approve or conditionally approve such plans and cause the developer to implement said plan on or before October 15.

47. The potable water system for the purpose of fire protection for this residential development shall provide a minimum fire flow of 1,000 gpm with a minimum residual pressure of 20 psi for two-hour duration. This requirement is based upon a single family dwelling 6,200 square feet or less in size. All homes shall be fire sprinklered in accordance with NFPA 13D and Fire Department requirements. This fire flow rate shall be in excess of the maximum daily consumption rate for this development. A set of engineering calculations reflecting the fire flow capabilities of the system shall be supplied to the Fire Department for review and approval.
48. This development shall install Mueller Dry Barrel fire hydrants or any hydrant approved by the El Dorado Irrigation District for the purpose of providing water for fire protection. The spacing between hydrants in this development shall not exceed 500 feet. The exact location of each fire hydrant shall be determined by the Fire Department prior to approval of the improvement plans.
50. In order to provide this development with adequate fire and emergency medical response during construction, all access roadways and fire hydrant systems shall be installed and in service prior to framing of any combustible members as specified by the applicable fire district.
57. Project emissions of ROG, NOX, and PM-10 need to be quantified using either the URBEMIS 7G for windows 5.1.0 or similar model that is acceptable to the District. In addition, District Rule #223 addresses the regulation and mitigation measures for fugitive dust emissions - Rule 223 shall be adhered to during the construction process. In addition, prior to the issuance of any grading or construction permits for the project, the applicant shall submit, as determined by the El Dorado County Air Quality Management District (AQMD), a Fugitive Dust Plan (FDP) application and/or an Asbestos Dust Mitigation Plan (ADMP) application may be required for submittal to and approval by the District prior to beginning project construction.
65. The interior roads of the project will be named through the Road Naming Process established by the County Surveyor.
66. The project is subject to the Quimby Act and dedication requirements for parkland based on the CP CSD standards. The subdivision is subject to parkland dedication in-lieu fees based on values supplied by the Assessor's Office and calculated in accordance with Section 120.12.090 of the County Code. The subdivider shall be subject to a \$150.00 appraisal fee payable to the El Dorado County Assessor for the determination of parkland dedication in-lieu fees. The required in-lieu fees, payable to El Dorado County, shall be remitted prior to Final Map recordation. A proof of payment shall be submitted to Planning Services.
67. The project is subject to the CP CSD Park Impact Fee in place at the time the building permits are issued.
68. The project shall be subject to the CP CSD general obligation bond or other facility financing mechanism applicable to the CP CSD.
69. A homeowner's association (HOA) needs to be formed to finance ongoing operation and maintenance of street lights (if any), streetscape, and for open space management, or if no HOA is formed, then a Landscape and Lighting Assessment District (LLAD) needs to be created to fund the maintenance and operation of the same. The District also recommends the creation of a shell LLAD for the project as a back-up funding mechanism to a homeowner's association, in the event the homeowner's association should fail to maintain the improvements to the District's standards.
70. The Cameron Park CSD will review and approve the following items prior to final maps being recorded:
 - a. Phasing Plan
 - b. Open Space and Tree Preservation Management Plan; and

- c. CC&Rs need to be reviewed and approved by the CSD Board of Directors prior to recording the final map and include any conditions that are specific to any lots or areas, such as oak tree preservation and vegetation management

Bell Woods Map conditions 66 through 70 fall under the heading “Community Services District.” The conditions presume the project is in the El Dorado Hills Community Services District. The property, however, was annexed into the Cameron Park Community Services District. Therefore, the references in these conditions to the “El Dorado Hills Community Services District” or “EDHCSD” have been changed to “Cameron Park Community Services District” or “CPCSD,” as appropriate.

The following conditions have been added:

53. The driveways serving this project shall be designed to be in accordance with the El Dorado County Code prior to approval of the improvement plans. Driveways serving the project shall be designed to a maximum of 16% grade and can be increased to 20% if paved. If there are any driveways in excess of 20 percent, the design must go back to the fire district for review.
54. This development shall be prohibited from installing any type of traffic calming device that utilizes a raised bump/dip section of roadway.
71. Regulatory Permits and Documents: All regulatory permits or agreements between the Project and any State or Federal Agency shall be provided to the Transportation Division with the Project Improvement Plans. These project conditions of approval and all regulatory permits shall be incorporated into the Project Improvement Plans.
72. Electronic Documentation: Upon completion of the improvements required, and prior to acceptance of the improvements by the County, the developer will provide a CD to the Transportation Division with the drainage report, structural wall calculations, and geotechnical reports in PDF format and the record drawings in TIF format.
73. Prior to issuance of the first building permit, the developer shall submit to the County a proposed update to the Bass Lake Hills Public Facilities Financing Plan, including an update to the plan area fee program.
74. Prior to recordation of a final map, a valid facility improvement letter (FIL) shall be issued by the El Dorado Irrigation District (EID) for the subdivision, a new Facility Plan Report (FPR) shall be reviewed and approved by the EID, and improvement plans shall be reviewed and approved by EID. Previously approved and expired plans and reports may be used as templates for new submittals to EID.

Table 2
Bell Woods Modifications of Conditions Summary

COA#	Improvement Description	Approved Conditions	Proposed Revisions
#1	Project Approvals	Planning Commission date April 24, 2008 and five one-year time extensions.	Planning Commission date March 24, 2016. One one-year time extension and approval of revised conditions.
#3	Project Description	54 single-family lots, 5 landscape lots, and 2 open space lots.	Remove reference to the five landscape lots.
#5	Development Plan	Development to be in substantial compliance with approved tentative map and R1-PD zoning.	Add language that development shall include a 45 percent coverage limitation and revised setbacks.
#7	Project plan approval	Plans to be consistent with Subdivision Design and Improvement Standards Manual	Add language that standards are modified by these Conditions of Approval or approved Design Waivers. Also add language requiring conformity with other County ordinances and applicable State standards. Add text regarding curb returns.
#15	Vehicular access restrictions	Vehicular access restricted along Covello Circle for lots 1 and 31.	Minor text heading addition for consistency with other subdivision COAs.
#16	Road design	Specifies road name, width, and exceptions/notes.	Road and ROW requirements changed to reflect current requirements. Updated requirements regarding sidewalk locations and size. Updated design notes to reflect current requirements and site-specific circumstances.
#17	Offsite access	Required construction of off-site access through Hollow Oak subdivision	Delete condition. Hollow Oak subdivision constructed improvements and access exists.
#18	ROW dedication	Irrevocable offer of dedication of rights of way (ROW) required and may be subject to a Zone of Benefit for maintenance purposes.	Minor text revision to current language and reflecting correct title of Transportation Division. Added option for private streets and private maintenance.
#20	ROW	No freestanding walls, fences, or retaining walls permitted in road ROW.	Add text allowing for exception at the discretion of the County Transportation Division.
#23	Roadway access	Primary and secondary roadways to be constructed prior to first building permit. Identifies access for specific lots.	Delete entire condition. Duplicative with equivalent COA #50.
#24	Compliance	Project shall comply with the BLHSP, related development agreements, and PFFP. COOs not to be issued until Phase I improvements complete.	Original condition deleted in its entirety as it is no longer applicable. Improvements completed by Hollow Oak subdivision. New condition (added at this location for convenience) addresses requirement of the applicant to secure title, pay costs incurred by the County, and/or complete off-site improvements.

Table 2
Bell Woods Modifications of Conditions Summary

COA#	Improvement Description	Approved Conditions	Proposed Revisions
#25 A, B, & C	Bass Lake Road	Build Bass Lake Road with full improvements, including bike lane and sidewalks.	Conditions deleted in their entirety and replaced with revised language. New requirements (COA #25.A) for Bass Lake Road include design, Plan, Specifications and Estimate (PS&E), utility relocation, ROW acquisition, and construction of improvements to Bass Lake Road from Highway 50 to the realigned Country Club Drive (also known as Tierra De Dios Drive or City Lights Drive). Revised COA also includes design specifications.
#25.D	Country Club Drive	Construct Country Club Drive with frontage improvements.	Condition deleted in its entirety and replaced with revised language. New requirements (COA #25.B) for the new Country Club Drive (also known as Tierra De Dios Drive) on an alignment substantially consistent with the BLHSP include design, PS&E, utility relocation, ROW acquisition, and construction. New requirements for the realignment of Country Club Drive (COA #25.C) at its existing intersection with Tierra De Dios Drive (east end of Tierra De Dios Drive) include design, PS&E, utility relocation, ROW acquisition, and construction. New conditions also include assumptions and design standards.
#25 E & F	Silver Dove Way	Construct Silver Dove Way segment C-D and to school site if Hawk View is included in critical mass projects.	Conditions deleted in their entirety and replaced with revised language. Obligation to construct segment C-D remains with Hawk View. Requirements for ROW to school site have been moved to COA #27.
#25.G	School Site Infrastructure	Construct water and sewer infrastructure to school	Remove from Bell Woods; obligation to secure right-of-way and provide plans to County remains on Bell Ranch (BR COA #23).
#25.H	Morrison Road	Construct Morrison Road (J-I)	Remove from Bell Woods; remains obligation of Bell Ranch (BR COA #25).
#25.I	Signals	Construct traffic signals on Bass Lake Road if required by traffic warrants	Condition deleted in its entirety. New requirements related to signals (COA #24.H) include timing and financing guidance.
#25.J	Park and Ride Lot	Acquire 2 acres for site and construct portion of lot	Condition deleted in its entirety. Requirement for acquisition of land for the park-and-ride lot has been moved to Hawk View (HV COA #68).
#25 K & L	Sports Park	Acquire 8.7 acres of land for park site and plan and design park site	Condition removed in its entirety. Requirements for payment of in-lieu park fees are included in COA #66, COA #67, and COA #68.
#26	Bass Lake Road	Provide funding and bid ready package for Bass Lake Road improvements prior issuance of first building permit	Delete entire condition. Options for construction of major road improvements contained within COA #25.
#27	School Access & Infrastructure	Prepare plans, enter into improvement agreement with County and acquire right-of-way for school access and infrastructure improvements	Remove obligation to enter into road improvement agreement and remove conflicting provisions regarding construction of improvements. New text requiring applicant to provide County with improvement plans and all necessary ROW prior to first COO for the school site access along Country Club Drive (G-H) and Silver Dove Way (Q-G).

Table 2
Bell Woods Modifications of Conditions Summary

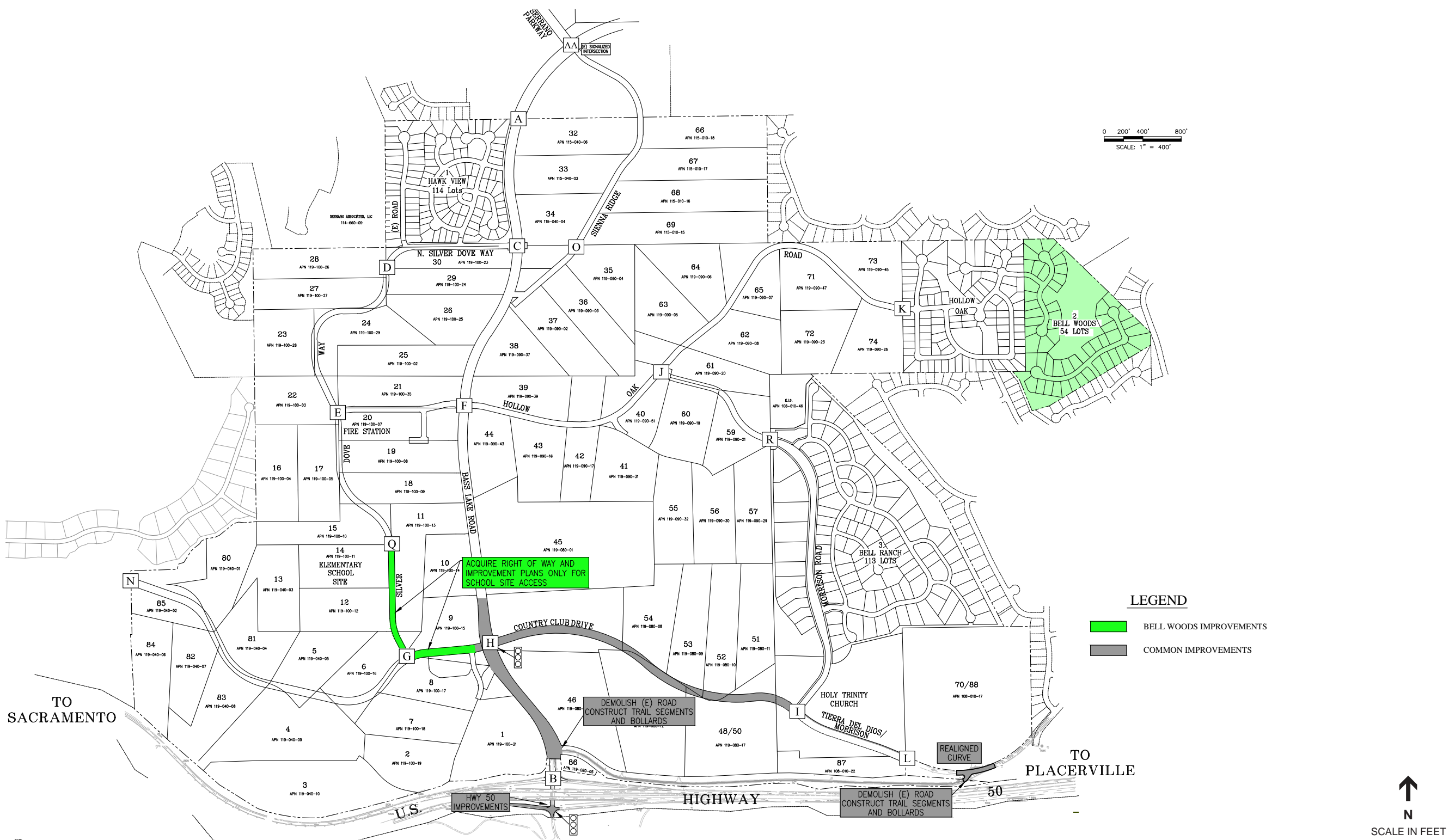
COA#	Improvement Description	Approved Conditions	Proposed Revisions
#28	Park & Ride Lot and Park Acquisition	Acquire land for park and ride lot and for park site prior to first final map and design park and ride lot and construct 35 spaces by issuance of first certificate of occupancy	Delete entire condition. Remove obligation to acquire park site and eliminate obligation to construct spaces in park and ride lot. CSD will acquire park site. Spaces in park and ride lot are not needed at this phase of development.
#29	Highway 50/Bass Lake Road Interchange (approved) and encroachment permits (proposed)	Construct WB 2-lane on-ramp, EB 2-lane off-ramp, ramp metering, widen Bass Lake Rd/EB off-ramp intersection with dual EB left turn lanes and shared EB right/through lane, 2 12-foot NB lanes and 1 12-foot SB lane between EB and WB ramp intersections; and submit bid-ready documents prior to first cert of occupancy and improvements to be substantially complete prior to 81st certificate of occupancy	All requirements related to the Highway 50/Bass Lake Road interchange have been moved to revised COA #25. New text requires applicant to obtain an encroachment permit from the County for connecting to existing Covello Circle and Salt Wash Way.
#30	PSR Highway 50 Interchange (approved) and common fences and walls (proposed)	Enter contract to perform Project Study Report for Highway 50/Bass Lake Road interchange. At discretion of the County, this requirement may be deleted.	Remove; PSR not required per revised Traffic Study. New text requires CC&Rs to include responsibility and access rights for maintenance of fences and walls constructed on property lines.
#31	Landscape and irrigation	Landscape and irrigation plans to be reviewed by EDCSD and approved by El Dorado County.	Change El Dorado Hills CSD to Cameron Park CSD. Clarify that condition applies to onsite landscaping and update County division names.
#34	Drainage facilities	Drainage plan and facilities plan to be designed according to County guidance and constructed with respective phase of construction.	Update that compliance is required with updated guidance. Provides that subdivider may implement low impact development (LID) or other SWRCB measures in lieu of measures identified in the SWMP. Add requirement for water quality stamp on new or reconstructed drainage inlets.
#35	Drainage	Cross lot drainage to be avoided.	Add clarification of applicability to drainage increased by the project. Add that grading and improvement plans shall show drainage easement for on-site facilities.
#36	Drainage	County Service Area Zone of Benefit (ZOB) required to fund drainage maintenance and improvements.	All original text removed and replaced with new text requiring an entity to be formed for the maintenance of public and private roads and drainage facilities. The new text also states that Bass Lake Road and Country Club Drive are existing County roads and will be accepted without a maintenance entity.

Table 2
Bell Woods Modifications of Conditions Summary

COA#	Improvement Description	Approved Conditions	Proposed Revisions
#38	Drainage	Subdivider required to obtain irrevocable Offers of Dedication to the County for public drainage.	Add “and/or drainage easements” following irrevocable Offers of Dedication. Minor text changes to reflect current County department/division names.
#39	Grading	Mass pad grading project application must be sent to County supervisor in which site is located.	Condition deleted as El Dorado County no longer follows this process.
#41	Grading plans	Grading plans to be submitted to County. No building permits to be issued until County approves final grading and erosion plans, and grading is completed.	Minor text changes to reflect current County department/division names. Add requirement for submittal of a soils and geologic hazards report.
#42	Construction and revegetation	Timing of construction and revegetation to be coordinated with RCD. Actions to be based on timing.	Minor text changes to reflect current County department/division names.
#47	Fire flow	Require minimum 1,000 gpm with minimum residential pressure of 20 psi for two-hour duration. Engineering calculations to be submitted for review and approval by the Fire Department.	Modification to maximum swelling size used as basis for flow requirements. Add requirement that all homes be sprinklered.
#48	Fire hydrants	Requirement to install Mueller Dry Barrel fire hydrants and spacing to be determined by the Fire Department.	Add language allowing for any approved hydrant. Spacing to not exceed 500 feet, with exact location of each hydrant to be determined by the Fire Department prior to approval of the improvement plans.
#50	Fire access	All access roadways and fire hydrant systems to be installed and in service prior to framing of any combustible materials.	Remove language requiring language to be included on improvement plans.
#53	Driveway design	N/A	New condition requiring driveways serving the project to be designed in accordance with County Code, with a maximum grade of 16% that can be increased to 20% if paved. The new conditions require that any proposed driveways in excess of a 20% grade be returned to the Fire Department for review.
#54	Traffic calming devices	N/A	New condition prohibits traffic calming devices that utilize a raised bump/dip section of roadway.
#57	Air Emissions	Requires quantification of ROG, NOx, and PM10 emissions, application of mitigation measures for fugitive dust, and an asbestos mitigation plan prior to construction	Revise timing to prior to issuance of grading or construction permits. Minor text revisions to update plan application names to current versions.

Table 2
Bell Woods Modifications of Conditions Summary

COA#	Improvement Description	Approved Conditions	Proposed Revisions
#65	Road naming	Interior roads to be named according to County process.	Minor change to correct spelling.
#66 - #70	Community Services District	Pertain to El Dorado Hills Community Services District	Revise to reflect Bell Woods in the Cameron Park Community Services District
#71	Permits	N/A	New condition requiring applicant to provide all regulatory permits or agreements between the applicant and any State or Federal agency to the County.
#72	Documents	N/A	New condition requiring developer to provide County with reports and drawings in specified electronic formats.
#73	PFFP	N/A	New requirement on for all subdivisions that an update to the Bass Lake Hills PFFP shall be submitted prior to issuance of the first building permit.
#74	EID requirements	N/A	New condition added to address previously approved but expired FILs and FPRs and EID requirements for resubmittals.
MM 3.12-1	Fire access	Requirements to provide adequate fire and emergency protection.	Remove measure as all requirements are included in revised COAs #46 through #54.
MM 3.15-2	Recycled Water	Project is to use recycled water for landscape irrigation.	Remove; recycled water is not supported by EID.



SOURCE: CTA Engineering and Surveying, 2015

Bass Lake Hills Project . 140843
Figure 6
 Bell Woods COA Amendments

Bell Ranch

Table 3 provides a summary of changes to the Bell Ranch COAs, and **Figure 7** depicts these elements within the project site. **Figure 8** shows the revised tentative map for Bell Ranch.

The proposed project would amend the text of the approved Bell Ranch COAs as follows:

1. The amendments to these conditions of approval and this Tentative Subdivision Map Time Extension Request are based upon and limited to compliance with the project description, the Planning Commission hearing exhibits marked Exhibits A-O, dated March 24, 2016, and Conditions of Approval set forth below. Any deviations from the project description, exhibits or conditions must be reviewed and approved by the County for conformity with this approval. Deviations may require approved changes to the permit and/or further environmental review. Deviations without the above-described approval will constitute a violation of permit approval.

The project description is as follows:

One-Year Time Extension to approved Tentative Subdivision Map (TM96-1321 Bell Ranch) in accordance with Section 120.74.030 of the El Dorado County Subdivision Ordinance and Bass Lake Hills Specific Plan.

The grading, development, use, and maintenance of the property, the size, shape, arrangement, and location of structures, parking areas and landscape areas, and the protection and preservation of resources shall conform to the project description above and the hearing exhibits and revised conditions of approval below. The property and any portions thereof shall be sold, leased or financed in compliance with this project description and the approved hearing exhibits and conditions of approval hereto. All plans must be submitted for review and approval and shall be implemented as approved by the County.

3. The development plan (PD96-0006) for Bell Ranch shall consist of the following: 123 total lots consisting of 113 single family lots ranging in size from 13,500 to 91,649 square feet, with 6 landscape lots, 2 open space lots, 1 play field lot, and 1 park site on 112.14 acres.
4. The development plan (PD96-0006) for Bell Ranch shall be in substantial compliance with the Bell Ranch tentative map and the uses described in the revised Development Plan (Exhibit K).
5. The development plan (PD96-06) for Bell Ranch shall conform to the development standards of the One-family Residential-Planned Development (R1-PD) Zone District with the exceptions of a coverage limitation of 45 percent and the following revised setbacks:

Lots 1 - 11

- i. Front - 30 feet minimum
- ii. Rear - 30 feet minimum
- iii. Side - 10 feet minimum

Lots 12 - 113

- i. Front -20 feet minimum
- ii. Rear - 15 feet minimum
- iii. Side - 5 feet minimum (not height dependent)
- iv. Street Side - 15 feet minimum fronting street

7. Consistency with County Codes and Standards: The developer shall obtain approval of project improvement plans and cost estimates consistent with the Subdivision Design and Improvement Standards Manual (as may be modified by the Conditions of Approval or by approved Design Waivers) from the County Transportation Division, and pay all applicable fees prior to filing of the final map.

Additionally, the project improvement plans and grading plans shall conform to the County Grading, Erosion and Sediment Control Ordinance, Grading Design Manual, the Drainage Manual, Off-Street Parking and Loading

Ordinance, all applicable State of California Water Quality Orders, the State of California Handicapped Accessibility Standards, and the California Manual on Uniform Traffic Control Devices (MUTCD).

Curb Returns: All curb returns shall include pedestrian ramps with truncated domes conforming to Caltrans Standard Plan A88A, including a 4 foot sidewalk/landing at the back of the ramp. Alternate plans satisfying the current accessibility standards may be used, subject to review and approval by County.

15. Vehicular Access Restriction: A vehicular access restriction shall be designated along Morrison Road affecting lot 12 and lots 33 through 51.

Road Design Standards: The applicant shall construct all roads in conformance with the County Design and Improvements Standards Manual (DISM) and the Bass Lake Hills Specific Plan (BLHSP), modified as shown on the Tentative Map and as presented in Table 1 (the requirements outlined in Table 1 are minimums).

ROAD NAME	REFERENCE	ROAD WIDTH	EXCEPTIONS/NOTES
Tierra De Dios Drive (Country Club Drive) On-Site	Specific Plan Fig. 4-2, Tentative Map. and Standard Plan 101B	36 foot pavement width (80-foot R/W), plus utility/slope easements	6 foot sidewalk on one side. (See Note R-2 below)
Morrison Road – on-site, through the project (Subject to Phasing Plan).	Specific Plan Fig. 4-3 and approved Tentative Map	36 foot (60- foot R/W), plus utility/slope easements	30 MPH Design Speed Type 2 vertical curb and gutter, with 6 foot sidewalk on east side only
Morrison Road – offsite (Subject to Phasing Plan)	Specific Plan Fig. 4-3 and approved Tentative Map	32 foot pavement width (60-foot R/W), plus utility/slope easements	30 MPH Design Speed No curb, gutter or sidewalk.
A Drive	Specific Plan Fig. 4-4 (less than or equal to one acre minimum density) and approved Tentative Map.	28 foot (50-foot R/W), plus utility/slope easements	25 MPH Design Speed. Caltrans Type E HMA Dike with no sidewalks
B Drive, H Circle, M, L and R Way	Specific Plan Fig. 4-4 and Approved Tentative Map	28 feet minimum (40-foot R/W), plus utility/slope easements	25 MPH Design Speed. Caltrans Type E HMA Dike ** with no sidewalks
Project Cul-de-sacs (C, D, G and K Courts)	Specific Plan Fig. 4-4 and Approved Tentative Map	28 feet minimum (50-foot R/W), plus utility/slope easements	25 MPH Design Speed. Caltrans Type E HMA Dike**
Temporary EVA at G Court	Standard Plan 101C	20' wide all weather surface	With 30' wide EVA easement

* Road widths are measured from curb face to curb face or edge of pavement to edge of payment if no curb. Where HMA Dike is used, road width is measured from flowline to flowline.

** Caltrans Type A HMA Dike or Type 2 vertical curb and gutter (as appropriate) shall be installed adjacent to back-up lots, landscape lots, open space, and park site.

Note R-1: The following Design Waivers have been requested:

- a. [Deleted.]
- b. A 40-foot roadway right of way (Lot R) for B and C, D, K, and G Court, H Circle, M, L and R Way. This requested design waiver includes the requirement that the roadways are fully contained within the road right-of-way.
- c. Place Caltrans Type E and El Dorado County Type A mountable dike (where applicable) in lieu of El Dorado County Type 1 rolled curb and gutter. This requested design waiver includes the requirement that the back of the mountable dike is at the same location as the back of rolled curb and gutter as shown on Figure 4-4 of the Bass Lake Hills Specific Plan.
- d. Install a short transitional 'neck' down the secondary local roads as shown on the tentative map. This requested design waiver includes the requirement that the roadway geometry will adequately accommodate the turning movements based on the standard El Dorado Hills Fire Department turning radius requirements (56-foot outside radius and 40-foot inside radius); any modifications to this requirement must be approved by the El Dorado Hills Fire Department. The requested neck down cannot result in less roadway width than is required in Figure 4-4 of the Bass Lake Hills Specific Plan.

- e. At the option of the developer, allow enhanced raised, landscape medians in Morrison Road at the two A Drive entrances. The request for generous landscaped medians in Morrison Road, at the entrances to the project, is acceptable to the Transportation Division subject to acceptable maintenance provisions and appropriate design and review and approval by the Transportation Division at the plan review and permitting phase. Traffic lanes of Morrison Road next to raised medians must be a minimum of 14 feet in order to allow room for striping and separation for the vehicle wheels. The Islands must be landscaped (landscaping and irrigation plans must be submitted with the improvement plans), and the El Dorado Hills Community Services District must establish the mechanism to assume the responsibility for maintenance prior to acceptance of roadway improvements. The design of Morrison Road and related intersections, during the plan review and permitting phase, must demonstrate that, as a minimum, the geometry will adequately accommodate both the turning movements based on the standard El Dorado Hills Fire Department turning radius requirements (56-foot outside radius and 40-foot inside radius) and based on the Caltrans Bus Design Vehicle, to the satisfaction of the Transportation Division.

Note R-2: The design of Tierra De Dios must provide a left turn lane for eastbound traffic turning north on Morrison Road or present a traffic report that must be approved by the Transportation Division demonstrating why a turn lane is not necessary within the General Plan horizon. An allowance must be provided in the roadway width for 14-foot traffic lanes next to any raised medians on Tierra De Dios Drive. In addition, any roadway area dedicated to turn lanes and medians must be in addition to the 36-foot pavement width indicated in the Specific Plan; this basic pavement width will assure adequate roadway area to accommodate bicycle traffic. Sidewalk may meander or be parallel to roadway – final design to be determined at the time the improvement plans are prepared.

16. [Deleted.]

17. Offer of Dedication: The project shall offer to dedicate, in fee, the rights of way for roadways, shown in Table 1 with the final map. Said offer shall include all appurtenant slope, drainage, pedestrian, public utility, or other public service easements as determined necessary by the County. The offers will be accepted by the County, provided that a County Service Area Zone of Benefit has been created and funded to provide for maintenance of the roadways.

At the option of the Subdivider, the Internal Roadways may be maintained privately by a Homeowner's Association or other entity acceptable to County. In which case, the above listed offers of dedication will be rejected by the County. This option does not apply to Morrison Road.

19. No freestanding walls, fences, or retaining walls are allowed in the road right-of-way, except at the discretion of the Transportation Division.
20. Primary and emergency vehicle access to the road network shall be constructed prior to the first building permit being issued for any residential structure except where the issuance of building permits is for model homes which shall be unoccupied. Primary access shall be to either Bass Lake Road or Country Club Drive. A secondary access must be to a primary or secondary roadway in the designated alignment defined in the Specific Plan or by emergency vehicle access and to the satisfaction of the Transportation Division and the Fire District.
21. Off-site Improvements (Acquisition): As specified elsewhere in these Conditions of Approval, the applicant is required to perform off-site improvements. If the applicant does not secure, or cannot secure sufficient title or interest for lands where said off-site improvements are required, and prior to filing of any final or parcel map, the applicant shall enter into an agreement with the County pursuant to Government Code Section 66462.5. The agreement will allow the County to acquire the title or interests necessary to complete the required off-site improvements. The Form, Terms and Conditions of the agreement are subject to review and approval by County Counsel.

The agreement requires the applicant: pay all costs incurred by County associated with the acquisition of the title or interest; provide a cash deposit, letter of credit, or other securities acceptable to the County in an amount sufficient to pay such costs, including legal costs; If the costs of construction of the off-site improvements are not already contained in a Subdivision Improvement Agreement or Road Improvement Agreement, the applicant shall provide securities sufficient to complete the required improvements, including but not limited to, direct construction costs, construction management and surveying costs, inspection costs incurred by County, and a 20% contingency; provides a legal description and exhibit map for each title or interest necessary, prepared by a licensed Civil Engineer or Land Surveyor; provides an appraisal for each title or interest to be acquired, prepared by a certified appraiser; Approved improvement plans, specifications and contract documents of the off-site improvements, prepared by a Civil Engineer.

22. Off-Site Improvements - Specific Plan Urban Collectors and Major Transportation Facilities:

- A. The Project shall be responsible for design, Plans, Specifications and Estimate (PS&E), utility relocation, right of way acquisition, and construction of improvements to Bass Lake Road from US50 to the realigned Country Club Drive (aka Tierra De Dios, aka City Lights Drive). This segment is identified as "B" to "H" on the BLHSP Area Public Facilities Financing Plan (PFFP) Exhibits, and includes the following assumptions:
 - i. Is a portion of the 2015 County Capital Improvement Program (CIP) Project #66109;
 - ii. Is a BLHSP Urban Collector;
 - iii. Grading will be consistent with the ultimate 4-lane facility;
 - iv. Construct a divided two lane highway with median, 18 Feet of pavement in each direction. Typical section as shown on approved Tentative Map for Hawk View Ridge Subdivision TM 00-1371R.
 - v. It is recognized that Bass Lake Road will require improvements for some distance north of the realigned Country Club Drive Intersection to achieve conformance of the revised profile with the existing roadway. The exact distance is to be determined with the final Improvement Plans.
 - vi. The reconstruction shall generally be consistent with the alignment and profile shown on the improvement plans entitled, Bass Lake Road Reconstruction From Highway 50 to Hollow Oak Road, Project #66109, approved by the County Engineer on June 20, 2007, and modified to accomplish the anticipated work required at this time.
 - vii. The project plans shall include conduits for future landscape irrigation and electrical lines.
- B. Project shall be responsible for the design, PS&E, utility relocation, right of way acquisition, and construction of the new Country Club Drive (aka Tierra De Dios) on an alignment substantially consistent with the BLHSP, and includes the following assumptions:
 - i. Is identified in the 2015 County CIP as Project #GP126;
 - ii. Is a BLHSP Urban Collector;
 - iii. Is a two-lane road, 36 feet in width (plus left turn pockets);
 - iv. Has a 35-40 mph design speed, and;
 - v. Includes conversion of the existing segment of Country Club Drive into a Class I bike path / Multi-use trail: Approximately 100 feet of pavement will be removed at either end; A new paved trail eight (8) feet in width shall be placed at each end to provide connectivity to adjacent facilities; Bollards shall be installed to prevent motor vehicle access; striping and signing shall be provided subject to review and approval by TD.
- C. Project shall be responsible for the design, PS&E, utility relocation, right of way acquisition, and construction of the realignment of Country Club Drive at its existing intersection with Tierra De Dios Drive (east end of Tierra De Dios Drive) consistent with the intent of the BLHSP, and includes the following assumptions:
 - i. Is a BLHSP Urban Collector;
 - ii. Is a two-lane road, 36 feet in width, and;
 - iii. Has a 35-40 mph design speed.
- D. Project shall be responsible for the design, PS&E, utility relocation, right of way acquisition, and construction of intersection improvements at the intersection of Bass Lake Road and the realigned Country Club Drive Intersection, and includes the following assumptions:
 - i. Northbound approach to include one through lane and a 200 foot right turn lane;
 - ii. Southbound approach to include one through lane and a 300 foot left turn lane;
 - iii. Westbound approach to include one through lane and a 300 foot left turn lane, and;
 - iv. Signalization of the intersection of Bass Lake Road and the realigned Country Club Drive.
- E. Project shall be responsible for the design, PS&E, utility relocation, right of way acquisition, and construction of improvements at the intersection of Bass Lake Road and the US50 at Bass Lake Road interchange ramps and includes the following assumptions:

- i. Eastbound ramp / Bass Lake Road intersection
 - a. Widen / restripe eastbound off-ramp to provide two approach lanes for a distance of 240 feet;
 - b. Widen / restripe Bass Lake Road to provide two lanes northbound, and one lane southbound from eastbound ramp to westbound ramp, and;
 - c. Signalize eastbound off-ramp terminus intersection with Bass Lake Road.
 - ii. Westbound ramp / Bass Lake Road intersection
 - a. Provide two northbound approach lanes (see item 3.E.i.b above);
 - b. Provide free-right lane from westbound off-ramp to northbound Bass Lake Road (existing configuration);
 - c. Provide departure merge lane northbound Bass Lake Road (merging two lanes into one);
 - d. Provide one southbound approach lane, and one 300-foot right-turn lane to westbound on-ramp, and;
 - e. Side Street Stop Control (existing).
 - iii. Timing of US50 at Bass Lake Road interchange ramp Improvements
 - a. In order to ensure proper timing of the construction of the improvements identified for the US50 at Bass Lake Road interchange ramps, the subdivider shall perform a supplemental traffic analysis in conjunction with each final map application to determine Level of Service (LOS) of the interchange and ramps, to include existing traffic plus traffic generated by each final map.
 - b. If the supplemental traffic analysis indicates that the County's LOS policies would be exceeded by the existing traffic plus traffic generated by that final map, the applicant shall construct the improvements prior to issuance of the first certificate of occupancy for any lot within that final map.
 - c. If the County's LOS policies are not exceeded upon application for the last final map within the project, the project applicant shall pay its TIM fees toward the proposed roadway improvements. In which case, payment of TIM fees is considered to be the project's proportionate fair share towards mitigation of this impact.
 - d. If the necessary improvements are constructed by the County or others prior to triggering of mitigation by the project, payment of TIM fees is considered to be the projects proportionate fair share towards mitigation of this impact.
- F. Financing and Reimbursement
- i. Project may be reimbursed for the costs of any improvements listed above in items A through E, to the extent such improvements are included in the County's Traffic Impact Mitigation (TIM) Fee Program, in accordance with the County's TIM Fee Reimbursement Guidelines, and subject to a Road Improvement and Reimbursement Agreement between the Project and the County.
 - ii. If any improvements are included in the County's 10-year CIP and TIM Fee Program, and agreed to by the County in a Road Improvement and Reimbursement / Credit Agreement, the Project may receive full or partial credit for the cost of the work against TIM Fees that would otherwise be paid at issuance of building permits.
 - iii. If any improvements are included in the County's 10-year CIP and TIM Fee Program, and agreed to by County in a Road Improvement and Reimbursement / Credit Agreement, the Project may provide funding and Bid-Ready PS&E to County, for bidding and construction management by County.
 - iv. If any improvements are included in the BLHSP PFFP, such improvements may be credited to the project or eligible for reimbursement from the PFFP funds.
- G. With respect to the improvements to the public roadways required in this condition, either one of the following shall be done prior to issuance of a building permit: (a) the subdivider shall be under contract for construction of the required improvements with proper sureties in place, or (b) the subdivider shall have submitted to the County a bid-ready package (PS&E) and adequate funding for construction.

H. The following requirements apply to all traffic signals identified in this condition.

In order to ensure proper timing for the installation of traffic signal controls, the applicant shall be responsible to perform traffic signal warrants with each final map, in accordance with the Manual on Uniform Traffic Control Devices (version in effect at the time of application).

If traffic signal warrants are met at the time of application for final map (including the lots proposed by that final map), the applicant shall construct the improvements prior to issuance of the first certificate of occupancy for any lot within that final map.

If traffic signal warrants are not met upon application for the last final map within the project, the project applicant shall pay its TIM fees toward the installation of a traffic signal control at this intersection. In which case, payment of TIM fees is considered to be the project's proportionate fair share towards mitigation of this impact.

If the traffic signal control at an intersection is constructed by the County or others prior to triggering of mitigation by the project, payment of TIM fees and PFFP Fees is considered to be the projects proportionate fair share towards mitigation of this impact.

23. The applicant shall provide the County with improvement plans and all necessary right-of-way prior to the first certificate of occupancy for the school site infrastructure (water and sewer).

In the event that the eminent domain process must be implemented to acquire right-of way, this right-of-way requirement shall be deemed satisfied by the developer entering into an agreement for condemnation proceedings with the County Counsel together with a deposit of funds as required by County Counsel, or alternative arrangement to the satisfaction of the Transportation Division.

24. [Deleted.]

25. Bass Lake Specific Plan Primary Local Roads: Morrison Road is in the BLHSP as a Primary Local Road and is subject to the provisions of the PFFP. At the option of the subdivider, on-site Morrison Road may be constructed in phases concurrently with each phased final map, or constructed at one time with the first final map. The first final map recorded shall provide a connection from Country Club Drive to the subdivision.

Morrison Road shall be constructed to minimum fire safe standards and connecting to Hollow Oak Road concurrently with the final map creating the 25th lot, unless other access arrangements are acceptable to the County Transportation Division and Fire District.

Off-site Morrison Road shall be constructed fully from Country Club Drive to Hollow Oak Road concurrently with the final map creating the 79th lot, unless other access arrangements are acceptable to the County Transportation Division and Fire District.

26. Encroachment Permit(s): The applicant shall obtain an encroachment permit from County for work connecting to existing Tierra De Dios Drive and Hollow Oak Road. The 'A' Drive connections to Morrison Road shall be constructed to County Standard Plan 103C, modified as shown on the approved Tentative Map.

27. Common Fence/Wall Maintenance: The responsibility and access rights for maintenance of any fences and walls constructed on property lines shall be included in the Covenants Codes and Restrictions (CC&Rs).

28. Onsite landscape and irrigation plans shall be included in the project improvement plans and cost estimates and shall be reviewed by the El Dorado Hills Community Services District and be subject to review and approval by the El Dorado County Development Services Division; the Transportation Division will review the plans for matters concerning roadway safety and sight distance.

31. Drainage Study/NPDES Compliance: The project drainage plan facilities and system shall conform to the BLHSP, County Drainage Manual and County Storm Water Management Plan (SWMP)(2003).

At the option of the subdivider, construction and/ or implementation of Site Design Measures, Source Control Measures, and/or Low Impact Development (LID) Design Standards consistent with the California State Water Resources Control Board (SWRCB) Water Quality Order No. 2013-0001-DWQ (Order) may be implemented in lieu of measures identified in the SWMP.

Water Quality Stamp: All new or reconstructed drainage inlets shall have a storm water quality message stamped into the concrete, conforming to the Storm Water Quality Design Manual for the Sacramento and South Placer Regions, Chapter 4, Fact Sheet SD-1. All stamps shall be approved by the El Dorado County inspector prior to being used.

32. Drainage (Cross-Lot): Cross lot drainage shall be avoided wherever possible. When concentrated cross lot drainage does occur or when natural sheet flow drainage is increased by the project, it shall be contained within dedicated drainage easements. This drainage shall be conveyed via closed conduit or open channel, to either a natural drainage course of adequate size or an appropriately sized storm drain system. The Grading and Improvement plans shall show drainage easements for all on-site drainage facilities where required.
33. The proposed project must form an entity for the maintenance of public and private roads and drainage facilities. If there is an existing entity, the property owner shall modify the document if the current document does not sufficiently address maintenance of the roads of the current project. Transportation Division shall review the document forming the entity to ensure the provisions are adequate prior to filing of the final map.
35. The subdivider shall obtain irrevocable Offers of Dedication and/or drainage easements to the County for public drainage purposes, and shall process same through the County, for offsite drainage easement rights across properties subject to the Specific Plan Development Agreement, to the satisfaction of the Transportation Division, to accommodate any offsite storm water facilities needed to convey concentrated storm water from the project boundary downgradient to an existing established waterway. Subdivider shall design and install any offsite storm water facilities as necessary to the satisfaction of the Transportation Division.
36. [Deleted.]
38. Grading plans shall be prepared in substantial conformance with the preliminary grading plans submitted for Bell Ranch and submitted to the El Dorado County Resource Conservation District (RCD) and the Transportation Division. The RCD shall review and make appropriate recommendations to the County. Upon receipt of the review report by the RCD, the Transportation Division shall consider imposition of appropriate conditions for reducing or mitigating erosion and sedimentation from the project. The County shall issue no building permits until the Transportation Division approves the final grading and erosion control plans and the grading is completed.
- Soils Report: At the time of the submittal of the grading or improvement plans, the applicant shall submit a soils and geologic hazards report (meeting the requirements for such reports provided in the El Dorado County Grading Ordinance) to, and receive approval from the Transportation Division. Grading design plans shall incorporate the findings of detailed geologic and geotechnical investigations and address, at a minimum, grading practices, compaction, slope stability of existing and proposed cuts and fills, erosion potential, ground water, pavement section based on TI and R values, and recommended design criteria for any retaining walls.
39. The timing of construction and method of revegetation shall be coordinated with the El Dorado County Resource Conservation District (RCD). If grading activities are not completed by September, the developer shall implement a temporary grading and erosion control plan. Such temporary plans shall be submitted to the RCD for review and recommendation to the Transportation Division. The Transportation Division shall approve or conditionally approve such plans and cause the developer to implement said plan on or before October 15.
43. The potable water system for the purpose of fire protection for this residential development shall provide a minimum fire flow of 1,000 gpm with a minimum residual pressure of 20 psi for two-hour duration. This requirement is based

upon a single family dwelling 6,200 square feet or less in size. All homes shall be fire sprinklered in accordance with NFPA 13D and Fire Department requirements. This fire flow rate shall be in excess of the maximum daily consumption rate for this development. A set of engineering calculations reflecting the fire flow capabilities of the system shall be supplied to the Fire Department for review and approval.

44. This development shall install Mueller Dry Barrel fire hydrants or any hydrant approved by the El Dorado Irrigation District for the purpose of providing water for fire protection. The spacing between hydrants in this development shall not exceed 500 feet. The exact location of each fire hydrant shall be determined by the Fire Department prior to the approval of the improvement plans. Fire hydrants need to be added to Morrison Road at 500' intervals.
46. In order to provide this development with adequate fire and emergency medical response during construction, all access roadways and fire hydrant systems shall be installed and in service prior to framing of any combustible members as specified by El Dorado Hills Fire Department Standard B-003.
47. The open space Lot K between the two developments has no access for emergency personnel and equipment to suppress a wildland fire within this area. The applicant shall be required to provide not less than three (3) all-weather access roadways suitable for fire apparatus to drive on into this area in accordance with Fire Department requirements which shall be included in the improvement plans.
48. The lots that back up to Wildland Open Space shall be required to use non-combustible type fencing.
49. This project may be phased so long as dead end roads do not exceed 800' or 24 parcels; whichever comes first, or as otherwise acceptable to the satisfaction of the fire district.
50. The driveways serving this project shall be designed to be in accordance with the El Dorado County Code prior to approval of the improvement plans. Driveways serving this project shall be designed to a maximum of 16% grade and can be increased to 20% if paved. If there are any driveways in excess of 20 percent, the design must go back to the fire district for review.
51. This development shall revise the Wildland Fire Safe Plan dated October 2005 to reflect the new changes to the development, lot numbering and access changes. This revised Wildland Fire Safe Plan shall be approved by the Fire Department prior to approval of the improvement plans.
52. This development shall be prohibited from installing any type of traffic calming device that utilizes a raised bump/dip section of roadway.
53. [Deleted.]
54. The development shall provide an all-weather access roadway designed in accordance with Fire Department requirements that provide access to the open space to Lot B, and pedestrian gates in any field fencing erected along the western boundary of Lot B to provide access for the fire-fighting personnel to the properties west of the development.
66. The project includes a 5.77 acre park site, identified as Lot J, which will be offered for dedication to the El Dorado Hills Community Services District. If the parkland dedication is accepted, there will be a credit against Quimby fees; otherwise Quimby in-lieu fees shall be paid in accordance with County policy prior to recordation of the final map. In the event the subdivision is subject to the parkland dedication in-lieu fees based on values supplied by the Assessor's Office and calculated in accordance with Section 120.12.090 of the County Code, the subdivider shall be subject to a \$150.00 appraisal fee payable to the El Dorado County Assessor for the determination of parkland dedication in-lieu fees.
76. To gain access to the park site, a driveway encroachment must be constructed to Transportation Division requirements and on-site parking on the park site must be provided, allowing for vehicles to exit the site in a forward direction, to the satisfaction of the El Dorado Hills Community Services District and Planning Services at the time of park site improvement.

The applicant is also proposing to relocate Lot 1 as shown on the revised map. Lot 1, as a residential lot, is moved north and a new play field lot is created comprising approximately 4.65 acres. It is the intent of the applicant to donate this parcel to the Holy Trinity Catholic Church. The Holy Trinity Catholic Church desires to utilize this parcel as a ball field for their private school.

The following conditions have been added:

77. Regulatory Permits and Documents: All regulatory permits or agreements between the Project and any State or Federal Agency shall be provided to the Transportation Division with the Project Improvement Plans. These project conditions of approval and all regulatory permits shall be incorporated into the Project Improvement Plans.
78. Electronic Documentation: Upon completion of the improvements required, and prior to acceptance of the improvements by the County, the developer will provide a CD to TD with the drainage report, structural wall calculations, and geotechnical reports in PDF format and the record drawings in TIF format.
79. Prior to the issuance of the first building permit, the developer shall submit to the County a proposed update to the Bass Lake Hills Public Facilities Financing Plan, including an update to the plan area fee program.
80. Prior to recordation of a final map, a valid facility improvement letter (FIL) shall be issued by the El Dorado Irrigation District (EID) for the subdivision, a new Facility Plan Report (FPR) shall be reviewed and approved by the EID, and improvement plans shall be reviewed and approved by EID. Previously approved and expired plans and reports may be used as templates for new submittals to EID.

Table 3
Bell Ranch Modifications of Conditions Summary

COA#	Improvement Description	Approved Conditions	Proposed Revisions
#1	Project approvals	Planning Commission date April 24, 2008 and five one-year time extensions	Planning Commission date March 24, 2016. One one-year time extension and approval of revised conditions.
#3	Development plan	Details number of lot, number of single family lots, size range of lots, and number and type of non-residential lots.	Increase total number of lots from 122 to 123 to account for addition of new play field lot. Number of landscape lots decreased from 7 to 6 and number of open space lots increased from 1 to 2.
#4	Development plan	Development plan shall be in compliance with tentative map.	Text added to also reference uses described in the revised development plan exhibit.
#5	Lot setbacks	Provides revised setbacks for lots 1 through 11, 12 through 113, and lot J.	Add text regarding 45 percent coverage limitation and eliminate Lot J revised setbacks.
#7	Project plan approval	Plans to be consistent with Subdivision Design and Improvement Standards Manual	Add language that standards may be modified by these Conditions of Approval or Design Waivers. Also add language requiring conformity with other County ordinances and applicable State standards. Add text regarding curb returns.
#15	Roads	Vehicular access restricted along various roadways. Condition includes table identifying road name, width, and exceptions/notes.	Revisions to named roadways and lot numbers to reflect current subdivision design. Road and ROW requirements changed to reflect current requirements. Updated requirements regarding sidewalk locations and size. Updated design notes to reflect current requirements and site-specific circumstances.
#16	Roads	Requirement of irrevocable offer of dedication for ROW and entity to be established for long-term maintenance of roads and roadway landscaping.	Entire condition deleted and requirements moved to COA #17.
#17	Roads	Requires submittal of complete application for irrevocable offer of dedication for portions of Morrison Road outside the subdivision boundary.	Dedication of ROW required as shown on tentative map. Internal roadways may be maintained privately by a Homeowner's Association or other entity acceptable to the County. The new text noted that the private road option does not apply to Morrison Road.
#19	ROW	No freestanding walls, fences, or retaining walls permitted in road ROW.	Add text allowing for exception at the discretion of the County Transportation Division.
#20	Roadway access	Primary and secondary roadways to be constructed prior to first building permit. Identifies that primary access shall be to either Bass Lake Road or County Club Drive.	Remove "secondary roadway" access and replace with "emergency vehicle" access. Minor text changes to reflect current County department/division names.

Table 3
Bell Ranch Modifications of Conditions Summary

COA#	Improvement Description	Approved Conditions	Proposed Revisions
#21	Compliance	Project shall comply with the BLHSP, related development agreements, and PFFP. COOs not to be issued until Phase I improvements complete.	Original condition deleted in its entirety as it is no longer applicable. Improvements completed by Hollow Oak subdivision. New conditions (added her for convenience) addresses requirement of the applicant to secure title, pay costs incurred by the County, and/or complete off-site improvements.
#22	Off-site improvements	Responsibility for off-site improvements consistent with Phase 1A requirements of the PFFP in compliance with the BLHSP, PFFP, and related development agreement.	Condition deleted in its entirety. New requirements added to this COA to mirror similar COAs from other subdivisions (HV COA #24 and BW COA #25). New requirements of this COA include design, PS&E, utility relocation, ROW acquisition, and construction of improvements for Bass Lake Road, Country Club Drive, Bass Lake Road/Country Club Driver intersection, Highway 50/Bass Lake Road interchange. The requirements include design specifications and guidance for financing, timing, and signalization.
#23	Roads and school infrastructure	Construct Country Club Drive with frontage improvements and construct school infrastructure (water and sewer).	Remove obligation to build access to school site and sewer and water infrastructure because a school site is not needed at this time per the Buckeye School District. Obligation to provide plans and right-of-way for sewer and water infrastructure shall remain.
#24	Park and Ride Lot	Acquire site for park and ride lots and design the total site and build 35 spaces	Entire condition deleted from Bell Ranch. ROW acquisition for Park and Ride lot remains an obligation of Hawk View.
#25	Morrison Road	Construct Morrison Road	Allow Morrison Road to be built in phases as approved by El Dorado Hills Fire Department.
#26	Highway 50/Bass Lake Road Interchange (approved) and encroachment permits (proposed)	Construct WB 2-lane on-ramp, EB 2-lane off-ramp, ramp metering, widen Bass Lake Rd/EB off ramp intersection with dual EB left turn lanes and shared EB right/through lane, 2 12-foot NB lanes and 1 12-foot SB lane between EB and WB ramp intersections; and submit bid-ready documents prior to first certificate of occupancy and improvements to be substantially complete prior to 81st certificate of occupancy	All requirements related to the Highway 50/Bass Lake Road interchange have been moved to revised COA #22. New text requires applicant to obtain an encroachment permit from the County for connecting to existing Tierra De Dios Drive and Hollow Oak Road. Also, new text requires connections to Morrison Drive to be constructed as modified on the tentative map.
#27	PSR Highway 50 Interchange (approved) and common fences and walls (proposed)	Enter contract to perform Project Study Report for Highway 50/Bass Lake Road interchange. At discretion of the County, this requirement may be deleted.	Remove; PSR not required per revised Traffic Study. New text requires CC&Rs to include responsibility and access rights for maintenance of fences and walls constructed on property lines.

Table 3
Bell Ranch Modifications of Conditions Summary

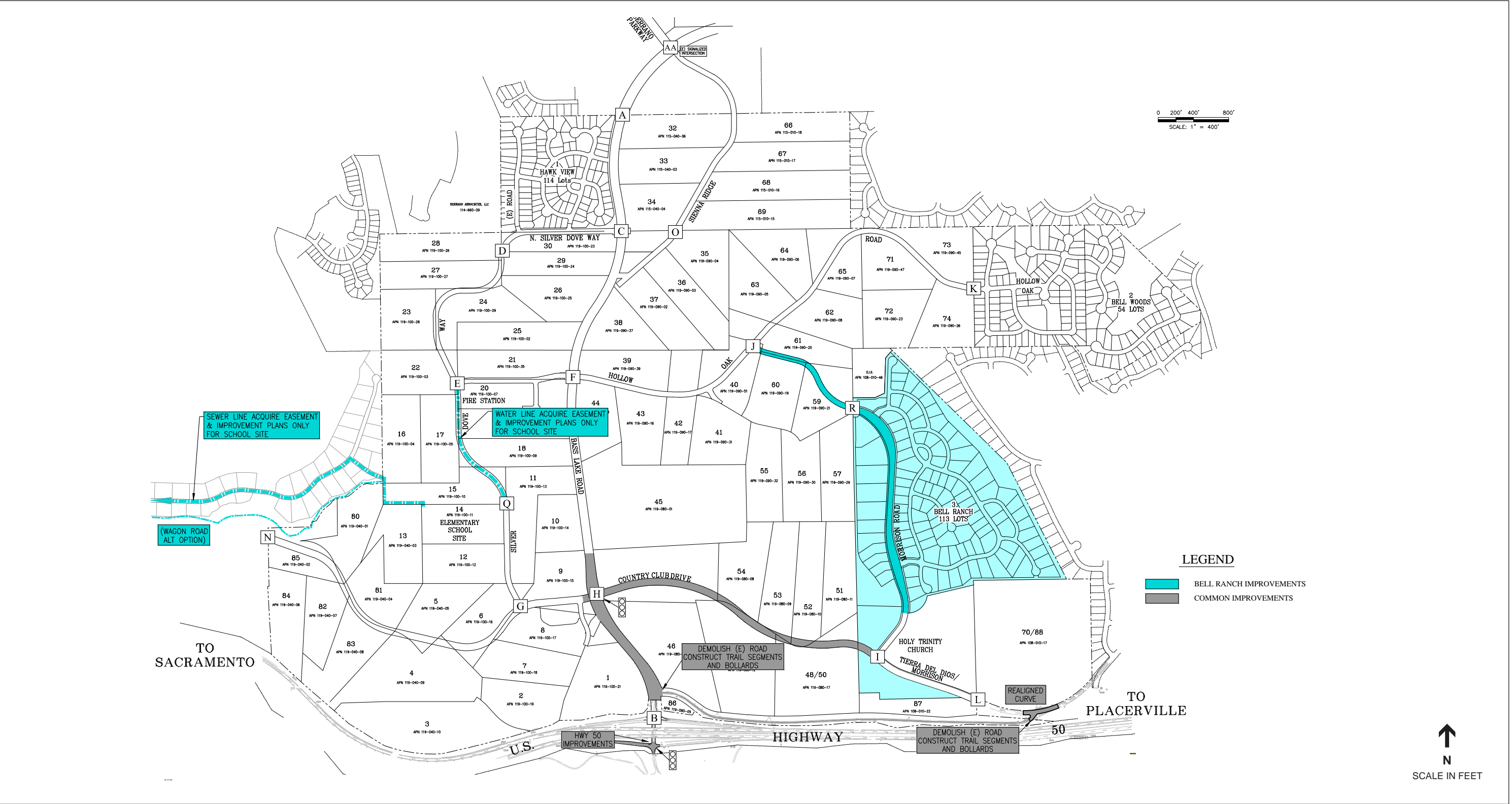
COA#	Improvement Description	Approved Conditions	Proposed Revisions
#28	Landscape and irrigation	Landscape and irrigation plans to be reviewed by EDCSD and approved by El Dorado County.	Clarify that condition applies to onsite landscaping and update County division names. Minor text changes to reflect current County department/division names.
#31	Drainage facilities	Drainage plan and facilities plan to be designed according to County guidance and constructed with respective phase of construction.	Update that compliance is required with updated guidance. Provides that subdivider may implement low impact development (LID) or other SWRCB measures in lieu of measures identified in the SWMP. Add requirement for water quality stamp on new or reconstructed drainage inlets.
#32	Drainage	Cross lot drainage to be avoided.	Add clarification of applicability to drainage increased by the project. Add that grading and improvement plans shall show drainage easement for on-site facilities.
#33	Drainage	County Service Area Zone of Benefit (ZOB) required to fund drainage maintenance and improvements.	All original text removed and replaced with new text requiring an entity to be formed for the maintenance of public and private roads and drainage facilities.
#35	Drainage	Subdivider required to obtain irrevocable Offers of Dedication to the County for public drainage.	Add “and/or drainage easements” following irrevocable Offers of Dedication. Minor text changes to reflect current County department/division names.
#36	Grading	Mass pad grading project application must be sent to County supervisor in which site is located.	Condition deleted as El Dorado County no longer uses this process.
#38	Grading plans	Grading plans to be submitted to County. No building permits to be issued until County approves final grading and erosion plans, and grading is completed.	Minor text changes to reflect current County department/division names. Add requirement for submittal of a soils and geologic hazards report.
#39	Construction and revegetation	Timing of construction and revegetation to be coordinated with RCD. Actions to be based on timing.	Minor text changes to reflect current County department/division names.
#43	Fire flow	Require minimum 1,000 gpm with minimum residential pressure of 20 psi for two-hour duration. Engineering calculations to be submitted for review and approval by the Fire Department.	Modification to maximum swelling size used as basis for flow requirements. Add requirement that all homes be sprinklered.
#44	Fire hydrants	Requirement to install Mueller Dry Barrel fire hydrants and spacing to be determined by the Fire Department.	Add language allowing for any approved hydrant. Add language requiring fire hydrants along Morrison Road at 500’ intervals.

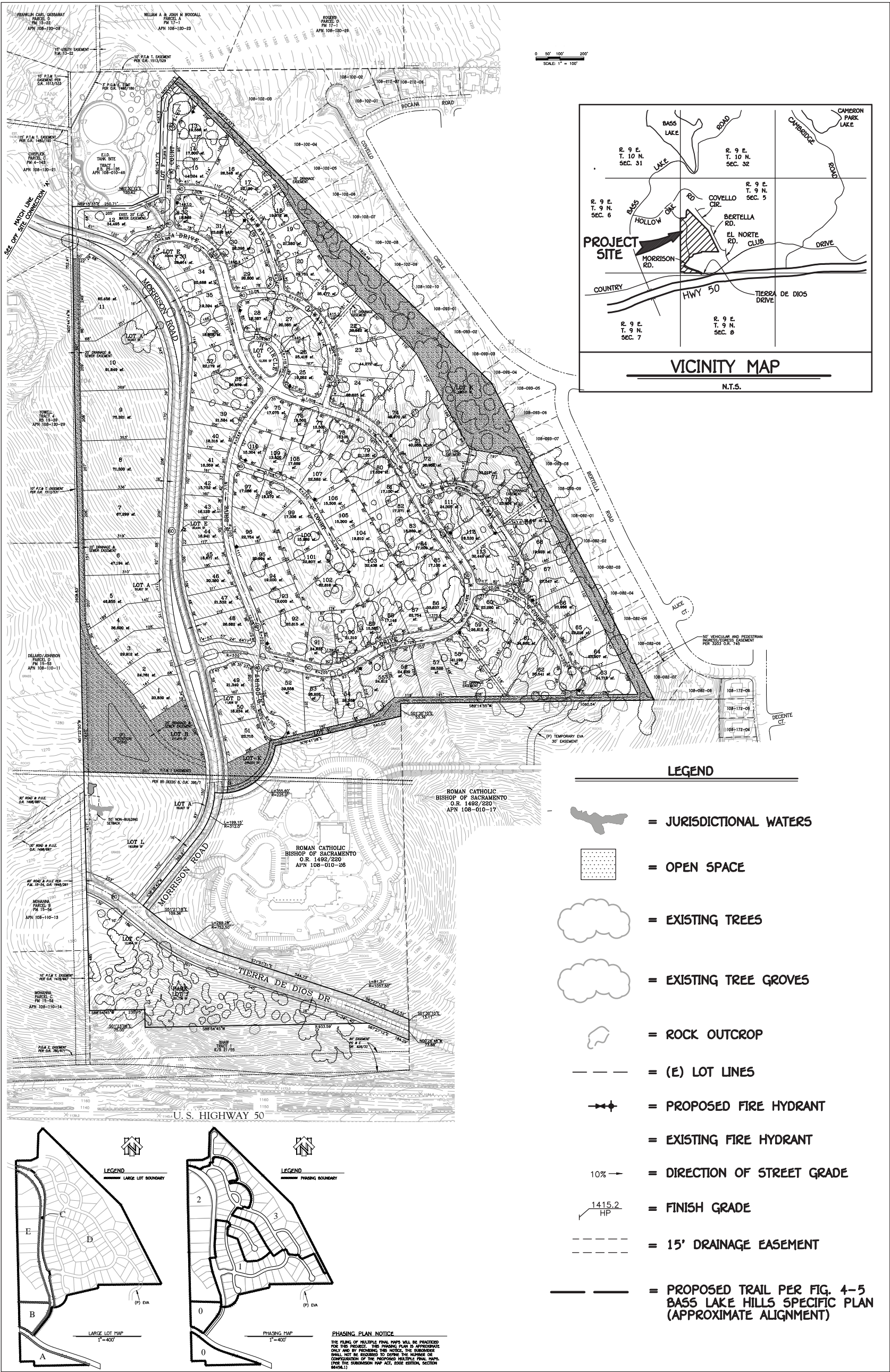
Table 3
Bell Ranch Modifications of Conditions Summary

COA#	Improvement Description	Approved Conditions	Proposed Revisions
#46	All access roadways	All access roadways and fire hydrant systems to be installed and in service prior to framing of any combustible materials.	Revise El Dorado Hills Fire Department Standard number identified in COA.
#47	Fire access	Require applicant to provide at least 3 all-weather access roads to open space lot.	Add language that the minimum 3 all-weather access roadways shall be suitable for fire apparatus to drive on.
#48	Fire protection	Require lots that back up to the Wildland Open Space to use non-combustible fence materials.	Remove timing of prior to approval of improvement plans.
#49	Fire/Roads	Requires two independent points of access.	Original text completely removed and replaced with condition stating that project may be phased so long as dead-end roads do not exceed 800' or 24 parcels, as acceptable to the fire district.
#50	Driveway design	Requires driveways to be designed in compliance with County Code and driveways in excess of 20% grade must be reviewed by the fire district.	Add text that driveways shall be maximum 16% grade, but may be increased to 20% if paved.
#51	Wildland Fire Safe Plan	Develop and implement a Wildland Fire Safe Plan.	Text changed to require revisions to the Wildland Fire Safe Plan dated October 2005 to reflect changes to lot development, lot numbering, and access changes. Added text that revised plan shall be approved prior to approval of improvement plans.
#52	Traffic calming device	Prohibit traffic calming device that utilizes a raised bump/dip section of roadway.	Remove clause requiring condition prior to approval of improvement plans.
#53	Morrison Road	Construction of Morrison Road shall be deemed substantially complete prior to issuance of building permits.	Condition completely deleted.
#54	Fire access	Requires pedestrian gates in any field fencing along western boundary of open space area to provide access for fire-fighting personnel.	Add requirement of an all-weather access roadway in accordance with Fire Department requirements.
#66	Park site	EDHCSD has the option to choose either Lot J or residential Lot 1 for the park site. The approved condition includes actions that would apply depending on the decision.	The park site has been identified as Lot J, and all language referring to the option for residential Lot 1 have been deleted. Language added regarding payment of in lieu fees in the event that the subdivision is subject to parkland dedication requirements.
#76	Park access	No parking permitted on Tierra De Dios Drive or Morrison Road. Encroachment permit required for access.	Remove language specifying no parking on Tierra De Dios Drive and Morrison Road. Minor text changes to reflect current County department/division names.

Table 3
Bell Ranch Modifications of Conditions Summary

COA#	Improvement Description	Approved Conditions	Proposed Revisions
#77	Permits	N/A	New condition requiring applicant to provide all regulatory permits or agreements between the applicant and any State or Federal agency to the County.
#78	Documents	N/A	New condition requiring developer to provide County with reports and drawings in specified electronic formats.
#79	PFFP	N/A	New requirement on for all subdivisions that an update to the Bass Lake Hills PFFP shall be submitted prior to issuance of the first building permit.
#80	EID requirements	N/A	New condition added to address previously approved but expired FILs and FPRs and EID requirements for resubmittals.
MM 3.12-1	Fire access	Requirements to provide adequate fire and emergency protection.	Remove measure as all requirements are included in revised COAs #43 through #54.





SOURCE: CTA Engineering & Surveying 2016

Bass Lake Hills Project . 140843

Figure 8

Bell Ranch Revised Tentative Map

Additional Project Components

There are additional infrastructure improvements necessary to support the three tentative maps that were previously known but not specifically identified in the 2005 MNDs. They are now included here for full disclosure of their impacts. See **Figure 9**.

Offsite Infrastructure to the West of the Plan Area

After the original tentative maps were approved, during improvement plan preparation, certain infrastructure improvements were identified on the west side of the BLHSP area. These improvements would extend beyond the boundaries of the BLHSP area into the El Dorado Hills Specific Plan area. No changes to the El Dorado Hills Specific Plan area are proposed. Any resource issues or footprint impacts within the El Dorado Hills Specific Plan area and associated with these improvements have already been addressed by the El Dorado Hills Specific Plan EIR. The following project elements, depicted on **Figure 9**, are proposed on the west side of the project site.

1. and 2. Underground pipes for water, sewer, and drainage would be installed to connect through the Hawk View subdivision to an existing gravel road in the El Dorado Hills Specific Plan area. Two trenches, one near the northwest corner and one at the southwest corner of the Hawk View subdivision would connect existing and proposed utilities through an already disturbed area. The sewer line would be a parallel line constructed on top of an existing sewer line that is within the El Dorado Irrigation District (EID) gravel road west of the project site.
3. EID has suggested a new alignment for a sewer line that would connect existing sewer pipelines within the El Dorado Hills Specific Plan area with the proposed elementary school within the Bass Lake Hills Specific Plan area. Although a sewer connection between these two specific plan areas was previously anticipated in the Bass Lake Road Study Area EIR (known as “the Wagon Road Alignment”). The new pipeline alignment shifts the pipeline north. The new alignment would follow a road anticipated in the El Dorado Hills Specific Plan area (through an area commonly called, (Village C-2’’) and cross Carson Creek via a culvert. The pipeline alignment would then divert from the road and cross eastward toward the Bass Lake Hills Specific Plan area. The new pipeline alignment would then connect to the northwest corner of the anticipated school site. If for some reason the new alignment is not available or not used by EID, then the Wagon Road Alignment would be used for the new sewer pipeline.

Offsite Infrastructure Elements to East of the Plan Area

After the original tentative maps were approved, during improvement plan preparation, certain infrastructure improvements were also identified on the east side of the BLHSP area. These elements would extend beyond the boundaries of the BLHSP area to the east, onto adjacent areas. These additional infrastructure improvements are necessary to support the Hawk View, Bell Woods, and Bell Ranch tentative maps. The following project elements, depicted on **Figure 8**, are proposed on the east side of the project site.

4. An underground pipe would extend northeast from the Bell Woods subdivision to provide a sewer connection to the existing lift station east of the project site. In addition, a small water pipe would extend directly east to connect to an existing water pipe.
5. A new drainage outfall would drain portions of Bell Woods into a natural area east of the project site, behind homes on Knollwood Drive. Water quality features may also be installed at the outfall site to provide initial settling of stormwater pollutants and prevent soil erosion.

6. Two short trenches would be dug and pipelines installed. The northern pipeline would provide water from an adjacent, off-site residential area. The southern pipeline would provide a pipe to drain a detention basin at the southern tip of the Bell Woods subdivision. The pipe would carry storm drainage south along an existing drainage corridor. The pipe would then daylight in the drainage corridor that runs parallel to Castana Drive. These connections would occur along residential property lines within drainage easements.
7. A new drainage outfall extending east from the Bell Ranch subdivision would drain stormwater from the Bell Ranch subdivision onto property at the end of Covello Circle. A drainage easement along this stretch would also be required.
8. Two new concrete-lined drainage ditches would extend southeast and east from the easternmost corner of the Bell Ranch subdivision, join together and head eastward toward the backyards of houses on El Norte Road. The drainage ditch would then extend south along a utility easement to Country Club Road. When the drainage ditch meets Country Club Road, the drainage would be connected via pipes to existing drainage pipes in Country Club Road.

Onsite Infrastructure Elements

There are also proposed infrastructure improvements that would occur completely within the BLHSP area, as described below.

9. A new pump would be installed adjacent to two EID water tanks on a fenced parcel immediately north of the Bell Ranch subdivision. The pump would be electric and would include a backup generator in the event of a power failure. The site is already paved with asphalt.
10. Two drainage outfalls would be constructed from the western edge of the Bell Ranch subdivision onto an adjacent lot within the Bass Lake Hills Specific Plan area. A drainage easement along this stretch would also be required.
11. A small triangular shaped parcel within the Bass Lake Hills Specific Plan area would be landscaped and serve as an overland drainage and percolation area.

Actions

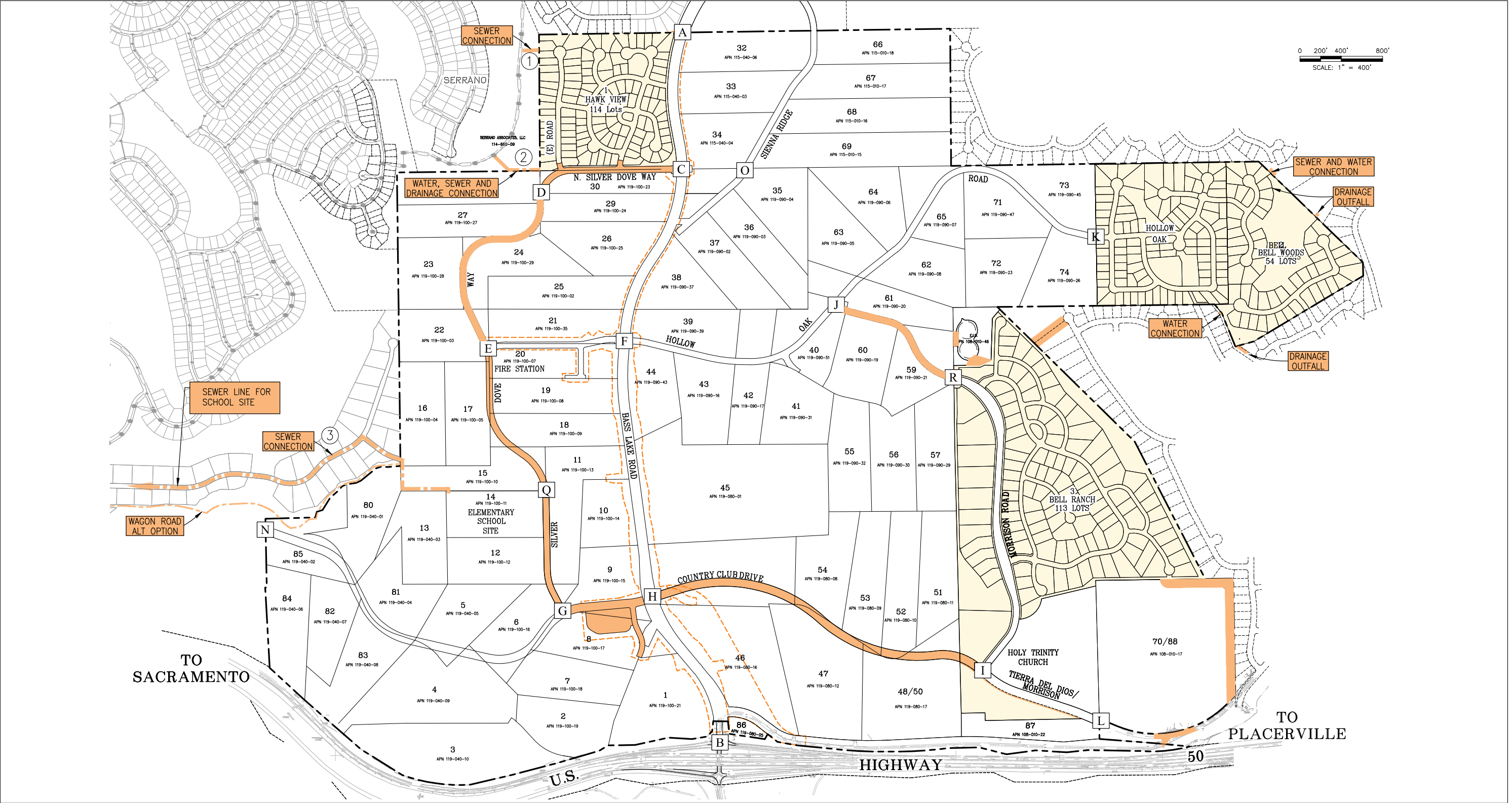
The proposed project would require the following County actions:

- Acceptance of an environmental document, reflecting a determination that the environmental document was completed in compliance with the requirements of the California Environmental Quality Act (CEQA), that the decision-making body has reviewed and considered the information in the EIR, and that the EIR reflects the independent judgment of El Dorado County;
- Adoption of a Mitigation Monitoring and Reporting Program (MMRP), specifying the methods for monitoring mitigation measures required to eliminate or reduce the project's significant effects on the environment;
- Approval of revisions to the Conditions of Approval for the Hawk View, Bell Woods, and Bell Ranch projects;
- Approval of the extensions of the tentative maps; and
- Approval of reconfiguration of the Bell Ranch tentative map.

The County may also use this Addendum to modify the existing development agreements for the Bell Ranch, Bell Woods, or Hawk View subdivisions, or serve as the basis of new development agreements.

The proposed project could also require the following actions by entities other than the County:

- Granting of a Section 404 Permit by the United States Army Corps of Engineers (USACE) for the filling of waters of the U.S.;



SOURCE: CTA Engineering and Surveying, 2015

Bass Lake Hills Project . 140843

Figure 9
Offsite Infrastructure

- Granting of a Section 401 Permit by the Central Valley Regional Water Quality Control Board (CVRWQCB) for certification that pollutant discharges into waters of the U.S. comply with applicable effluent limitations and water quality standards;
- Granting of an encroachment permit by Caltrans for proposed improvements to the Highway 50/Bass Lake Road interchange;
- Granting of a construction activity stormwater permit from the Central Valley Regional Water Quality Control Board (CVRWQCB);
- Granting of a Section 1602 Permit, Streambed Alteration Agreement, by the California Department of Fish and Wildlife for alterations to ephemeral streams; and
- Granting of a Section 7 Take Authorization Permit by the U.S. Fish and Wildlife Service for the incidental take of a listed endangered or threatened species.

Responsible and Trustee Agencies

The EIR will be intended to be used by responsible and trustee agencies (as defined by §§15381 and 15386 of the State CEQA Guidelines) that may have review or discretionary authority over some component of the project. Agencies in addition to the Lead Agency that may use this EIR in their review of the project or that may have responsibility for approval of certain project elements may include, but are not limited to, the following:

- Central Valley Regional Water Quality Control Board (CVRWQCB),
- California Department of Transportation (Caltrans);
- United States Army Corps of Engineers (USACE),
- United States Fish and Wildlife Service (USFWS) and
- California Department of Fish and Wildlife (CDFW).

ENVIRONMENTAL CONCLUSION

Based on the evaluation included in this Initial Study, the County has determined that the criteria identified in State CEQA Guidelines §15162 requiring preparation of a Supplemental or Subsequent EIR have not been met, and, accordingly, the County has prepared this Addendum to the 1992 BLRSA Final PEIR pursuant to State CEQA Guidelines §15164 to address the proposed changes and additions to the previously proposed project.

All referenced documents and correspondence are available for review at the El Dorado County, Community Development Agency-Development Services Division, 2850 Fairlane Court, Placerville, CA 95667.

MITIGATION MONITORING AND REPORTING PLAN

A Mitigation Monitoring and Reporting Plan has been prepared and is included as Appendix E to this document.

ENVIRONMENTAL CHECKLIST

COMPARING CHANGES AND/OR NEW INFORMATION TO PREVIOUS ENVIRONMENTAL DOCUMENTS

The purpose of the checklist is to evaluate the categories in terms of any “**changes**” or “**new information**” that may result in a changed environmental impact evaluation. A “no” answer does not necessarily mean that there are no potential impacts relative to the environmental category, but that there is no relevant change in the condition or status of the impact due to its insignificance or its treatment in a previous environmental document.

The El Dorado County Board of Supervisors, after certifying the BLRSA Final PEIR and adopting CEQA Findings, adopted a Statement of Overriding Considerations with respect to certain significant impacts that, even with the adoption of feasible mitigation measures, could not be reduced to less-than-significant levels. Thus, certain environmental categories might be answered with a “no” in the checklist despite the occurrence of significant unavoidable impacts because the proposed project does not introduce changes that would result in a modification to the significance conclusions of the Final PEIR and CEQA Findings.

EXPLANATION OF CHECKLIST EVALUATION CATEGORIES:

Where Impact Was Analyzed in Prior Environmental Documents

This column provides a reference to the pages of the other environmental documents where information and analysis may be found relative to the threshold listed under each topic.

Do Proposed Changes Involve New or More Severe Impacts?

Pursuant to Section 15162(a)(1) of the State CEQA Guidelines, this column indicates whether the changes represented by the proposed project will result in new significant impacts or a substantial increase in the severity of a previously identified significant impact that have not already been evaluated and mitigated by the previous EIR or MNDs. If a “yes” answer is given, additional mitigation measures acceptable to the applicants will be specified in the discussion section, including a statement of impact status after mitigation.

Any New Circumstances Involving New or More Severe Impacts?

Pursuant to Section 15162(a)(2) of the State CEQA Guidelines, this column indicates whether there have been changes to the project site or the vicinity (environmental setting) that have occurred subsequent to the certification of the previous EIR that would result in new significant impacts or a substantial increase in the severity of a previously identified significant impact that were not evaluated and mitigated by the previous EIR or MNDs. If a “yes” answer is given, additional mitigation measures acceptable to the applicants will be specified in the discussion section, including a statement of impact status after mitigation.

Any New Information of Substantial Importance?

Pursuant to Section 15162(a)(3) of the State CEQA Guidelines, this column indicates whether there is new information of substantial importance which was not known and could have been known with the exercise of reasonable diligence at the time the previous EIR was certified. New information of substantial importance includes: (1) one or more significant effects not discussed in the previous EIR, (2) significant effects previously examined that are substantially more severe than shown in the previous EIR, (3) mitigation measures or alternatives previously found not to be feasible would in fact be feasible, and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or (4) mitigation measures or alternatives that are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative. If additional analysis is conducted and no new information

of substantial importance is identified, no new or additional mitigation is necessary. If the additional analysis indicates new information of substantial importance, no additional environmental documentation is needed if it is found that a new or modified mitigation would eliminate a new significant impact or reduce the increase in severity to less than substantial.

Prior Environmental Document Mitigations Implemented or Address Impacts?

Pursuant to Section 15162(a)(3) of the State CEQA Guidelines, this column indicates whether other project-related environmental documents provide mitigation measures to address effects in the related impact category. If NA is indicated, a previous environmental document and this initial study conclude that the impact does not occur with this project, and, therefore, no mitigation is needed.

DISCUSSION AND MITIGATION SECTIONS

Discussion:

A discussion of the elements of the checklist is provided under each environmental category in order to clarify the answers and provide substantial evidence supporting the impact conclusion. The discussion provides information about the particular environmental issue, how the project relates to the issue, and the status of any mitigation that may be required or that has already been implemented. The discussion is organized into four sections: (1) Changes to the Project; (2) Changes in Circumstances; (3) Comparative Impact Discussion; (4) Issues Not Addressed in Prior CEQA Documents; and (5) Conclusions.

Specific Plan and Other Standard Mitigation Measures:

Applicable Standard Mitigation Measures are listed under each environmental category.

Prior CEQA Mitigation Measures:

Applicable mitigation measures from the previous environmental documents that apply to the changes or new information are referenced under each environmental category.

2016 Mitigation Measures:

If changes or new information involve new impacts, additional mitigation measures, if available and feasible, will be listed. These mitigation measures will be included as new project conditions to address those impacts. The project applicants have agreed in advance to accept all such new mitigation measures.

ENVIRONMENTAL CHECKLIST

Environmental Issue Area	Where Impact Was Analyzed in Prior Environmental Documents.	Do Proposed Changes Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information of Substantial Importance?	Prior Environmental Documents Mitigations Implemented or Address Impacts?
1. Aesthetics. Would the project:					
a. Have a substantial adverse effect on a scenic vista?	PEIR, p. M-1 to M-6; Addendum, p. 65	No	No	No	Yes
b. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	PEIR, p. M-1 to M-6; Addendum, p. 65; Scenic Highways Not Addressed	No	No	No	Yes
c. Substantially degrade the existing visual character or quality of the site and its surroundings?	PEIR, p. M-1 to M-6; Addendum, p. 65	No	No	No	Yes
d. Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	PEIR, p. M-5; Addendum, p. 65	No	No	No	Yes

Discussion:

1. Changes to Project Related to Aesthetics

The proposed project would make minor changes in the alignment and timing of infrastructure improvements associated with the Hawk View, Bell Ranch, and Bell Woods subdivisions in the BLHSP area. Following construction, these improvements will be largely subsurface (e.g., water and sewer line infrastructure), or will take place within areas that were anticipated to be fully urbanized as part of the analysis contained in the 1992 BLRSA Final PEIR, the 1995 Addendum, and the Hawk View, Bell Ranch, and Bell Woods MNDs or the EDH SP EIR.

2. Changes in Circumstances

Evaluation of Changes in Circumstances Applicable to All Environmental Topics

When the 1992 BLRSA Final PEIR was prepared, the project site was largely surrounded by open grassland and oak woodlands, historically used for grazing, providing timber for buildings and firewood for fuel, and agricultural purposes. At that time, urban development in the vicinity of the project area was largely limited to residential subdivisions in Cameron Park.

While there has been development in the surrounding area, the project site remains essentially the same, with the exception of development of the Hollow Oak subdivision (99 single-family homes on 39 acres) and the El Dorado Hills Fire Station near the intersection of Bass Lake Road and Silver Dove Way. In addition, since 1992, the preliminary grading of the Hawk View subdivision, near Bass Lake Road and Hawk View Road, has been completed, although no development has occurred. The majority of the Specific Plan area (the project site) remains undeveloped, and it is largely used for open grazing land (grasslands) and rural residences. The open grasslands on the site include several large oak trees, typically located in ephemeral drainages that cross the site. Other development-related activities have taken place in and around the plan area, including: realignment and reconstruction of Bass Lake Road from Hollow Oak to Serrano Parkway; construction of two four-million gallon water tanks by EID at the north end of the Bell Ranch subdivision; installation of several water transmission lines; construction of El Dorado Hills Fire Station No. 86; construction of the Holy Trinity Catholic Church and School; acquisition of the proposed school site by the Buckeye School District; street and pad grading of the Hawk View subdivision has been started; clearing and grubbing of the Bell Woods subdivision in anticipation of grading; and grading of Morrison Road as part of underground utility line installation.

Since the certification of the BLRSA Final PEIR in 1992, lands around the site have experienced additional new development. Lands to the east, in Cameron Park, were largely developed beginning in the 1960s, with the primary development since 1992 occurring northeast of the Specific Plan area, near Bass Lake, in the Hills of El Dorado, Woodridge, and Bridlewood Canyon neighborhoods. Lands to the west have also undergone substantial new development in the Serrano project that has been developed in the El Dorado Hills Specific Plan area.

Specific Changes in Circumstances Applicable to Aesthetics

For all environmental topics, this section addresses specific changes in circumstances that are either related to a change in existing conditions (after the 1992 BLRSA Final PEIR was certified and/or its 1995 Addendum was completed) or a change in the regulatory environment since 2005, after the MNDs for Hawk View, Bell Woods, and Bell Ranch were certified.

Since evaluation in the 1992 BLRSA Final PEIR, the primary change in visual character in the vicinity involves the continued development of the Serrano project, west of the BLHSP area. Views to the west that in 1992 and 1995 were of rolling grasslands and oak woodlands that dominated the Carson Creek drainage, have, to a considerable degree, been replaced by views of urban development, largely single family homes and rooftops, along with urban landscaping and trees. The visual character of the BLHSP area is virtually unchanged since 2005 when the MNDs for the Hawk View, Bell Ranch, and Bell Woods projects were prepared. Views across the project site and to the east are largely the same as in 1992 and 1995, with the exception that mid- and long-range views have changed due to the development on parcels surrounding the BLHSP area.

Figure 1-1
View looking southwest toward El Dorado Hills



Figure 1-2
View of disturbed grasslands, oak woodlands, and off-site homes to the northwest.



Figure 1-3
View of hills looking west.



Figure 1-4
View north from County Club Drive.



3. Comparative Impact Discussion

The 1992 BLRSA Final PEIR and the 1995 Addendum addressed aesthetic impacts. As noted in the 1995 Addendum, "...a consequence of development of the study area will be a complete change of character from the existing rural setting to that of an urban residential community, not unlike Cameron Park or El Dorado Hills. Contributing to this change will be removal of native trees and vegetation, the introduction of domestic lawns and landscape species, grading and 'stair stepping' of the hillside to create level home sites, and the addition of roofs, pavement, metal, glass, painted surfaces, etc. to the visual environment. In most cases, the large native oak trees on the ridge will still define the horizon line in that direction, but depending on the vantage point, roofs will infringe upon the otherwise natural horizon line. At night, the visual environment will be dominated by artificial lighting from homes."¹ This impact was determined to be significant and unavoidable, and mitigation measures were implemented, as described below.

The El Dorado Hills Specific Plan (EDHSP) anticipated development in the areas that would be traversed by off-site improvements that would be called for in the proposed project. The off-site improvements would take place in the areas designated as Valley Floor Neighborhoods, Villages G and C, in the EDHSP. The EDHSP EIR also addressed aesthetic impacts, including impacts on views in and around Carson Creek. The EDHSP EIR noted that implementation of the EDHSP would impact Carson Creek, but establishment of a 100-foot wide undeveloped buffer alongside Carson Creek would serve to mitigate impacts to a less-than-significant level.

The proposed changes to conditions of approval make minor changes in the alignment, size, and timing of infrastructure improvements that would occur within the planned urban area of the BLHSP, and minor changes to alignments of features that would occur on adjacent properties in Cameron Park or in the EDHSP area. As described in the 1992 BLRSA Final PEIR and the 1995 Addendum, numerous policies and mitigation measures have been adopted with the intent to reduce the magnitude of the significant and unavoidable impact identified in the 1992 BLRSA Final PEIR. These policies and measures would continue to be implemented with the proposed project, and the changes proposed as part of the project would not require new or different mitigation.

Issues Not Addressed in Prior CEQA Documents

Potential impacts on scenic highways were not explicitly addressed in prior environmental documentation. Based on a review of the County's scenic highways diagram,² while Highway 50 is considered a scenic highway east and west of the Bass Lake Road Interchange, the interchange and the highway as it passes through the interchange are not considered

¹ County of El Dorado, *Addendum to the Bass Lake Road Study Area Program EIR* (SCH#90020375), certified November 7, 1995, p.65.

² County of El Dorado, *El Dorado County General Plan Draft Environmental Impact Report, Volume 1*, (SCH#2001082030), Exhibit 5.3-1, Scenic Viewpoints and Highways within El Dorado County, p. 5.3-7.

scenic. Therefore, physical alterations that would occur in and around the interchange as part of the proposed project would not have any potential to have a significant environmental impact. These projects are outside of the Highway 50 viewshed.

4. Conclusions

As described in the text and table above, changes introduced by the proposed project and/or new circumstances relevant to the project would not, as compared to the 1992 BLRSA Final PEIR, 1995 Addendum, and/or 2005 MNDs for Hawk View, Bell Ranch, and Bell Woods projects, result in a new significant impact or significant impacts that are substantially more severe than significant impacts previously disclosed. In addition, there is no new information of substantial importance showing that the project would have one or more significant effects not previously discussed or that any previously examined significant effects would be substantially more severe than significant effects previously disclosed. Further, there is no new information of substantial importance showing (i) that mitigation measures or alternatives previously found not to be feasible would in fact be feasible, and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative or (ii) that mitigation measures or alternatives considerably different from those analyzed in the previous CEQA documents would substantially reduce one or more significant effects, but the proponents decline to adopt the mitigation measure or alternative.

Specific Plan and Other Standard Mitigation Measures

Specific Plan Section 3.3, Residential Development Standards

5. Villages shall be separated from Bass Lake Road, Country Club Drive, and primary local road pavement by landscape easements and unpaved right-of-way areas or berms which conform to Section 8.6, Design Guidelines, and the El Dorado Hills Community Services District (EDHSD) Landscaping Guidelines.
6. Villages shall be zoned to include the PD Zone District overlay prior to development. Clustering of residential units shall be encouraged in order to maximize land use while conserving natural site features and resources and creation of open space.

Specific Plan Section 4.13, General Circulation and Trail Standards

15. Plan area streets shall be curvilinear in both vertical and horizontal design in order to conform to topography and avoid tree removal.
20. Where appropriate, such as on slopes over 15 percent, Bass Lake Road, primary local roads, and secondary roads should be designed with grade separations as a means of reducing cut and fill which would otherwise be necessary (see Figure 4-6). (See Section 6.0, Grading Plan).
22. Roads shall not be permitted within, and allowed to cross, open space areas that define village boundaries, except as shown on Specific Plan Land Use Diagram, or if it can be shown that such a crossing is necessary for circulation or to protect the public health and safety.

Specific Plan Section 5.1, General Public Services and Facility Standards

1. Public facilities, such as fire stations and utility substations, shall be located, designed and oriented in a manner which is harmonious with adjoining residential development and reduce impacts associated with noise, nighttime illumination, and odors. (See Section 8.9 of the Design Guidelines).
2. With the exception of existing high voltage transmission lines, all new electrical and communication facilities shall be installed underground; however, pad mounted transformers and electrical substations are permitted. This policy shall not apply to 5-acre parcels or larger.
3. To minimize visual impacts, the architectural and site design for all public facilities, including fire station, pump stations, and electrical substations, shall conform with Section 8.9 of the Design Guidelines.

Specific Plan Section 5.4.1, General Stormwater Facility Policies

2. Storm drainage detention basins may be located in open space areas and parks and may be accessible to the public in order to serve a dual impact mitigation/recreation function. Detention basins shall be designed to ensure public safety, to be visually unobtrusive, and to provide wildlife habitat. Landscaping around the perimeter of the basin shall be encouraged. (See Section 8.3 of the Design Guidelines).

Specific Plan Section 5.6.2, Recreation Facility Standards

9. Important natural features within park sites, such as oak trees, and stream and drainage corridors, should be preserved and incorporated into the park development.

Specific Plan Section 5.7.1, Open Space Policies

2. Except for the limited installation of underground public utilities, water and sewer lines, and construction of maintenance roads and pedestrian paths, grading and construction shall be prohibited within open space areas. Mitigation tree planting is encouraged, as defined in this Plan. Where utilities are installed, grading and vegetation removal shall be the minimum necessary, and shall conform to all policies set forth herein.

Specific Plan Section 6.1, Grading Standards

Many of the grading policies set forth in Section 6.1 affect visual resources of the Plan area.

6. Grading and landform alteration of prominent ridgelines whose silhouettes are visible from U.S. Highway 50 and Bass Lake Road is prohibited regardless of slope. This shall be gauged through the use of visual simulation of proposals. (See Section 3.3.1).

Specific Plan Section 7.4.1, Wetlands and Intermittent Streams and Drainages Protection Standards

2. Intermittent streams and drainages, as identified in Figure 1-5, Wetlands and Surface Hydrology Map, shall be protected by a 25-foot wide conservation easement measured from each side of the channel bank or from the outside edge of the riparian zone, whichever is greater. This non-building area shall be shown on all subdivision maps and building site plans and shall be recorded with every parcel so effected. All grading and construction other than fences, as defined herein, shall be prohibited. (See Figure 7-2, Intermittent Stream Setback Concept).
7. Ponds or detention basins shall be protected by a conservation easement, excluding those located within parks, which extends 100 feet from the high water line.
10. Intermittent stream and drainage channels, as identified in Figure 1-5, shall be left in a natural condition, except where minor grading and vegetation cutting is required to maintain drainage flows within the channel to minimize erosion. Energy dissipators shall utilize natural materials which do not adversely affect water quality.

Specific Plan Section 7.5, Woodland Habitat and Oak Trees

All policies relative to oak tree preservation/replacement affect visual resources in the Plan area.

2. Oak tree groves and oak woodland habitat shall be conserved within the Plan area principally by avoidance. PD Combining Zone District shall be employed as a means of clustering residential density away from oak tree groves. Groves may be included within residential lots only if homes are constructed within a designated building envelope that voids the grove(s), or the grove is contained within a conservation setback as previously described. Any tree in a grove impacted by construction activity shall be subject to a 1:1 compensation ratio, with a minimum 5-gallon tree of like species.

Specific Plan Section 8.0, Design Guidelines

The following guidelines apply to all public land within the Plan area and are intended to promote a sense of community through common design themes and enhance the quality of life of Plan area residents.

Specific Plan Section 8.3, Water Storage Tanks, Electrical Substations, and Sewage Lift Stations

1. Water storage tanks, electrical substations, and sewage lift stations shall be screened or landscaped from view through the use of fast-growing evergreen trees interplanted with native evergreens. Where possible, earthen berms shall be used in combination with planting to achieve the desired screening more quickly.

Specific Plan Section 8.5.1, Fuel Modification Zones

Fuel modification zones represent a physical separation between non-irrigated natural open spaces and the built environment created by the installation of plant materials which are fire resistant. The purpose of such zones is to reduce the hazard of wildfires and to allow for a naturalized, visual transition between developed areas and natural open space.

Section 8.6.1, Implementation

4. Where possible, earthen berms shall be employed in lieu of fences and walls in order to provide both noise attenuation and privacy. Where berms are used, particular attention shall be given to ensuring that storm drainage is not impaired.

Section 9.4.3, Implementation

5. All land acquisitions and easements shall adhere to the descriptions contained in Section 9.1.7.

Prior CEQA Mitigation Measures

1992 BLRSA Final PEIR

E01 As discussed in the Hydrology section of this report, the El Dorado Hills-Salmon Falls Area Plan specifies non-building setbacks of 100 feet from perennial streams; 50 feet from intermittent streams; 150 feet from lakes; and 100 feet from ponds. These resources are critical elements of the visual and aesthetic environment.

Mitigation Measure E01: Individual projects within the study area will adhere to the mitigation identified in the El Dorado Hills Salmon Falls Area Plan which specifies “*Non-building setbacks of 100 feet from perennial streams; 50 feet from intermittent streams; 150 feet from lakes; and 100 feet from ponds, should be observed as recommended by the County Health Department.*” Drainage will be conveyed in vegetated corridors, and installation of storm drains will be restricted to minor swales where such systems are required to convey runoff to the protected corridors. Major intermittent streams will be maintained as vegetated corridors. Except for limited erosion control measures (bank stabilization, planting of native compatible grasses to enhance cover, etc.), public access trails, and maintenance roads, no development will be permitted within these corridors. All culverts will be designed to allow the passage of aquatic organisms.

I01 As described in the Land Use section of this report, the El Dorado Hills – Salmon Falls Area Plan requires that developments with the potential to remove large numbers of trees be reviewed by qualified person who can make recommendations for tree preservation. This mitigation will be enhanced by adoption of the proposed County tree ordinance. Regarding oaks, the ordinance defines protected trees and heritage trees and specifies conditions under which such trees can be removed. Protection of oaks is essential to maintaining visual/aesthetic values.

Mitigation Measure I01: Mitigation for potential land use conflicts between existing agricultural operations and urban development is provided by the El Dorado County General Plan policies which require maintaining a minimum of 10 acres for any parcel created adjacent to agriculturally zoned lands and that 200-foot setback be maintained for non-agricultural use including dwelling units.

1995 Addendum

No mitigation measures.

2005 Bell Ranch MND

Cited BLHSP standards identified above, as well as Mitigation Measures E01 (above) and F01.

F01 Each project proposed on a property which supports native oak trees will retain an arborist to prepare a tree survey. The survey will provide an inventory of trees on the site, recommendations for the removal or preservation of individual trees, and a reforestation plan. Prior to construction, fencing will be installed outside of the dripline of trees which are to be protected.

2005 Bell Woods MND

Cited BLHSP standards identified above, as well as Mitigation Measures E01 and F01.

2005 Hawk View MND

Cited BLHSP standards identified above, as well as Mitigation Measures E01 and F01.

2016 Mitigation Measures

None.

Environmental Issue Area	Where Impact Was Analyzed in Prior Environmental Documents.	Do Proposed Changes Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information of Substantial Importance?	Prior Environmental Documents Mitigations Implemented or Address Impacts?
2. Agriculture and Forestry Resources. In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:					
a. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	PEIR, p. D-8;	No	No	No	Yes
b. Conflict with existing zoning for agricultural use, or a Williamson Act contract?	PEIR, p.I-4 to I-5, I-7 to I-8; Williamson Act Contracts Not Addressed	No	No	No	Yes
c. Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	Not Addressed	No	No	No	Not Applicable
d. Result in the loss of forest land or conversion of forest land to non-forest use?	Not Addressed	No	No	No	Not Applicable
e. Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?	PEIR, p. D-8, p. I-4 to I-5, I-7 to I-8; Forest Lands Not Addressed	No	No	No	Yes

Discussion:

1. Changes to Project Related to Agriculture and Forestry Resources

The 1992 BLRSA Final PEIR anticipated that the undeveloped portions of the project site would be converted from seasonal grazing land to urbanized residential uses. Today, the same conditions on the project site exist largely as they did in 1992, with the exception of the development of the Hollow Oak subdivision, the construction of the El Dorado Hills Fire Station No. 86, and the preliminary grading of the Hawk View subdivision. There are no forestry resources on the project site. Under the proposed project, the development of the Specific Plan area would be the same as proposed, with minor changes in the alignment of several roads, sewer lines, and other infrastructure. These changes in alignment are still within the original footprint of the BLHSP.

2. Changes in Circumstances

Specific Changes in Circumstances Applicable to Agriculture and Forestry Resources

The 1992 BLRSA Final PEIR stated that no prime farmland was located on the project site. On the El Dorado County Important Farmland 2012 map (published December 2014), the eastern and western portions of the plan area were identified as grazing land. None of the land within the project site is identified as Prime Farmland, Farmland of Statewide Importance, or Unique Farmland.³

³ California Department of Conservation. El Dorado County Important Farmland 2012. 1:100,000. Division of Land Resource Protection, Farmland Mapping and Monitoring Program. Sacramento, CA. December 2014.

The 1992 BLRSA Final PEIR and 1995 Addendum did not describe the presence of Williamson Act contracts within the study area. A check of the 2013 Department of Conservation maps of Williamson Act contracts in El Dorado County for FY2013/14 indicate that there are no Williamson Act contracts within the BLHSP area.⁴

Existing onsite agricultural uses could include flies and odors associated with the keeping of livestock, noise from agricultural machinery at unusual hours, the application of agricultural chemicals in close proximity to homes, loose domestic pets disturbing livestock, and an increased need for security and fencing for agricultural operations. The 1992 BLRSA Final PEIR stated that the potential for such conflicts would be minimized in the study area because: 1) many of the current parcels are being integrated into the new developments; 2) there are no substantial areas of traditional crop-related agriculture adjacent to the study site; and 3) the two areas on the site that could be affected (one at the northwest corner and one at the southwest corner) are both within the one unit per acre portion of the site.

The BLHSP area did not contain any forestry resources at the time of the 1992 BLRSA Final PEIR. Moreover, the project site does not currently contain any forestry resources, as the oak woodland within the area does not meet the definition of forest or timberland under state law.

3. Comparative Impact Discussions

The 1992 BLRSA Final PEIR addressed agricultural effects in Section D, Geology, Seismicity and Soils, page D-8 and Table D-1. The PEIR noted that there were no prime soils within the plan area (or project site), defined as soils that were classified as Class I or II soils. Soils in the area were reported to all be Class III, IV, VI, and VII. Further examination of the El Dorado County Important Farmland Map reiterates the conclusion that no portions of the BLHSP area are identified as Prime Farmland, Farmland of Statewide Importance, or Unique Farmland.

Issues Not Addressed in Prior CEQA Documents

The 1992 BLRSA Final PEIR and the 1995 Addendum did not address effects of the proposed land use changes and the BLHSP on properties subject to Williamson Act contracts. Based on a review of the Department of Conservation Williamson Act maps, the proposed project would have no effect on Williamson Act contracts.

The 1992 BLRSA Final PEIR addressed impacts to agricultural resources in Section D, Geology, Seismicity, and Soils. The 1992 BLRSA Final PEIR and the 1995 Addendum did not address forestry resources, as no forest resources were present on the site and the issue of forestry resources was not part of the CEQA checklist at that time (see Environmental Issue Areas 2(c), 2(d), and 2(e)). According to the 1992 BLRSA Final PEIR, the project site was characterized primarily as annual grassland, with some oak woodland and wetlands.

Public Resources Code §12220(g) defines forest land as “land that can support 10-percent native tree cover of any species, including hardwoods, under natural conditions, and that allows for management of one or more forest resources, including timber, aesthetics, fish and wildlife, biodiversity, water quality, recreation, and other public benefits.” Public Resources Code §4526 defines timberland as “land...which is available for, and capable of, growing a crop of trees of a commercial species used to produce lumber and other forest products, including Christmas trees.” None of the land within the project site is zoned for forest or timberland use, nor is it used for such purposes. While the oak woodland areas within and near the project site include many tree species, this area does not meet the definition of forest land as set forth in Public Resources Code §12220(g) or timberland as defined by Public Resources Code §4526.

4. Conclusions

As described in the text and table above, changes introduced by the proposed project and/or new circumstances relevant to the project would not, as compared to the 1992 BLRSA Final PEIR, 1995 Addendum, and/or 2005 MNDs for Hawk View, Bell Ranch, and Bell Woods projects, result in a new significant impact or significant impacts that are substantially more severe than significant impacts previously disclosed. In addition, there is no new information of

⁴ California Department of Conservation. El Dorado County Williamson Act Contracts FY2013/14. 1:100,000. Division of Land Resource Protection, Conservation Program Support. Sacramento, CA. 2013.

substantial importance showing that the project would have one or more significant effects not previously discussed or that any previously examined significant effects would be substantially more severe than significant effects previously disclosed. Further, there is no new information of substantial importance showing (i) that mitigation measures or alternatives previously found not to be feasible would in fact be feasible, and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative or (ii) that mitigation measures or alternatives considerably different from those analyzed in the previous CEQA documents would substantially reduce one or more significant effects, but the proponents decline to adopt the mitigation measure or alternative.

Specific Plan and Standard Mitigation Measures

Specific Plan Section 7.3, Agricultural Land Protection Standards

1. Residential lands adjacent to agricultural lands shall be fenced in accordance with County Ordinance 4111 and Resolution 98A-90.
2. New residential lots within the Plan area located adjacent to agriculturally zoned land outside of the Plan area shall maintain 10-acre minimum lot size. Such parcels shall not exceed a 3:1 length to width ratio.
3. No use or activity shall be permitted on property adjoining agriculturally zoned land which conflicts with the agricultural uses.
4. New lots within the Plan area adjacent to agriculturally zoned lands located outside of the Plan area shall maintain a 200-foot setback for incompatible land uses (schools, dwelling, etc.).

Prior CEQA Mitigation Measures

1992 BLRSA Final PEIR

101 Mitigation for potential land use conflicts between existing agricultural operations and urban development is provided by the El Dorado County General Plan policies which require maintaining a minimum of 10 acres for any parcel created adjacent to agriculturally zoned lands and that 200-foot setback be maintained for non-agricultural use including dwelling units.

1995 Addendum

No new mitigation measures.

2005 Bell Ranch MND

No new mitigation measures.

2005 Bell Woods MND

No new mitigation measures.

2005 Hawk View MND

No new mitigation measures.

2016 Mitigation Measures

None.

Environmental Issue Area	Where Impact Was Analyzed in Prior Environmental Documents.	Do Proposed Changes Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information of Substantial Importance?	Prior Environmental Documents Mitigations Implemented or Address Impacts?
3. Air Quality. Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:					
a. Conflict with or obstruct implementation of the applicable air quality plan?	PEIR, pp. G-1 to G-2, G-17 to G-18	No	No	No	Yes
b. Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	PEIR, pp. G-10 to G-16	No	No	No	Yes
c. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	PEIR, p. G-18	No	No	No	Yes
d. Expose sensitive receptors to substantial pollutant concentrations?	Bell Ranch MND, p.3-16; Bell Woods MND, p. 3-15; Hawk View MND, p. 3-15	No	No	No	No
e. Create objectionable odors affecting a substantial number of people?	PEIR, p. I-8	No	No	No	Yes

Discussion:

1. Changes to Project Related to Air Quality

The 1992 BLRSA Final PEIR anticipated that the undeveloped portions of the project site would be converted from seasonal grazing land to urbanized residential uses. Today, the same conditions on the project site exist largely as they did in 1992, with the exception of the development of the Hollow Oak subdivision, realignment and reconstruction of Bass Lake Road from Hollow Oak to Serrano Parkway; construction of two four-million gallon water tanks by EID at the north end of the Bell Ranch subdivision; installation of several water transmission lines; construction of El Dorado Hills Fire Station No. 86; construction of the Holy Trinity Catholic Church and School; acquisition of the proposed school site by the Buckeye School District; street and pad grading of the Hawk View subdivision has been started; clearing and grubbing of the Bell Woods subdivision in anticipation of grading; and grading of Morrison Road as part of underground utility line installation. Under the proposed project, the development of the BLHSP area would be the same as proposed, with minor changes in the alignment of several roads, sewer lines, and other infrastructure.

2. Changes in Circumstances

Specific Changes in Circumstances Applicable to Air Quality

The following list summarizes the air quality regulatory changes that have occurred in El Dorado County since 1992.

El Dorado County Air Quality Management District (EDCAQMD) 2002 CEQA Guidelines

In 1992, EDCAQMD did not have CEQA guidelines or thresholds for evaluating project significance. In 2002, EDCAQMD (then known as the El Dorado County Air Pollution Control District) adopted its Guide to Air Quality Assessment (2002 Guide) for determining significance of air quality impacts under CEQA. The 2002 Guide is still in effect.

Construction Emissions

In 1992, construction emissions within CEQA documents were typically evaluated qualitatively or not evaluated at all. EDCAQMD's 2002 Guide requires that construction emissions be estimated for projects and compared against significance thresholds. This requirement is due in part to increasing concerns that serpentine soils common within El Dorado County could become airborne during construction, exposing individuals to asbestos. EDCAQMD has established specific mitigation for construction activities occurring on serpentine soils.

Toxic Air Contaminants (TACs)

In 1992, EDCAQMD did not have any CEQA-related requirements to evaluate TACs or their associated health risks. In its 2002 Guide, EDCAQMD requires that health risks be evaluated, but only in limited situations. Asbestos is classified as a TAC and is of particular concern in El Dorado County because it occurs naturally in surface deposits of several types of ultramafic minerals. The particulate component of diesel exhaust (PM₁₀) is also classified as a TAC, and screening levels are based on diesel fuel use.

Ozone

Since 1992, federal and state ozone standards have been tightened substantially. However, the El Dorado County portion of the Mountain Counties Air Basin remains an ozone nonattainment area, which is unchanged from 1992. ROG and NO_x thresholds are included in the EDCAQMD's 2002 Guide, and projects are typically compared against those thresholds.

Particulate Matter

In 1992, both state and federal PM₁₀ ambient standards were in effect. El Dorado County was classified as non-attainment for the federal PM₁₀ standards but has since been reclassified as a federal PM₁₀ attainment/maintenance area. El Dorado County has been classified as non-attainment for the state PM₁₀ standards since 1992.

In 1992, no ambient standards existed for PM_{2.5}. Since 1992, both federal and state ambient PM_{2.5} standards have been enacted. Until April 15, 2015, El Dorado County was classified as nonattainment for the federal PM_{2.5} standards (40 CFR Part 81). All of El Dorado County is now in attainment of the federal PM_{2.5} standards. Since the California PM_{2.5} ambient standards have been in effect, El Dorado County has been classified as attainment for those standards. EDCAQMD's 2002 Guide thresholds do not include emission thresholds for PM₁₀ or PM_{2.5}.

Carbon Monoxide

In 1992, carbon monoxide (CO) was a major air quality issue in metropolitan areas of California. However, CO is no longer a problem in California because in 1996 the California Air Resources Board (CARB) required that gasoline be reformulated. Prior to 2002, CO modeling was not required by EDCAQMD although CO modeling was typically conducted for large projects. EDCAQMD's 2002 Guide does not require CO dispersion modeling for land development projects unless a project's ROG and NO_x emissions exceed the significance thresholds.

Regulatory Setting

On November 30, 2015, the California Supreme Court decided *Center for Biological Diversity v. California Department of Fish and Wildlife* (Newhall Ranch). Although three issues were taken up by the Court for decision, of importance here is the question: Does the EIR validly determine that the project would not significantly impact the environment by its discharge of GHGs? Air quality emissions thresholds established by the EDCAQMD are in place to evaluate the impacts of air quality emissions on the environment. As discussed below, the 2005 MNDs addressed air emissions and determined mitigation measure implementation as appropriate to reduce impacts to a less-than-significant level. The discussion below describes how the proposed COA Amendments' impacts compare to impacts described in previously prepared environmental documents.

3. Comparative Impact Discussions

Construction Emissions

The 1992 BLRSA Final PEIR and the 1995 Addendum disclosed that construction activity would produce short-term air quality impacts. Those documents reflected that the greatest short-term air quality impact associated with development in the project area would be dust generated during grading and land development activities. These documents assumed a rate of development that, in hindsight, was very conservative. These documents assumed that development of the study area would take 10 years, and that half of the development time would involve grading and/or activities that require disturbance of the soil. Based on that assumption, there would be an average of 5 acres per month being disturbed. Assuming the EPA-referenced dust generation rate of 1.2 tons/acre/month, development was projected to generate approximately 6 tons of dust per month.⁵ The BLRSA Final PEIR identified dust generated construction activity as a potentially significant impact that could be mitigated to less than significant through mitigation measures G01 and G02 included in the 1992 BLRSA Final PEIR.

The MNDs for the Hawk View, Bell Woods and Bell Ranch subdivisions evaluated construction-related air quality impacts using EDCAQMD's 2002 Guide. Construction activities associated with the subdivision projects would generate particulate matter from earthmoving activities. NO_x and ROG emissions would be generated from diesel fumes associated with the operation of construction equipment. The 2005 MNDs concluded that construction of the subdivisions would not combine to exceed thresholds for ROG, NO_x, and CO. Because PM₁₀ construction mitigation measures were not adopted as part of the 1992 BLRSA Final PEIR or 1995 Addendum, the 2005 MNDs determined that construction emissions could have a potentially significant temporary air quality impact related to construction-generated dust. To reduce construction dust emissions, the MNDs recommended implementation of Mitigation Measure 3.2.1 (Bell Ranch, Bell Woods, and Hawk View), which were determined to reduce impacts to less than significant.

The proposed COA Amendments would not exacerbate these effects. All of the features that would be affected by the proposed amendments would have otherwise been constructed, but in different locations or with different timing. In light of the extremely conservative assumptions regarding the pace of development that were made in the 1992 BLRSA Final PEIR and also reflected in the 1995 Addendum, the proposed COA Amendments would not materially increase the levels of construction emissions disclosed in prior CEQA documents. Because the activities associated with the COA Amendments would involve land disturbance and construction activities, the mitigation measures identified in the 1992 BLRSA Final PEIR, 1995 Addendum, and 2005 MNDs would apply to the proposed COA Amendment activities.

Operational Mobile and Stationary Source Emissions

The 1992 BLRSA Final PEIR and 1995 Addendum disclosed that project-generated traffic would contribute to local and regional air contaminant levels. Predicted emissions from project-generated traffic include 120 tons of carbon monoxide, 1,438 tons of hydrocarbons, and 148 tons of nitrogen oxides per year.⁶ The volume of ozone that will form as a consequence of project traffic emissions is assumed to be comparable to the predicted production of ozone precursors. The 1992 BLRSA Final PEIR disclosed that project-generated emissions would exacerbate regional efforts to reduce carbon monoxide, particulate, and ozone levels, compounding the non-attainment status for ozone. This impact would be reduced to less than significant through the adherence to mitigation measures G03 and G04.

The 1992 BLRSA Final PEIR disclosed that use of gas furnaces and wood-burning devices would produce air contaminants, contributing to the degradation of local air quality. Operation of gas furnaces was predicted to generate 127 pounds of particulates, 31 pounds of sulfur dioxide, 5,077 pounds of nitrogen dioxide, 1,015 pounds of carbon dioxide, 269 pounds of non-methane hydrocarbons, and 137 pounds of methane hydrocarbons.⁷ Wood-burning devices were predicted to produce less than 1.0 ton of polycyclic aromatic hydrocarbons, 846 tons of carbon monoxide, and

⁵ County of El Dorado, *Addendum to the Bass Lake Road Study Area Program EIR* (SCH#90020375), certified November 7, 1995, p.33.

⁶ County of El Dorado, *Addendum to the Bass Lake Road Study Area Program EIR* (SCH#90020375), certified November 7, 1995, p.33.

⁷ County of El Dorado, *Addendum to the Bass Lake Road Study Area Program EIR* (SCH#90020375), certified November 7, 1995, p.33.

71 tons of particulates per year.⁸ The 1992 BLRSA Final PEIR concluded that mitigation for wood stove emissions would be provided through regulation of design and sale of wood stoves.

In the 2005 MNDs, emissions from vehicle trips traveling to and from the proposed projects, as well as area source emissions from occupation of the proposed residential units, were modeled using URBEMIS 2002 for both summertime and wintertime emissions. URBEMIS is software used to calculate air emissions from land use sources. Vehicle trips were based on trip generation rates associated with the projects, and area source emissions were based on assumptions regarding natural gas combustion used for space and water heating, as well as landscape equipment emissions. It was assumed that wood-burning devices would not be operated during summer. Summertime emissions for the three subdivisions were determined to be below EDCAQMD's significance threshold of 82 lbs/day for ROG and NOx.⁹⁻¹⁰⁻¹¹ To model wintertime emissions, it was assumed that 35 percent of the units would have wood stoves and 10 percent of the units would have fireplaces. During winter months, operation of the projects would generate emissions that would exceed significance thresholds. Implementation of Mitigation Measure 3.2.3 (Bell Ranch and Hawk View) and Mitigation Measure 3.2.4 (Bell Woods), described below, would reduce impacts to less than significant.

The proposed COA Amendments would not affect development intensity or density, including the number of units or new residents in the BLHSP area. As such, the proposed COA Amendments would not result in changes to operational emissions of criteria pollutants (since the development intensity and density would remain the same), and the proposed COA Amendments would not alter or otherwise affect the nature of the urban development that would occur within the BLHSP area, either directly or indirectly. As such, the proposed project would not exacerbate mobile and stationary source criteria air pollutant emissions predicted in prior CEQA documents.

Asbestos Dust

Several areas of El Dorado County contain ultramafic rocks and faults where serpentine rock and asbestos can occur. Any project that is located in an area that includes ultramafic rock, which often contains naturally occurring asbestos, could potentially release asbestos during construction. When this rock is broken or crushed, asbestos may be released and become airborne, causing a potential health hazard. Consequently, any project located in an area of known ultramafic rock is considered potentially significant with respect to the release of asbestos during construction. The potential for construction-related asbestos dust was not addressed in the 1992 BLRSA Final EIR or 1995 Addendum. In January 2000, El Dorado County adopted an ordinance requiring the preparation of an Asbestos Hazard Dust Mitigation Plan for all areas of the county identified as potentially having asbestos-containing minerals.

The 2005 MNDs prepared for the Hawk View and Bell Ranch projects determined that construction activities were not expected to expose construction workers or others in the vicinity to asbestos concentrations because no ultramafic rock has been identified on or in the vicinity of these projects.¹²⁻¹³ The MND prepared for the Bell Woods project stated that an area near the Bell Woods site was identified as potentially having ultramafic rock.¹⁴ Because the Bell Woods site had not yet been fully evaluated for the presence of ultramafic rock, the MND included mitigation measure MM 3.2.2 to reduce potential impacts to less than significant. Based on a review of maps of ultramafic rock formations in the County,

⁸ County of El Dorado, *Addendum to the Bass Lake Road Study Area Program EIR* (SCH#90020375), certified November 7, 1995, p.33.

⁹ County of El Dorado. *Mitigated Negative Declaration – Bell Ranch Project*. SCH#2005022144. Draft, February 2005. P. 3-14.

¹⁰ County of El Dorado. *Draft Mitigated Negative Declaration – Bell Woods Project*. SCH#2005032044. Draft, February 2005. P. 3-14.

¹¹ County of El Dorado. *Initial Study and Mitigated Negative Declaration – Hawk View Project*. SCH#2005012107. Draft, January 2005. P. 3-14.

¹² County of El Dorado. *Mitigated Negative Declaration – Bell Ranch Project*. SCH#2005022144. Draft, February 2005. P. 3-13.

¹³ County of El Dorado. *Initial Study and Mitigated Negative Declaration – Hawk View Project*. SCH#2005012107. Draft, January 2005. P. 3-13.

¹⁴ County of El Dorado. *Draft Mitigated Negative Declaration – Bell Woods Project*. SCH#2005032044. Draft, February 2005. P. 3-12.

the proposed COA Amendments could be in the vicinity of ultramafic rock formations.¹⁵ Thus, Mitigation Measure 3-1 has been added to address the potential for asbestos dust in areas outside of the three subdivisions.

Toxic Air Contaminants

Issues related to toxic air contaminants were not addressed in the 1992 BLRSA Final PEIR or the 1995 Addendum, but were addressed in the 2005 MNDs for Hawk View, Bell Ranch, and Bell Woods subdivisions. Two TACs that may be generated by activities within the BLHSP area are asbestos (discussed above) and PM₁₀ from diesel exhaust. The 2005 MNDs noted that the combination of the three subdivision projects would increase diesel fuel use by up to 34,840 gallons over the construction period.¹⁶⁻¹⁷⁻¹⁸ The 2005 MNDs concluded that this increase in diesel combustion over the construction period would result in the generation of PM₁₀ emissions that exceed EDCAQMD's significance thresholds, but only if toxics best available control technology (T-BACT) is not applied. Thus, the 2005 MNDs included Mitigation Measure 3.2.2 (Bell Ranch and Hawk View) and Mitigation Measure 3.2.3 (Bell Woods) to require the use of T-BACT and concluded that the impact would be reduced to a less-than-significant level. The same mitigation would apply to the proposed COA Amendments, ensuring that they do not substantially increase the construction emissions associated with development in the Specific Plan area. Due to the difference in mitigation measure numbering, new Mitigation Measure 3-2 has been added for the sake of consistency.

The 2005 MNDs noted that the subdivision projects, when fully occupied, would be unlikely to generate heavy duty truck trips of 10 or more per day, which was identified as the threshold for significance related to operational TACs. Because the proposed COA Amendments would not generate any operational diesel emissions, they would not add to any operational TAC emissions impacts within the BLHSP area.

Odors

The perception of odors varies from person to person. Odors are usually associated with land uses such as agricultural facilities (e.g., feedlots), wastewater treatment plants, restaurants, gas stations, or industrial facilities. The 1992 BLRSA Final PEIR addressed the issue of odors in the Land Use section. The 1992 BLRSA Final PEIR noted that introduction of high density residential development into the existing low density rural residential and agricultural setting would increase the potential for land use compatibility conflicts, and this would be especially true during the transition period when higher density residential land use would be juxtaposed with existing and established agricultural land uses. The 1992 BLRSA Final PEIR noted that problems could include flies and odors associated with the keeping of livestock, noise from agricultural machinery at unusual hours, the application of agricultural chemicals in close proximity to homes, loose domestic pets disturbing livestock, and an increased need for security and fencing for agricultural operations. The 1992 BLRSA Final PEIR stated that the potential for such conflicts would be minimized in the study area because: 1) many of the current parcels are being integrated into the new developments; 2) there are no substantial areas of traditional crop-related agriculture adjacent to the study site; and 3) the two areas on the site that could be affected (one at the northwest corner and one at the southwest corner) are both within the one unit per acre portion of the site. The property at the southwest corner also has Exclusive Agriculture (EA) zoning. This impact was determined to be mitigated to a less than significant level through implementation of mitigation measure I01, presented below.

The 2005 MNDs noted that the proposed subdivisions would consist of residential uses, and the generation of objectionable odors would not be expected to occur as part of the construction or operation of residential uses. The proposed COA Amendments would involve roadway and infrastructure installation, and none of these activities would be expected to generate odors during construction or operation.

¹⁵ County of El Dorado. Asbestos Review Areas, Western Slope, County of El Dorado, State of California. July 21, 2005.

¹⁶ County of El Dorado. *Mitigated Negative Declaration – Bell Ranch Project*. SCH#2005022144. Draft, February 2005. P. 3-13.

¹⁷ County of El Dorado. *Draft Mitigated Negative Declaration – Bell Woods Project*. SCH#2005032044. Draft, February 2005. P. 3-13.

¹⁸ County of El Dorado. *Initial Study and Mitigated Negative Declaration – Hawk View Project*. SCH#2005012107. Draft, January 2005. P. 3-13.

4. Conclusions

As described in the text and table above, changes introduced by the proposed project and/or new circumstances relevant to the project would not, as compared to the 1992 BLRSA Final PEIR, 1995 Addendum, and/or 2005 MNDs for Hawk View, Bell Ranch, and Bell Woods projects, result in a new significant impact or significant impacts that are substantially more severe than significant impacts previously disclosed. In addition, there is no new information of substantial importance showing that the project would have one or more significant effects not previously discussed or that any previously examined significant effects would be substantially more severe than significant effects previously disclosed. Further, there is no new information of substantial importance showing (i) that mitigation measures or alternatives previously found not to be feasible would in fact be feasible, and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative or (ii) that mitigation measures or alternatives considerably different from those analyzed in the previous CEQA documents would substantially reduce one or more significant effects, but the proponents decline to adopt the mitigation measure or alternative.

Specific Plan and Standard Mitigation Measures

Through a reduction in the maximum number of residences permitted in the Plan area, the Specific Plan reduced project related vehicle trips from the volume analyzed in the 1992 BLRSA Final PEIR. The Specific Plan will allow for 1,458 units as opposed to the former project considered in the 1992 BLRSA Final PEIR which allowed 2,847 units, a reduction of 1,389 units.

Grading limitations set forth in Specific Plan policies will also reduce air quality impacts associated with construction dust. With regard to long-term air quality impacts associated with vehicle emissions, the Specific Plan includes a Circulation Plan that describes the locations and sizes of all major streets (arterial and local collectors), describes the location and extent of pedestrian and bicyclist facilities, describes the location of a park-and-ride lot, and provides for bus stops. The Plan also describes funding mechanisms for all circulation improvements.

The Specific Plan contains the following specific standards/policies which provide further mitigation of identified potential impacts.

Specific Plan Section 4.13, General Circulation and Trail Standards

3. Pathways shall be constructed at locations convenient to residential lots to facilitate pedestrian travel to open space trails, secondary local roads, primary local roads, and Bass Lake Road. Such pedestrian and bike lane connections shall be located and protected to restrict access to adjoining private property.
5. The Class 1 bicycle/pedestrian path along Bass Lake Road shall be separated from the street pavement to the maximum extent possible while maintaining the privacy of adjoining private property.
11. Parks and open space shown on the Specific Plan Land Use Diagram and Parks and Open Space Plan shall be linked by a pedestrian and bicycle circulation system.
13. In accordance with Caltrans requirements, a park-and-ride lot capable of accommodating 100 vehicles, expandable to 200 (approximately 2.0 acres) shall be provided in the approximate location shown on Figure 3-1, Specific Plan Land Use Diagram, and Figure 4-1, Circulation Plan, beyond the ultimate right-of-way of the Bass Lake Road/Highway 50 interchange. (See Section 8.0 of the Design Guidelines).

Specific Plan Section 6.1, Grading Standards

1. Regardless of the specific grading limitations set forth herein, development should conform to natural slopes to the maximum extent possible, rather than changing topography to fit development.

2. Creation of large graded pads which extend beyond the boundaries of one lot (i.e., mass-pad grading) shall be prohibited, except as noted herein. Some deviation may be allowed for clustered development, affordable housing, and avoidance of other resources.
7. In order to minimize erosion and siltation, grading shall only be allowed on approved projects that are subject to immediate development. Issuance of a grading permit shall not occur prior to approval of a development application.
10. All grading shall conform to the County Grading Ordinance, Subdivision Design and Improvement Manual (Hillside Regulations), and the Hillside and Ridgeline Development Guidelines for Bass Lake Hills Specific Plan (Appendix A).

Specific Plan Section 5.1, General Public Services and Facility Standards

1. Public facilities, such as fire stations and utility substations, shall be located, designed and oriented in a manner which is harmonious with adjoining residential development and reduce impacts associated with noise, nighttime illumination, and odors. (See Section 8.9 of the Design Guidelines).

Prior CEQA Mitigation Measures

1992 BLRSA Final PEIR

G01 Sprinkling of graded or similarly exposed areas will be performed at least twice a day during construction. EPA estimates indicate that this action can reduce dust emissions by up to 50% (EPA-450/3-74-03611; 1974).

G02 Consistent with the County Ordinance 3983, grading will not be permitted during periods of high winds.

G03 The most recent amendment of the California Clean Air Act stipulates that each APCD designated as a nonattainment area is required to prepare and submit a plan for attaining and maintaining the State Ambient Air Quality standards. The El Dorado County APCD is currently preparing the required plan which is due to the ARB no later than June 30, 1991. The plan will identify measures required to facilitate attainment of the ambient air quality standards. Individual projects within the Bass Lake study area will comply with the requirements of the attainment plan.

G04 Individual projects will provide turn out lane(s), bus stop shelters, or other infrastructure necessary to facilitate extension of transit services to the study area. The location, number, and design of these facilities will be established based on consultation with RT and the El Dorado County Department of Public Works. The required facilities will be identified on Tentative Maps and identified as conditions of approval of the various projects.

I01 Mitigation for potential land use conflicts between existing agricultural operations and urban development is provided by the El Dorado Hills-Salmon Falls Area Plan which designates the most likely affected areas as (G) Medium Density Residential with a maximum density of one unit per acre and the concurrent zoning designation of (AE) – Exclusive Agriculture for the southwest portion of the site.

The change in land use from low density rural residential to high density urban residential will also be mitigated by the provisions of the El Dorado Hills-Salmon Falls Area Plan which requires (page 61, M.M. No. 4) "Non-building setbacks of 100 feet from perennial streams; 50 feet from intermittent streams; 150 feet from lakes; and 100 feet from ponds." M.M. No. 2 (page 63) "Riparian areas should be maintained in a natural state. Where alteration is proposed, the Department of Fish and Game will be notified." Within the study area, the (G) Medium Density Residential Area Plan land use designation is applied to the riparian area of Carson Creek along the western edge of the site. This classification requires a minimum of one dwelling unit per acre in recognition of the need to leave the riparian corridor relatively undisturbed.

M.M. No. 4 (page 63) States "Developments having the potential of removing large numbers of trees should be reviewed by qualified individuals in the field of forestry to make recommendations on which trees could be removed in order to maintain a healthy residual stand." This mitigation will be enhanced upon adoption of the proposed

County tree ordinance. This proposed ordinance defines a "protected tree" as any oak with a trunk at least eight inches in diameter, and a "heritage tree" as any oak at least 24 inches in diameter, both measured at four and one half feet from the ground. Removal of such trees will be subject to the provisions of the ordinance.

1995 Addendum

I01 Mitigation for potential land use conflicts between existing agricultural operations and urban development is provided by the El Dorado County General Plan policies which require maintaining a minimum of 10 acres for any parcel created adjacent to agriculturally zoned lands and that 200-foot setback be maintained for non-agricultural use including dwelling units.

2005 Bell Ranch MND

MM 3.2.1: The applicant shall ensure that its construction contracts include the following dust control measure:

- Pre-wet work area and immediately follow with fine spray application on the immediate area being worked to eliminate visible dust to the greatest extent possible. Enough water should be applied to prevent visible emissions from crossing the project boundaries.
- Keep material transfers of stockpiles of loose material adequately wet, and sealed by an approved palliative or covered with conditions warrant;
- Limit construction vehicle speed at the work site to 15 miles per hour or less;
- Wash equipment down before moving from the property onto a paved public road;
- Revegetate all disturbed areas as rapidly as possible; and
- Adhere to all elements of this plan throughout the duration of the construction activity.

MM 3.2.2: Prior to any construction or earthworks, each contractor shall submit a list of all diesel equipment to be used during construction to the El Dorado County Air Pollution Control District (El Dorado County APCD) for review and approval. The project applicant shall ensure that toxics best available control technology (T-BACT) is applied to reduce emissions of Toxic Air Contaminant (TAC) from off-road diesel equipment used during project construction. TBACT is defined as the use of 1996 or later model year engines in all diesel equipment. Consequently, the project applicant must ensure that all diesel powered equipment used on-site during construction is equipped with engines of 1996 or later model year.

MM 3.2.3: Prior to approval of the final map, the applicant shall provide development feature information to demonstrate to the satisfaction of El Dorado County APCD that the project will not exceed the El Dorado County APCD ROG operational significance threshold of 82 lbs/day. These development features may include, but are not limited to, the following:

- 1) Use of only natural gas/LPG fireplaces, pellet stoves or EPA-Certified Phase II wood-burning fireplaces or stoves within the project. Prohibition of conventional open-hearth fireplaces.
- 2) Prohibition of open burning of trash, leaves, vegetation or other material within the project.

2005 Bell Woods MND

MM 3.2.1: The applicant shall ensure that its construction contracts include the following dust control measure:

- Pre-wet work area and immediately follow with fine spray application on the immediate area being worked to eliminate visible dust to the greatest extent possible. Enough water should be applied to prevent visible emissions from crossing the project boundaries.
- Keep material transfers of stockpiles of loose material adequately wet, and sealed by an approved palliative or covered with conditions warrant;

- Limit construction vehicle speed at the work site to 15 miles per hour or less;
- Wash equipment down before moving from the property onto a paved public road;
- Revegetate all disturbed areas as rapidly as possible; and
- Adhere to all elements of this plan throughout the duration of the construction activity.

MM 3.2.2: The project proponent shall test soils at the Bell Woods site to determine whether ultramafic rock is present.

Due to the potential for ultramafic soils at Bell Woods, and for the possible unexpected discovery of ultramafic rock during construction, the project proponent shall ensure that its construction contracts are written so that, if ultramafic soils are discovered, the construction contractor(s) will implement asbestos dust mitigation measures consistent with the CARB's Final Regulation Order for Asbestos Airborne Toxic Control Measure for Construction, Grading, Quarrying, and Surface Mining Operations. The contractor shall also adhere to El Dorado County's Naturally Occurring Asbestos & Dust Protection Ordinance No. 4548. Finally, the project proponent shall ensure that the project complies with the El Dorado County Air Pollution Control District's (El Dorado County APCD's) Rule 223 – Fugitive Dust.

If ultramafic rock is discovered, prior to the start of construction, the project proponent shall prepare an Asbestos Hazard Dust Mitigation Plan that shall be designed to eliminate, to the greatest extent possible, the emissions of fugitive dust from grading, excavation, and other soil disturbing construction activity. This plan shall be prepared in coordination with the County's Air Quality Engineer, assigned to monitor and control airborne asbestos in the County. At a minimum, the Asbestos Hazard Dust Mitigation Plan shall include the following components, which are in addition to the fugitive dust mitigation measures listed under mitigation measure 3.2.1:

- Limit vehicle access and speed on exposed serpentine and rock containing asbestos material areas to reduce fiber releases;
- Cover area exposed to vehicle travel with non-asbestos cover material;
- Maintain a high moisture condition of the disturbed surface or treat the disturbed surface of the work area with an approved “palliative” material to seal loose fibers to the parent rock particle;
- Provide employee notification of the potential health risk of airborne asbestos and requirements of the plan; and
- Clean visible track-out onto paved roads using wet sweeping or a HEPA filter-equipped vacuum device within 24 hours.

MM 3.2.3: Prior to any construction or earthworks, each contractor shall submit a list of all diesel equipment to be used during construction to the El Dorado County Air Pollution Control District (El Dorado County APCD) for review and approval. The project applicant shall ensure that toxics best available control technology (T-BACT) is applied to reduce emissions of Toxic Air Contaminant (TAC) from off-road diesel equipment used during project construction. TBACT is defined as the use of 1996 or later model year engines in all diesel equipment. Consequently, the project applicant must ensure that all diesel powered equipment used on-site during construction is equipped with engines of 1996 or later model year.

MM 3.2.4: Prior to approval of the final map, the applicant shall provide development feature information to demonstrate to the satisfaction of El Dorado County APCD that the project will not exceed the El Dorado County APCD ROG operational significance threshold of 82 lbs/day. These development features may include, but are not limited to, the following:

- 1) Use of only natural gas/LPG fireplaces, pellet stoves or EPA-Certified Phase II wood-burning fireplaces or stoves within the project. Prohibition of conventional open-hearth fireplaces.
- 2) Prohibition of open burning of trash, leaves, vegetation or other material within the project.

MM 3.2.1: The applicant shall ensure that its construction contracts include the following dust control measure:

- Pre-wet work area and immediately follow with fine spray application on the immediate area being worked to eliminate visible dust to the greatest extent possible. Enough water should be applied to prevent visible emissions from crossing the project boundaries.
- Keep material transfers of stockpiles of loose material adequately wet, and sealed by an approved palliative or covered with conditions warrant;
- Limit construction vehicle speed at the work site to 15 miles per hour or less;
- Wash equipment down before moving from the property onto a paved public road;
- Revegetate all disturbed areas as rapidly as possible; and
- Adhere to all elements of this plan throughout the duration of the construction activity.

MM 3.2.2: Prior to any construction or earthworks, each contractor shall submit a list of all diesel equipment to be used during construction to the El Dorado County Air Pollution Control District (El Dorado County APCD) for review and approval. The project applicant shall ensure that toxics best available control technology (T-BACT) is applied to reduce emissions of Toxic Air Contaminant (TAC) from off-road diesel equipment used during project construction. TBACT is defined as the use of 1996 or later model year engines in all diesel equipment. Consequently, the project applicant must ensure that all diesel powered equipment used on-site during construction is equipped with engines of 1996 or later model year.

MM 3.2.3: Prior to approval of the final map, the applicant shall provide development feature information to demonstrate to the satisfaction of El Dorado County APCD that the project will not exceed the El Dorado County APCD ROG operational significance threshold of 82 lbs/day. These development features may include, but are not limited to, the following:

- 1) Use of only natural gas/LPG fireplaces, pellet stoves or EPA-Certified Phase II wood-burning fireplaces or stoves within the project. Prohibition of conventional open-hearth fireplaces.
- 2) Prohibition of open burning of trash, leaves, vegetation or other material within the project.

2016 Mitigation Measures

Mitigation Measure 3-1: The project proponent shall test soils at the project site to determine whether ultramafic rock is present. Due to the potential for ultramafic soils within the BLHSP area, and for the possible unexpected discovery of ultramafic rock during construction, the project proponent shall ensure that its construction contracts are written so that, if ultramafic soils are discovered, the construction contractor(s) will implement asbestos dust mitigation measures consistent with the CARB's Final Regulation Order for Asbestos Airborne Toxic Control Measure for Construction, Grading, Quarrying, and Surface Mining Operations. The contractor shall also adhere to El Dorado County's Naturally Occurring Asbestos & Dust Protection Ordinance No. 4548. Finally, the project proponent shall ensure that the project complies with the El Dorado County Air Pollution Control District's (El Dorado County APCD's) Rule 223 – Fugitive Dust.

If ultramafic rock is discovered, prior to the start of construction, the project proponent shall prepare an Asbestos Hazard Dust Mitigation Plan that shall be designed to eliminate, to the greatest extent possible, the emissions of fugitive dust from grading, excavation, and other soil disturbing construction activity. This plan shall be prepared in coordination with the County's Air Quality Engineer, assigned to monitor and control airborne asbestos in the County. At a minimum, the Asbestos Hazard Dust Mitigation Plan shall include the following components, which are in addition to the standard fugitive dust mitigation measures:

- Limit vehicle access and speed on exposed serpentine and rock containing asbestos material areas to reduce fiber releases;
- Cover area exposed to vehicle travel with non-asbestos cover material;
- Maintain a high moisture condition of the disturbed surface or treat the disturbed surface of the work area with an approved “palliative” material to seal loose fibers to the parent rock particle;
- Provide employee notification of the potential health risk of airborne asbestos and requirements of the plan; and
- Clean visible track-out onto paved roads using wet sweeping or a HEPA filter-equipped vacuum device within 24 hours.

Mitigation Measure 3-2: Prior to any construction or earthworks, each contractor shall submit a list of all diesel equipment to be used during construction to the El Dorado County Air Pollution Control District (El Dorado County APCD) for review and approval. The project applicant shall ensure that toxics best available control technology (T-BACT) is applied to reduce emissions of Toxic Air Contaminant (TAC) from off-road diesel equipment used during project construction. TBACT is defined as the use of 1996 or later model year engines in all diesel equipment. Consequently, the project applicant must ensure that all diesel powered equipment used on-site during construction is equipped with engines of 1996 or later model year.

Mitigation Measure 3-3: Prior to approval of site work, the project applicant shall provide a report showing the location, size, and health of trees that would be impacted or removed by construction activities. If any of the trees that would be removed are native oaks, the project applicant shall mitigate for the loss by planting replacement trees on site using a 2:1 mitigation ratio. The following Tree Replacement Mitigation Guidelines shall be implemented:

- Re-seed with quality acorns harvested from the various species within the general area where the mitigation is to be performed. If it is not possible to collect acorns on site then they must be purchased from a wholesale distributor such as the CDF nursery in Davis, California. Seeds must be ordered a year in advance.
- Each planting site will be prepared and receive five acorns. Each site will include a protective device to discourage damage from birds, rodents, and deer brows. This device must remain in place for the first two years after planting. No more than one inch of organic mulch will be spread over the soil surface within the fenced enclosure. No organics except natural humus that may contain Mycorrhiza will be allowed inside the protective device.
- An application for an approved pre-emergent for weed control will be necessary once the groups have been planted and the cones are in place. No pre-emergent can be used inside the cones. Future weed control will be determined on an as-needed basis.
- The planting will be done in groups of ten to thirty planting sites of mixed species. Environments where only valley oaks can grow will be the only exception to planting a mix of species. Each planting site within the group must not be closer than six feet to any adjacent site. To promote normal root development, no irrigating or fertilizing will be allowed. Commercial Mycorrhiza is okay.
- When the tree's crown emerges from the top of the cone it will be necessary to spray it at least three times a season to control deer brows. The first application shall be made when the foliage is over fifty percent developed. Reapply if there has been heavy rain. The year after the foliage has emerged from the protective cone it must be pulled. Arrangements shall be made in the contract for the disposal of these devices. This is a good time to thin out the weaker trees if more than one seedling survives.
- The tree replacement mitigation shall comply with General Plan Policy 7.4.4.4 regarding canopy coverage standards by retaining or replacing 70 percent of the existing oak tree canopy.

- As an alternative to acorn planting as described above, the project proponent may mitigate for tree loss by reverting to the measures identified in the Bass Lake Hills Specific Plan or preservation of existing offsite oak woodlands, or a combination of both.
- The tree replacement mitigation guidelines shall include maintenance and inspection of tree replanting areas, including a schedule for inspection and maintenance over a five-year period and an annual reporting program to the County on the progress of the mitigation. Tree plantings shall have a minimum survival rate of 80 percent at the end of the five-year monitoring and maintenance period. If this rate is not met, the program will require replanting and continual monitoring for five additional years.

Mitigation Measure 3-4: The project applicant shall comply with the following tree protection requirements and employ best management practices and measures (established in the BLHSP and County ordinances and design and improvement standards) to minimize for potential impacts to any protected trees. In addition, the following measures shall be incorporated into the project improvement plans and implemented during construction:

- Construction within 50 feet of an oak tree requires placement of a 6 foot tall temporary fence (chain link, ski fencing, or other suitable material) to serve as a physical barrier to alert construction workers and property owners of the protection. The fencing shall be installed one foot outside the dripline of any single tree or grove (defined as the root protection zone or RPZ) that is within 50 feet of any potential construction. A sign shall be posted which describes the trees as protected and subject to forfeiture of a security deposit.
- Perform a field inspection prior to site grading to ensure that trees to be preserved in areas affected by grading activities are fenced at the dripline.
- Any activities within the RPZ, either above or below the soil surface, must be supervised by a qualified arborist.
- Underground utilities installed within the temporary fence must be hand dug so not to cut any roots over 2 inches. Roots 2 inches or larger must be cleanly cut with pruning equipment. While working around roots they must be protected by wrapping with foam or burlap to prevent drying.
- Only dead or weakened branches may be removed by a licensed arborist.
- Oak tree foliage must be hosed off weekly during construction.
- If root loss is extensive it may be necessary to establish a supplemental irrigation program to provide the tree with adequate moisture during summer months.
- Avoid stripping of the surface of natural organic layers if it is not necessary. If the natural organic layer has been removed within the RPZ, each injured tree must have three to four inches of quality organic mulch reinstalled.
- If it is necessary to cross over the RPZ of a protected tree with a vehicle, a road can be constructed using eight to ten inches of shredded mulch as a driving surface. When the project is completed that material can be used as a top dressing where needed.
- Loss or damage of protected trees shall be compensated for in the form of a cash settlement based on the diameter at diameter breast height (DBH) of the lost or damaged trees.
- A replacement bond of \$40,000.00 (equal to twice the compensation rate for a 40-inch diameter tree) for the cost of current mitigation work or remedial tree care shall be submitted to El Dorado County.
- All trees to be preserved shall be numbered and tagged. Care shall be taken when performing soil cuts, fills, alteration of existing grades, soil compaction and mechanical injuries in tree areas.

Environmental Issue Area	Where Impact Was Analyzed in Prior Environmental Documents.	Do Proposed Changes Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information of Substantial Importance?	Prior Environmental Documents Mitigations Implemented or Address Impacts?
4. Biological Resources. Would the project:					
a. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	PEIR, pp. F-17 to F-18; Addendum, pp. 25 to 29, 31, 81; Bell Ranch MND (d) pp. 3-47 to 3-51 and (f) pp. 4-5 to 4-6; Bell Woods MND (d) pp. 3-17, 3-42 to 3-48 and (f) pp. 4-6 to 4-9; Hawk View MND (d) pp. 3-17, 3-24 to 3-26 and (f) pp. 3-5 to 3-7	No	No	No	Yes
b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?	PEIR, pp. F-16 to F-20; Addendum, pp. 25 to 29, 76 to 77; Bell Woods MND (d) pp. 3-17, 3-48; Bell Ranch MND (d) pp. 3-51 and (f) pp. 4-7; Hawk View MND (d) pp. 3-17, 3-26	No	No	No	Yes
c. Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	PEIR, pp. F-16 through F-19; Addendum, pp. 25–29, 76–77, 79, 82; Bell Woods MND (d) 3-17, 3-48-50 and (f) pp. 4-9 to 4-10; Bell Ranch MND (d) 3-51 to 3-53 and (f) 2-20 to 2-22, 3-1 to 3-2, 4-7; Hawk View MND (d) pp. 3-17, 3-26 to 3-28 and (f) pp. 3-7 to 3-9	No	No	No	Yes
d. Interfere substantially with the movement of any native resident or migratory fish and wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	Bell Woods MND (d) pp. 3-17, 3-50; Bell Ranch MND (d) pp. 3-53; Hawk View MND (d) pp. 3-17, 3-28	No	No	No	Yes
e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	PEIR, pp. F-15, F-18; Addendum, pp. 25-31, 80; Bell Woods MND (d) pp. 3-17, 3-50 to 3-56 and (f) pp. 2-9, 2-10, 2-31, 3-2 to 3-3, 4-10 to 4-14; Bell Ranch MND (d) pp. 3-53 to 3-59 and (f) 4-7 to 4-11, Figure 3.3-2; Hawk View MND (d) pp. 3-17, 3-28 to 3-29 and (f) pp. 3-13 to 3-14	No	No	No	Yes
f. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	Bell Woods MND (d) pp. 3-17, 3-56; Hawk View MND (d) pp. 3-17, 3-29	No	No	No	Yes

Discussion:

1. Changes to Project Related to Biological Resources

The 1992 BLRSA Final PEIR anticipated that the 1,196 acre BLHSP site would be converted from grazing land and rural residential use to suburban development, with approximately 33% of the site being developed as homes, roads and associated infrastructure. Approximately half of the remaining site area was proposed as non-native landscaping, with around a quarter of the site remaining as undisturbed native vegetation. Under the proposed project, BL Road LLC, would make changes to the sequence and timing of certain prior-approved infrastructure improvements presented in the 1992 BLRSA Final PEIR and 1995 Addendum, and undertake minor changes to improvements to better serve incremental development of the tentative maps. Within the project boundary, project infrastructure improvements would be constructed in similar locations to those described in the 1992 BLRSA Final PEIR, with minor revisions to elements such as median landscaping within roadways. Some roadway improvements (e.g., Bass Lake Interchange) would result in slightly larger/different footprints when compared to the project as evaluated in the 1992 BLRSA Final PEIR and the 1995 Addendum, but these would all be within the original boundary of the BLHSP site, and the extent and boundary of the BLHSP would not change.

2. Changes in Circumstances

Environmental Setting

Since the certification of the 1992 BLRSA Final PEIR, the BLHSP site has remained essentially undeveloped, with the exception of the Hollow Oaks subdivision located approximately one mile east of Bass Lake Road. This is the only suburban density development within the BLHSP site; there are 99 single family homes on approximately 39 acres in this subdivision. Other development-related activities have taken place in and around the plan area, including: realignment and reconstruction of Bass Lake Road from Hollow Oak to Serrano Parkway; construction of two four-million gallon water tanks by EID at the north end of the Bell Ranch subdivision; installation of several water transmission lines; construction of El Dorado Hills Fire Station No. 86; construction of the Holy Trinity Catholic Church and School; acquisition of the proposed school site by the Buckeye School District; street and pad grading of the Hawk View subdivision has been started; clearing and grubbing of the Bell Woods subdivision in anticipation of grading; and grading of Morrison Road as part of underground utility line installation.

In addition to this development, the County prepared, adopted, and approved MNDs for three tentative maps (Hawk View, Bell Woods and Bell Ranch), providing for 281 single-family residential units and associated infrastructure improvements. As a result of these approvals, some improvements have been undertaken within the BLHSP area, including streets and pad grading on the Hawk View property, tree clearing on the Bell Woods property, grading of Morrison Road, and installation of underground utilities. Right-of-way acquisitions have also been made for the construction of Bass Lake Road and other off-site improvements.

Although the majority of the BLHSP area remains undeveloped, some surrounding areas have experienced additional new development. Lands to the east, in Cameron Park, were already largely developed in 1992, with the primary development since that time occurring northeast of the BLHSP area, near Bass Lake, in the Hills of El Dorado, Woodridge, and Bridlewood Canyon neighborhoods. Lands to the west have also undergone substantial new development as a result of the Serrano project that has been developed in the EDHSP area.

Current Conditions

In order to confirm the status of biological resources within the areas of proposed realignment (“biological study area”), a site reconnaissance was conducted in January 2015 (“2015 survey”).¹⁹ This survey confirmed that, similar to the rest of the BLHSP area, the biological study area has remained relatively undeveloped since the preparation of the 1992 BLRSA Final PEIR. The project site includes the three undeveloped subdivisions (Bell Ranch, Bell Woods, and Hawk View) and various

¹⁹ Environmental Science Associates (ESA). Letter to George Carpenter of Winn Communities dated February 27, 2015 regarding biological constraints for Bass Lake Hills.

off-site infrastructure locations. The project site now includes 70 acres of annual grassland and almost 38 acres of suburban development, with the remaining 17 acres consisting of disturbed land, blue oak woodland, chaparral, valley foothill riparian and riverine and wetland habitats.

Grasslands, oak trees and oak woodland and riparian areas within the project site could support a variety of common species and also several special-status species. These special-status species include foothill yellow-legged frog, western pond turtle, burrowing owl, white-tailed kite and valley elderberry longhorn beetle, as well as several raptors, water fowl, migratory songbirds and protected plants. Although the 2015 survey did not identify suitable habitat for valley elderberry longhorn beetle, it is possible that this species could be found on the site. Additional surveys would be needed to confirm this.

Upland Habitats

Annual grassland on the project site is dominated by non-native Mediterranean annual grasses such as wild oats, bromes, ryegrass, and barleys. This vegetation community also includes native and nonnative forbs. Cover is typically dense and vegetation ranges from a few inches to four to five feet in height depending on the species and time of year. This vegetation community also forms the understory of many of the woodland communities on the project site. Grassland provides breeding and foraging habitat for a variety of wildlife and special-status species that may occur on the site, including burrowing owl and red-tailed hawk.

Chaparral vegetation on the site is dominated by coyote brush scrub, which is a common plant community in the region and which establishes well in uplands adjacent to blue oak woodlands and annual grasslands. It is also often found in a mosaic with grasslands and oak woodlands in the hills east of the project site; however, within the site it is limited in distribution to slopes adjacent to Highway 50. The chaparral within the project site has high cover of coyote brush with an understory of yellow starthistle and annual grasses. Because of its proximity to Highway 50, this habitat type provides limited opportunities for wildlife species.

Aquatic Habitats and Wetlands

The site includes approximately 0.26 acres of wetlands consisting of freshwater emergent wetland and seasonal wetland (disturbed).²⁰ The freshwater emergent wetlands on the project site are classified as “palustrine emergent wetlands (semi-permanently flooded)” using the Classification of Wetlands and Deepwater Habitats of the United States.²¹ As discussed above, freshwater emergent wetlands are characterized by erect, rooted herbaceous hydrophytes. All emergent wetlands are flooded frequently enough so the roots of the vegetation prosper in an anaerobic environment. The freshwater emergent wetlands on the project site may meet the U.S. Army Corps of Engineers (USACE) criteria of a wetland or other waters of the United States, depending on site-specific vegetation, soils, and hydrologic conditions, and may be subject to sections 401 and/or 404 of the Clean Water Act (CWA). Seasonal wetlands on the project site are classified as “palustrine emergent wetland (seasonally flooded)” using the Classification of Wetlands and Deepwater Habitats of the United States.²² On the project site, this community is dominated by a variety of weakly to strongly hydrophytic species. This area may meet the USACE criteria of a wetland or other waters of the United States, depending on site-specific vegetation, soils, and hydrologic conditions, and may be subject to sections 401 and/or 404 of the CWA. These wetlands were generally described in the 1992 BLRSA Final PEIR and 2005 MNDs. Since 1992, several regulatory authorizations have been obtained for the project site including Section 404 permits, Section 1602 permits, Streambed Alteration Agreements, and Section 7 permits.

²⁰ Environmental Science Associates (ESA). Letter to George Carpenter of Winn Communities dated February 27, 2015 regarding biological constraints for Bass Lake Hills.

²¹ Cowardin, L. M., V. Carter, F. C. Golet, E. T. LaRoe. 1979. *Classification of Wetlands and Deepwater Habitats of the United States*. U. S. Department of the Interior, Fish and Wildlife Service, Washington, D.C. Jamestown, ND: Northern Prairie Wildlife Research Center Online. <http://www.npwrc.usgs.gov/resource/1998/classwet/classwet.htm> (Version 04DEC98).

²² Cowardin, L. M., V. Carter, F. C. Golet, E. T. LaRoe. 1979. *Classification of Wetlands and Deepwater Habitats of the United States*. U. S. Department of the Interior, Fish and Wildlife Service, Washington, D.C. Jamestown, ND: Northern Prairie Wildlife Research Center Online. <http://www.npwrc.usgs.gov/resource/1998/classwet/classwet.htm> (Version 04DEC98).

Several ephemeral channels were identified during the reconnaissance survey. Ephemeral channels are classified as “riverine intermittent” using the Classification of Wetlands and Deepwater Habitats of the United States.²³ An ephemeral channel has flowing water only during, and for a short duration after, precipitation events in a typical year. Ephemeral stream beds are located above the water table year-round. Groundwater is not a source of water for the stream. Runoff from rainfall is the primary source of water for stream flow. These ephemeral drainages tend to be narrow, averaging approximately 1 to 6 feet in width. The drainages convey surface flows only during and after precipitation events, and the channel hydrology is not influenced by groundwater. This is due to the topographic position and relative small surface area encompassed within each drainage feature. It is assumed that the frequency and duration of precipitation events precludes anaerobic and/or reducing conditions from occurring, thus hydric soils are not present within the drainage banks. The ephemeral drainage features within the project site do not support aquatic vegetation. During the reconnaissance survey, the ephemeral channels within the project site were dry and did not show evidence of recent flows.

Intermittent channels are classified as “riverine intermittent” using the Classification of Wetlands and Deepwater Habitats of the United States.²⁴ An intermittent channel has flowing water during certain times of the year, when groundwater provides water for stream flow. During dry periods, intermittent streams may not have flowing water. Runoff from rainfall is a supplemental source of water for stream flow. On the project site, intermittent channels generally flow throughout the winter season and into the late spring or early summer. These drainages average approximately 4 to 8 feet in width, and convey flows during and after precipitation events as well as when the groundwater levels are high enough. It is assumed that the frequency and duration of precipitation events precludes anaerobic and/or reducing conditions from occurring, thus hydric soils are not present within the drainage banks. The intermittent drainages do not support aquatic vegetation; however they do support riparian woodland in some areas. During the 2015 reconnaissance survey, intermittent channels were seen to be flowing on the project site.

The site also includes a perennial drainage, Carson Creek. Perennial channels are classified as “riverine perennial” using the Classification of Wetlands and Deepwater Habitats of the United States. A perennial channel has continuous flow in parts or all of its stream bed year round during years of normal rainfall. Groundwater, as well as runoff from snowmelt and rainfall, provides the source of water for stream flow. On the project site, Carson Creek, a perennial drainage, drains the site towards the southwest. Carson Creek averages approximately 8 to 12 feet in width, and conveys flows during and after precipitation events as well as when the groundwater levels are high enough. This creek, with its associated riparian corridor provides a wildlife movement corridor between upstream and downstream habitats. Riparian habitat associated with the creek comprises valley oak canopy with alder and willow sub-storey and a shrub understorey consisting of California blackberry, Himalayan blackberry, poison oak, hoary coffeeberry, California wild grape, and a variety of grasses and forbs.

3. Comparative Impact Discussions

The 1992 BLRSA Final PEIR and 1995 Addendum identified four impacts on biological resources that could occur as a result of the BLHSP. These are discussed in detail below, along with a summary of mitigation measures included in the prior CEQA documents. Additional details of mitigation measures are provided below.

Impacts to aquatic habitat from erosion run-off

The 1992 BLRSA Final PEIR and 1995 Addendum noted that grading required for building pads, roadways, and utility trenches for the BLHSP would expose soils, making them more prone to erosion and runoff, which in turn could impact

²³ Cowardin, L. M., V. Carter, F. C. Golet, E. T. LaRoe. 1979. *Classification of Wetlands and Deepwater Habitats of the United States*. U. S. Department of the Interior, Fish and Wildlife Service, Washington, D.C. Jamestown, ND: Northern Prairie Wildlife Research Center Online. <http://www.npwrc.usgs.gov/resource/1998/classwet/classwet.htm> (Version 04DEC98).

²⁴ Cowardin, L. M., V. Carter, F. C. Golet, E. T. LaRoe. 1979. *Classification of Wetlands and Deepwater Habitats of the United States*. U. S. Department of the Interior, Fish and Wildlife Service, Washington, D.C. Jamestown, ND: Northern Prairie Wildlife Research Center Online. <http://www.npwrc.usgs.gov/resource/1998/classwet/classwet.htm> (Version 04DEC98).

aquatic features such as wetlands and drainages as a result of sedimentation. The 1992 BLRSA Final PEIR included mitigation measures D04 and D05 to reduce these impacts to less than significant. These measures require the preparation of a grading plan, ensuring that construction activities comply with County Ordinance 3983 which relates to prevention of erosion, and also requiring submission of a Best Management Practices (BMP) plan which specifies measures which will be implemented to protect water quality. The 1995 Addendum incorporated specific standards and policies included as part of the BLHSP that would further reduce potential impacts to wildlife and vegetation.

Since the 1992 BLRSA Final PEIR, impacts related to erosion and siltation have been moved to be included with hydrology and water quality impacts, while impacts to biological resources have changed to focus on species and habitat. As such, impacts associated with erosion are further addressed in hydrology and water quality sections of the 2005 MNDs. Therefore, further discussions of impacts related to erosion are discussed in Section 9, Hydrology and Water Quality, of this addendum.

The proposed project would affect only a small area of the BLHSP area, and would result in considerably less grading and associated erosion and runoff than was evaluated in the 1992 BLRSA Final PEIR and the 2005 MNDs because only minor alterations to infrastructure are proposed. No additional impacts to aquatic habitats would occur as a result of the proposed project above and beyond those evaluated in the 1992 BLRSA Final PEIR, 1995 Addendum, and the 2005 MNDs. Mitigation to reduce erosion as described below and in Section 9, Hydrology and Water Quality, would continue to be required and would be implemented as part of the proposed project. Thus, the proposed project would not create a new significant impact, nor a substantially more severe significant impact, compared to the prior CEQA documents.

Permanent loss of wildlife habitat

The 1992 BLRSA Final PEIR and 1995 Addendum identified the permanent loss of habitat, notably woodland and grassland, as an impact that would remain significant even after the implementation of mitigation. It describes potential impacts to approximately one-third of the BLHSP area as a result of grading and vegetation removal, with additional impacts from amenity landscaping affecting more than half of the remaining site. The 1992 BLRSA Final PEIR acknowledged that this is likely to result in impacts to wildlife which would be permanently displaced from the site, and also notes other impacts such as disturbance and predation from domestic pets would adversely affect remaining undeveloped areas within and around the BLHSP area. The 1992 BLRSA Final PEIR noted that mitigation measure F01 would protect individual trees on the project site, but would not provide adequate mitigation to preserve the woodland habitat. The 1994 BLRSA Final PEIR also included mitigation measure E01 to ensure continued existence of natural swales, and mitigation measure F03 to protect wetland habitat. While these mitigation measures would help reduce impacts, impacts to wildlife habitat were determined to be significant and unavoidable. The 1995 Addendum incorporated these mitigation measures, as well as specific standards and policies included as part of the BLHSP that would further reduce potential impacts to wildlife habitats.

The three 2005 MNDs further discussed impacts on trees, but the analysis was focused on tree preservation for the sake of the trees as opposed to the wildlife habitat focus utilized in the 1992 BLRSA Final PEIR and 1995 Addendum. The Bell Ranch MND and Bell Woods MND acknowledged that development within the BLHSP area would result in the loss of a substantial amount of protected trees. The Bell Ranch MND included mitigation measures MM 3.3.9 and MM 3.3.10, and the Bell Woods MND included mitigation measures MM 3.3.10 and MM 3.3.11. These measures require protection for and replacement of (through replanting or payment of an in-lieu fee) protected trees. These two MNDs noted that while these mitigation measures would reduce impacts to trees, the measures did not conform to the BLHSP tree protection measures.^{25,26} The Hawk View MND acknowledged potential impacts to protected trees, and

²⁵ County of El Dorado. *Mitigated Negative Declaration – Bell Ranch Project*. SCH#2005022144. Draft, February 2005. P. 3-59.

²⁶ County of El Dorado. *Draft Mitigated Negative Declaration – Bell Woods Project*. SCH#2005032044. Draft, February 2005. P. 3-56.

concluded that trees would be protected by compliance with the BLHSP Section 7.5 requirements, mitigation measure F01 from the 1992 BLRSA Final PEIR, and the El Dorado County Design and Improvement Standards Manual.²⁷

The proposed COA Amendments, particularly the new alignment of Country Club Drive, could affect different areas than those previously planned for disturbance. However, these changes would be minor and would not substantially change the type or amount of habitat that would be impacted. Mitigation included in prior CEQA documents would be updated and applied to the proposed COA Amendments, ensuring that impacts on wildlife habitat would be minimized. Thus, the proposed project would not create a new significant impact, nor a substantially more severe significant impact, compared to the prior CEQA documents.

Impacts to special status species and wetlands

The 1992 BLRSA Final PEIR and 1995 Addendum acknowledged that implementation of the BLHSP could result in impacts to special status species known to be present in the area, including raptors and the great blue heron. Surveys conducted for the 1992 BLRSA Draft PEIR included a sighting of a single great blue heron, but did not identify any nesting habitat on the BLHSP site.²⁸ During the surveys, a single adult bald eagle was also observed close to the site, and a red-tailed hawk, numerous kestrels and a white-tailed kite were also observed.²⁹ The 1992 BLRSA Final PEIR included mitigation measures F01, E01, and F03 to reduce impacts to habitat that support special status species, including wetlands. Despite mitigation, the 1992 BLRSA Final PEIR concluded that impacts to special status species and wetlands would be significant and unavoidable.³⁰ The 1995 Addendum incorporated these mitigation measures, as well as specific standards and policies included as part of the BLHSP that would further reduce potential impacts to special status species and wetlands.

Impacts on special status species were also evaluated in the MNDs. These analyses concluded that impacts to special status species, including raptors and the great blue heron, would be less than significant with the implementation of mitigation, including pre-construction surveys, establishment of buffer zones and compensation for habitat and tree loss.

The 2005 MNDs evaluated potential impacts to special status species and include numerous mitigation measures designed to reduce impacts on various species. Mitigation measure MM 3.3.1 was included in all three MNDs and required pre-construction nesting surveys to be performed if construction would be performed during the nesting season. With implementation of MM 3.3.1, the 2005 MNDs concluded that impacts to raptors would be less than significant.³¹⁻³²⁻³³

The 2005 MNDs included mitigation measure MM 3.3.2 which required the applicant to submit to El Dorado County burrowing owl surveys and provided instructions should active burrows be discovered. With incorporation of MM 3.3.2, the 2005 MNDs concluded that impacts to burrowing owls would be less than significant.³⁴⁻³⁵⁻³⁶

²⁷ County of El Dorado. *Initial Study and Mitigated Negative Declaration – Hawk View Project*. SCH#2005012107. Draft, January 2005. Pp. 3-28 and 3-29.

²⁸ County of El Dorado. *Bass Lake Road Study Area Program Environmental Impact Report – Draft* (SCH#90020375). June 14, 1991. P. F-14.

²⁹ County of El Dorado. *Bass Lake Road Study Area Program Environmental Impact Report – Draft* (SCH#90020375). June 14, 1991. P. F-15.

³⁰ County of El Dorado. *Bass Lake Road Study Area Program Environmental Impact Report – Draft* (SCH#90020375). June 14, 1991. P. F-17.

³¹ County of El Dorado. *Mitigated Negative Declaration – Bell Ranch Project*. SCH#2005022144. Draft, February 2005. P. 3-48.

³² County of El Dorado. *Draft Mitigated Negative Declaration – Bell Woods Project*. SCH#2005032044. Draft, February 2005. P. 3-43.

³³ County of El Dorado. *Initial Study and Mitigated Negative Declaration – Hawk View Project*. SCH#2005012107. Draft, January 2005. P. 3-25.

³⁴ County of El Dorado. *Mitigated Negative Declaration – Bell Ranch Project*. SCH#2005022144. Draft, February 2005. P. 3-49.

³⁵ County of El Dorado. *Draft Mitigated Negative Declaration – Bell Woods Project*. SCH#2005032044. Draft, February 2005. P. 3-44.

³⁶ County of El Dorado. *Initial Study and Mitigated Negative Declaration – Hawk View Project*. SCH#2005012107. Draft, January 2005. P. 3-26.

The Bell Ranch MND included mitigation measure MM 3.3.3 and the Bell Woods MND included mitigation measure MM 3.3.4 to reduce impacts on western spadefoot toads. The Bell Ranch MND included mitigation measure MM 3.3.4 and the Bell Woods MND included mitigation measure MM 3.3.5 to reduce impacts on special status bats. Both the Bell Ranch and Bell Woods MNDs concluded that mitigation would reduce impacts to these species to less than significant.

All three 2005 MNDs included mitigation to reduce impacts on wetlands and jurisdictional waters. The Bell Ranch MND included mitigation measures MM 3.3.5 through MM 3.3.8. The Bell Woods MND included mitigation measures MM 3.3.6 through MM 3.3.9. The Hawk View MND included mitigation measures MM 3.3.3a and MM 3.3.3b. All three 2005 MNDs concluded that mitigation would reduce impacts on wetlands and jurisdictional waters to less than significant.³⁷⁻³⁸⁻³⁹

The proposed COA Amendments could affect different areas than those previously planned for disturbance. However, these changes would be minor and would not substantially change impacts to special status species or wetlands beyond those impacts evaluated in the 1992 BLRSA Final PEIR, 1995 Addendum, and 2005 MNDs. Mitigation to reduce potential impacts on special status species and wetland impacts would continue to be required and would be implemented as part of the project. Thus, the proposed project would not create a new significant impact, nor a substantially more severe significant impact, compared to the prior CEQA documents.

Impacts to VELB Habitat

The 1992 BLRSA Final PEIR identified a potential impact associated with loss of three elderberry bushes on the project site, which provide habitat for the federally protected valley elderberry longhorn beetle (VELB). Surveys conducted for the 1992 BLRSA Draft PEIR did not detect the presence of VELB on the project site, but acknowledged that its presence was possible.⁴⁰ The 1992 BLRSA Final PEIR stated that this impact would be mitigated to less-than-significant following implementation of Mitigation Measure F02, which requires consultation with USFWS. The 1995 Addendum did not add any BLHSP standards or policies regarding VELB.

Impacts on VELB habitat were also evaluated in the 2005 MNDs. The Bell Ranch MND stated that a survey focused on elderberry shrubs was conducted, but that no elderberry shrubs were found within the Bell Ranch site.⁴¹ Because no elderberry shrubs were observed within the Bell Ranch site, no mitigation was required.⁴² The Bell Woods MND noted that elderberry shrubs were found on the project site, and included Mitigation Measure MM 3.3.3 to reduce impacts to less than significant.⁴³

The proposed COA Amendments would occur within areas previously analyzed. A survey conducted by ESA in early 2015 evaluated the potential for VELB habitat within the areas affected by the COA Amendments. The survey identified elderberry shrubs, but none were suitable as VELB habitat. The survey acknowledged that suitable VELB habitat could occur in the project area. Mitigation Measure 4-1 has been added to address the potential for VELB habitat to be discovered during implementation of the proposed COA Amendments. With this mitigation, the proposed COA Amendments would not create a new significant impact, nor a substantially more severe significant impact, compared to the prior CEQA documents.

³⁷ County of El Dorado. *Mitigated Negative Declaration – Bell Ranch Project*. SCH#2005022144. Draft, February 2005. P. 3-53.

³⁸ County of El Dorado. *Draft Mitigated Negative Declaration – Bell Woods Project*. SCH#2005032044. Draft, February 2005. P. 3-50

³⁹ County of El Dorado. *Initial Study and Mitigated Negative Declaration – Hawk View Project*. SCH#2005012107. Draft, January 2005. P. 3-27.

⁴⁰ County of El Dorado. *Bass Lake Road Study Area Program Environmental Impact Report – Draft* (SCH#90020375). June 14, 1991. P. F-17.

⁴¹ County of El Dorado. *Mitigated Negative Declaration – Bell Ranch Project*. SCH#2005022144. Draft, February 2005. P. 3-49.

⁴² County of El Dorado. *Mitigated Negative Declaration – Bell Ranch Project*. SCH#2005022144. Draft, February 2005. P. 3-50.

⁴³ County of El Dorado. *Draft Mitigated Negative Declaration – Bell Woods Project*. SCH#2005032044. Draft, February 2005. P. 3-45.

Conflicts with approved plans, policies, or ordinances

As discussed above, the 1992 BLRSA Final PEIR included mitigation measures that would reduce impacts on biological resources. The 1995 Addendum articulated sections of the BLHSP that would provide mitigation for biological resources. The 2005 MNDs expanded upon the existing mitigation measures and policies by updating mitigation to be consistent with approved plans, policies, and ordinances. With incorporation of mitigation measures and standards listed below, the proposed COA Amendments would not include any elements that would conflict with approved plans, policies, or ordinances. Thus, the proposed project would not create a new significant impact, nor a substantially more severe significant impact, compared to the prior CEQA documents.

Issues Not Addressed in Prior CEQA Documents

- *Criterion f: Conflict with the provisions of and adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional or state habitat conservation plan*

As was the case in 1992, currently there are no approved Habitat Conservation Plans or Natural Communities Conservation Plans that apply to El Dorado County or the BLHSP site. There would be no impact from the project under this criterion.

4. Conclusions

Changes introduced by the proposed project and/or new circumstances relevant to the project would not, as compared to the prior CEQA documents, result in a new significant impact or significant impacts that are substantially more severe than significant impacts previously disclosed. In addition, there is no new information of substantial importance showing that the project will have one or more significant effects not previously discussed or that any previously examined significant effects would be substantially more severe than significant effects shown in the prior CEQA documents. Nor is there new information of substantial importance showing (i) that mitigation measures or alternatives previously found not to be feasible would in fact be feasible, and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative or (ii) that mitigation measures or alternatives considerably different from those analyzed in the prior CEQA documents would substantially reduce one or more significant effects, but the proponents decline to adopt the mitigation measure or alternative.

Specific Plan and Other Standard Mitigation Measures

Specific Plan Section 3.3, Residential Development Standards

2. "Conservation setbacks" which include open space and conservation easements, recorded non-building setbacks, or any other method to permanently set aside property for the purposes of natural resources conservation shall be the primary method of protection for such resources. Commonly held open space areas within a PD can also be used to establish natural resource conservation areas.

"Conservation easements," as described in this Plan, require the restriction of development rights within a defined area to a public agency such as the County or the Community Services District (CSD). Commonly owned open space is owned and maintained by the homeowners association of the subdivision. It is a separate lot with a deed restriction restricting improvements to trails, public utilities and recreational facilities. A conservation easement or commonly owned open space does not, in and of itself, provide for access by the general public. Public access is provided only where public access easements are recorded, generally in conjunction with a pedestrian pathway. Also see Section 9.1.7 regarding conservation easements.

6. Villages shall be zoned to include the PD Zone District overlay prior to development. Clustering of residential units shall be encouraged in order to maximize land use while conserving natural site features and resources and creation of open space.

8. To preserve the natural appearance of the hillside in 20-30 percent slope areas, solid fences shall not be used, except within recorded building envelopes. Open fencing, such as wire, wrought iron and split rail, is permitted outside the building envelope.

Specific Plan Section 4.13, General Circulation and Trail Standards

15. Plan area streets shall be curvilinear in both vertical and horizontal design in order to conform to topography and avoid tree removal.

Specific Plan Section 5.4.1, General Stormwater Facility Policies

1. Storm drainage detention basins shall be designed and constructed to comply with the provisions in the County of El Dorado Drainage Manual.
2. Storm drainage detention basins may be located in open space areas and parks and may be accessible to the public in order to serve a dual impact mitigation/recreation function. Detention basins shall be designed to ensure public safety, to be visually unobtrusive, and to provide wildlife habitat. Landscaping around the perimeter of the basin shall be encouraged. (See Section 8.3 of the Design Guidelines)
3. To protect water quality, catch basins which incorporate oil, grease, and sediment traps will be installed along urban streets in order to intercept storm runoff prior to release into intermittent streams. A conceptual illustration of a silt/grease trap is provided in Figure 5-4. Other suitable best management practices may be employed to reduce point sources of pollutants. Maintenance of these facilities shall be provided through a County Service Area, Zone of Benefit (CSA, ZOB).

Specific Plan Section 5.6.2, Recreation Facility Standards

5. Parks will be subject to oak tree mitigation measures stated herein and will serve as receiving areas for mitigation tree plantings.
9. Important natural features within park sites, such as oak trees, and stream and drainage corridors, should be preserved and incorporated into the park development.

Specific Plan Section 6.1, Grading Standards

7. In order to minimize erosion and siltation, grading shall only be allowed on approved projects that are subject to immediate development. Issuance of a grading permit shall not occur prior to approval of a development application.
10. All grading shall conform to the County Grading Ordinance, Subdivision Design and Improvement Manual (Hillside Regulations), and the Hillside and Ridgeline Development Guidelines for Bass Lake Hills Specific Plan (Appendix A).

Specific Plan Section 7.4, Wetlands and Intermittent Streams and Drainages

It is the intent of this Plan to retain and protect as much of the existing wetlands and intermittent stream and drainage resources as possible. The primary method of preservation will be avoidance by means of conservation setbacks. As defined in Section 3.3, the principal means of stormwater conveyance will be by means of intermittent stream and drainage channels. Aside from street crossings, pedestrian paths, and other features described in this Plan, improvements to land within intermittent stream and drainage setback areas will be precluded.

Specific Plan Section 7.4.1, Wetlands and Intermittent Streams and Drainages Protection Standards

1. Wetlands, as identified on Figure 1-5, Wetlands and Surface Hydrology Map, shall be protected by the creation of a conservation easement extending 50 feet from the boundary of the identified wetland or from the edge of the riparian zone, whichever is greater.

2. Intermittent streams and drainages, as identified in Figure 1-5, Wetlands and Surface Hydrology Map, shall be protected by a 25-foot-wide conservation easement measured from each side of the channel bank or from the outside edge of the riparian zone, whichever is greater. This non-building area shall be shown on all subdivision maps and building site plans and shall be recorded with every parcel so effected. All grading and construction other than fences, as defined herein, shall be prohibited. (See Figure 7-2, Intermittent Stream Setback Concept)
3. Any project proposing septic systems shall provide a minimum 50-foot setback from stream bank to any component of the septic system if a septic capability study determines septic is appropriate for the site.
4. Where applicable, 15-foot public access easements shall be recorded within the riparian corridors and shall be located at least 25 feet from the banks of intermittent streams. Pedestrian and bike trails and utilities may be installed within these easements. Pedestrian and bicycle trails shall be constructed only within designated open space areas located at least 25 feet from streambanks and outside of the riparian vegetation areas. Such pathways shall be designed to avoid impacts to wetlands and intermittent streams.
5. All easements shall be dedicated to the EDHCSD and/or the Landscape and Lighting Assessment District (LLAD) formed for maintenance of the trails, drainage and conservation setbacks. (See Section 9.1.7)
6. Fences shall not be permitted within any conservation easement or designated open space areas.
7. Ponds or detention basins shall be protected by a conservation easement, excluding those located within parks, which extends 100 feet from the high water line.
8. Livestock grazing or the keeping of animals is not consistent with the conservation easements defined herein and is not permitted.
9. Temporary fencing (chain link, ski fencing, or other suitable high visibility material intended to alert construction workers to the presence of protected wetlands) shall be installed at least 10 feet from the outside boundary of retained wetland areas along the length of the construction site prior to construction, grading, or movement of material or machinery onto the site. The fencing shall not be removed until construction activity is completed and finalized by the appropriate inspection authority.
10. Intermittent stream and drainage channels, as identified in Figure 1-5, shall be left in a natural condition, except where minor grading and vegetation cutting is required to maintain drainage flows within the channel to minimize erosion. Energy dissipators shall utilize natural materials which do not adversely [a]ffect water quality.
11. Within jurisdictional wetlands, all grading and construction shall be in accordance with a Section 404 permit.
12. Stormwater detention basins shall be designed to ensure public safety, be visually unobtrusive, and provide wildlife habitat. The design shall be reviewed and approved by the Department of Transportation (DOT) and the CDFG.
13. To ensure that storm drainage flows are not impeded to the degree that flooding occurs, tree planting programs within stream corridors shall be reviewed and approved by the County DOT.
14. Street crossings of intermittent streams shall be by bridges or half-round culverts to facilitate passage of terrestrial and aquatic organisms.

Specific Plan Section 7.5, Woodland Habitat and Oak Trees

It is an objective of this Plan to conserve and enhance existing oak woodland habitat and native oak trees to the maximum extent possible. It is also the objective of this Plan to maintain existing native plant species within natural habitat areas and to introduce only native plant species to these areas. Compensation trees, as described herein, are encouraged in habitat establishment areas to the extent that such trees are native oak or riparian species. The following policies are intended to minimize tree loss and provide for the planting of new trees as compensation for oak trees 6 inches dbh or larger which are impacted by development of the Plan area. The requirement for tree replacement or compensation is triggered as a result of any disturbance to an oak tree or the soil within its dripline or canopy (i.e.,

cutting roots, removal, trenching, grading, etc.). The compensation policy is predicated upon the anticipation that impacted trees have a higher probability of mortality than non-impacted trees. Dripline or canopy is defined as the aerial extent of branches and foliage of one or several adjoining trees projected to ground level.

1. At the time of subdivision application, a certified arborist's report shall be submitted and include the following with respect to oak and other native trees:
 - a. Based upon air photos and a ground survey on a base map of 1" = 50' scale or larger;
 - b. Location of dripline for all trees 6 inches dbh, or greater, and groves of trees;
 - c. Size (dbh) and species determination list of all trees 6 inches dbh or greater within the project area;
 - d. Trees impacted by the proposed project;
 - e. Location of planting areas for compensation trees;
 - f. Health of trees and any recommendations for trimming and/or removal for health and safety purposes requires no compensation; and
 - g. Management plan for the long-term conservation of oak woodland habitat in the subdivision area.
2. Oak tree groves and oak woodland habitat shall be conserved within the Plan area principally by avoidance. PD Combining Zone District shall be employed as a means of clustering residential density away from oak tree groves. Groves may be included within residential lots only if homes are constructed within a designated building envelope that avoids the grove(s), or the grove is contained within a conservation setback as previously described. Any tree in a grove impacted by construction activity shall be subject to a 1:1 compensation ratio, with a minimum 5-gallon tree of like species.
3. A grove shall be defined as any group of oak trees, regardless of maturity, with a continuous canopy of 5,000 square feet or greater measured at the dripline (see Figure 7-3).
4. Impacted trees (non-grove) shall be replaced by like oak species and a minimum 5-gallon tree at a ratio of 2:1.
5. An impacted tree is defined as any oak tree which has (1) had live branches or roots cut or otherwise removed; or (2) has had soil within the dripline disturbed by grading, trenching, or tunneling. Diversion of storm drainage into and irrigation within the dripline area constitutes impact under this definition(s). Those trees removed for health and safety purposes are not considered impacted trees.
6. All compensation trees shall be planted within the public street right-of-way landscape easements, open space areas, parks, park-and-ride lot areas, and other lands owned by the public, homeowners associations or encumbered by conservation easements.
7. Compensation trees shall be planted in a manner and location prescribed in the arborist's report.
8. Where tree protection is required, the property owner shall be required to provide financial security in an amount identified by an arborist. The security shall be forfeited and utilized for ongoing tree maintenance programs if the tree is impacted as defined herein.
9. Fencing (chain link, ski fencing, or other suitable material) shall be provided as a physical barrier to alert construction workers and property owners of the protection. The fencing shall be installed one foot outside the dripline of any single tree or grove which is in close proximity to, and potentially affected by construction activity. A sign shall be posted which describes the trees as protected and subject to forfeiture of a security deposit.
10. The survival rate of compensation trees shall be 90 percent for a period of 5 years from the date of planting. To ensure this survival goal, the following measures shall be provided:

- a. To guarantee survival through the first 3 years following planting, a maintenance bond, cash, or other financial encumbrance acceptable to the County and the EDHCSD shall be provided based on a cost estimate provided by the arborist's report.
 - b. The tree survival program shall be administered by the EDHCSD and be funded through the LLAD.
 - c. The LLAD shall fund, and the CSD shall administer the ongoing planting program defined in the arborist's report.
 - d. Survival for years 3 through 5 following planting shall be ensured by a LLAD administered by the EDHCSD. Tree impact forfeiture money will be diverted to this district per the above policy.
11. In addition to the oak tree compensation program, a minimum of four (4) trees of any native species shall be planted on each lot within the Plan area in conjunction with construction and prior to occupancy of each dwelling. Trees shall be a minimum container size of 5 gallons.
12. Irrigation within the driplines of existing oak trees is prohibited, except by means of drip systems which focus upon the target vegetation.

Prior CEQA Mitigation Measures

1992 BLRSA Final PEIR

D04 Prior to development, each project will submit a grading plan to the El Dorado County Planning Department and Department of Transportation for review and approval.

D05 Grading, trenching, and similar construction activities which involve disturbance of the soil will be performed in accordance with the provisions of County Ordinance 3983. The ordinance specifies that such activities be restricted to the summer season and/or extended periods of dry weather. Filter berms, sandbag or hay bale barriers, culvert risers, filter inlets, and/or sediment detention basins will be utilized as appropriate during construction to protect area waterways from siltation and debris. All intermittent streams will be appropriately vegetated or lined with coarse rock.

E01 Individual projects within the study area will adhere to the mitigation identified in the El Dorado Hills Salmon Falls Area Plan which specifies "Non-building setbacks of 100 feet from perennial streams; 50 feet from intermittent streams; 150 feet from lakes; and 100 feet from ponds, should be observed as recommended by the County Health Department." Drainage will be conveyed in vegetated corridors, and installation of storm drains will be restricted to minor swales where such systems are required to convey runoff to the protected corridors. Major intermittent streams will be maintained as vegetated corridors. Except for limited erosion control measures (bank stabilization, planting of native compatible grasses to enhance cover, etc.), public access trails, and maintenance roads, no development will be permitted within these corridors. All culverts will be designed to allow the passage of aquatic organisms.

F01 Each project proposed on a property which supports native oak trees will retain an arborist to prepare a tree survey. The survey will provide an inventory of trees on the site, recommendations for the removal or preservation of individual trees, and a reforestation plan. Prior to construction, fencing will be installed outside of the dripline of trees which are to be protected.

F02 Properties which harbor elderberry plants will obtain clearance from the U. S. Fish and Wildlife Service (USFWS) prior to disturbance of the plants. It is anticipated that the USFWS will require mitigation for disturbance of these plants. Clearance will be required prior to approval of tentative maps.

F03 Prior to approval of tentative maps, properties identified in this EIR as supporting wetland resources will be required to provide evidence of compliance with California Department of Fish and Game (CDFG) policy and Section 404 of the Clean Water Act as administered by the U.S. Army Corps of Engineers (COE). To satisfy Section 404

requirements, it is anticipated that each project will be required to provide a site specific wetland assessment and mitigation plan. The County will determine, on a project-by-project basis, the form in which additional information is to be submitted.

1995 Addendum

No new mitigation measures.

2005 Bell Ranch MND

MM 3.3.1: If construction is expected to occur during the nesting season (February-August) for raptors and (March to August) for songbirds, the applicant shall submit to the El Dorado County Planning Department a pre-construction raptor survey to determine if any active nests occur on the project site. The survey shall be conducted by a qualified biologist no more than 30 days prior to the initiation of construction. If nests are found and considered to be active, construction activities shall not occur within 500 feet of the nests until the young have fledged or until a biologist determines that the nests are no longer active. If construction activities are proposed to occur during non-breeding season (August-January) for raptors and (August to February) for songbirds, a survey for raptors is not required and no further studies are necessary.

MM 3.3.2: The applicant shall submit to the El Dorado County Planning Department a burrowing owl survey conducted no more than 30 days prior to the onset of construction. Burrowing owls can be present during all times of the year in California; so this survey is recommended regardless of the time construction activities occur.

If active burrows are located during the preconstruction survey, a 250-foot buffer zone shall be established around each burrow until the young have fledged and are able to exit the burrow. If occupied burrows are found without nesting activity or active burrows are found after the young have fledged, or if development commences after the breeding season (typically February-August), passive relocation of the birds shall be performed. Passive relocation involves installing a one-way door at the burrow entrance, which encourages the owls to move from the occupied burrow. CDFG shall be consulted for guidelines for passive relocation of any owls found onsite. Mitigation acreage may be required for project impacts that result in impacts to active owl burrows and foraging habitat. CDFG recommends 6.5 acres of foraging habitat be preserved for each active burrow impacted by project activities. These mitigation measures would only apply in the event that active owl burrows were encountered during the preconstruction survey.

MM 3.3.3: A qualified biologist shall conduct a focused survey for western spadefoot toad during the breeding season (January-May). If the species is identified, measures will be taken to protect it during breeding and to conduct removal of soil and ground during the time of year when this species is active mobile enough to escape harm.

MM 3.3.4: A preconstruction survey by a qualified biologist shall be conducted prior to construction activities to determine the presence or absence of roosting bats. If the survey does not identify the presence of these species onsite, no further mitigation is required.

However, if roosts occupied by species status bat species are identified within the construction area, the bats shall be safely flushed from the sites where roosting habitat is planned to be removed prior to the maternity roosting periods.

MM 3.3.5:⁴⁴ The Applicant shall retain qualified personnel approved by the County to perform a formal wetland delineation following published Corps guidelines to establish actual acreage of potential impacts to jurisdictional wetlands and other Waters of the United States. This delineation shall then be submitted to the Corps for verification. This measure is in accordance with County policy 7.3.3.1.

⁴⁴ As stated in the Bell Ranch MMRP, mitigation measures 3.3.5 through 3.3.7 supersede mitigation measure F03 from the Bass Lake Road Study Area Program EIR and Addendum.

MM 3.3.6: If impacts to "waters of the U. S." are not avoidable, and onsite preservation is not possible, then habitat compensation shall be required at a 1:1 impact preservation ratio. This measure is in accordance with County policy 7.3.3.2.

MM 3.3.7: In order to comply with federal regulations regarding impacts to "waters of the United States" (as defined in the Clean Water Act Section 404) the Applicant shall comply with required Army Corps of Engineers Section 404 permit conditions including maintenance of minimum protective buffer/set back areas surrounding wetlands. A mitigation and monitoring plan shall be required that will identify impacts on all jurisdictional features and mitigation measures that will be implemented to achieve the "no net loss" policy. Evidence of compliance shall be submitted to El Dorado County prior to site disturbance.

MM 3.3.8: The Applicant shall also comply with required Section 1602 Streambed Alteration Agreement issued by CDFG for projects that substantially divert, obstruct natural flow or substantially change the bed, channel, or bank of river, stream, or lake designated by CDFG. Evidence of compliance shall be submitted to El Dorado County prior to site disturbance.

MM 3.3.9:⁴⁵ The project applicant shall mitigate for the removal of 298 native oak trees 6-inches dbh or larger by planting replacement trees on site using a two to one mitigation ratio, as recommended in the CTA arborist report. Acorn seedlings shall be planted in areas of open space or landscape easements on site, as shown on the Tree Preservation Plan map for the Bell Ranch project. The following Tree Replacement Mitigation Guidelines shall be implemented, as described in the CTA arborist report:

- Re-seed with quality acorns harvested from the various species within the general area where the mitigation is to be performed; If it is not possible to collect acorns on site, then they must be purchased from a wholesale distributor such as the CDF nursery in Davis, California. Seeds must be ordered a year in advance.
- Each planting site will be prepared and receive five acorns. Each site will include a protective device to discourage damage from birds, rodents, and deer brows. This device must remain in place for the first two years after planting. No more than one inch of organic mulch will be spread over the soil surface within the fenced enclosure. No organic except natural humus that may contain Mycorrhiza will be allowed inside the protective device.
- An application for an approved pre-emergent for weed control will be necessary once the groups have been planted and the cones are in place. No pre-emergent can be used inside the cones. Future weed control will be determined on as needed basis.
- The planting will be done in groups of ten to thirty planting sites of mixed species. Environments where only valley oaks can grow will be the only exception to planting a mix of species. Each planting site within the group must not be closer than six feet to any adjacent site. To promote normal root development, no irrigating or fertilizing will be allowed. Commercial Mycorrhiza is okay.
- When the tree's crown emerges from the top of the cone it will be necessary to spray it at least three times a season to control deer brows. The first application shall be made when the foliage is over fifty percent developed. Reapply if there has been heavy rain. The year after the foliage has emerged from the protective cone it must be pulled. Arrangements shall be made in the contract for the disposal of these devices. This is a good time to thin out the weaker trees if more than one seedling survives.
- The tree replacement mitigation shall comply with General Plan Policy 7.4.4.4 regarding canopy coverage standards.

⁴⁵ As stated in the Bell Ranch MMRP, mitigation measures 3.3.9 and 3.3.10 supersede mitigation measure F01 of the Bass Lake Road Study Area Program EIR and Addendum.

- As an alternative to acorn planting as described above, the project proponent may mitigate for tree loss by reverting to the measures identified in the Bass Lake Hills Specific Plan or preservation of existing offsite oak woodlands, or a combination of both.
- The tree replacement mitigation guidelines shall include maintenance and inspection of tree replanting areas, including a schedule for inspection and maintenance over a five-year period and an annual reporting program to the County on the progress of the mitigation. Tree plantings shall have a minimum survival rate of 80 percent at the end of the five-year monitoring and maintenance period. If this rate is not met, the program will require replanting and continual monitoring for five additional years.

MM 3.3.10: The project applicant shall comply with the following tree protection requirements and employ best management practices and measures (established in the BLHSP and County ordinances and design and Improvement standards) to minimize for potential impacts to any protected trees. In addition, the following measures shall be incorporated into the project improvement plans and implemented during construction:

- Construction within 50 feet of an oak tree requires placement of a 6 foot tall temporary fence (chain link, ski fencing, or other suitable material) to serve as a physical barrier to alert construction workers and property owners of the protection. The fencing shall be installed one foot outside the dripline of any single tree or grove (defined as the root protection zone or RPZ) that is within 50 feet of any potential construction. A sign shall be posted which describes the trees as protected and subject to forfeiture of a security deposit.
- Perform a field inspection prior to site grading to ensure that trees to be preserved, in areas affected by grading activities, are fenced at the dripline.
- Any activities within the RPZ, either above or below the soil surface, must be supervised by a qualified arborist.
- Underground utilities installed within the temporary fence must be hand dug so not to cut any roots over 2". Roots 2" or larger must be cleanly cut with pruning equipment. While working around roots they must be protected by wrapping with foam or burlap to prevent drying.
- Only dead or weakened branches may be removed by a licensed arborist.
- Oak tree foliage must be hosed off weekly during construction.
- If root loss is extensive it may be necessary to establish a supplemental irrigation program to provide the tree with adequate moisture during summer months.
- Avoid stripping of the surface of natural organic layers if it is not necessary. If the natural organic layer has been removed within the RPZ, each injured tree must have three to four inches of quality organic mulch reinstalled.
- If it is necessary to cross over the RPZ of a protected tree with a vehicle a road can be constructed using eight to ten inches of shredded mulch as a driving surface. When the project is completed that material can be used as a top dressing where needed.
- Loss or damage of protected trees shall be compensated for in the form of a cash settlement based on the diameter at diameter breast height (DBH) of the lost or damaged tree in the dollar amounts specified on page 9 of the CTA Arborists Report for the Bell Ranch project.
- A replacement bond of \$40,000.00 (equal to twice the compensation rate for a 40-inch diameter tree) for the cost of current mitigation work or remedial tree care shall be submitted to El Dorado County.

MM 3.3.1: If construction is expected to occur during the nesting season (February-August) for raptors or (March to August) for songbirds, the applicant shall submit to the El Dorado County Planning Department a pre-construction raptor survey to determine if any active nests occur on the project site. The survey should also identify snags, cavities or other nesting habitat suitable for special status bird species including Nuttall's woodpecker and oak titmouse covered by MBTA. The survey shall be conducted by a qualified biologist no more than 30 days prior to the initiation of construction. If nests are found and considered to be active, construction activities shall not occur within 500 feet of the nests until the young have fledged or until a biologist determines that the nests are no longer active. If construction activities are proposed to occur during non-breeding season (August-January) for raptors and (August to February) for songbirds, a survey for raptors is not required and no further studies are necessary.

MM 3.3.2: The applicant shall submit to the El Dorado County Planning Department a burrowing owl survey conducted no more than 30 days prior to the onset of construction. Burrowing owls can be present during all times of the year in California, so this survey is recommended regardless of the time construction activities occur.

If active burrows are located during the preconstruction survey, a 250-foot buffer zone shall be established around each burrow until the young have fledged and are able to exit the burrow. If occupied burrows are found without nesting activity or active burrows are found after the young have fledged, or if development commences after the breeding season (typically February-August), passive relocation of the birds shall be performed. Passive relocation involves installing a one-way door at the burrow entrance, which encourages the owls to move from the occupied burrow. CDFG shall be consulted for guidelines for passive relocation of any owls found onsite. Mitigation acreage may be required for project impacts that result in impacts to active owl burrows and foraging habitat. CDFG recommends 6.5 acres of foraging habitat be preserved for each active burrow impacted by project activities.

MM 3.3.3: The project applicant shall design the project to avoid impacts to potential habitat for VELB (elderberry shrubs; see Foothill Associate's Biological Resources Assessment, 2004), if feasible. If project development is required in areas that may impact elderberry shrubs containing stems measuring 1.0 inch or greater in diameter at ground level (development within 100 feet of shrub dripline), the project applicant shall perform one of the following measures:

1. Fence and flag all areas to be avoided during construction activities. In areas where encroachment on the 100-foot buffer has been approved by the USFWS, provide a minimum setback of at least 20 feet from the dripline of each elderberry plant.
2. Brief contractors on the need to avoid damaging the elderberry plants and the possible penalties for not complying with these requirements.
3. Erect signs every 50 feet along the edge of the avoidance area with the following information: "This area is habitat of the valley elderberry longhorn beetle, a threatened species, and must not be disturbed. This species is protected by the Endangered Species Act of 1973, as amended. Violators are subject to prosecution, fines and imprisonment." The signs should be clearly readable from a distance of 20 feet and must be maintained for the duration of construction.
4. Instruct work crews about the status of the beetle and the need to protect its elderberry host plant.

Restoration and Maintenance

1. Restore any damage done to the buffer area (area within 100 feet of elderberry plants) during construction. Provide erosion control and re-vegetate with appropriate native plants.
2. Buffer areas must continue to be protected after construction from adverse effects of the project. Measures such as fencing, signs, weeding and trash removal are usually appropriate.

3. No insecticides, herbicides, fertilizers or other chemicals that might harm the beetle or its host plant should be used in the buffer areas, or within 100 feet of any elderberry plant with one or more stems measuring 1.0 inch or greater in diameter at ground level.
4. The applicant must provide a written description of how the buffer areas are to be restored, protected and maintained after construction is completed.
5. Mowing of grasses/ground cover may occur from July through April to reduce fire hazard. No mowing should occur within five feet of elderberry plant stems. Mowing must be done in a manner that avoids damaging plants (e.g., stripping away bark through careless use of mowing/trimming equipment).

If the shrub cannot be avoided, then a mitigation plan shall be developed and implemented in consultation with USFWS consistent with the conservation guidelines for the valley elderberry longhorn beetle, which likely includes one or more of the following:

- Obtain credits at an approved mitigation bank; or
- Implement an onsite mitigation and monitoring plan that includes transplantation of the shrub and planting of elderberry seedlings.

The mitigation plan shall be approved by the USFWS prior to acceptance by the County. Any required onsite mitigation shall be incorporated into subsequent improvement and construction plans.

MM 3.3.4: A qualified biologist shall conduct a focused survey for western spadefoot toad during the breeding season (January-May). If the species is identified, measures will be taken to protect it during breeding and to conduct removal of soil and ground during the time of year when this species is active mobile enough to escape harm.

MM 3.3.5: A preconstruction survey by a qualified biologist shall be conducted prior to construction activities to determine the presence or absence of roosting bats. If the survey does not identify the presence of these species onsite, no further mitigation is required.

However, if roosts occupied by special status bat species are identified within the construction area, the bats shall be safely flushed from the sites where roosting habitat is planned to be removed prior to the maternity roosting periods.

MM 3.3.6:⁴⁶ The Applicant shall retain qualified personnel approved by the County to perform a formal wetland delineation following published Corps guidelines to establish actual acreage of potential impacts to jurisdictional wetlands and other Waters of the United States. This delineation shall then be submitted to the Corps for verification. This measure is in accordance with County policy 7.3.3.1.

MM 3.3.7: Impacts to "waters of the U. S." are not avoidable, and onsite preservation is not possible, then habitat compensation shall be required at a 1:1 impact preservation ratio. This measure is in accordance with County policy 7.3.3.2.

MM 3.3.8: In order to comply with federal regulations regarding impacts to "waters of the United States" (as defined in the Clean Water Act Section 404) the Applicant shall comply with required Army Corps of Engineers Section 404 permit conditions including maintenance of minimum protective buffer/set back areas surrounding wetlands. A mitigation and monitoring plan shall be required that will identify impacts on all jurisdictional features and mitigation measures that will be implemented to achieve the "no net loss" policy. Evidence of compliance shall be submitted to El Dorado County prior to site disturbance.

MM 3.3.9: The Applicant shall also comply with required Section 1602 Streambed Alteration Agreement issued by CDFG for projects that substantially divert, obstruct natural flow or substantially change the bed, channel, or bank

⁴⁶ According to the Bell Woods MMRP, Mitigation Measures 3.3.6 through 3.3.8 supersede Mitigation Measure F03 from the Bass Lake Road Study Area Program EIR and Addendum.

of river, stream, or lake designated by CDFG. Evidence of compliance shall be submitted to El Dorado County prior to site disturbance.

MM 3.3.10: The project applicant shall mitigate for the removal of 421 native oak trees 6-inches dbh or larger by planting 842 replacement trees on site using a two to one mitigation ratio, as recommended in the arborist report. Acorn seedlings shall be planted in areas of open space or landscape easements on site, as shown on the Tree Preservation Plan map for the Bell Woods project. The following Tree Replacement Mitigation Guidelines shall be implemented, as described in the arborist report:

- Re-seed with quality acorns harvested from the various species within the general area where the mitigation is to be performed. If it is not possible to collect acorns on site then they must be purchased from a wholesale distributor such as the CDF nursery in Davis, California. Seeds must be ordered a year in advance.
- Each planting site will be prepared and receive five acorns. Each site will include a protective device to discourage damage from birds, rodents, and deer brows. This device must remain in place for the first two years after planting. No more than one inch of organic mulch will be spread over the soil surface within the fenced enclosure. No organic except natural humus that may contain Mycorrhiza will be allowed inside the protective device.
- An application for an approved pre-emergent for weed control will be necessary once the groups have been planted and the cones are in place. No pre-emergent can be used inside the cones. Future weed control will be determined on an as-needed basis.
- The planting will be done in groups of ten to thirty planting sites of mixed species. Environments where only valley oaks can grow will be the only exception to planting a mix of species. Each planting site within the group must not be closer than six feet to any adjacent site. To promote normal root development, no irrigating or fertilizing will be allowed. Commercial Mycorrhiza is okay.
- When the tree's crown emerges from the top of the cone it will be necessary to spray it at least three times a season to control deer brows. The first application shall be made when the foliage is over fifty percent developed. Reapply if there has been heavy rain. The year after the foliage has emerged from the protective cone it must be pulled. Arrangements shall be made in the contract for the disposal of these devices. This is a good time to thin out the weaker trees if more than one seedling survives.
- The tree replacement mitigation shall comply with General Plan Policy 7.4.4.4 regarding canopy coverage standards by retaining or replacing 70 percent of the existing oak tree canopy.
- As an alternative to acorn planting as described above, the project proponent may mitigate for tree loss by reverting to the measures identified in the Bass Lake Hills Specific Plan or preservation of existing offsite oak woodlands, or a combination of both.
- The tree replacement mitigation guidelines shall include maintenance and inspection of tree replanting areas, including a schedule for inspection and maintenance over a five-year period and an annual reporting program to the County on the progress of the mitigation. Tree plantings shall have a minimum survival rate of 80 percent at the end of the five-year monitoring and maintenance period. If this rate is not met, the program will require replanting and continual monitoring for five additional years.

MM 3.3.11: The project applicant shall comply with the following tree protection requirements and employ best management practices and measures (established in the BLHSP and County ordinances and design and improvement standards) to minimize for potential impacts to any protected trees. In addition, the following measures shall be incorporated into the project improvement plans and implemented during construction:

- Construction within 50 feet of an oak tree requires placement of a 6 foot tall temporary fence (chain link, ski fencing, or other suitable material) to serve as a physical barrier to alert construction workers and property owners of the protection. The fencing shall be installed one foot outside the dripline of any single tree or grove (defined as the root protection zone or RPZ) that is within 50 feet of any potential construction. A sign shall be posted which describes the trees as protected and subject to forfeiture of a security deposit.
- Perform a field inspection prior to site grading to ensure that trees to be preserved in areas affected by grading activities are fenced at the dripline.
- Any activities within the RPZ, either above or below the soil surface, must be supervised by a qualified arborist.
- Underground utilities installed within the temporary fence must be hand dug so not to cut any roots over 2 inches. Roots 2 inches or larger must be cleanly cut with pruning equipment. While working around roots they must be protected by wrapping with foam or burlap to prevent drying.
- Only dead or weakened branches may be removed by a licensed arborist.
- Oak tree foliage must be hosed off weekly during construction.
- If root loss is extensive it may be necessary to establish a supplemental irrigation program to provide the tree with adequate moisture during summer months.
- Avoid stripping of the surface of natural organic layers if it is not necessary. If the natural organic layer has been removed within the RPZ, each injured tree must have three to four inches of quality organic mulch reinstalled.
- If it is necessary to cross over the RPZ of a protected tree with a vehicle a road can be constructed using eight to ten inches of shredded mulch as a driving surface. When the project is completed that material can be used as a top dressing where needed.
- Loss or damage of protected trees shall be compensated for in the form of a cash settlement based on the diameter at diameter breast height (DBH) of the lost or damaged trees.
- A replacement bond of \$40,000.00 (equal to twice the compensation rate for a 40-inch diameter tree) for the cost of current mitigation work or remedial tree care shall be submitted to El Dorado County.
- All trees to be preserved shall be numbered and tagged. Care shall be taken when performing soil cuts, fills, alteration of existing grades, soil compaction and mechanical injuries in tree areas.

2005 Hawk View MND

MM 3.3.1: If construction is expected to occur during the nesting season (February-August), the applicant shall submit to the El Dorado County Planning Department a pre-construction raptor survey to determine if any active raptor nests occur on the project site. The survey shall be conducted by a qualified biologist no more than 30 days prior to the initiation of construction. If nests are found and considered to be active, construction activities shall not occur within 500 feet of the nests until the young have fledged or until a biologist determines that the nests are no longer active. If construction activities are proposed to occur during non-breeding season (August-January), a survey is not required and no further studies are necessary.

MM 3.3.2: The applicant shall submit to the El Dorado County Planning Department a burrowing owl survey conducted no more than 30 days prior to the onset of construction. Burrowing owls can be present during all times of the year in California, so this survey is recommended regardless of the time construction activities occur.

If active burrows are located during the preconstruction survey, a 250-foot buffer zone shall be established around each burrow until the young have fledged and are able to exit the burrow. If occupied burrows are found without

nesting activity or active burrows are found after the young have fledged, or if development commences after the breeding season (February-August), passive relocation of the birds shall be performed. Passive relocation involves installing a one-way door at the burrow entrance, which encourages the owls to move from the occupied burrow. CDFG shall be consulted for guidelines for passive relocation of any owls found onsite. Mitigation acreage may be required for project impacts that result in impacts to active owl burrows and foraging habitat. CDFG recommends 6.5 acres of foraging habitat be preserved for each active burrow impacted by project activities.

These mitigation measures would only apply in the event that active owl burrows were encountered during the preconstruction survey.

MM 3.3.3a: Provide a 50-foot non-disturbance setback from the center of the wetlands as delineated by Foothill Associates in May 2004. No site disturbance shall occur within the setback area.

MM 3.3.3b: The following measures are identified to avoid impacts to potential waters of the United States. These measures, and all other permit requirements, will be included in contract specifications and will be implemented by the contractor.

1. Erosion and sediment control measures
 - a. Prior to construction, the construction corridor will be identified, and marked in the field. The subcontractor will not disturb wetland areas, marked or otherwise. Temporary siltation fencing will be installed in advance of construction activity 50 feet from the centerline of the wetlands. Other methods of temporary erosion control, including but not limited to hay bale check dams, shall be employed to protect wetland areas. Protective measures will remain on site and in good repair until all construction activities in that zone are complete.
 - b. Erosion control devices will be monitored on a regular basis and augmented as necessary.
 - c. Protective measures will be removed by the construction contractor following completion of construction activities.
2. Spill Prevention and Response.
 - a. Spill Prevention
 - i. No refueling, storage, servicing, or maintenance of equipment will take place within 100 feet of the wetlands to reduce the potential of contamination by spills.
 - ii. Construction equipment will be maintained and kept in good operating condition to reduce the likelihood of line breaks and seepage.
 - iii. Absorbent materials including absorbent pads, mats, socks, pillows, and granules will be kept onsite and available for immediate use. Drip pans will be used when refueling or servicing equipment. All refueling and service vehicles will be required to have an ample stock of these materials on hand.
 - iv. Excess supplies of certified weed-free straw bales, sedimentation fencing, and portable sumps will be available for use as needed.
 - b. Spill Response. Because the likelihood of a large spill (such as emergency ruptures and vehicle accidents due to natural disasters, accidents, or equipment failure) is low, only procedures for small spills are discussed below.
 - i. Small spills will be contained by the use of absorbent supplies or shovels.
 - ii. Cleanup of minor spills will include removal of the materials and any contaminated soil using absorbent supplies and shovels. The quantities will be small and should fit into a container carried by the refueling vehicle or construction equipment.

Minor spills will be cleaned up as discussed above; no formal notification will be given to agencies.

2016 Mitigation Measures

As discussed in the comparative impact analysis section above, the prior CEQA documents include a variety of mitigation measures. In order to provide a consistent set of mitigation measures that would apply to the proposed COA Amendments, the following measures are presented based upon mitigation measures from prior CEQA documents. These measures include updates to measures that comply with current practices.

Mitigation Measure 4-1: Prior to approval of site work, the project applicant shall provide a report showing the location, size, and health of trees that would be impacted or removed by construction activities. If any of the trees that would be removed are native oaks, the project applicant shall mitigate for the loss by planting replacement trees on site using a 2:1 mitigation ratio. The following Tree Replacement Mitigation Guidelines shall be implemented:

- Re-seed with quality acorns harvested from the various species within the general area where the mitigation is to be performed. If it is not possible to collect acorns on site then they must be purchased from a wholesale distributor such as the CDF nursery in Davis, California. Seeds must be ordered a year in advance.
- Each planting site will be prepared and receive five acorns. Each site will include a protective device to discourage damage from birds, rodents, and deer brows. This device must remain in place for the first two years after planting. No more than one inch of organic mulch will be spread over the soil surface within the fenced enclosure. No organic except natural humus that may contain Mycorrhiza will be allowed inside the protective device.
- An application for an approved pre-emergent for weed control will be necessary once the groups have been planted and the cones are in place. No pre-emergent can be used inside the cones. Future weed control will be determined on an as-needed basis.
- The planting will be done in groups of ten to thirty planting sites of mixed species. Environments where only valley oaks can grow will be the only exception to planting a mix of species. Each planting site within the group must not be closer than six feet to any adjacent site. To promote normal root development, no irrigating or fertilizing will be allowed. Commercial Mycorrhiza is okay.
- When the tree's crown emerges from the top of the cone it will be necessary to spray it at least three times a season to control deer brows. The first application shall be made when the foliage is over fifty percent developed. Reapply if there has been heavy rain. The year after the foliage has emerged from the protective cone it must be pulled. Arrangements shall be made in the contract for the disposal of these devices. This is a good time to thin out the weaker trees if more than one seedling survives.
- The tree replacement mitigation shall comply with General Plan Policy 7.4.4.4 regarding canopy coverage standards by retaining or replacing 70 percent of the existing oak tree canopy.
- As an alternative to acorn planting as described above, the project proponent may mitigate for tree loss by reverting to the measures identified in the Bass Lake Hills Specific Plan or preservation of existing offsite oak woodlands, or a combination of both.
- The tree replacement mitigation guidelines shall include maintenance and inspection of tree replanting areas, including a schedule for inspection and maintenance over a five-year period and an annual reporting program to the County on the progress of the mitigation. Tree plantings shall have a minimum survival rate of 80 percent at the end of the five-year monitoring and maintenance period. If this rate is not met, the program will require replanting and continual monitoring for five additional years.

Mitigation Measure 4-2: The project applicant shall comply with the following tree protection requirements and employ best management practices and measures (established in the BLHSP and County ordinances and design and improvement standards) to minimize for potential impacts to any protected trees. In addition, the following measures shall be incorporated into the project improvement plans and implemented during construction:

- Construction within 50 feet of an oak tree requires placement of a 6 foot tall temporary fence (chain link, ski fencing, or other suitable material) to serve as a physical barrier to alert construction workers and property owners of the protection. The fencing shall be installed one foot outside the dripline of any single tree or grove (defined as the root protection zone or RPZ) that is within 50 feet of any potential construction. A sign shall be posted which describes the trees as protected and subject to forfeiture of a security deposit.
- Perform a field inspection prior to site grading to ensure that trees to be preserved in areas affected by grading activities are fenced at the dripline.
- Any activities within the RPZ, either above or below the soil surface, must be supervised by a qualified arborist.
- Underground utilities installed within the temporary fence must be hand dug so not to cut any roots over 2 inches. Roots 2 inches or larger must be cleanly cut with pruning equipment. While working around roots they must be protected by wrapping with foam or burlap to prevent drying.
- Only dead or weakened branches may be removed by a licensed arborist.
- Oak tree foliage must be hosed off weekly during construction.
- If root loss is extensive it may be necessary to establish a supplemental irrigation program to provide the tree with adequate moisture during summer months.
- Avoid stripping of the surface of natural organic layers if it is not necessary. If the natural organic layer has been removed within the RPZ, each injured tree must have three to four inches of quality organic mulch reinstalled.
- If it is necessary to cross over the RPZ of a protected tree with a vehicle a road can be constructed using eight to ten inches of shredded mulch as a driving surface. When the project is completed that material can be used as a top dressing where needed.
- Loss or damage of protected trees shall be compensated for in the form of a cash settlement based on the diameter at diameter breast height (DBH) of the lost or damaged trees.
- A replacement bond of \$40,000.00 (equal to twice the compensation rate for a 40-inch diameter tree) for the cost of current mitigation work or remedial tree care shall be submitted to El Dorado County.
- All trees to be preserved shall be numbered and tagged. Care shall be taken when performing soil cuts, fills, alteration of existing grades, soil compaction and mechanical injuries in tree areas.

Mitigation Measure 4-3: If construction is expected to occur during the nesting season (February-August) for raptors and (March to August) for songbirds, the applicant shall submit to the El Dorado County Development Services Division a pre-construction raptor survey to determine if any active nests occur on the project site. The survey shall be conducted by a qualified biologist no more than 5 days prior to the initiation of construction. If nests are found and considered to be active, construction activities shall not occur within 500 feet of the nests until the young have fledged or until a biologist determines that the nests are no longer active. If construction activities are proposed to occur during non-breeding season (August-January) for raptors and (August to February) for songbirds, a survey for raptors is not required and no further studies are necessary.

Mitigation Measure 4-4: The applicant shall submit to the El Dorado County Development Services Division a burrowing owl survey conducted no more than 30 days prior to the onset of construction. Burrowing owls can be present during all times of the year in California, so this survey is recommended regardless of the time construction activities occur.

If active burrows are located during the preconstruction survey, a 250-foot buffer zone shall be established around each burrow until the young have fledged and are able to exit the burrow. If occupied burrows are found without nesting activity or active burrows are found after the young have fledged, or if development commences after the breeding season (typically February-August), relocation of the birds shall be performed. The California Department of Fish and Wildlife (CDFW) shall be consulted for guidelines for relocation of any owls found onsite. Mitigation acreage may be required for project impacts that result in impacts to active owl burrows and foraging habitat. CDFW recommends 6.5 acres of foraging habitat be preserved for each active burrow impacted by project activities.

Mitigation Measure 4-5: The project applicant shall design the project to avoid impacts to potential habitat for VELB, if feasible. If project development is required in areas that may impact elderberry shrubs containing stems measuring 1.0 inch or greater in diameter at ground level (development within 100 feet of shrub dripline), the project applicant shall perform one of the following measures:

1. Fence and flag all areas to be avoided during construction activities. In areas where encroachment on the 100-foot buffer has been approved by the USFWS, provide a minimum setback of at least 20 feet from the dripline of each elderberry plant.
2. Brief contractors on the need to avoid damaging the elderberry plants and the possible penalties for not complying with these requirements.
3. Erect signs every 50 feet along the edge of the avoidance area with the following information: "This area is habitat of the valley elderberry longhorn beetle, a threatened species, and must not be disturbed. This species is protected by the Endangered Species Act of 1973, as amended. Violators are subject to prosecution, fines and imprisonment." The signs should be clearly readable from a distance of 20 feet and must be maintained for the duration of construction.
4. Instruct work crews about the status of the beetle and the need to protect its elderberry host plant.

Restoration and Maintenance

1. Restore any damage done to the buffer area (area within 100 feet of elderberry plants) during construction. Provide erosion control and re-vegetate with appropriate native plants.
2. Buffer areas must continue to be protected after construction from adverse effects of the project. Measures such as fencing, signs, weeding and trash removal are usually appropriate.
3. No insecticides, herbicides, fertilizers or other chemicals that might harm the beetle or its host plant should be used in the buffer areas, or within 100 feet of any elderberry plant with one or more stems measuring 1.0 inch or greater in diameter at ground level.
4. The applicant must provide a written description of how the buffer areas are to be restored, protected and maintained after construction is completed.
5. Mowing of grasses/ground cover may occur from July through April to reduce fire hazard. No mowing should occur within five feet of elderberry plant stems. Mowing must be done in a manner that avoids damaging plants (e.g., stripping away bark through careless use of mowing/trimming equipment).

If the shrub cannot be avoided, then a mitigation plan shall be developed and implemented in consultation with USFWS consistent with the conservation guidelines for the valley elderberry longhorn beetle, which likely includes one or more of the following:

- Obtain credits at an approved mitigation bank; or
- Implement an onsite mitigation and monitoring plan that includes transplantation of the shrub and planting of elderberry seedlings.

The mitigation plan shall be approved by the USFWS prior to acceptance by the County. Any required onsite mitigation shall be incorporated into subsequent improvement and construction plans.

Mitigation Measure 4-6: The Applicant shall retain qualified personnel to perform a formal wetland delineation following published Corps guidelines to establish actual acreage of potential impacts to jurisdictional wetlands and other Waters of the United States. This delineation shall then be submitted to the Corps for verification prior to issuance of the Final Map. This measure is in accordance with County policy 7.3.3.1.

Mitigation Measure 4-7: If impacts to "waters of the U. S." are not avoidable, and onsite preservation is not possible, then habitat compensation shall be required at a 1:1 impact preservation ratio. This measure is in accordance with County policy 7.3.3.2.

Mitigation Measure 4-8: In order to comply with federal regulations regarding impacts to "waters of the United States" (as defined in the Clean Water Act Section 404) the Applicant shall comply with required Army Corps of Engineers Section 404 permit conditions including maintenance of minimum protective buffer/set back areas surrounding wetlands. A mitigation and monitoring plan shall be required that will identify impacts on all jurisdictional features and mitigation measures that will be implemented to achieve the "no net loss" policy. Evidence of compliance shall be submitted to El Dorado County prior to site disturbance.

Mitigation Measure 4-9: The Applicant shall also comply with required Section 1602 Streambed Alteration Agreement issued by CDFW for projects that substantially divert, obstruct natural flow or substantially change the bed, channel, or bank of river, stream, or lake designated by CDFW. Evidence of compliance shall be submitted to El Dorado County prior to site disturbance.

Environmental Issue Area	Where Impact Was Analyzed in Prior Environmental Documents.	Do Proposed Changes Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information of Substantial Importance?	Prior Environmental Documents Mitigations Implemented or Address Impacts?
5. Cultural Resources. Would the project:					
a. Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	PEIR, pp. N3 to N4; Addendum, pp. 69-70 and 102-3; Bell Woods MND (d) pp. 3-58 to 3-60; Bell Ranch MND (d) pp. 3-61; Hawk View MND (d) pp. 3-31	No	No	No	Yes
b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	PEIR, pp. N3-N4; Addendum, pp. 69-70, 102-103; Bell Woods MND (d) pp. 3-58 to 3-60 and (f) pp. 4-14; Bell Ranch MND (d) pp. 3-61 and (f) pp. 4-11 to 4-12; Hawk View MND (d) pp. 3-31 and (f) pp. 3-9	No	No	No	Yes
c. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	Bell Woods MND (d) pp. 3-58-60	No	No	No	Yes
d. Disturb any human remains, including those interred outside the formal cemeteries?	PEIR, N3-N4; Addendum, pp. 69-70, 102-103; Bell Woods MND (d) pp. 3-58-60 and (f) pp. 4-14; Bell Ranch MND (d) p. 3-61; Hawk View MND (d) pp. 3-31	No	No	No	Yes

Discussion

1. Changes to Project Related to Cultural Resources

The 1992 BLRSA Final PEIR anticipated that the 1,196 acre BLHSP area would be converted from grazing land and rural residential use to suburban development, with approximately 33% of the site being developed as homes, roads and associated infrastructure. Under the proposed COA Amendments, BL Road LLC, would make changes to the sequence and timing of certain prior-approved infrastructure improvements presented in the 1992 BLRSA Final PEIR and 1995 Addendum, and undertake minor changes to improvements to better serve incremental development of the tentative maps described in the MNDs for the Bell Woods, Bell Ranch and Hawk View projects (see below for more details). Within the proposed project boundary, project infrastructure improvements would be constructed in similar locations to those described in the 1992 BLRSA Final PEIR, with minor revisions to elements such as median landscaping within roadways. Some roadway improvements (e.g., the Bass Lake Interchange and Country Club Drive) would result in slightly larger/different footprints when compared to the BLHSP as evaluated in the 1992 BLRSA Final PEIR and 1995 Addendum, but these would all be within the original boundary of the BLHSP area and the development footprint of the area approved under the 1992 BLRSA Final PEIR would not change. The proposed project changes would affect approximately 125 acres of the BLHSP site.

2. Changes in Circumstances

Environmental Setting

Since the certification of the 1992 BLRSA Final PEIR, the BLHSP area has remained essentially undeveloped, with the exception of the Hollow Oak subdivision, located approximately one mile east of Bass Lake Road. This is the only suburban-density development within the BLHSP area; there are 99 single family homes on approximately 39 acres in this subdivision. Other development-related activities have taken place in and around the plan area, including: realignment and reconstruction of Bass Lake Road from Hollow Oak to Serrano Parkway; construction of two four-million gallon water tanks by EID at the north end of the Bell Ranch subdivision; installation of several water transmission lines; construction of El Dorado Hills Fire Station No. 86; construction of the Holy Trinity Catholic Church and School; acquisition of the proposed school site by the Buckeye School District; street and pad grading of the Hawk View subdivision has been started; clearing and grubbing of the Bell Woods subdivision in anticipation of grading; and grading of Morrison Road as part of underground utility line installation.

In addition to this development, the County also prepared, adopted, and approved MNDs for three tentative maps (Hawk View, Bell Woods and Bell Ranch), providing for 281 single family residential units and associated infrastructure improvements. As a result of these approvals, some improvements have been undertaken within the BLHSP area, including streets and pad grading on the Hawk View property and tree clearing on the Bell Woods property. Right-of-way acquisitions have also been made for the construction of Bass Lake Road and other off-site improvements.

Archaeological surveys undertaken in 1990 and 1991 identified two prehistoric and five historic sites located within the BLHSP project site,⁴⁷ described below:

- Site 1. This site consists of a historic family cemetery located on a hilltop north of Highway 50. The cemetery consists of seven burial sites, enclosed within a 14 by 15 meter fenced enclosure. The latest burial was in 1951.
- Site 2. This site is a single bedrock mortar pit on a low granite outcrop. No midden or artifact deposits were located in this area.
- Site 3. The site is a mining ditch in a heavily wooded segment of creek in Section 5. The ditch is shallow, unlined, and is associated with the remains of a rock dam which diverted water to it. No artifacts or historic materials were located. This ditch may have been associated with the Altdoerfer Ranch in the mid-nineteenth century.
- Site 4. This is a long abandoned mining complex, approximately 450 meters in length along a drainage swale. Remains of ditches, dams, tailings, and a water line are still visible within the site.
- Site 5. This site is a bedrock milling station with four mortar pits on the north bank of a swale. No midden or artifacts were located in the vicinity.
- Site 6. The site consists of approximately 60 meters of dry laid stone wall, typically three feet high and almost three feet wide at its base.
- Site 7. This is an historic road segment buttressed by rock work along a steep bank. Approximately 50 meters of this rock work is intact. This road may have been part of the Altdoerfer Ranch complex.

As part of the process to evaluate the potential impacts of the proposed COA Amendments, a field visit and records review were conducted in early 2015.⁴⁸ The 2015 cultural resources evaluation identified ten previously recorded sites that could be potentially affected by the proposed project (see **Table 5-1**).

⁴⁷ County of El Dorado. *Bass Lake Road Study Area Program Environmental Impact Report – Draft* (SCH#90020375). June 14, 1991. P. N-2.

⁴⁸ Environmental Science Associates (ESA). Letter to George Carpenter of Winn Communities dated February 27, 2015 regarding cultural resources in Bass Lake Hills.

Table 5-1
Previously Recorded Sites that Intersect or Overlap One or More of the Project Components.

Primary Number	Trinomial	Description	Project Component	Recorded By	NRHP/CRHR Eligible
P-09-0066	None assigned	Dry-laid, stacked stone wall, dates to 1866 or earlier	1B/Hollow Oak Road and Component 4 (EID Tanks)	Nenuenschander and Oglesby (1989)	Unevaluated (Peak & Associates 2001).
P-09-0688	CA-ELD-600/H	Historic-era toll road, historic-era habitation sites, barns, corrals, rock walls, mining features (shafts and adits), historic-era refuse features, and bedrock milling features	Gravity Sewer through Serrano property	Windmiller (2010), Jones & Stokes (1998), Foster and Foster (1992), and Peak et al. (1987)	Several individual prehistoric and historic elements near APE recommended not eligible (Windmiller 2011a:55-57, 77).
P-09-0807	CA-ELD-719/H	Mining related ditches, rock dams, rock walls, as well as historic-era refuse and a bedrock milling feature	Bass Lake Road and possibly "Church Road"	Foster and Foster (1990a)	Unevaluated. Foster and Foster (1990b:11) recommended preservation in place, but did not provide a formal evaluation.
P-09-0809	CA-ELD-721H	Sacramento-Placerville/Mormon Hill/White Rock/Johnson Cutoff/Lake Tahoe Wagon Road/Lincoln Highway/Old U.S. 50	Bass Lake Road, "Church Road", Tierra De Dios Drive (Western Extension to Silver Dove Road)	Windmiller (2014), Armstrong et al. (2012), Windmiller (2010), Wade (2005), Larson et al. (2007), Dexter (2005), Hoffman and Denardo (2005), Fryman and Fernandez (2005), Lindstrom (2004 and 2003), Darcangelo (2002), Jones & Stokes (1999), numerous segments well beyond project area.	Portions of the road near APE not eligible for NRHP (Windmiller 2011a:65-67); Foster and Foster (1992c:12) recommended preservation in place; NRHP eligible (Fryman 2000; Jones & Stokes 2000).
P-09-1614	CA-ELD-1219H	Altdoerffer homestead, established by 1866. Includes stone lined cellar, stone lined well, stone spring house, stone walls, dirt road, and domestic refuse scatter	1A (Tierra De Dios Drive at Country Club Drive)	Peak et al. (1985)	NRHP eligible under criterion b and d (Peak & Assoc. 1985:7).
P-09-1644	CA-ELD-1239H	Mining ditch	Bass Lake Road	Green (2004), Foster and Foster (1991b)	Not significant.

Table 5-1
Previously Recorded Sites that Intersect or Overlap One or More of the Project Components.

Primary Number	Trinomial	Description	Project Component	Recorded By	NRHP/CRHR Eligible
P-09-1670	Mormon Hill Historic District	Mormon Hill Historic District. Including: roads, ditches, rock walls, borrow pits, stone piles, prospect pits, fences, corrals, etc.	Bass Lake Road, Tierra De Dios Drive (Western Extension to Silver Dove Road), Silver Dove Road, Gravity Sewer through Serrano property	Windmiller (2011b), Fryman (2000)	NRHP eligible under criterion a and d (Fryman 2000).
P-09-1695	CA-ELD-1278H	Historic Bass Lake Road	Bass Lake Road	Foster and Foster (1992b)	Unevaluated.
P-09-4410	None assigned	Rock wall and barbed wire fence	Country Club Drive (G-H) (Tierra De Dios Drive Western Extension to Silver Dove Road and Park and Ride Area at Bass Lake Road)	Lawson (2007)	Unevaluated.
P-09-5514	None assigned	Rock wall	1A (Tierra De Dios Drive at Country Club Drive)	Armstrong et al. (2012)	Unevaluated.
Source: ESA 2015					

Regulatory Setting

Assembly Bill 52 (AB 52), passed in 2014, requires environmental review documents to disclose and analyze potential significant impacts to tribal cultural resources including sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe. Lead agencies are also required to begin consultation with a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed project if the tribe requests to the lead agency, in writing, to be informed by the lead agency of proposed projects in that geographic area and the tribe requests consultation, prior to determining whether a negative declaration, mitigated negative declaration, or environmental impact report is required for a project. AB 52 applies to projects that have a notice of preparation or a notice of negative declaration filed or mitigated negative declaration on or after July 1, 2015.

El Dorado County circulated a NOP for the BLRSA on April 20, 1990, prior to implementation of AB 52. Therefore, AB 52 is not applicable to the BLHSP COA Amendments project. However, the County is unaware of any tribal cultural resources on the project site. Two Native American tribes have requested consultation for projects within the county: United Auburn Indian Community (UAIC) and Wilton Rancheria. No tribe has notified the County that the project area is a culturally sensitive place. There is no evidence in the record previously or currently that there are culturally sensitive resources on the project site.

3. Comparative Impact Discussions

The 1992 BLRSA Final PEIR and 1995 Addendum identified three impacts on cultural resources that could occur as a result of the BLHSP. These are discussed in detail below, along with a summary of mitigation measures included in the prior CEQA documents. Additional details of mitigation measures are provided following the impact discussion conclusions.

Implementation of the project carries the potential for disturbance of the historic cemetery (Site 1) located within the study site.

The 1992 BLRSA Final PEIR and 1995 Addendum noted that the BLHSP project could adversely impact the historic family cemetery located north of Highway 50. The 1992 BLRSA Final PEIR recommended avoidance of this resource and included mitigation measure N01 that encouraged in-place preservation of the cemetery. The 1995 Addendum added standards and policies from the BLHSP that would help protect cultural resources. The cemetery would be located outside of the area of impact of the Bell Ranch, Bell Woods and Hawk View project and it was not therefore evaluated in the 2005 MNDs. The 2015 analysis similarly excludes this resource from the list of cultural resources located within the area of any of the proposed project components and, as such, it would be avoided by and would not be affected by the proposed project. Other than mitigation described in the 1992 BLRSA Final PEIR, no additional mitigation would be required. Thus, the proposed project would not create a new significant impact, nor a substantially more severe significant impact, compared to the prior CEQA documents.

Implementation of the project carries the potential for disturbance of the identified historic and prehistoric sites (Sites 2-5) which occur on the site.

The 1992 BLRSA Final PEIR and 1995 Addendum acknowledged that the BLHSP project could impact both historic and prehistoric sites on the BLHSP project site (Sites 2 through 5, described above). While not specifically prescribed as mitigation, the 1992 BLRSA Final PEIR recommends as a planning consideration that these sites should be preserved intact if possible. If not possible, recordation would be used as mitigation.⁴⁹ The 1995 Addendum added standards and policies from the BLHSP that would help protect cultural resources.

⁴⁹ County of El Dorado. *Bass Lake Road Study Area Program Environmental Impact Report – Draft* (SCH#90020375). June 14, 1991. P. N-3.

Impacts on prehistoric and historic resources were also evaluated in the 2005 MNDs. The Bell Ranch MND found one previously recorded historic resource, CA-ELD-1213, located near to the Bell Ranch site. The analysis concluded that this resource was 100 feet out side of the area of impact of the Bell Ranch project and so would not be impacted.⁵⁰ The Bell Woods MND identified one potential resource, site PA-89-37, that could potentially be impacted by the Bell Woods project, but found that this impact could be reduced to less than significant with the implementation of mitigation measure MM 3.4.1, which required construction monitoring and establishment of a conservation easement.⁵¹ The Hawk View MND found that the one previously identified historic archaeological property, an earthen mining canal (see Site 3 discussed above), was no longer valid as a historic resource due to damage and the effects of development. The analysis therefore concluded that any impacts on this resource would be less than significant.⁵²

The 2015 cultural resources evaluation identified the potential for impacts from the proposed COA Amendments on ten previously identified cultural resources (see **Table 5-1**). Several of these resources were considered to be potentially significant historical or archaeological resources as defined in Section 15064.5 of the State CEQA Guidelines, in that they are eligible or potentially eligible for inclusion on the National Register of Historic Places (NRHP) and/or the California Register of Historical Resources (CRHR). The 2015 cultural resources evaluation recommended additional evaluation of these resources to determine their eligibility status.

As there are several potential resources on the proposed project site that could be impacted by the project that were not described in the 1992 BLRSA Final PEIR and 1995 Addendum or 2005 MNDs, there is the possibility that impacts on these resources could occur that would be above and beyond those previously analyzed. To ensure that these impacts would be less than significant, mitigation described below would continue to be required and would be implemented as part of the proposed COA Amendments. Thus, the proposed project would not create a new significant impact, nor a substantially more severe significant impact, compared to prior CEQA documents.

Considering the sensitivity of the vicinity, it is possible that undiscovered sites of historical or archaeological significance could exist in the study area. Construction activities have the potential for disturbance of any such sites.

The 1992 BLRSA Final PEIR, and the 1995 Addendum, and the 2005 MNDs all acknowledge the potential for impacts to previously unknown historical or archaeological resources. The 1992 BLRSA Final PEIR included mitigation measure N02 outlining steps to be taken in the event of accidental discovery of previously unidentified cultural resources, including educating construction workers on the potential for archaeological discoveries and the temporary cessation of project activities within the vicinity of the find, pending review of the resource by a qualified archaeologist who would assess the significance of the find and provide management recommendations for treatment of resources. The 1992 BLRSA Final PEIR concluded that with implementation of mitigation measure N02, impacts to previously unidentified resources would be reduced to less than significant. The 1995 Addendum added standards and policies from the BLHSP that would help protect cultural resources. The 2005 MNDs concluded that impacts to unknown cultural resources would be reduced through compliance with mitigation measure N02 from the 1992 BLRSA Final PEIR.

The 2015 cultural resources study did not include any evaluation of potential impacts on unknown resources. However, all prior CEQA documents acknowledge the potential for impacts on unknown resources, and included mitigation to reduce impacts on unknown resources to less than significant. Mitigation measure N02 would continue to be implemented as part of the proposed project. As this mitigation would be applicable to all resources on the BLHSP site, it would also encompass any resources present within the proposed project site. Therefore, the proposed project would

⁵⁰ County of El Dorado. *Mitigated Negative Declaration – Bell Ranch Project*. SCH#2005022144. Draft, February 2005. P. 3-61.

⁵¹ County of El Dorado. *Draft Mitigated Negative Declaration – Bell Woods Project*. SCH#2005032044. Draft, February 2005. P. 3-59.

⁵² County of El Dorado. *Initial Study and Mitigated Negative Declaration – Hawk View Project*. SCH#2005012107. Draft, January 2005. Pp. 3-31.

not create a new significant impact, nor a substantially more severe significant impact, compared to prior CEQA documents.

Issues Not Addressed in Prior CEQA Documents

Impacts to paleontological resources and unique geological features were not discussed in the 1992 BLRSA Final PEIR or 1995 Addendum. Impacts on these resources were evaluated within the 2005 MNDs as part of the analysis of impacts on unknown cultural resources. It is possible that the proposed project could impact these resources during construction activities. With the implementation of mitigation as described below, impacts on paleontological and unique geological features would be less than significant.

4. Conclusions

As described in the text and tables above, changes introduced by the proposed project and/or new circumstances relevant to the project would not, as compared to the 1992 BLRSA Final PEIR, the 1995 Addendum, and 2005 MNDs, result in a new significant impact or significant impacts that are substantially more severe than significant impacts previously disclosed. In addition, there is no new information of substantial importance showing that the project will have one or more significant effects not previously discussed or that any previously examined significant effects would be substantially more severe than significant effects shown in the previous CEQA documents. Nor is there new information of substantial importance showing (i) that mitigation measures or alternatives previously found not to be feasible would in fact be feasible, and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative or (ii) that mitigation measures or alternatives considerably different from those analyzed in the previous CEQA documents would substantially reduce one or more significant effects, but the proponents decline to adopt the mitigation measure or alternative.

Specific Plan and Standard Mitigation Measures

Specific Plan Section 7.2, Cultural Resources Protection Standards

1. The County shall require site-specific archaeological investigations for all development proposals which may impact sensitive archaeological sites described in the EIR.
2. Mitigation measures to protect archaeological sites shall be implemented through conditions in development permits and shall require on-site monitoring by qualified personnel during excavation work in areas identified as sensitive for archaeological resources. Development activity shall cease whenever artifacts or skeletal remains are discovered until arrangements can be made to avoid or otherwise protect the site. Identified archaeological sites shall be protected through non-building setbacks to be recorded on the subdivision map.
3. The local Indian Council shall be notified of all discretionary development application for review and comment.

Prior CEQA Mitigation Measures

1992 BLRSA Final PEIR

NO1 The historic cemetery (Site 1) should be preserved intact and in place. If relocation or disturbance of any kind is contemplated, specific legal requirements must be met. Such action would require research into the significance and specific history of the cemetery and its occupants. Grave relocation should be done in consultation with living relatives.

NO2 Construction workers will be informed of the archaeologic history of the study area, and instructed as to the types of materials and/or artifacts which would be indicative of sensitive sites. If any presently unknown artifacts or sites are discovered during construction, all work in the immediate vicinity of the find should be halted until a qualified archaeologist has an opportunity to evaluate the find and recommend appropriate action.

1995 Addendum

No new mitigation measures.

2005 Bell Ranch MND

No new mitigation measures.

2005 Bell Woods MND

MM 3.4.1: Retain an archaeologist meeting the Secretary of Interior's Professional Qualifications Standards in prehistoric archaeology to monitor initial grading activities to ensure that site PA-89-37 is not disturbed by construction activity. The site shall be identified as "Cultural resources site – do not disturb" on all grading and improvement plans for the project.

Place the site in a conservation easement to foreclose the possibility of any future development (e.g., residences and/or recreational trails) within site boundaries. The easement shall state that the site is to remain in open space.

2005 Hawk View MND

No new mitigation measures.

2016 Mitigation Measures

Mitigation Measure 5-1: Survey Specific Resources for Eligibility for the NRHP or CRHR. Prior to any earthmoving activities within areas adjacent to known sensitive cultural resources, evaluate the following resources for NRHP and/or CRHR eligibility:

- P-09-1695 (Bass Lake Road).
- Segments of P-09-0809 (Placerville-Sacramento Road) in Country Club Drive (G-H) and Church Street.
- Elements of P-09-1670 (Mormon Hill Historic District) and P-09-688 (CA-ELD-600/H) which would be impacted by the Gravity Sewer and Silver Dove Way components. This would include documentation on DPR523 forms, and possible subsurface testing.

If specific resources are determined to be eligible for NRHP/CRHR then the proposed project activities should avoid disturbing the resource. If avoidance is not feasible, the resource should be preserved in place. If preservation is not feasible, the resource should be recorded consistent with CRHR and/or NRHP guidelines.

Mitigation Measure 5-2: Paleontological Mitigation Program. Prior to earthmoving activities associated with mass grading, a qualified supervising paleontologist shall be contracted to conduct a field survey of the proposed construction area to identify areas of likely sensitivity for paleontological resources. The supervising paleontologist shall also conduct construction crew training in identification of paleontological resources that may be discovered during the course of excavation. The paleontologist will also conduct paleontological monitoring during ground disturbing activities in areas identified through survey and archival review as sensitive for paleontological resources. In the event of discovery of vertebrate, plant, or invertebrate fossils, the paleontologist shall have the authority to halt or redirect excavation operations until the probable significance of the find can be assessed, and the resource salvaged as appropriate. Any significant fossils recovered during monitoring and salvage shall be cleaned, repaired, and hardened, and then donated to a repository institution.

In the event of the discovery of buried paleontological deposits it is recommended that project activities in the vicinity of the find should be temporarily halted and a qualified paleontologist consulted to assess the resource and provide proper management recommendations. Possible management recommendations for important resources could include resource avoidance or data recovery excavations.

Environmental Issue Area	Where Impact Was Analyzed in Prior Environmental Documents.	Do Proposed Changes Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information of Substantial Importance?	Prior Environmental Documents Mitigations Implemented or Address Impacts?
6. Geology and Soils. Would the project:					
a. Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving: <ul style="list-style-type: none"> i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42. ii. Strong seismic ground shaking? iii. Seismic-related ground failure, including liquefaction? iv. Landslides? 	PEIR, pp. D-1 to D-4 and D-11 to D-12; Addendum, pp. 17-19.	No	No	No	Yes
b. Result in substantial soil erosion or the loss of topsoil?	PEIR, pp. D-4 to D-8 and D-12 to D-13; Addendum, pp. 7-19.	No	No	No	Yes
c. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on-or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	PEIR, pp. D-4 to D-8 and D-11 to D-12; Addendum, pp. 17-19.	No	No	No	Yes
d. Be located on expansive soil, as defined in Table 18- 1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	PEIR, pp. D-4 to D-8 and D-11 to D-12; Addendum, pp. 17-19.	No	No	No	Yes
e. Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	Not Addressed	Not Applicable	Not Applicable	Not Applicable	Not Applicable

Discussion:

1. Changes to Project Related to Geology and Soils

The 1992 BLRSA Final PEIR anticipated that the undeveloped portions of the project site would be converted from seasonal grazing land to urbanized residential uses. Today, the site remains largely in the same condition as in 1992, with the exception of the development of the Hollow Oak subdivision. Other development-related activities have taken place in and around the plan area, including: realignment and reconstruction of Bass Lake Road from Hollow Oak to Serrano Parkway; construction of two four-million gallon water tanks by EID at the north end of the Bell Ranch subdivision; installation of several water transmission lines; construction of El Dorado Hills Fire Station No. 86; construction of the Holy Trinity Catholic Church and School; acquisition of the proposed school site by the Buckeye School District; street and pad grading of the Hawk View subdivision has been started; clearing and grubbing of the Bell Woods subdivision in anticipation of grading; and grading of Morrison Road as part of underground utility line installation. Under the proposed project, the development of the BLHSP area would be the same as proposed, with minor changes in alignment of several roads, sewer lines, and other infrastructure.

2. Changes in Circumstances

As would be expected, there have been no material changes relative to the underlying geologic or soil conditions in the BLHSP are given that these conditions form over many hundreds and thousands of year. Further, the topography of the BLHSP area has remained the same since the preparation of the 1992 BLRSA Final PEIR, the 1995 Addendum, and the 2005 MNDs for the Hawk View, Bell Ranch, and Bell Woods subdivisions.

3. Comparative Impact Discussions

The 1992 BLRSA Final PEIR and the 1995 Addendum identified three impacts associated with geology, seismicity, and soils. These are discussed in detail below, along with a summary of mitigation measures included in the prior CEQA documents. Additional details of mitigation measures are provided following the impact conclusions.

Seismically-induced groundshaking

The 1992 BLRSA Final PEIR and 1995 Addendum identified that the BLHSP area is subject to seismically-induced groundshaking. Development pursuant to the BLHSP would increase the number of people and value of personal property exposed to seismic events. The potential for seismic events in the vicinity cannot be reduced, and thus future residents cannot be isolated from seismic events. The 1992 BLRSA Final PEIR included mitigation measures D01 and D02 to reduce impacts to less than significant.⁵³ Mitigation measure D01 requires a geotechnical engineer to identify soil constraints and provide recommendations for development. Mitigation Measure D02 requires compliance with the Uniform Building Code (UBC). The proposed COA Amendments would not involve any activities that would increase risks from seismically-induced groundshaking. Thus, the proposed project would not create a new significant impact, nor a substantially more severe significant impact, compared to the prior CEQA documents.

Blasting

The 1992 BLRSA Final PEIR stated that blasting could be required to facilitate development because of the scattered rock outcrops and shallow depth to rock. There are a variety of potentially adverse impacts which can accompany blasting, most notably noise and ground vibration (which are addressed under Section 12, "Noise," of this Addendum). The 1992 BLRSA Final PEIR included mitigation measure D03 which requires the need for blasting to be determined on a project-by-project basis and that blasting is performed only with the applicable permits and by professional firms.⁵⁴ The proposed COA Amendments would not involve any changes that would increase the possibility for blasting. Thus, the proposed project would not create a new significant impact, nor a substantially more severe significant impact, compared to the prior CEQA documents.

Grading

The 1992 BLRSA Final PEIR acknowledged that development of the BLHSP area would require grading. Grading activities would remove vegetation and expose soils, increasing the susceptibility of the site to erosion. The 1992 BLRSA Final PEIR included mitigation measures D04 and D05 to reduce impacts from grading.⁵⁵ Mitigation measure D04 required submission of a grading plan. Mitigation measure D05 requires grading, trenching, or similar activities to be conducted in accordance with County requirements. The 1995 Addendum added standards and policies from the BLHSP that would help reduce grading-related impacts. The proposed COA Amendments would not involve any changes that would substantially increase the need for grading. Thus, the proposed project would not create a new significant impact, nor a substantially more severe significant impact, compared to the prior CEQA documents.

⁵³ County of El Dorado. *Bass Lake Road Study Area Program Environmental Impact Report – Draft* (SCH#90020375). June 14, 1991. P. D-11.

⁵⁴ County of El Dorado. *Bass Lake Road Study Area Program Environmental Impact Report – Draft* (SCH#90020375). June 14, 1991. P. D-12.

⁵⁵ County of El Dorado. *Bass Lake Road Study Area Program Environmental Impact Report – Draft* (SCH#90020375). June 14, 1991. P. D-12.

Issues Not Addressed in Prior CEQA Documents

Issues associated with the capacity of soils on the project site to accommodate septic systems or other alternative wastewater storage or treatment systems were not addressed in the 1992 BLRSA Final PEIR, the 1995 Addendum, or the subdivision MNDs because connection of future development within the Specific Plan area to sewer systems has always been part of development planned for the Bass Lake Hills area (see Environmental Issue Area 6(e)). That condition continues to be true today. The 2005 MNDs each contained the following statement: “The proposed project would be serviced by public sewer...”⁵⁶⁻⁵⁷⁻⁵⁸ The proposed COA Amendments would alter connections from the project site to the regional sewer system, but would not involve or result in the future use of septic systems for development pursuant to the BLHSP.

4. Conclusions

As described in the text and table above, changes introduced by the proposed project and/or new circumstances relevant to the project would not, as compared to the prior CEQA documents, result in a new significant impact or significant impacts that are substantially more severe than significant impacts previously disclosed. In addition, there is no new information of substantial importance showing that the project would have one or more significant effects not previously discussed or that any previously examined significant effects would be substantially more severe than significant effects shown in the prior CEQA documents. Further, there is no new information of substantial importance showing (i) that mitigation measures or alternatives previously found not to be feasible would in fact be feasible, and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative or (ii) that mitigation measures or alternatives considerably different from those analyzed in the prior CEQA documents would substantially reduce one or more significant effects, but the proponents decline to adopt the mitigation measure or alternative.

Specific Plan and Standard Mitigation Measures

The Plan includes a Slope Map and a Grading Constraints Map, both of which are intended to aid in adhering to the policies set forth in the Plan.

Specific Plan Section 4.13, General Circulation and Trail Standards

15. Plan area streets shall be curvilinear in both vertical and horizontal design in order to conform to topography and avoid tree removal.
20. Where appropriate, such as on slopes over 15 percent, Bass Lake Road, primary local roads, and secondary local roads should be designed with grade separations as a means of reducing cut and fill which would otherwise be necessary (see Figure 4-6). (See Section 6.0, Grading Plan).

Specific Plan Section 6.1, Grading Standards

1. Regardless of the specific grading limitations set forth herein, development should conform to natural slopes to the maximum extent possible, rather than changing topography to fit development.
2. Creation of large graded pads which extend beyond the boundaries of one lot (i.e., mass-pad grading) shall be prohibited, except as noted herein. Some deviation may be allowed for clustered development, affordable housing, and avoidance of other resources.

⁵⁶ County of El Dorado. *Mitigated Negative Declaration – Bell Ranch Project*. SCH#2005022144. Draft, February 2005. P. 3-64.

⁵⁷ County of El Dorado. *Draft Mitigated Negative Declaration – Bell Woods Project*. SCH#2005032044. Draft, February 2005. P. 3-63.

⁵⁸ County of El Dorado. *Initial Study and Mitigated Negative Declaration – Hawk View Project*. SCH#2005012107. Draft, January 2005. P. 3-34.

3. Development limitations shall be in accordance with steepness of existing slopes as shown in Figure 6-1, Grading Constraints Map. Required grading plans shall include a site specific slope map of at least 1" = 50' and 5-foot contours showing the following classes:

30 percent and over slopes (Restricted Grading Area)

- a. Setbacks shall be provided and encumbered by a conservation easement (See Section 3.3.2) held as common open space or zoned open space.
- b. No grading or construction is allowed, except the minimum required for trail access.

15 to 30 percent slopes (Limited Grading Area)

- a. Primary local roads may include separated grade where necessary to minimize cuts and fills.
- b. Dwellings constructed to natural grade utilizing foundation designs which conform to topography is encouraged.
- c. All grading activities will incorporate the erosion control measures as provided in the El Dorado County Grading Ordinance. Areas subjected to grading shall not slope in excess of 2:1 unless otherwise approved by the County.

10 to 15 percent slopes (Lot Pad Grading Area)

- a. Grading cuts or fills may occur to the lot boundary (property line) in order to provide a relatively level site or pad for construction of a dwelling and creation of usable yard areas. A landscaping plan shall be required for cut and fill slopes.
- b. Property lines should occur at the top of slope banks.

0 to 10 percent slopes (Whole Site/Mass Pad Grading Area)

- a. This category allows most forms of grading, including mass-pad grading, subject to adherence to the grading policies contained herein and County ordinance.
4. Where grading is necessary, contouring techniques shall be employed to avoid angular flat slopes and distinct edges. The top and toe of slopes and the slope itself shall be rounded and feathered in a natural-appearing manner.
5. Streets shall be sited in accordance with hillside contours so that the shape and character of the natural landform are retained.
6. Grading and landform alteration of prominent ridgelines whose silhouettes are visible from U.S. Highway 50 and Bass Lake Road is prohibited regardless of slope. This shall be gauged through the use of visual simulation of proposals (see Section 3.3.1).
7. In order to minimize erosion and siltation, grading shall only be allowed on approved projects that are subject to immediate development. Issuance of a grading permit shall not occur prior to approval of a development application.
8. Use of retaining structures (retaining walls, crib walls, and gabions) are encouraged in instances where such a design will reduce grading quantities and visual impact. All such structures shall be landscaped.
9. Grading shall be prohibited in all open space areas, except as specifically set forth in Section 7.4.1.10 herein.
10. All grading shall conform to the County Grading Ordinance, Subdivision Design and Improvement Manual (Hillside Regulations), and the Hillside and Ridgeline Development Guidelines for Bass Lake Hills Specific Plan (Appendix A).
11. Architectural style of buildings should be adapted to hillside slopes rather than adapting land forms to buildings designed for flat land topography.

12. Development on slopes of 40 percent or greater is prohibited.

Prior CEQA Mitigation Measures

1992 BLRSA Final PEIR

D01 Each project within the Bass Lake Road study area will retain a geotechnical engineer to identify soil constraints and make recommendations regarding development of roadways, foundations, and other structures. Each engineer will be required to submit documentation of field evaluation of facilities to the Department of Transportation.

D02 El Dorado County requires that structures be constructed to the standards of the Uniform Building Code (UBC). The required strength of these structures is intended to be adequate to withstand a seismic event of the probable maximum expectable intensity predicted for the region. To this end, the County requires that each structure be approved prior to construction and inspected prior to occupation.

D03 The necessity for blasting will be determined on a project by project basis. In instances where blasting is required, the affected project will obtain appropriate permits from the County. Blasting will be performed only by professional firms in accordance with pertinent regulations.

D04 Prior to development, each project will submit a Grading Plan to the El Dorado County Planning Department and Department of Transportation for review and approval.

D05 Grading, trenching, and similar construction activities which involve disturbance of the soil will be performed in accordance with the provisions of County Ordinance 3983. The ordinance specifies that such activities be restricted to the summer season and/or extended periods of dry weather. Filter berms, sandbag or hay bale barriers, culvert risers, filter inlets, and / or sediment detention basins will be utilized as appropriate during construction to protect area waterways from siltation and debris. All open ditches or developed swales will be appropriately vegetated or lined with coarse rock.

1995 Addendum

No new mitigation measures.

2005 Bell Ranch MND

No new mitigation measures.

2005 Bell Woods MND

No new mitigation measures.

2005 Hawk View MND

No new mitigation measures.

2016 Mitigation Measures

No new mitigation measures.

Environmental Issue Area	Where Impact Was Analyzed in Prior Environmental Documents.	Do Proposed Changes Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information of Substantial Importance?	Prior Environmental Documents Mitigations Implemented or Address Impacts?
7. Greenhouse Gas Emissions. Would the project:					
a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	Not Addressed	Not Addressed	Not Addressed	Not Addressed	Not Addressed
b. Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emission of greenhouse gases?	Not Addressed	Not Addressed	Not Addressed	Not Addressed	Not Addressed

Discussion:

1. Changes to Project Related to Greenhouse Gases

The 1992 BLRSA Final PEIR, the 1995 Addendum, and the 2005 MNDs air quality impact analyses anticipated that the Specific Plan, including proposed subdivisions, would convert the undeveloped portions of the project site from seasonal grazing land to urbanized residential uses. Since 1992, the Hollow Oak subdivision has been developed. Other development-related activities have taken place in and around the plan area, including: realignment and reconstruction of Bass Lake Road from Hollow Oak to Serrano Parkway; construction of two four-million gallon water tanks by EID at the north end of the Bell Ranch subdivision; installation of several water transmission lines; construction of El Dorado Hills Fire Station No. 86; construction of the Holy Trinity Catholic Church and School; acquisition of the proposed school site by the Buckeye School District; street and pad grading of the Hawk View subdivision has been started; clearing and grubbing of the Bell Woods subdivision in anticipation of grading; and grading of Morrison Road as part of underground utility line installation. The proposed COA Amendments would make changes to the alignments and timing of infrastructure that would support ultimate development of the Hawk View, Bell Ranch, and Bell Woods subdivisions, as well as other lands within the BLHSP area.

2. Changes in Circumstances

Specific Changes in Circumstances Applicable to Greenhouse Gases

In 2002, Governor Davis signed Assembly Bill (AB) 1493 requiring the California Air Resources Board (CARB) to develop and implement regulations to reduce automobile and light truck greenhouse (GHG) emissions. These emissions standards, which are stricter than those for other states, were designed to apply to automobiles and light trucks, beginning with the 2009 model year. Ultimately, the USEPA granted California's related request for a waiver to enact the stricter standards. Later, in 2005, Governor Arnold Schwarzenegger issued Executive Order S-3-05, which established GHG emission reduction targets for California. The Executive Order identified statewide targets for GHG reductions to 2000 levels by 2010, to 1990 levels by 2020, and to 80 percent below 1990 levels by 2050. Later, in September 2006, Governor Schwarzenegger signed AB 32, the California Global Warming Solutions Act of 2006. AB 32 established regulatory, reporting, and market mechanisms to achieve quantifiable GHG emission reductions and a climate action plan (CAP) on statewide GHG emissions. AB 32 requires that statewide GHG emissions be reduced to 1990 levels by 2020. This reduction is to be accomplished through an enforceable statewide CAP on GHG emissions that was to be phased-in starting in 2012. To effectively implement the CAP, AB 32 directs the CARB to develop and implement regulations to reduce statewide GHG emissions from stationary sources. AB 32 specifies that regulations adopted in response to AB 1493 should be used to address GHG emissions from vehicles. However, AB 32 also includes language stating that if the AB 1493 regulations cannot be implemented, then CARB should develop new regulations to control vehicle GHG emissions under the authority of AB 32.

Prior to the enactment of AB 32 in late 2006, only a few CEQA documents in California addressed climate change issues. In late 2006 and early 2007, the environmental consulting industry and lead agency staffs began to address

climate change issues in CEQA documents going forward. Over the course of 2007 and beyond, agencies around the state began to address climate change issues as a matter of course in their CEQA documents. But for most local governments, pre-2007 EIRs for major planning decisions still lacked analyses of the extent to which general plans, specific plans, and zoning documents tended to increase or decrease activities leading to GHG emissions. In the mid-1990s, the Governor's Office of Planning and Research (OPR), in response to a legislative directive, had prepared a report to the Legislature setting forth the conclusion that CEQA was not a tool that could meaningfully address global warming, which was a problem of international scale. That conclusion reflected the common view up until the time period in which AB 32 was enacted.

Senate Bill (SB) 97, signed August 2007, acknowledged that climate change is a prominent environmental issue that requires analysis under CEQA. This bill directed the OPR to prepare, develop, and transmit to the California Natural Resources Agency guidelines for the feasible mitigation of GHG emissions or the effects of GHG emissions, as required by CEQA, by July 1, 2009. The California Natural Resources Agency adopted those guidelines on December 30, 2009, and the guidelines became effective March 18, 2010. The new Guidelines are embodied most substantively in State CEQA Guidelines §15064.4, §15126.4(c), and §15183.5. Between late 2006, when AB 32 was enacted, and March 2010, when the new Guidelines came into effect, neither CEQA nor the State CEQA Guidelines included any specific rules or directives about how to analyze the effects of GHGs, but lead agencies were generally doing the best they could to develop methodologies on their own, with input from leading consultants, other experts, and air pollution control districts and air quality management districts.

After the passage of AB 32, growing societal concern of over climate change prompted project opponents around California to argue in many instances that new environmental documents building on pre-2007 environmental documents must address climate change as a "new significant impact" where the prior environmental document had been silent on the issue. In response to these contentions, three California appellate cases from three different districts of the Court of Appeal have considered whether, pursuant to State CEQA Guidelines §15162(a), impacts related to GHG emissions constitute a new significant impact or new information of substantial importance "which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified." All three decisions have answered these questions in the negative, holding that climate change is not a "new" issue even if societal concern about it has been growing in recent years.

In *Citizens for Responsible Equitable Environmental Development (CREED) v. City of San Diego* (2011) 196 Cal. App. 4th 515, the Court of Appeal, Fourth Appellate District, concluded that the issue of GHG emissions and climate change could have been raised at the time that the original EIR was prepared (in 1994). For this reason, the lead agency was not required to prepare a Supplemental or Subsequent EIR. In the CREED case, the court noted that scientists and the government have been aware that GHG emissions could trigger climatic changes as early as the 1970's, or before. Specifically, the Court of Appeal noted that in *Massachusetts v. E.P.A.* (2007) 549 U.S. 497, 507, the United States Supreme Court stated the following:

"In the late 1970's, the Federal Government began devoting serious attention to the possibility that carbon dioxide emissions associated with human activity could provoke climate change. In 1978, Congress enacted the National Climate Program Act, 92 Stat. 601, which required the President to establish a program to 'assist the Nation and the world to understand and respond to natural and man-induced climate processes and their implications,' [citation][sic]. President Carter, in turn, asked the National Research Council, the working arm of the National Academy of Sciences, to investigate the subject. The Council's response was unequivocal: 'If carbon dioxide continues to increase, the study group finds no reason to doubt that climate changes will result and no reason to believe that these changes will be negligible. A wait-and-see policy may mean waiting until it is too late.'"

The Court of Appeal concluded by stating that "[t]he effect of GHG emissions on climate could have been raised in 1994 when the City considered the FEIR." In *Concerned Dublin Citizens v. City of Dublin* (2013) 214 Cal.App.4th 1301, the

Court of Appeal for the Fourth Appellate District adopted this reasoning as its own, reaching exactly the same conclusion on similar facts.

Most recently, in *Citizens Against Airport Pollution v. City of San Jose* (2014) 227 Cal.App.4th 788, the Court of Appeal, Sixth Appellate District, considered whether the lack of GHG and climate change analysis in a 1997 EIR and 2003 SEIR precluded adoption of an addendum. The court relied on previous case law to conclude that the potential environmental impact of GHG emissions was known or could have been known at the time of certification of the 1997 EIR and 2003 SEIR. The court thus upheld the eighth addendum that the City of San Jose had prepared after having completed the 1997 and 2003 EIRs.

The conclusions that were made in the *CREED*, *Dublin Citizens*, and *Citizens Against Airport Pollution* cases can be made also regarding the BLRSA Final PEIR that was certified in 1992, as well as the 1995 Addendum and the 2005 subdivision MNDs. Under the law as set forth in these cases, the County may not undertake the preparation of a Supplemental or Subsequent EIR based solely on issues relating to climate change.

The changes to the project that would result from the proposed COA Amendments would involve realignment of proposed infrastructure improvements, or altering the timing of such improvements. These changes would not appreciably change the total GHG emissions that would result from implementation of the Specific Plan. Because the climate change effects of GHG emission are inherently a result of global cumulative emissions over an extended number of years, the minor variations in the location or timing of the GHG emissions that would result from the BLHSP area would be inconsequential.

Thus, the overall creation of GHG emissions from development within the project site cannot under the law constitute a new significant impact or new information of substantial importance.

The general climate attributes and topography of the project site has not changed since the release of the 1992 BLRSA Final PEIR.

Regulatory Setting

On November 30, 2015, the California Supreme Court decided *Center for Biological Diversity v. California Department of Fish and Wildlife* (Newhall Ranch). Although three issues were taken up by the Court for decision, of importance here is the question: Does the EIR validly determine that the project would not significantly impact the environment by its discharge of GHGs? Neither this analysis nor previously prepared analyses for the project area measure GHG emissions against an established threshold. The EDCAQMD does not have a GHG threshold and does not have an adopted climate action plan. As discussed below, the 2005 MNDs addressed GHG emissions and determined mitigation measure implementation as appropriate to reduce GHG-related impacts. The proposed COA Amendments would not change trip lengths, traffic volumes, or vehicle miles traveled beyond that described in previous environmental documents prepared for the project site. The discussion below describes how the proposed COA Amendments' GHG emissions compare to emissions levels previously prepared environmental documents.

3. Comparative Impact Discussions

The 1992 BLRSA Final PEIR, the 1995 Addendum, and the 2005 MNDs did not address GHG emissions or global climate change.

Issues Not Addressed in Prior CEQA Documents

As described above, although scientists and the government were well aware of the possible climate effects of continued emissions of GHG as early as the 1970s, the 1992 BLRSA Final PEIR, the 1995 Addendum, and the 2005 MNDs did not address or assess effects associated with GHG emissions or climate change, as was the near-universal approach under CEQA at the time. Although the potential impacts of a project related to GHG emissions does not constitute significant

new information pursuant to State CEQA Guidelines §15162, the discussion presented below addresses environmental issues areas in the CEQA checklist for Greenhouse Gas Emissions.

The GHG emissions from the BLHSP, including the proposed COA Amendments, today would be substantially less than would have been predicted had such analysis been undertaken during the preparation of the prior CEQA documents. Over time, technological advancements and state regulations have in the past, and will in the future, incrementally move California further away from fossil-fuel based energy generation and vehicular combustion, generating fewer GHG emissions per capita than is occurring in the present or in 1992. To achieve the extremely ambitious 2050 target set by Governor Schwarzenegger in Executive Order S-3-05, the State of California, and indeed the United States and most of the world, almost certainly will have to make the difficult transition from primary dependence on fossil fuels for transportation and the generation of electricity to a primary dependence on energy sources that do not create new increases in GHG emissions. The achievement of such a challenging outcome over the next 35 years is far beyond the scope of this proposed project and outcomes under the control of the County of El Dorado. Both national and state legislation, as well as international treaties, will likely be required. Notably, however, there is nothing about the proposed COA Amendments that would preclude residents and daily users in the Specific Plan area from using vehicles reliant on electricity or other GHG-free power sources or that would preclude structures within the Hawk View, Bell Ranch, and/or Bell Woods subdivisions and elsewhere in the Specific Plan area from receiving and using electricity generated by renewable resources. In short, the project residents and employees could be part of any larger shift in energy use occurring in society as a whole. In the meantime, the technological improvements (e.g., lower emission vehicles and fuels, increased transit options, etc.) and regulatory changes (e.g., improvements to Title 24 that improve energy efficiency, or improvements to building codes that require increased water efficiency) will reduce GHG-producing vehicles miles traveled (VMT). Thus, the proposed COA Amendments would not frustrate the State's achievement of the 2020 and 2050 goals of Executive Order S-3-05.

As is demonstrated above, there would be no increase in the severity of GHG impacts from implementation of the proposed COA Amendments when compared to the GHG emissions that would have occurred under the existing conditions of approval. No new mitigation measures would be required.

4. Conclusions

For reasons discussed earlier, CEQA case law precludes the County from requiring the project applicant to prepare a Supplemental or Subsequent EIR due solely to the fact that the 1992 BLRSA Final PEIR, the 1995 Addendum, and the 2005 MNDs did not address the issues of global warming and climate change. As described in the text and table above, changes introduced by the proposed project and/or new circumstances relevant to the project would not, as compared to the prior CEQA documents, result in a new significant impact or significant impacts that are substantially more severe than significant impacts previously disclosed. In addition, there is no new information of substantial importance showing that the project would have one or more significant effects not previously discussed or that any previously examined significant effects would be substantially more severe than significant effects shown in the prior CEQA documents. Further, there is no new information of substantial importance showing (i) that mitigation measures or alternatives previously found not to be feasible would in fact be feasible, and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative or (ii) that mitigation measures or alternatives considerably different from those analyzed in the prior CEQA documents would substantially reduce one or more significant effects, but the proponents decline to adopt the mitigation measure or alternative.

Specific Plan and Standard Mitigation Measures

Although the issue of GHG emissions was not considered as part of the development of the BLHSP, the Specific Plan, nonetheless, contains the following specific standards/policies that would serve to reduce GHG emissions.

Specific Plan Section 4.13, General Circulation and Trail Standards

3. Pathways shall be constructed at locations convenient to residential lots to facilitate pedestrian travel to open space trails, secondary local roads, primary local roads, and Bass Lake Road. Such pedestrian and bike lane connections shall be located and protected to restrict access to adjoining private property.
5. The Class 1 bicycle/pedestrian path along Bass Lake Road shall be separated from the street pavement to the maximum extent possible while maintaining the privacy of adjoining private property.
11. Parks and open space shown on the Specific Plan Land Use Diagram and Parks and Open Space Plan shall be linked by a pedestrian and bicycle circulation system.
13. In accordance with Caltrans requirements, a park-and-ride lot capable of accommodating 100 vehicles, expandable to 200 (approximately 2.0 acres) shall be provided in the approximate location shown on Figure 3-1, Specific Plan Land Use Diagram, and Figure 4-1, Circulation Plan, beyond the ultimate right-of-way of the Bass Lake Road/ Highway 50 interchange. (See Section 8.0 of the Design Guidelines).

Prior CEQA Mitigation Measures

Although the issue of GHG emissions was not considered in the prior CEQA documents, the following mitigation measures would reduce criteria pollutant emissions, which would also serve to reduce GHG emissions.

1992 BLRSA Final PEIR

G04 Individual projects will provide turn out lane(s), bus stop shelters, or other infrastructure necessary to facilitate extension of transit services to the study area. The location, number, and design of these facilities will be established based on consultation with RT and the El Dorado County Department of Public Works. The required facilities will be identified on Tentative Maps and identified as conditions of approval of the various projects.

2005 Bell Ranch MND

MM 3.2.2: Prior to any construction or earthworks, each contractor shall submit a list of all diesel equipment to be used during construction to the El Dorado County Air Pollution Control District (El Dorado County APCD) for review and approval. The project applicant shall ensure that toxics best available control technology (T-BACT) is applied to reduce emissions of Toxic Air Contaminant (TAC) from off-road diesel equipment used during project construction. TBACT is defined as the use of 1996 or later model year engines in all diesel equipment. Consequently, the project applicant must ensure that all diesel powered equipment used on-site during construction is equipped with engines of 1996 or later model year.

MM 3.2.3: Prior to approval of the final map, the applicant shall provide development feature information to demonstrate to the satisfaction of El Dorado County APCD that the project will not exceed the El Dorado County APCD ROG operational significance threshold of 82 lbs/day. These development features may include, but are not limited to, the following:

- 1) Use of only natural gas/LPG fireplaces, pellet stoves or EPA-Certified Phase II wood-burning fireplaces or stoves within the project. Prohibition of conventional open-hearth fireplaces.
- 2) Prohibition of open burning of trash, leaves, vegetation or other material within the project.

2005 Bell Woods MND

MM 3.2.3: Prior to any construction or earthworks, each contractor shall submit a list of all diesel equipment to be used during construction to the El Dorado County Air Pollution Control District (El Dorado County APCD) for review and approval. The project applicant shall ensure that toxics best available control technology (T-BACT) is applied to reduce emissions of Toxic Air Contaminant (TAC) from off-road diesel equipment used during project construction.

TBACT is defined as the use of 1996 or later model year engines in all diesel equipment. Consequently, the project applicant must ensure that all diesel powered equipment used on-site during construction is equipped with engines of 1996 or later model year.

MM 3.2.4: Prior to approval of the final map, the applicant shall provide development feature information to demonstrate to the satisfaction of El Dorado County APCD that the project will not exceed the El Dorado County APCD ROG operational significance threshold of 82 lbs/day. These development features may include, but are not limited to, the following:

- 1) Use of only natural gas/LPG fireplaces, pellet stoves or EPA-Certified Phase II wood-burning fireplaces or stoves within the project. Prohibition of conventional open-hearth fireplaces.
- 2) Prohibition of open burning of trash, leaves, vegetation or other material within the project.

2005 Hawk View MND

MM 3.2.2: Prior to any construction or earthworks, each contractor shall submit a list of all diesel equipment to be used during construction to the El Dorado County Air Pollution Control District (El Dorado County APCD) for review and approval. The project applicant shall ensure that toxics best available control technology (T-BACT) is applied to reduce emissions of Toxic Air Contaminant (TAC) from off-road diesel equipment used during project construction. TBACT is defined as the use of 1996 or later model year engines in all diesel equipment. Consequently, the project applicant must ensure that all diesel powered equipment used on-site during construction is equipped with engines of 1996 or later model year.

MM 3.2.3: Prior to approval of the final map, the applicant shall provide development feature information to demonstrate to the satisfaction of El Dorado County APCD that the project will not exceed the El Dorado County APCD ROG operational significance threshold of 82 lbs/day. These development features may include, but are not limited to, the following:

- 1) Use of only natural gas/LPG fireplaces, pellet stoves or EPA-Certified Phase II wood-burning fireplaces or stoves within the project. Prohibition of conventional open-hearth fireplaces.
- 2) Prohibition of open burning of trash, leaves, vegetation or other material within the project.

2016 Mitigation Measures

No new mitigation measures.

Environmental Issue Area	Where Impact Was Analyzed in Prior Environmental Documents.	Do Proposed Changes Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information of Substantial Importance?	Prior Environmental Documents Mitigations Implemented or Address Impacts?
8. Hazards and Hazardous Materials. Would the project:					
a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	Hawk View MND, pp. 3-35 to 3-37; Bell Woods MND, p. 3-66; Bell Ranch MND, p. 3-66	No	No	No	Yes
b. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	Hawk View MND, p. 3-36; Bell Woods MND, p. 3-66; Bell Ranch MND, p. 3-66	No	No	No	Yes
c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	Hawk View MND, p. 3-36; Bell Woods MND, p. 3-66; Bell Ranch MND, p. 3-66	No	No	No	Yes
d. Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	Hawk View MND, pp. 3-36-37; Bell Woods MND, p. 3-65 to 3-66; Bell Ranch MND, p. 3-66 to 3-67	No	No	No	Yes
e. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	Hawk View MND, p. 3-37; Bell Woods MND, p. 3-66; Bell Ranch MND, p. 3-67	No	No	No	Yes
f. For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working on the project area?	Hawk View MND, p. 3-37; Bell Woods MND, p. 3-66; Bell Ranch MND, p. 3-67	No	No	No	Yes
g. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	Hawk View MND, p. 3-37; Bell Woods MND, p. 3-66; Bell Ranch MND, p. 3-67	No	No	No	Yes
h. Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	Hawk View MND, p. 3-37; Bell Woods MND, p. 3-66; Bell Ranch MND, p. 3-67	No	No	No	Not Applicable

Discussion:

1. Changes to Project Related to Hazards and Hazardous Materials

The proposed COA Amendments include a number of changes to the alignment and timing of infrastructure improvements that are associated with the development of the Hawk View, Bell Ranch, and Bell Woods subdivisions within the BLHSP area. These proposed amendments would not alter the land uses developed in the subdivisions or elsewhere in the BLHSP area, and, therefore, the proposed COA Amendments would not result in new or different risks to people or property associated with the use, transport, or disposal of hazardous materials, exposure to airport-related safety risks, or as caused by the obstruction of emergency access or evacuation routes.

2. Changes in Circumstances

At the time of the preparation of the 2005 MNDs, it was recognized that fire safety for residents in the unincorporated rural areas of the County was a rapidly growing concern, and wildland fires posed a threat to homeowners in the vicinity

of the BLHSP area. It was further noted that the El Dorado County climate, with long, hot, dry summers, combined with poor road access, inadequate clearance, flammable vegetation, and steep topography, produces severe wildfire conditions annually.

The climatic conditions in El Dorado County remain prone to producing high wildfire risk conditions, and have recently been exacerbated by California's extended drought. Conditions surrounding the BLHSP area have changed, with further urban development to the northeast, near Bass Lake, and to the west in the Serrano development. These conditions tend to decrease the amount of wildlands that serve as fuel for wildfires, but increase the human population that can increase the potential for fires.

3. Comparative Impact Discussions

Hazardous materials impacts were not addressed in the 1992 BLRSA Final PEIR or the 1995 Addendum. At the time, Phase 1 environmental site assessments had not been submitted for properties within the BLHSP area. As part of the preparation of the 2005 MNDs, the Hawk View, Bell Woods, and Bell Ranch projects were reviewed by the El Dorado County Environmental Management Department (now the Environmental Management Division, or EMD), which maintains a list of known or suspected contaminated sites provided by the State of California and federal agencies. The EMD did not identify any hazardous materials at the project site. Further, the California Department of Toxic Substances Control's Hazardous Waste and Substance Site List (Cortese List) does not identify any hazardous waste sites within El Dorado County.

Hazards from Transport or Release of Hazardous Materials

The BLHSP includes residential and recreational land uses, which typically do not generate large amounts of hazardous materials; hazardous materials are largely limited to household cleaning products, pesticides and herbicides, and other commonly available products. In addition, the proposed land uses do not generally involve the routine transport of hazardous materials. The proposed COA Amendments would not affect the nature of land uses within the BLHSP area, and would have no effect on the type and amounts of hazardous materials that are transported to, from, and through the BLHSP area.

Hazardous Materials Sites

The 1995 Addendum acknowledged that many of the contaminated sites in the County had been identified and listed, but there could be other hazardous materials sites that remain unknown to local, state, and federal agencies. Known and suspected contaminated sites would be expected primarily in and near industrial areas, but commercial, agricultural, and residential sites in both urbanized and rural areas may contain contamination. As such, new residents and workers on new development sites in both developed areas and rural areas may be exposed to hazardous materials on contaminated sites.

Hazardous materials impacts were not addressed in the 1992 BLRSA Final PEIR or the 1995 Addendum. However, as part of the 2005 MNDs, the proposed subdivisions were reviewed by the El Dorado County Environmental Management Department, which maintains a list of known or suspected contaminated sites as provided by the State of California and federal agencies. The Environmental Management Department had not identified any potential impacts associated with hazardous materials at the subdivision sites.^{59-60,61} Further, DTSC's Hazardous Waste and Substance Site List (Cortese List) did not identify any hazardous waste sites within El Dorado County.

⁵⁹ County of El Dorado. *Mitigated Negative Declaration – Bell Ranch Project*. SCH#2005022144. Draft, February 2005. P. 3-67.

⁶⁰ County of El Dorado. *Draft Mitigated Negative Declaration – Bell Woods Project*. SCH#2005032044. Draft, February 2005. P. 3-66.

⁶¹ County of El Dorado. *Initial Study and Mitigated Negative Declaration – Hawk View Project*. SCH#2005012107. Draft, January 2005. P. 3-37.

In 2004 and 2005, Phase 1 environmental site assessments were prepared for the Hawk View,⁶² Bell Woods,⁶³ and Bell Ranch⁶⁴ subdivisions. The Phase 1 site assessments reviewed conditions on the subdivision project sites as well as off-site properties. The assessments considered the potential for presence of Recognized Environmental Conditions (RECs) or environmental concerns resulting from practices and activities that have occurred that could potentially contaminate the sites, including but not limited to such features as underground storage tanks, aboveground storage tanks, hazardous materials and waste, solid waste, polychlorinated biphenyl (PCB)-containing fluids, septic tanks, and other potential sources of hazard. The three Phase 1 site assessments concluded that no on-site or off-site RECs were identified.

The proposed COA Amendments would involve alterations to the alignment and timing of infrastructure that would support the development within the BLHSP area. While El Dorado County General Plan Policy 6.6.1.2 requires a site investigation for ground disturbance, El Dorado County has determined that the activities covered by the proposed COA Amendments would not require updated Phase I assessments.⁶⁵

Schools

The 2005 MNDs evaluated the potential impact of hazardous materials to schools within one-quarter mile and determined that there would be a less than significant impact on the one elementary school planned within the BLHSP area.⁶⁶⁻⁶⁷⁻⁶⁸ The closest schools to the BLHSP area include Holy Trinity School, Blue Oak Elementary School, Camerado Springs Middle School, and Oak Meadow Elementary School. Of these schools, only Holy Trinity School has the potential to be located within one-quarter mile of the sites of elements of the proposed COA Amendments. As described above, no significant emissions of hazardous materials would be anticipated during construction or operation of the locations of the applicable COA Amendments. No potential hazards associated with emissions of hazardous materials within one-quarter mile of a school would result from the project. The proposed COA Amendments would not create new or substantially more severe effects related to schools.

Proximity to Airports

The eastern side of the BLHSP area, including the Bell Woods subdivision, is approximately 1.5 miles from the Cameron Park Airport. The Bell Woods MND acknowledged that the subdivision is within 1.5 miles of the airport, but stated that it is not within the flight zone so the impact would be less than significant.⁶⁹ The Bell Ranch and Hawk View subdivisions, and the majority of the sites that would be affected by the proposed COA Amendments, are more than two miles from the airport. Irrespective of distance, the types of actions that would occur as a result of the proposed COA Amendments would have no effect on safety hazards associated with the Cameron Park Airport, and would not further expose people or property to safety hazards. Further, the proposed COA Amendments would not be inconsistent with any airport safety plans or regulations. Therefore, the proposed COA Amendments would not create new or substantially more severe effects related to airports.

Emergency Access

The development of the proposed Hawk View, Bell Woods, and Bell Ranch subdivisions were determined to not conflict with adopted emergency response or evacuation plans in each respective MND. The County Multi-Jurisdictional Hazard

⁶² Tetra Tech EM Inc., *Report of Phase 1 Environmental Site Assessment – Hawk View*, June 22, 2004.

⁶³ Tetra Tech EM Inc., *Report of Phase 1 Environmental Site Assessment – Bell Woods*, July 30, 2004.

⁶⁴ Tetra Tech EM Inc., *Report of Phase 1 Environmental Site Assessment – Bell Ranch*, August 2, 2005.

⁶⁵ Email from Tiffany Schmid of El Dorado County, Development Services Division to Christina Erwin of ESA. August 13, 2015.

⁶⁶ County of El Dorado. *Mitigated Negative Declaration – Bell Ranch Project*. SCH#2005022144. Draft, February 2005. P. 3-66.

⁶⁷ County of El Dorado. *Draft Mitigated Negative Declaration – Bell Woods Project*. SCH#2005032044. Draft, February 2005. P. 3-65.

⁶⁸ County of El Dorado. *Initial Study and Mitigated Negative Declaration – Hawk View Project*. SCH#2005012107. Draft, January 2005. P. 3-37.

⁶⁹ County of El Dorado. *Draft Mitigated Negative Declaration – Bell Woods Project*. SCH#2005032044. Draft, February 2005. P. 3-66.

Mitigation Plan is the primary plan for emergency services and evacuation in the project vicinity. County General Plan Policy 6.2.3.2 requires that project design allow for adequate emergency vehicle access and private vehicle evacuation. The El Dorado Hills Fire Department will require the project to maintain adequate emergency access throughout construction and project phasing and, further, the project must maintain proposed emergency vehicle access roadways. The proposed COA Amendments would make minor changes to alignments and timing of infrastructure, along with a few additional infrastructure improvements, both within and adjacent to the BLHSP area; however, none of the project components would alter or otherwise affect the County Multi-Jurisdictional Hazard Mitigation Plan. Therefore, the proposed COA Amendments would not create new or substantially more severe effects related to emergency access.

Fire Hazards

The adopted BLHSP would place urbanized land uses adjacent to areas that are dominated by annual grasslands and oak woodlands. The Bell Ranch and Bell Woods MNDs stated that mitigation measure MM 3.12.1 (discussed in greater detail in the public services section of those MNDs) would reduce impacts to less than significant.⁷⁰⁻⁷¹ Mitigation measure MM 3.12.1, shown below, requires project applicants to develop and implement Wildland Fire Safe Plans, to provide no less than three all-weather access roads into the open space area and to provide noncombustible fencing along lots abutting the open space area. The Wildland Fire Safe Plans identify measures to reduce hazards and risks associated with wildland and urban fires for protection of life, property, and native vegetation. In addition, the proposed project would also be required to conform to the California Fire Code, Uniform Building Code, and other applicable state and local fire district standards. The proposed COA Amendments would not create new or substantially more severe effects related to fire hazards. The proposed COA Amendments would not create new or substantially more severe effects related to fire hazards.

4. Conclusions

As described in the text and table above, changes introduced by the proposed project and/or new circumstances relevant to the project would not, as compared to the prior CEQA documents, result in a new significant impact or significant impacts that are substantially more severe than significant impacts previously disclosed. In addition, there is no new information of substantial importance showing that the project would have one or more significant effects not previously discussed or that any previously examined significant effects would be substantially more severe than significant effects shown in the prior CEQA documents. Further, there is no new information of substantial importance showing (i) that mitigation measures or alternatives previously found not to be feasible would in fact be feasible, and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative or (ii) that mitigation measures or alternatives considerably different from those analyzed in the prior CEQA documents would substantially reduce one or more significant effects, but the proponents decline to adopt the mitigation measure or alternative.

Specific Plan and Standard Mitigation Measures

El Dorado County AQMD Rule 223-2 Fugitive Dust-Asbestos Hazard Mitigation (Although no naturally-occurring asbestos is known to be present in the Specific Plan area, this rule requires that an Asbestos Dust Mitigation Plan be submitted and approved by El Dorado County AQMD prior to any construction activity involving 20 cubic yards or more of graded material in areas where naturally-occurring asbestos may be disturbed.)

General Plan Policy 6.2.2.1: Fire Hazard Severity Zone Maps shall be consulted in the review of all projects so that standards and mitigation measures appropriate to each hazard classification can be applied. Land use densities and intensities shall be determined by mitigation measures in areas designated as high or very high fire hazard.

⁷⁰ County of El Dorado. *Mitigated Negative Declaration – Bell Ranch Project*. SCH#2005022144. Draft, February 2005. P. 3-67.

⁷¹ County of El Dorado. *Draft Mitigated Negative Declaration – Bell Woods Project*. SCH#2005032044. Draft, February 2005. P. 3-66.

General Plan Policy 6.2.2.2: The County shall preclude development in areas of high and very high wildland fire hazard or in areas identified as “urban wildland interface communities within the vicinity of federal lands that are a high risk for wildfire,” as listed in the Federal Register of August 17, 2001, unless such development can be adequately protected from wildland fire hazard, as demonstrated in a Fire Safe Plan prepared by a Registered Professional Forester (RPF) and approved by the local Fire Protection District and/or California Department of Forestry and Fire Protection.

General Plan Policy 6.2.3.4: All new development and public works projects shall be consistent with applicable state Wildland Fire Standards and other relevant state and federal fire requirements.

General Plan Policy 6.2.4.1: Discretionary development within high and very high fire hazard areas shall be conditioned to designate fuel break zones that comply with fire safe requirements to benefit the new and, where possible, existing development.

Prior CEQA Mitigation Measures

1992 BLRSA Final PEIR

None.

1995 Addendum

No new mitigation measures.

2005 Bell Ranch MND

The first bullet of MM 3.12.1 listed below would no longer apply to the proposed project because revised Condition of Approval #43 would require adequate fire flow for homes up to 6,200 square feet in size and all homes would be required to be sprinklered. However, the full text from MM 3.12.1 is included here for informational purposes.

MM 3.12.1: The applicant shall comply with the following in order to provide the project with adequate fire and emergency medical services protection:

- The potable water system for the purpose of fire protection for this residential development shall provide a minimum fire flow of 1,000 gpm with a minimum residual pressure of 20 psi for a two-hour duration. This requirement is based on a single family dwelling 3,600 square feet or less in size. This fire flow rate shall be in excess of the maximum daily consumption rate for this development. A set of engineering calculations reflecting the fire flow capabilities of this system shall be supplied to the Fire Department for review and approval.
- This development shall install Mueller Dry Barrel fire hydrants conforming to El Dorado Irrigation District specifications for the purpose of providing water for fire protection. The spacing between hydrants in this develop shall not exceed 500 feet. The exact location of each hydrant shall be determined by the Fire Department.
- To enhance nighttime visibility, each hydrant shall be painted with safety white enamel and marked in the roadway with a blue reflective marker as specified by the Fire Department and the Fire Safe Regulations.
- In order to provide this development with adequate fire and emergency medical response during construction, all access roadways and fire hydrant systems shall be installed and in service prior to framing of any combustible members as specified by El Dorado Hills Fire Department Standard 103.

- All streets within the project shall be constructed in accordance with El Dorado County and Fire Department requirements.
- The open space Lot 'K' between the two developments has no access for emergency personnel and equipment to suppress a wildland fire within this area. The applicant shall be required to provide not less than three all-weather access roadways into this area in accordance with Fire Department requirements.
- The lots that backup to Wildland Open Space shall be required to use non-combustible type fencing.
- During any phase of construction, this development shall be required to provide two independent, non-obstructed points of access.
- The driveways serving this project should be redesigned to be in compliance with the El Dorado County code.
- The applicant shall develop and implement a Wildland Fire Safe Plan that is approved by the Fire Department.
- This development shall be prohibited from installing any type of traffic calming device that utilizes a raised blimp section of roadway.
- The construction of Morrison Road shall be deemed substantially complete by the El Dorado County Department of Transportation prior to issuance of building permits, other than for model homes that shall be left unoccupied.

2005 Bell Woods MND

The second bullet of MM 3.12.1 listed below would no longer apply to the proposed project because revised Condition of Approval #47 would require adequate fire flow for homes up to 6,200 square feet in size and all homes would be required to be sprinklered. However, the full text from MM 3.12.1 is included here for informational purposes.

MM 3.12.1: The applicant shall comply with the rules and, regulations of the appropriate fire protection district that the project is annexed to in order to provide the project with adequate fire and emergency medical services protection. The fire protection district's rules and regulations may include the following:

- The entire project site shall be annexed into either the El Dorado Hills Fire Department or Cameron Park Fire Department as determined by El Dorado County LAFCo and shall pay all fees associated with that annexation.
- The potable water system for the purpose of fire protection for this residential development shall provide a minimum fire flow of 1,000 gpm with a minimum residual pressure of 20 psi for a two-hour duration. This requirement is based on a single family dwelling 3,600 square feet or less in size. This fire flow rate shall be in excess of the maximum daily consumption rate for this development. A set of engineering calculations reflecting the fire flow capabilities of this system shall be supplied to the Fire Department for review and approval.
- This development shall install Mueller Dry Barrel fire hydrants conforming to El Dorado Irrigation District specifications for the purpose of providing water for fire protection. The spacing between hydrants in this development shall not exceed 500 feet. The exact location of each hydrant shall be determined by the Fire Department.
- To enhance nighttime visibility, each hydrant shall be painted with safety white enamel and marked in the roadway with a blue reflective marker as specified by the Fire Department and the Fire Safe Regulations.

- In order to provide this development with adequate fire and emergency medical response during construction, all access roadways and fire hydrant systems shall be installed and in service prior to framing of any combustible members as specified by the Fire Department (per El Dorado Hills Fire Department Standard 103).
- The cul-de-sac detail with the center island fails to comply with the county design standard and shall be eliminated. A 'single' parked vehicle can compromise the function of the cul-de-sac.
- The current design of courts "A" and "B" are shown to serve twenty-three (23) lots. The proposed single roadway that serves fourteen (14) lots in Hollow Oak Subdivision will also provide access to courts "A" and "B". This brings the total quantity of lots served by a single roadway to thirty-seven (37). The current design of courts "C" and "D" are shown to serve thirty-one (31) lots, which is inconsistent with El Dorado County design standards. The county design standard only permits twenty-four (24) lots to be served by a single access roadway. Therefore, to mitigate this potential impact to fire protection and emergency medical services, the proposed emergency access road shall be constructed concurrent with site development of the residential lots.
- The applicant shall develop and implement a Wildland Fire Safe Plan that is approved by the Fire Department.
- If phasing of this development creates any dead end access roadways in excess of 150 feet, the roadway shall be provided with a turnaround in accordance with Fire Department standards.

2005 Hawk View MND

The first bullet of MM 3.12.1 listed below would no longer apply to the proposed project because revised Condition of Approval #37 would require adequate fire flow for homes up to 6,200 square feet in size and all homes would be required to be sprinklered. However, the full text from MM 3.12.1 is included here for informational purposes.

MM 3.12.1: The applicant would comply with the following in order to provide the project with adequate fire and emergency medical services protection:

- The potable water system for the purpose of fire protection for this residential development would provide a minimum fire flow of 1,000 gallons per minute (gpm) with a minimum residual pressure of 20 pounds per square inch (psi) for a two-hour duration. This requirement is based upon a side lot setback of 10 feet or greater. This fire flow rate would be in excess of the maximum daily consumption rate for this development. A set of engineering calculations reflecting the fire flow capabilities of the system would be supplied to the El Dorado Hills Fire Department for review and approval.
- This development would install Mueller Dry Barrel fire hydrants conforming to El Dorado Irrigation District specifications for the purpose of providing water for fire protection. The spacing between hydrants in this development would not exceed 500 feet. The exact location of each hydrant would be determined by the El Dorado Hills Fire Department.
- To enhance nighttime visibility, each hydrant would be painted with safety white enamel and marked in the roadway with a blue reflective marker as specified by the El Dorado Hills Fire Department and Fire Safe Regulations.
- In order to provide this development with adequate fire and emergency medical response during construction, all access roadways and fire hydrant systems would be installed and in service prior to framing of any combustible members as specified by El Dorado Hills Fire Department Standard 113.
- All streets within the project would be constructed in accordance with El Dorado County and El Dorado Hills Fire Department requirements.

- During each phase of this project, a minimum of two independent access roadways would be provided for projects over 25 lots.
- The applicant would have a wildland fire safety plan developed for this project.
- If phasing of this development creates any dead-end access roadways in excess of 150 feet, the roadway would be provided with a turnaround in accordance with El Dorado Hills Fire Department specifications.
- The hammer head turnaround shown at the south end of the existing Bass Lake Road would be replaced by a cul-de-sac turnaround constructed in accordance with El Dorado County Design standards.

2016 Mitigation Measures

No new mitigation measures.

Environmental Issue Area	Where Impact Was Analyzed in Prior Environmental Documents.	Do Proposed Changes Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information of Substantial Importance?	Prior Environmental Documents Mitigations Implemented or Address Impacts?
9. Hydrology and Water Quality. Would the Project:					
a. Violate any water quality standards or waste discharge requirements?	PEIR, p. E-6 to E-10; Addendum, pp. 21-24	No	No	No	Yes
b. Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	PEIR, p. E-6, E-10; Addendum, pp. 21-24	No	No	No	Yes
c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?	PEIR, p. E-1 to E-5, E-9; Addendum, pp. 21-24	No	No	No	Yes
d. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	PEIR, p. E-1 to E-5, E-9; Addendum, pp. 21-24	No	No	No	Yes
e. Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	PEIR, p. E-1 to E-5, E-9; Addendum, pp. 21-24	No	No	No	Yes
f. Otherwise substantially degrade water quality?	PEIR, p. E-6 to E-10; Addendum, pp. 21-24	No	No	No	Yes
g. Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	PEIR, p. E-5, E-9; Addendum, pp. 21-24; Hawk View MND, pp. 3-44 to 3-45; Bell Woods MND, p. 3-75 to 3-76; Bell Ranch MND, p. 3-77 to 3-79	No	No	No	Yes
h. Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	PEIR, p. E-5, E-9; Addendum, pp. 21-24	No	No	No	Yes
i. Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	Hawk View MND, pp. 3-45; Bell Woods MND, p. 3-76; Bell Ranch MND, p. 3-80; Levee or Dam Failure Not Addressed in PEIR	No	No	No	Not Applicable
j. Inundation by seiche, tsunami, or mudflow?	Hawk View MND, pp. 3-46; Bell Woods MND, p. 3-77; Bell Ranch MND, p. 3-80; Inundation Not Addressed in PEIR	No	No	No	Not Applicable

Discussion:

1. Changes to Project Related to Hydrology and Water Quality

As presented in the Project Description, the proposed COA Amendments include facilities that were previously required for development of the BLHSP area. The improvements listed below are included here for full disclosure as these improvements are within the scope of the prior CEQA documents.

- A small triangular shaped parcel adjacent to the southwest corner of the Hawk View subdivision and the curve on Silver Dove Way would be landscaped and serve as an overland drainage and percolation area;
- A drainage outfall would drain portions of Bell Woods into a natural area east of the project site, behind homes on Knollwood Drive. Water quality features may also be installed at the outfall site to provide initial settling of stormwater pollutants and prevent soil erosion;
- A drainage outfall extending east from the Bell Ranch subdivision would drain stormwater from the Bell Ranch subdivision onto property at the end of Covello Circle;
- Two concrete-lined drainage ditches would extend southeast and east from the easternmost corner of the Bell Ranch subdivision, join together and head eastward toward the backyards of houses on El Norte Road. The drainage ditch would then extend south along a utility easement to Country Club Drive. When the drainage ditch meets County Club Drive, the drainage would be connected via pipes to existing drainage pipes in Country Club Drive; and
- Two drainage outfalls would be constructed from the western edge of the Bell Ranch subdivision onto an adjacent lot within the BLHSP area.

2. Changes in Circumstances

The 1992 BLRSA Final PEIR and 1995 Addendum reported that the majority of the study area drains west to Carson Creek, and that the remainder of the study area drains east to Cameron Park, and ultimately to Deer Creek, except for a small portion of the hillside in the southeast corner of the BLHSP area which drains south under Highway 50 to Marble Creek. Both Carson Creek and Marble Creek are tributaries to Deer Creek, which ultimately drains into the Cosumnes River near the City of Elk Grove. These conditions have not changed.

Since the publication of the 1992 BLRSA Final PEIR and the 1995 Addendum, there have been substantive refinements to the local, state, and federal regulatory framework that regulates hydrology and water quality. The current regulatory structure is presented below.

The State Regional Water Quality Control Board (RWQCB) has developed and issued a statewide National Pollutant Discharge Elimination System (NPDES) permit to regulate storm water discharges from all construction activities on its highways and facilities. These projects are regulated under the Statewide permit and are regulated by the RWQCB's Statewide General Construction Permit. All construction projects over one acre require a Storm Water Pollution Prevention Plan (SWPPP) to be prepared and implemented during construction. The SWPPP should contain a site map which shows the construction site perimeter, existing and proposed roadways, storm water collection and discharge points, general topography both before and after construction, and drainage patterns across the project. The SWPPP must list Best Management Practices (BMPs) the discharger will use to protect storm water runoff and the placement of those BMPs. Additionally, the SWPPP must contain a visual monitoring program; a chemical monitoring program for "nonvisible" pollutants to be implemented if there is a failure of BMPs; and a sediment monitoring plan if the site discharges directly to a water body listed on the 303(d) list for sediment.

Pursuant to Section 402 of the Clean Water Act (CWA) and the Porter-Cologne Water Quality Control Act, municipal stormwater discharges in El Dorado County are regulated under the State Water Resources Control Board Water Quality Order No. 2013-0001-DWQ, National Pollutant Discharge Elimination System (NPDES) General Permit No. CAS000004, Waste Discharge Requirements (WDRs) for Storm Water Discharges from Small Municipal Separate Storm Sewer Systems (MS4s), adopted February 5, 2013 (Phase II General Permit). The Phase II General Permit went

into effect on July 1, 2013 and replaces the previous Phase II General Permit (Water Quality Order No. 2003-0005-DWQ, General Permit No. CAS000004), which had been in effect since April 30, 2003. Both the current and previous Phase II General Permits require permittees to develop a Construction Site Storm Water Runoff Control Program and a Post Construction Storm Water Management Program. The previous Phase II General Permit required permittees, including El Dorado County, to implement these programs through a Storm Water Management Plan (SWMP), and permittees are instructed to implement the programs established in their SWMP until the development of corresponding programs that comply with the current Phase II General Permit.

The current Phase II General Permit states that projects whose applications are deemed “complete” prior to June 30, 2015, would not be subject to the new Post Construction Storm Water Management Program requirements. The proposed project was deemed complete on April 23, 2013, and is therefore subject only to the existing post-construction program set forth in the Western El Dorado County SWMP.⁷² Both the previous and current Phase II General Permits require the implementation of BMPs to reduce pollutants in stormwater to the Maximum Extent Practicable (MEP).

State Water Board Low Impact Development Policy. On January 20, 2005, the State Water Resources Control Board adopted the Low Impact Development (LID) Policy, which, at its core, promotes the idea of “sustainability” as a key parameter to be considered during the design and planning process for future development. The sustainability practice promotes LID to benefit water supply and contribute to water quality protection. LID has been a proven approach in other parts of the country and is seen in California as an alternative to conventional stormwater management. It is necessary to incorporate LID into the design of proposed projects in order to meet the MEP standard of the Phase II General Permits. Examples of LID practices include:

Reducing Impervious Area

- Reduction of street width to the minimum necessary, while ensuring emergency vehicle access and traffic flow.
- Reduction of parking footprints by keeping spaces to the minimum required and encouraging transit.
- Elimination of unnecessary sidewalks and driveways.

Development Siting and Layout

- Fitting the design to existing drainage patterns to maximize benefits of the existing terrain.
- Clustering development to maximize contiguous open space.

Using Natural Drainage Systems

- Disconnecting impervious areas from the storm drainage system and using vegetation, soil amendment, and deep tiling to increase infiltration.
- Minimizing grading to preserve natural small dips, hummocks, and mounds in undisturbed areas.
- Using swales and other landscaping to reduce runoff velocity.

Construction General Permit and Storm Water Pollution Prevention Plan. Projects disturbing more than 1 acre of land during construction are to comply with the NPDES General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities, Order No. 2009-0009-DWQ, NPDES No. CAS000002 (Construction General Permit). To obtain coverage under the Construction General Permit, the project applicant must provide via electronic submittal, a Notice of Intent, a Storm Water Pollution Prevention Plan (SWPPP), and other documents required by Attachment B of the Construction General Permit. Activities subject to the Construction General Permit include clearing, grading, and disturbances to the ground, such as grubbing or excavation. The permit also covers linear

⁷² El Dorado County, 2004. *Western El Dorado County Storm Water Management Plan*.

underground and overhead projects such as pipeline installations. Construction General Permit activities are regulated at a local level by the Water Board.

The Construction General Permit uses a risk-based permitting approach and mandates certain requirements based on the project risk level (i.e., Level 1, Level 2, or Level 3). The project risk level is based on the risk of sediment discharge and the receiving water risk. The sediment discharge risk depends on the project location and timing (i.e., wet season versus dry season activities). The receiving water risk depends on whether the project would discharge to a sediment-sensitive receiving water. The determination of the project's risk level would be made by the project applicant when the Notice of Intent is filed.

The performance standard in the Construction General Permit is that dischargers shall minimize or prevent pollutants in stormwater discharges and authorized non-stormwater discharges through the use of controls, structures, and management practices that achieve Best Available Technology (BAT) for treatment of toxic and non-conventional pollutants and Best Conventional Technology (BCT) for treatment of conventional pollutants. A SWPPP must be prepared by a Qualified SWPPP Developer that meets the certification requirements in the Construction General Permit. The purpose of the SWPPP is: (1) to help identify the sources of sediment and other pollutants that could affect the quality of stormwater discharges; and (2) to describe and ensure the implementation of BMPs to reduce or eliminate sediment and other pollutants in stormwater as well as non-stormwater discharges resulting from construction activity. Operation of BMPs must be overseen by a Qualified SWPPP Practitioner that meets the requirements outlined in the permit.

The SWPPP must also include a construction site monitoring program. The monitoring program includes, depending on the project risk level, visual observations of site discharges, water quality monitoring of site discharges (pH, turbidity, and non-visible pollutants), and receiving water monitoring (pH, turbidity, suspended sediment concentration, and bioassessment).

El Dorado County Grading, Erosion and Sediment Ordinance. The purpose of the Grading, Erosion and Sediment Control Ordinance (Chapter 110.14)⁷³ is to regulate grading within the unincorporated areas of El Dorado County, to prevent the pollution of surface water, and to ensure that the intended use of the site is consistent with all applicable local and state plans and standards, including the El Dorado County General Plan, SWMP, California Fire Safe Standards, and El Dorado County ordinances. This ordinance also establishes the procedures for the issuance of permits, approval of plans, and inspection of construction sites. The Grading, Erosion and Sediment Control Ordinance requires that waterways and adjacent properties be protected from erosion, flooding, or sediment deposits that could result from grading activities. It also states that the discharge of sediments to any waterway, drainage system, or adjacent property remain at or below levels prior to grading activities.

The Flood Damage and Prevention Ordinance (Chapter 130.25)⁷⁴ does not apply to this project because the project area is not located in a floodplain or flood prone area, as discussed in Section 1.c above. Chapter 130.22.210 of the Zoning Ordinance⁷⁵ establishes the County's authority to impose conditions of approval (COA) on a proposed project in order to ensure that the project is consistent with all applicable standards and regulations, or in order to mitigate any potential impacts created by the proposed project.

- **Water Quality Stamp:** All new or reconstructed drainage inlets shall have a stormwater quality message stamped into the concrete, conforming to the Storm Water Quality Design Manual for the Sacramento and South Placer Regions, Chapter 4, Fact Sheet SD-1. All stamps shall be approved by the El Dorado County inspector prior to being used.

⁷³ El Dorado County, 2010a. Code of Ordinances. Chapter 110.

⁷⁴ El Dorado County, 2010b. Code of Ordinances. Chapter 130.

⁷⁵ El Dorado County, 2010b. Code of Ordinances. Chapter 130.

- **Grading Permit/Plan:** A residential grading permit is required for the project. The applicant shall submit a site improvement/grading plan prepared by a professional civil engineer to the El Dorado County Community Development Agency Transportation Division for review and approval. The plan shall be in conformance with the County of El Dorado “Design and Improvement Standards Manual,” the “Grading, Erosion and Sediment Control Ordinance,” the “Drainage Manual,” the “Off-Street Parking and Loading Ordinance,” and the State of California Handicapped Accessibility Standards, as applicable. All applicable plan check fees shall be paid at the time of submittal of improvement plans. All applicable inspection fees shall be paid prior to issuance of a permit. The improvements and grading shall be completed to the satisfaction of the Transportation Division or the applicant shall obtain an approved improvement agreement with security, prior to the filing of the final map.
- **Grading Plan Review:** Grading and improvement plans shall be prepared and submitted to the El Dorado County Resource Conservation District (RCD) and the Transportation Division. The RCD shall review and make appropriate recommendations to the County. Upon receipt of the review report by the RCD, the Transportation Division shall consider imposition of appropriate conditions for reducing or mitigating erosion and sedimentation from the project. Grading plans shall incorporate appropriate erosion control measures as provided in the El Dorado County Grading Ordinance and El Dorado County Storm Water Management Plan. Appropriate runoff controls such as berms, storm gates, detention basins, overflow collection areas, filtration systems, and sediment traps shall be implemented to control siltation, and the potential discharge of pollutants into drainages.
- **RCD Coordination:** The timing of construction and method of revegetation shall be coordinated with the RCD. If grading activities are not completed by September, the developer shall implement a temporary grading and erosion control plan. Such temporary plans shall be submitted to the RCD for review and recommendation to the El Dorado County Transportation Division. The El Dorado County Transportation Division shall approve or conditionally approve such plans and cause the developer to implement said plan on or before October 15.
- **Soils Report:** At the time of the submittal of the grading or improvement plans, the applicant shall submit a soils and geologic hazards report (meeting the requirements for such reports provided in the El Dorado County Grading Ordinance) to, and receive approval from the El Dorado County Transportation Division. Grading design plans shall incorporate the findings of detailed geologic and geotechnical investigations and address, at a minimum, grading practices, compaction, slope stability of existing and proposed cuts and fills, erosion potential, ground water, pavement section based on TI and R values, and recommended design criteria for any retaining walls.
- **Drainage Study/SWMP Compliance:** The applicant shall provide a drainage report at time of improvement plans or grading permit application, consistent with the Drainage Manual and the Storm Water Management Plan, which addresses stormwater runoff increase, impacts to downstream facilities and properties, and identification of appropriate stormwater quality management practices to the satisfaction of the Transportation Division. The Drainage Study must demonstrate the subject property has adequate existing and proposed storm drainage facilities. At a minimum, the drainage study, plans, and calculations shall include the following:
 - The site can be adequately drained;
 - The development of the site will not cause problems to nearby properties, particularly downstream sites;
 - The on-site drainage will be controlled in such a manner as to not increase the downstream peak flow more than the pre-development 10-year storm event or cause a hazard or public nuisance. Detention shall be required if said condition is not met or the applicant shall demonstrate that there are no downstream impacts.
 - The ultimate drainage outfall of the project.

Pursuant to Section 1.8.3 of the Drainage Manual, the report shall be prepared by a Civil Engineer who is registered in the State of California. A Scoping Meeting for the required drainage study between County staff and the engineer shall occur prior to the first submittal of improvement plans. The engineer shall bring a watershed map and any

other existing drainage system information to the Scoping Meeting. The improvements shall be completed to the approval of the Transportation Division, prior to the filing of the final map or the applicant shall obtain an approved improvement agreement with security.

- **Drainage (Cross-Lot):** Cross lot drainage should be avoided. When concentrated cross lot drainage does occur or when the natural sheet flow drainage is increased by the project, it should be contained within dedicated drainage easements, and included in the County Service Area Zone of Benefit (ZOB), Home Owners Association, or other entity acceptable to the County. Any variations shall be approved by the County Engineer. This drainage shall be conveyed via closed conduit or v-ditch, to either a natural drainage course of adequate size or an appropriately sized storm drain system. The site plans shall show drainage easements for all on-site drainage facilities. Drainage easements shall be provided where deemed necessary prior to the filing of the final map.
- **NPDES Permit:** At the time that an application is submitted for improvement plans or a grading permit, and if the proposed project disturbs more than one acre of land area (43,560 square feet), the applicant shall file a “Notice of Intent” (NOI) to comply with the Statewide General NPDES Permit for stormwater discharges associated with construction activity with the State Water Resources Control Board (SWRCB). This condition is mandated by the Federal Clean Water Act and the California Water Code. A filing form, a filing fee, a location map, and a Storm Water Pollution Prevention Plan (SWPPP) are required for this filing. A copy of the Application shall be submitted to the County, prior to building permit issuance, and by state law must be done prior to commencing construction.
- **Storm Water Drainage BMPs:** Storm drainage from on-and off-site impervious surfaces (including roads) shall be collected and routed through specially designed water quality treatment facilities (BMPs) for removal of pollutants of concern (e.g. sediment, oil/grease, etc.), as approved by the Transportation Division. This project is located within the area covered by El Dorado County’s municipal stormwater quality permit, pursuant to the NPDES Phase II program. Project related stormwater discharges are subject to all applicable requirements of said permit. BMPs shall be designed to mitigate (minimize, infiltrate, filter, or treat, depending on site conditions) stormwater runoff in accordance with “Attachment 4” of El Dorado County’s NPDES Municipal Storm Water Permit (State Water Resources Control Board NPDES General Permit No. CAS000004).

With the Improvement Plans, the applicant shall verify that the proposed BMPs are appropriate to treat the pollutants of concern from this project. A maintenance entity of these facilities shall be provided by the project applicant. The Transportation Division shall review the document forming the entity to ensure the provisions are adequate prior to filing of the final map.

Design and Improvement Standards Manual. The purpose of the Design and Improvement Standards Manual is to standardize development practices used in the hillside environment that is prevalent in El Dorado County and to minimize the environmental effects of construction.⁷⁶ Volume II of the manual includes drainage and design criteria for stormwater and Volume III of the manual⁷⁷ provides guidance on how to implement the erosion and sediment control standards in Chapter 120.14 of the El Dorado County Code of Ordinances.

Drainage Manual. The El Dorado County Drainage Manual establishes guidelines for the design of stormwater drainage facilities and the performance of hydraulic and hydrologic analyses.⁷⁸ This manual is designed to supplement El Dorado County ordinances and the provisions defined in the Design and Improvement Standards Manual. For example, the Drainage Manual requires that potential downstream impacts to water quality and flow regimes be taken into account when designing stormwater drainage systems and that mitigation measures be included as part of drainage analyses. Drainage facilities for areas larger than 100-acres are required to accommodate runoff from a 100-year storm.

⁷⁶ El Dorado County, 1986. Design and Improvement Standards Manual. Revised May 18, 1990.

⁷⁷ El Dorado County, 2007. Design and Improvement Standards Manual. Volume III: Grading Erosion and Sediment Control.

⁷⁸ El Dorado County, 1995. County of El Dorado Drainage Manual. Resolution No. 67-95.

Western El Dorado County Storm Water Management Plan (SWMP).⁷⁹ The purpose of the Construction Site Runoff Control Program of the SWMP is to control the discharge of pollutants from all construction sites greater than or equal to 1 acre. The SWMP requires full compliance with the Construction General Permit and El Dorado County's Grading, Erosion and Sediment Control Ordinance, Design and Improvement Standards Manual, and Drainage Manual. The Construction Site Runoff Control Program also describes the typical construction site practices expected to be implemented for common construction activities, as well as the minimum construction site practices required to protect water quality. The minimum measures include scheduling, preservation of existing vegetation, stockpile management, non-stormwater management, and disturbed soil area management.

The purpose of the Post Construction Runoff Control Program of the SWMP is to protect water quality and control runoff from all development or redevelopment projects greater than or equal to 1 acre during the operation period of the developments. This is achieved through the construction, implementation, and long-term operation and maintenance of BMPs. The SWMP requires full compliance with El Dorado County's Grading, Erosion and Sediment Control Ordinance, Design and Improvement Standards Manual, and Drainage Manual. The SWMP states that a site specific Storm Water Mitigation Report (SWMR) documenting permanent stormwater quality mitigation measures must be developed during the planning/design stage of a proposed project; however, for practical purposes, the documentation of these measures is included in the project drainage study, rather than in the SWMR.⁸⁰

3. Comparative Impact Discussions

The 1992 BLRSA Final PEIR, the 1995 Addendum, and the 2005 MNDs addressed hydrology and water quality impacts. While the regulatory setting has changes since the 1992 BLRSA Final PEIR, the impact topics have generally been consistent.

Runoff Volume and Flooding

The 1992 BLRSA Final PEIR stated that development would increase the volume of runoff into Deer Creek and Carson Creek.⁸¹ The Cameron Park storm drain system is sized to handle flows from the BLHSP area, so impacts to the Deer Creek drainage shed were found to be less than significant and did not require mitigation. Implementation of the BLHSP would increase runoff in the Carson Creek drainage shed, an area with insufficient capacity. The 1992 BLRSA Final PEIR included mitigation measure E02 to mitigate this impact to less than significant by requiring projects to provide adequate detention to maintain pre-project flow conditions. The 1995 Addendum added standards and policies from the BLHSP that would help reduce impacts related to hydrology and water quality.

The 2005 MNDs prepared for the subdivisions evaluated potential flooding impacts, including increased runoff and the need for detention basins. Based on the analysis completed for the Bell Ranch project, the Bell Ranch MND identified two drainage basins to mitigate increased runoff.⁸² Additionally, the Bell Ranch MND noted that implementation of mitigation measure E02 from the 1992 BLRSA Final PEIR and mitigation measures MM 3.7.7 through MM 3.7.14 of the Bell Ranch MND would mitigate impacts to less than significant.

The 2005 MND prepared for the Bell Woods subdivision included analysis that identified two detention basins to mitigate increased runoff from the Bell Woods subdivision.⁸³ The Bell Woods MND also noted that implementation of mitigation measure E02 from the 1992 BLRSA Final PEIR and mitigation measures MM 3.7.7 through MM 3.7.14 of the Bell Woods MND would mitigate impacts to less than significant.

⁷⁹ El Dorado County, 2004. *Western El Dorado County Storm Water Management Plan*.

⁸⁰ El Dorado County, 1995. County of El Dorado Drainage Manual. Resolution No. 67-95.

⁸¹ County of El Dorado. *Bass Lake Road Study Area Program Environmental Impact Report – Draft* (SCH#90020375). June 14, 1991. P. E-9.

⁸² County of El Dorado. *Mitigated Negative Declaration – Bell Ranch Project*. SCH#2005022144. Draft, February 2005. P. 3-79.

⁸³ County of El Dorado. *Draft Mitigated Negative Declaration – Bell Woods Project*. SCH#2005032044. Draft, February 2005. P. 3-75.

The 2005 MND prepared for the Hawk View subdivision noted that the Carson Creek drainage shed has insufficient capacity, and stated that mitigation measure E02 from the 1992 BLRSA Final PEIR and mitigation measures MM 3.7.7 through MM 3.7.11 of the Hawk View MND would mitigate impacts to less than significant.⁸⁴

All three 2005 MNDs discussed the potential for flooding impacts. The majority of the western slope of El Dorado County is not subject to flooding because of a lack of extensive low-lying areas and great deal of upland areas. As such, the three MNDs concluded that the projects would have no impact related to flooding.⁸⁵⁻⁸⁶⁻⁸⁷

The proposed COA Amendments would not involve any changes that would change any of the necessary improvements or the amount of runoff that would be generated by the subdivisions. Thus, the proposed project would not create a new significant impact, nor a substantially more severe significant impact, compared to the prior CEQA documents.

Groundwater

The 1992 BLRSA Final PEIR determined that development in the area would decrease the surface area available for infiltration, but that because the area is underlain by impervious material, minimal infiltration naturally occurs and the study area is not recognized as a groundwater recharge zone. The 1992 BLRSA Final PEIR concluded that the predicted decrease in infiltration would not adversely impact regional groundwater resources; therefore, the project would not substantially interfere with groundwater recharge.⁸⁸ The 2005 MNDs sustained this conclusion and determined that the subdivisions would not substantially impact groundwater.⁸⁹⁻⁹⁰⁻⁹¹ The proposed COA Amendments would not involve any changes that would change groundwater use or recharge in the BLHSP area. Thus, the proposed project would not create a new significant impact, nor a substantially more severe significant impact, compared to the prior CEQA documents.

Erosion and Water Quality

The 1992 BLRSA Final PEIR analyzed the potential for water quality impacts resulting from construction and development of the BLHSP area. While implementation of the BLHSP would eliminate livestock contamination of intermittent drainages, implementation could have both short-term and long-term impacts.⁹² The 1992 BLRSA Final PEIR included mitigation measures D04 and D05 to reduce short-term impacts to a less-than significant level. These measures require implementation of a grading plan and compliance with the County's grading ordinance (Ordinance 3983). The 1992 BLRSA Final PEIR also included mitigation measures E01, E02, and E03 to reduce long-term water quality impacts to a less-than-significant level. These measures require that drainage be conveyed in vegetated swales, all projects include adequate detention to maintain pre-development flows, and the use of BMPs to protect water quality. The 1995 Addendum added standards and policies from the BLHSP that would help reduce impacts related to water quality.

⁸⁴ County of El Dorado. *Initial Study and Mitigated Negative Declaration – Hawk View Project*. SCH#2005012107. Draft, January 2005. P. 3-45.

⁸⁵ County of El Dorado. *Mitigated Negative Declaration – Bell Ranch Project*. SCH#2005022144. Draft, February 2005. P. 3-80.

⁸⁶ County of El Dorado. *Draft Mitigated Negative Declaration – Bell Woods Project*. SCH#2005032044. Draft, February 2005. Pp. 3-76 and 3-77.

⁸⁷ County of El Dorado. *Initial Study and Mitigated Negative Declaration – Hawk View Project*. SCH#2005012107. Draft, January 2005. P. 3-45.

⁸⁸ County of El Dorado. *Bass Lake Road Study Area Program Environmental Impact Report – Draft* (SCH#90020375). June 14, 1991. P. E-10.

⁸⁹ County of El Dorado. *Mitigated Negative Declaration – Bell Ranch Project*. SCH#2005022144. Draft, February 2005. P. 3-71.

⁹⁰ County of El Dorado. *Draft Mitigated Negative Declaration – Bell Woods Project*. SCH#2005032044. Draft, February 2005. P. 3-70.

⁹¹ County of El Dorado. *Initial Study and Mitigated Negative Declaration – Hawk View Project*. SCH#2005012107. Draft, January 2005. P. 3-41.

⁹² County of El Dorado. *Bass Lake Road Study Area Program Environmental Impact Report – Draft* (SCH#90020375). June 14, 1991. P. E-10.

The 2005 MND prepared for the Bell Ranch subdivision acknowledged that the 1992 BLRSA Final PEIR included mitigation measures to protect water quality, but included mitigation measures MM 3.7.1 through MM 3.7.14 to better define the minimum BMPs and ensure that mitigation measures from the 1992 BLRSA Final PEIR would be carried out at the project level.⁹³ The 2005 MND prepared for the Bell Woods subdivision also acknowledged that the 1992 BLRSA Final PEIR included mitigation measures to protect water quality, but included mitigation measures MM 3.7.1 through MM 3.7.14 to better define the minimum BMPs and ensure that mitigation measures from the 1992 BLRSA Final PEIR would be carried out at the project level.⁹⁴ The 2005 MND prepared for the Hawk View subdivision acknowledged that the 1992 BLRSA Final PEIR included mitigation measures to protect water quality, but included mitigation measures MM 3.7.1 through MM 3.7.11 to better define the minimum BMPs and ensure that mitigation measures from the 1992 BLRSA Final PEIR would be carried out at the project level.⁹⁵

As previously mentioned, the proposed COA Amendments include four drainage outfalls (three in Bell Ranch and one in Bell Woods), two concrete-lined drainage ditches (in Bell Ranch, which would ultimately be connected to existing underground drainage pipes), and an overland drainage and percolation area (in Hawk View), all of which are proposed to facilitate the incremental development of the approved tentative maps based on current information as to when and where near-term development is anticipated to occur; however, there would be no changes in the proposed location or type of land uses in the BLHSP area. Accordingly surface water quantity and quality would remain the same as disclosed in the 2005 MND, the 1992 BLRSA Final PEIR, and the 1995 Addendum. While the exact location of the drainage outfalls and drainage ditches was not known at the time of the prior CEQA documents, these infrastructure improvements are consistent with drainage assumptions and analyses presented in the prior CEQA documents and would be designed in compliance with the laws, regulations, and design guidelines, including water quality standards and waste discharge requirements, outlined in the Changes in Circumstances discussion above, to ensure that impacts related to water quality or surface water flows (including peak flows) would be reduced to the maximum extent practicable. Specifically, the applicant is required to provide a Drainage Report at time of improvement plans or grading permit application, consistent with the requirements of the County's Drainage Manual and Storm Water Management Plan, which addresses stormwater runoff increase, impacts to downstream facilities and properties, and identification of appropriate stormwater quality management practices to the satisfaction of the Transportation Division. Pursuant to Section 1.8.3 of the Drainage Manual, the Drainage Report shall be prepared by a Civil Engineer who is registered in the State of California, and the proposed improvements shall be completed to the approval of the Transportation Division. These requirements would ensure that the proposed COA Amendments would not create a new significant impact, nor a substantially more severe significant impact, compared to the prior CEQA documents.

4. Conclusions

As described above, changes introduced by the proposed project and/or new circumstances relevant to the project would not, as compared to the prior CEQA documents, result in a new significant impact or significant impacts that are substantially more severe than significant impacts previously disclosed. In addition, there is no new information of substantial importance showing that the project would have one or more significant effects not previously discussed or that any previously examined significant effects would be substantially more severe than significant effects shown in the prior CEQA documents. Further, there is no new information of substantial importance showing (i) that mitigation measures or alternatives previously found not to be feasible would in fact be feasible, and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative or (ii) that mitigation measures or alternatives considerably different from those analyzed in the prior CEQA documents

⁹³ County of El Dorado. *Mitigated Negative Declaration – Bell Ranch Project*. SCH#2005022144. Draft, February 2005. Pp. 3-70 and 3-71.

⁹⁴ County of El Dorado. *Draft Mitigated Negative Declaration – Bell Woods Project*. SCH#2005032044. Draft, February 2005. Pp. 3-68 through 3-70.

⁹⁵ County of El Dorado. *Initial Study and Mitigated Negative Declaration – Hawk View Project*. SCH#2005012107. Draft, January 2005. Pp. 3-39 through 3-41.

would substantially reduce one or more significant effects, but the proponents decline to adopt the mitigation measure or alternative.

Specific Plan and Other Standard Mitigation Measures

Specific Plan Section 5.4.1, General Stormwater Facility Policies

1. Storm drainage detention basins shall be designed and constructed to comply with the provisions in the County of El Dorado Drainage Manual.
2. Storm drainage detention basins may be located in open space areas and parks and may be accessible to the public in order to serve a dual impact mitigation/recreation function. Detention basins shall be designed to ensure public safety, to be visually unobtrusive, and to provide wildlife habitat. Landscaping around the perimeter of the basin shall be encouraged. (See Section 8.3 of the Design Guidelines).

Specific Plan Section 5.7.1, Open Space Policies

The Plan will maintain natural intermittent streams in an essentially unaltered condition. Intermittent streams will be utilized as receiving areas for compensation tree planting, open space, wildlife habitat, and recreational facilities (trails and bike paths). Policies pertinent to intermittent stream areas and a conceptual illustration of intermittent stream channels are provided in Section 7.4. (Also see Section 5.4).

Specific Plan Section 6.1, Grading Standards

All grading activities will incorporate the erosion control measures as provided in the El Dorado County Grading Ordinance.

7. In order to minimize erosion and siltation, grading shall only be allowed on approved projects that are subject to immediate development. Issuance of a grading permit shall not occur prior to approval of a development application.
10. All grading shall conform to the County Grading Ordinance, Subdivision Design and Improvement Manual (Hillside Regulations), and the Hillside and Ridgeline Development Guidelines for Bass Lake Hills Specific Plan (Appendix A).

Specific Plan Section 7.4, Wetlands and Intermittent Streams and Drainages

It is the intent of this Plan to retain and protect as much of the existing wetlands and intermittent stream and drainage resources as possible. The primary method of preservation will be avoidance by means of conservation setbacks. As defined in Section 3.3, the principal means of stormwater conveyance will be by means of intermittent stream and drainage channels. Aside from street crossings, pedestrian paths, and other features described in this Plan, improvements to land within intermittent stream and drainage setback areas will be precluded.

Specific Plan Section 7.4.1, Wetlands and Intermittent Streams and Drainages Protection Standards

1. Wetlands, as identified on Figure 1-5, Wetlands and Surface Hydrology Map, shall be protected by the creation of a conservation easement extending 50 feet from the boundary of the identified wetland or from the edge of the riparian zone, whichever is greater.
2. Intermittent streams and drainages, as identified in Figure 1-5, Wetlands and Surface Hydrology Map, shall be protected by a 25-foot-wide conservation easement measured from each side of the channel bank or from the outside edge of the riparian zone, whichever is greater. This non-building area shall be shown on all subdivision maps and building site plans and shall be recorded with every parcel so effected. All grading and construction other than fences, as defined herein, shall be prohibited. (See Figure 7-2, Intermittent Stream Setback Concept).
3. Any project proposing septic systems shall provide a minimum 50-foot setback from stream bank to any component of the septic system if a septic capability study determines septic is appropriate for the site.

4. Where applicable, 15-foot public access easements shall be recorded within the riparian corridors and shall be located at least 25 feet from the banks of intermittent streams. Pedestrian and bike trails and utilities may be installed within these easements. Pedestrian and bicycle trails shall be constructed only within designated open space areas located at least 25 feet from streambanks and outside of the riparian vegetation areas. Such pathways shall be designed to avoid impacts to wetlands and intermittent streams.
5. All easements shall be dedicated to the EDHCSD and/or the Landscape and Lighting Assessment District (LLAD) formed for maintenance of the trails, drainage and conservation setbacks. (See Section 9.1.7).
6. Fences shall not be permitted within any conservation easement or designated open space areas.
7. Ponds or detention basins shall be protected by a conservation easement, excluding those located within parks, which extends 100 feet from the high water line.
8. Livestock grazing or the keeping of animals is not consistent with the conservation easements defined herein and is not permitted.
9. Temporary fencing (chain link, ski fencing, or other suitable high visibility material intended to alert construction workers to the presence of protected wetlands) shall be installed at least 10 feet from the outside boundary of retained wetland areas along the length of the construction site prior to construction, grading, or movement of material or machinery onto the site. The fencing shall not be removed until construction activity is completed and finalized by the appropriate inspection authority.
10. Intermittent stream and drainage channels, as identified in Figure 1-5, shall be left in a natural condition, except where minor grading and vegetation cutting is required to maintain drainage flows within the channel to minimize erosion. Energy dissipators shall utilize natural materials which do not adversely [a]ffect water quality.
11. Within jurisdictional wetlands, all grading and construction shall be in accordance with a Section 404 permit.
12. Stormwater detention basins shall be designed to ensure public safety, be visually unobtrusive, and provide wildlife habitat. The design shall be reviewed and approved by the Department of Transportation (DOT) and the CDFG.
13. To ensure that storm drainage flows are not impeded to the degree that flooding occurs, tree planting programs within stream corridors shall be reviewed and approved by the County DOT.
14. Street crossings of intermittent streams shall be by bridges or half-round culverts to facilitate passage of terrestrial and aquatic organisms.

Prior CEQA Mitigation Measures

1992 BLRSA Final PEIR

D04 Prior to development, each project will submit a grading plan to the El Dorado County Planning Department and Department of Transportation for review and approval.

D05 Grading, trenching, and similar construction activities which involve disturbance of the soil will be performed in accordance with the provisions of County Ordinance 3983. The ordinance specifies that such activities be restricted to the summer season and/or extended periods of dry weather. Filter berms, sandbag or hay bale barriers, culvert risers, filter inlets, and/or sediment detention basins will be utilized as appropriate during construction to protect area waterways from siltation and debris. All intermittent streams will be appropriately vegetated or lined with coarse rock.

E01 Individual projects within the study area will adhere to the mitigation identified in the El Dorado Hills Salmon Falls Area Plan which specifies "Non-building setbacks of 100 feet from perennial streams; 50 feet from intermittent streams; 150 feet from lakes; and 100 feet from ponds, should be observed as recommended by the County Health Departments." Drainage will be conveyed in vegetated corridors, and installation of storm drains will be restricted to

minor swales where such systems are required to convey runoff to the protected corridors. Major intermittent streams will be maintained as vegetated corridors. Except for limited erosion control measures (bank stabilization, planting of native compatible grasses to enhance cover, etc.), public access trails, and maintenance roads, no development will be permitted within these corridors. All culverts will be designed to allow the passage of aquatic organisms.

E02 Each project will provide detention adequate to maintain pre- project flow conditions. Although individual projects in the Bass Lake study area may elect to provide individual detention facilities, it is recommended that a single facility serving the entire study area be constructed. The appended hydrologic analysis indicates that construction of a detention facility with ± 40 acre-feet of capacity will provide adequate mitigation to prevent exacerbation of the potential flooding situation created by the substandard channel segment located downstream of the study area.

E03 Consistent with the methodology identified in *CONTROLLING URBAN RUNOFF: A Practical Manual for Planning and Designing Urban BMPs*, each project will submit a Best Management Practices (BMP) plan which specifies the measures which will be implemented to protect water quality. These measures will be identified on Tentative Maps and adopted as Conditions of Approval.

1995 Addendum

No new mitigation measures.

2005 Bell Ranch MND

MM 3.7.1.⁹⁶ The applicant shall prepare a Stormwater Pollution Prevention Plan (SWPPP) that incorporates Best Management Practices (BMPs) to contain pollutants on the project site and prevent pollutants from entering stormwater runoff. BMPs shall be incorporated into the construction contract documents. The BMPs shall include, but not be limited to, the following measures:

1. Drop Inlet Protection
 - A. Straw Bales
 - B. Gravel Traps and Filters
 - C. Burlap Filter
 - D. Sandbag Protection
 - E. Fencing
2. Erosion Control Measures
 - A. Vegetative Stabilization
 - i. Seeding and Planting
 - ii. Mulching
 - iii. Grassy Swales and Buffers
 - B. Physical Stabilization
 - i. Jute Netting
 - ii. Dust Control
 - iii. Outlet Protection

⁹⁶ Bell Ranch MMRP states that mitigation measure 3.7.1 supersedes mitigation measure E03 from the Bass Lake Road Study Area Program EIR and Addendum.

3. Sediment Control Measures

- A. Silt Fences
 - B. Check Dams
 - C. Straw Bale Barrier
 - D. Sandbag Barrier
 - E. Rock Filter Berm
 - F. Sediment Traps
 - G. Sediment Basins
- 4. Oil and grease separators to control driveway and parking lots contaminants.
 - 5. Labeling of storm drain inlets to educate the public of the adverse impacts associated with dumping contaminants in receiving waters.
 - 6. Efficient irrigation systems (i.e. automatic irrigation systems) installed in landscaped areas to minimize irrigation runoff from areas and maximize the water that will reach plant roots.

Grading, excavation and site preparation activities shall be timed, to the maximum extent possible, to avoid the rainy season or months with high precipitation levels if possible.

MM 3.7.2: Demonstration of compliance with the provisions of the Central Valley Regional Water Quality Control Board's (Central Valley RWQCB's) General Permit for Dewatering and Other Low Threat Discharges to Surface Waters shall be required for dewatering activities. Compliance shall include preparation of a monitoring and reporting program and implementation of Best Management Practices (BMPs) associated with the dewatering activities.

MM 3.7.3: Subdivision improvements shall include rough grading of driveways for all lots with street cuts or fills along the frontage of six feet or more difference in elevation, or as found necessary for reasonable access by the County Engineer. Construction of said driveways shall conform to the Design and Improvements Standards Manual and the Encroachment Ordinance.

MM 3.7.4: Grading plans shall be prepared in substantial conformance with the preliminary grading plans submitted for Bell Ranch and submitted to the El Dorado County Resource Conservation District (RCD) and the Department of Transportation for review and approval. The RCD shall review and make appropriate recommendations to the County. Upon receipt of the review report by RCD, the Department of Transportation shall consider imposition of appropriate conditions for reducing or mitigating erosion and sedimentation from the project. The County shall issue no building permits until the Department of Transportation approves the final grading and erosion control plans and the grading is completed.

MM 3.7.5: The timing of construction and method of revegetation shall be coordinated with the El Dorado County Resource Conservation District (RCD). If grading activities are not completed by September, the developer shall implement a temporary grading and erosion control plan. Such temporary plans shall be submitted to the RCD for review and recommendation to the Department of Transportation. The Department of Transportation shall approve or conditionally approve such plans and cause the developer to implement said plan on or before October 15.

MM 3.7.6: Improvement plans shall incorporate protective measures toward existing oak trees pursuant to Volume IV, Design and Improvement Standards Manual, Oak Tree and Wetlands Preservation Requirements and Specifications (County Resolution # 199-915).

MM 3.7.7: Erosion control and drainage design from residential areas into the open space areas shall employ natural appearing methods. The use of native plant material is required where revegetation is proposed.

MM 3.7.8: The applicant shall construct the detention facilities as identified in the project drainage analysis prior to issuance of building permits. Detention facilities shall be designed in accordance with the County of El Dorado Drainage Manual, including provisions for maintenance and vehicular access.

MM 3.8.9: An irrevocable offer of dedication of drainage easement shall be made for the project detention facilities. A homeowner's agreement and association, or other entity, shall be established in order to provide for ownership in fee title to the detention facility.

MM 3.7.10: A final drainage plan shall be prepared in accordance with County of El Dorado Drainage Manual, subject to review and approval by the Department of Transportation. Drainage facilities shall be designed and shown on the project improvement plans consistent with the final drainage plan, the Bass Lake Hills Specific Plan and the County's Storm Water Management Plan. The developer shall install said drainage facilities with the respective phase of construction, or as specified in the final drainage plan.

MM 3.7.11: Cross lot drainage shall be avoided wherever possible. When cross lot drainage does occur, it shall be contained within dedicated drainage easements. This drainage shall be conveyed via closed conduit of v-ditch, to either a natural drainage course of adequate size or an appropriately sized storm drain system within the public roadway.

MM 3.7.12: The applicant shall be required to form a County Service Area Zone of Benefit (ZOB) to fund the drainage facility maintenance and improvement services. The funding mechanism for these services must be established prior to approval of the final map and shall include a provision for future increased funding requirements. It is recommended that a special tax with an escalator clause be used as the funding mechanism.

MM 3.7.13: The final map shall show all drainage easements consistent with the County of El Dorado Drainage Manual, the project final drainage plan, and the project improvement plans.

MM 3.7.14: The applicant shall obtain Irrevocable Offers of Dedication to the County for public drainage purposes, and shall process same through the County, for offsite easement rights across properties subject to the Specific Plan Development Agreement, to the satisfaction of the Department of Transportation, to accommodate any offsite storm water facilities needed to convey concentrated storm water from the project boundary down gradient to an existing established waterway. The applicant shall design and install said offsite stormwater facilities as necessary to the satisfaction of the Department of Transportation.

2005 Bell Woods MND

MM 3.7.1:⁹⁷ The applicant shall prepare a Stormwater Pollution Prevention Plan (SWPPP) that incorporates Best Management Practices (BMPs) to contain pollutants on the project site and prevent pollutants from entering stormwater runoff. BMPs shall be incorporated into the construction contract documents. The BMPs shall include, but not be limited to, the following measures:

1. Drop Inlet Protection
 - A. Straw Bales
 - B. Gravel Traps and Filters
 - C. Burlap Filter

⁹⁷ Bell Woods MMRP states that mitigation measure 3.7.1 supersedes mitigation measure E03 from the Bass Lake Road Study Area Program EIR and Addendum.

- D. Sandbag Protection
- E. Fencing
- 2. Erosion Control Measures
 - A. Vegetative Stabilization
 - i. Seeding and Planting
 - ii. Mulching
 - iii. Grassy Swales and Buffers
 - B. Physical Stabilization
 - i. Jute Netting
 - ii. Dust Control
 - iii. Outlet Protection
- 3. Sediment Control Measures
 - A. Silt Fences
 - B. Check Dams
 - C. Straw Bale Barrier
 - D. Sandbag Barrier
 - E. Rock Filter Berm
 - F. Sediment Traps
 - G. Sediment Basins
- 4. Oil and grease separators to control driveway and parking lots contaminants.
- 5. Labeling of storm drain inlets to educate the public of the adverse impacts associated with dumping contaminants in receiving waters.
- 6. Efficient irrigation systems (i.e. automatic irrigation systems) installed in landscaped areas to minimize irrigation runoff from areas and maximize the water that will reach plant roots.

Grading, excavation and site preparation activities shall be timed, to the maximum extent possible, to avoid the rainy season or months with high precipitation levels if possible.

MM 3.7.2: Demonstration of compliance with the provisions of the Central Valley Regional Water Quality Control Board's (Central Valley RWQCB's) General Permit for Dewatering and Other Low Threat Discharges to Surface Waters shall be required for dewatering activities. Compliance shall include preparation of a monitoring and reporting program and implementation of Best Management Practices (BMPs) associated with the dewatering activities.

MM 3.7.3: Subdivision improvements shall include rough grading of driveways for all lots with street cuts or fills along the frontage of six feet or more difference in elevation, or as found necessary for reasonable access by the County Engineer. Construction of said driveways shall conform to the Design and Improvements Standards Manual and the Encroachment Ordinance.

MM 3.7.4: Grading plans shall be prepared in substantial conformance with the preliminary grading plans submitted for Bell Woods and submitted to the El Dorado County Resource Conservation District (RCD) and the Department of Transportation for review and approval. The RCD shall review and make appropriate recommendations to the

County. Upon receipt of the review report by RCD, the Department of Transportation shall consider imposition of appropriate conditions for reducing or mitigating erosion and sedimentation from the project. The County shall issue no building permits until the Department of Transportation approves the final grading and erosion control plans and the grading is completed.

MM 3.7.5: The timing of construction and method of revegetation shall be coordinated with the El Dorado County Resource Conservation District (RCD). If grading activities are not completed by September, the developer shall implement a temporary grading and erosion control plan. Such temporary plans shall be submitted to the RCD for review and recommendation to the Department of Transportation. The Department of Transportation shall approve or conditionally approve such plans and cause the developer to implement said plan on or before October 15.

MM 3.7.6: Improvement plans shall incorporate protective measures toward existing oak trees pursuant to Volume IV, Design and Improvement Standards Manual, Oak Tree and Wetlands Preservation Requirements and Specifications (County Resolution # 199-915).

MM 3.7.7: Erosion control and drainage design from residential areas into the open space areas shall employ natural appearing methods. The use of native plant material is required where revegetation is proposed.

MM 3.7.8: The applicant shall construct the detention facilities as identified in the project drainage analysis prior to issuance of building permits. Detention facilities shall be designed in accordance with the County of El Dorado Drainage Manual, including provisions for maintenance and vehicular access. Vehicular access shall be provided from "C" Court to the basin in "Lot B" with security provisions.

MM 3.8.9: An irrevocable offer of dedication of drainage easement shall be made for the project detention facilities. A homeowner's agreement and association, or other entity, shall be established in order to provide for ownership in fee title to the detention facility.

MM 3.7.10: A final drainage plan shall be prepared in accordance with County of El Dorado Drainage Manual, subject to review and approval by the Department of Transportation. Drainage facilities shall be designed and shown on the project improvement plans consistent with the final drainage plan, the Bass Lake Hills Specific Plan and the County's Storm Water Management Plan. The developer shall install said drainage facilities with the respective phase of construction, or as specified in the final drainage plan.

MM 3.7.11: Cross lot drainage shall be avoided wherever possible. When cross lot drainage does occur, it shall be contained within dedicated drainage easements. This drainage shall be conveyed via closed conduit of v-ditch, to either a natural drainage course of adequate size or an appropriately sized storm drain system within the public roadway.

MM 3.7.12: The applicant shall be required to form a County Service Area Zone of Benefit (ZOB) to fund the drainage facility maintenance and improvement services. The funding mechanism for these services must be established prior to approval of the final map and shall include a provision for future increased funding requirements. It is recommended that a special tax with an escalator clause be used as the funding mechanism.

MM 3.7.13: The final map shall show all drainage easements consistent with the County of El Dorado Drainage Manual, the project final drainage plan, and the project improvement plans.

MM 3.7.14: The applicant shall obtain Irrevocable Offers of Dedication to the County for public drainage purposes, and shall process same through the County, for offsite easement rights across properties subject to the Specific Plan Development Agreement, to the satisfaction of the Department of Transportation, to accommodate any offsite storm water facilities needed to convey concentrated storm water from the project boundary down gradient to an existing established waterway. The applicant shall design and install said offsite stormwater facilities as necessary to the satisfaction of the Department of Transportation.

MM 3.7.1:⁹⁸ The applicant shall prepare a Stormwater Pollution Prevention Plan (SWPPP) that incorporates Best Management Practices (BMPs) to contain pollutants on the project site and prevent pollutants from entering stormwater runoff. BMPs shall be incorporated into the construction contract documents. The BMPs shall include, but not be limited to, the following measures:

1. Drop Inlet Protection
 - A. Straw Bales
 - B. Gravel Traps and Filters
 - C. Burlap Filter
 - D. Sandbag Protection
 - E. Fencing
2. Erosion Control Measures
 - A. Vegetative Stabilization
 - i. Seeding and Planting
 - ii. Mulching
 - iii. Grassy Swales and Buffers
 - B. Physical Stabilization
 - i. Jute Netting
 - ii. Dust Control
 - iii. Outlet Protection
3. Sediment Control Measures
 - A. Silt Fences
 - B. Check Dams
 - C. Straw Bale Barrier
 - D. Sandbag Barrier
 - E. Rock Filter Berm
 - F. Sediment Traps
 - G. Sediment Basins
4. Oil and grease separators to control driveway and parking lots contaminants.
5. Labeling of storm drain inlets to educate the public of the adverse impacts associated with dumping contaminants in receiving waters.
6. Efficient irrigation systems (i.e. automatic irrigation systems) installed in landscaped areas to minimize irrigation runoff from areas and maximize the water that will reach plant roots.

Grading, excavation and site preparation activities shall be timed, to the maximum extent possible, to avoid the rainy season or months with high precipitation levels if possible.

⁹⁸ Hawk View MMRP states that mitigation measure 3.7.1 supersedes mitigation measure E03 from the Bass Lake Road Study Area Program EIR and Addendum.

MM 3.7.2: Demonstration of compliance with the provisions of the RWQCB's General Permit for Dewatering and Other Low Threat Discharges to Surface Waters shall be required for dewatering activities. Compliance shall include preparation of a monitoring and reporting program and implementation of BMPs associated with the dewatering activities.

MM 3.7.3: Grading plans shall be prepared in substantial conformance with the preliminary grading plans submitted for Hawk View and submitted to the El Dorado County Resource Conservation District (RCD) and the Department of Transportation for review and approval. The RCD shall review and make appropriate recommendations to the County. Upon receipt of the review report by RCD, the Department of Transportation shall consider imposition of appropriate conditions for reducing or mitigating erosion and sedimentation from the project. The County shall issue no building permits until the Department of Transportation approves the final grading and erosion control plans and the grading is completed.

MM 3.7.4: The timing of construction and method of revegetation shall be coordinated with the El Dorado County Resource Conservation District (RCD). If grading activities are not completed by September, the developer shall implement a temporary grading and erosion control plan. Such temporary plans shall be submitted to the RCD for review and recommendation to the Department of Transportation. The Department of Transportation shall approve or conditionally approve such plans and cause the developer to implement said plan on or before October 15.

MM 3.7.5: Improvement plans shall incorporate protective measures toward existing oak trees pursuant to Volume IV, Design and Improvement Standards Manual, Oak Tree and Wetlands Preservation Requirements and Specifications (County Resolution # 199-915).

MM 3.7.6: Erosion control and drainage design from residential areas into the open space areas shall employ natural appearing methods. The use of native plant material is required where revegetation is proposed.

MM 3.7.7: A final drainage plan shall be prepared in accordance with County of El Dorado Drainage Manual, subject to review and approval by the Department of Transportation. Drainage facilities shall be designed and shown on the project improvement plans consistent with the final drainage plan, the Bass Lake Hills Specific Plan and the County's Storm Water Management Plan. The developer shall install said drainage facilities with the respective phase of construction, or as specified in the final drainage plan.

MM 3.7.8: Cross lot drainage shall be avoided wherever possible. When cross lot drainage does occur, it shall be contained within dedicated drainage easements. This drainage shall be conveyed via closed conduit of v-ditch, to either a natural drainage course of adequate size or an appropriately sized storm drain system within the public roadway.

MM 3.7.9: The applicant shall be required to form a County Service Area Zone of Benefit (ZOB) to fund the drainage facility maintenance and improvement services. The funding mechanism for these services must be established prior to approval of the final map and shall include a provision for future increased funding requirements. It is recommended that a special tax with an escalator clause be used as the funding mechanism.

MM 3.7.10: The final map shall show all drainage easements consistent with the County of El Dorado Drainage Manual, the project final drainage plan, and the project improvement plans.

MM 3.7.11: The applicant shall obtain Irrevocable Offers of Dedication to the County for public drainage purposes, and shall process same through the County, for offsite easement rights across properties subject to the Specific Plan Development Agreement, to the satisfaction of the Department of Transportation, to accommodate any offsite storm water facilities needed to convey concentrated storm water from the project boundary down gradient to an existing established waterway. The applicant shall design and install said offsite stormwater facilities as necessary to the satisfaction of the Department of Transportation.

2016 Mitigation Measures

No new mitigation measures.

Environmental Issue Area	Where Impact Was Analyzed in Prior Environmental Documents.	Do Proposed Changes Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information of Substantial Importance?	Prior Environmental Documents Mitigations Implemented or Address Impacts?
10. Land Use and Planning. Would the project:					
a. Physically divide an established community?	PEIR, p. I-1 to I-10; Addendum, p. 41 to 42; Hawk View MND, p. 3-47 to 3-52; Bell Ranch MND, p. 3-81 to 3-87; Bell Woods MND, p. 3-78 to 3-83	No	No	No	Yes
b. Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	PEIR, p. I-1 to I-10; Addendum, p. 41 to 42; Hawk View MND, p. 3-47 to 3-52; Bell Ranch MND, p. 3-81 to 3-87; Bell Woods MND, p. 3-78 to 3-83	No	No	No	Yes
c. Conflict with any applicable habitat conservation plan or natural community conservation plan?	PEIR, p. I-1 to I-10; Addendum, p. 41 to 42; Hawk View MND, p. 3-47 to 3-52; Bell Ranch MND, p. 3-81 to 3-87; Bell Woods MND, p. 3-78 to 3-83	No	No	No	Yes

Discussion:

1. Changes to Project Related to Land Use and Planning

As discussed earlier in this Addendum, the proposed project would not create new land uses or alter the proposed land uses within the BLHSP area. Similarly, these changes would not physically divide an existing community or conflict with any existing land use plans, habitat conservation plans, or natural conservation plans. The proposed COA Amendments would not alter the designations, or the entitled type, density, or intensity of land uses that would be constructed within the Hawk View, Bell Woods, or Bell Ranch subdivisions, or elsewhere in the BLHSP area.

2. Changes in Circumstances

The El Dorado County General Plan is the overall guiding policy document for the unincorporated areas of the County. The 1992 BLRSA Final PEIR discussed the potential impacts that could occur when introducing higher density residential development into an existing agricultural and lower density rural residential setting, as seemingly conflicting land uses would be juxtaposed closely together (e.g., agricultural uses that would be located in proximity to higher-density residential uses). The 1995 Addendum determined that the impacts of higher-density residential uses on agricultural uses would remain significant and unavoidable with mitigation measures incorporated. Following the 1992 BLRSA Final PEIR and 1995 Addendum, El Dorado County adopted an updated General Plan that was originally approved in 1996. After a period of litigation over the General Plan and its EIR, the County prepared a new General Plan, which was adopted on July 19, 2004. The 2004 El Dorado County General Plan⁹⁹ provides a blueprint for growth within the unincorporated areas of the County. The General Plan contains the following topical elements: Land Use; Transportation and Circulation; Housing; Public Services and Utilities; Public Health, Safety and Noise; Conservation and Open Space; Agriculture and Forestry; Parks and Recreation; and Economic Development. Each element establishes goals and policies to guide future land use activities and development within the General Plan boundaries. The 2004 General Plan was approved prior to the approval of the Hawk View, Bell Woods, and Bell Ranch subdivisions, which, as required by law, were found to be in compliance with the General Plan. The proposed COA Amendments would not

⁹⁹ El Dorado County, *El Dorado County General Plan*, July 2004.

alter this conclusion, as these requirements have not changed since the 2005 MNDs were written. Also, there continue to be no applicable Habitat Conservation Plans (HCPs) within El Dorado County.

3. Comparative Impact Discussions

The 1992 BLRSA Final PEIR evaluated the potential land use impacts of development of the BLHSP area. The analysis concluded that the zoning change and subsequent development proposed for the BLHSP area would result in a substantial change in land use and a significant and unavoidable impact.¹⁰⁰ The 1992 BLRSA Final PEIR also evaluated the potential for increased land use conflicts. The 1992 BLRSA Final PEIR stated that introduction of high density residential development into the existing low density rural residential setting could increase the potential for land use compatibility conflicts, which would be especially true during the transition period when higher density residential land use would be juxtaposed with existing established land uses. Problems which could occur include flies and odors associated with the keeping of livestock, noise from agricultural machinery at unusual hours, the application of agricultural chemicals in close proximity to homes, loose domestic pets disturbing livestock, and an increased need for security and fencing for agricultural operations. The 1992 BLRSA Final PEIR determined that implementation of mitigation measure I01 would reduce the impact to less than significant.¹⁰¹ The 1995 Addendum added standards and policies from the BLHSP that would help reduce the potential for land use conflicts.

The 2005 MNDs considered whether the subdivisions would conflict with applicable plans or policies. The 2005 MNDs acknowledged the adoption of mitigation measure I01 in the 1992 BLRSA Final PEIR, but concluded that it would not apply to the subdivisions because the measure applied only to parcels directly adjacent to existing agricultural operations.¹⁰²⁻¹⁰³⁻¹⁰⁴ Implementation of the proposed COA Amendments would not alter the approved land uses, so no new or substantially more severe significant impacts would occur. The 2005 MNDs addressed the potential impacts related to the division of established communities and determined that the undeveloped subdivision sites were surrounded by planned development, and concluded that the subdivisions would have a less than significant impact.¹⁰⁵⁻¹⁰⁶⁻¹⁰⁷ Implementation of the proposed COA Amendments would not alter the proposed projects so as to result in division of an established community.

Conflicts with Applicable Habitat Conservation Plans or Natural Community Conservation Plans

As mentioned earlier, there are no adopted Habitat Conservation Plans or Natural Community Conservation Plans that are applicable to the project site. As such, the proposed COA Amendments would not be in conflict with any of these plans.

4. Conclusions

As described in the text and table above, changes introduced by the proposed project and/or new circumstances relevant to the project would not, as compared to the prior CEQA documents, result in a new significant impact or significant impacts that are substantially more severe than significant impacts previously disclosed. In addition, there is no new

¹⁰⁰ County of El Dorado. *Bass Lake Road Study Area Program Environmental Impact Report – Draft* (SCH#90020375). June 14, 1991. P. I-7.

¹⁰¹ County of El Dorado. *Bass Lake Road Study Area Program Environmental Impact Report – Draft* (SCH#90020375). June 14, 1991. P. I-8.

¹⁰² County of El Dorado. *Mitigated Negative Declaration – Bell Ranch Project*. SCH#2005022144. Draft, February 2005. P. 3-82.

¹⁰³ County of El Dorado. *Draft Mitigated Negative Declaration – Bell Woods Project*. SCH#2005032044. Draft, February 2005. P. 3-82.

¹⁰⁴ County of El Dorado. *Initial Study and Mitigated Negative Declaration – Hawk View Project*. SCH#2005012107. Draft, January 2005. Pp. 3-51.

¹⁰⁵ County of El Dorado. *Mitigated Negative Declaration – Bell Ranch Project*. SCH#2005022144. Draft, February 2005. P. 3-82.

¹⁰⁶ County of El Dorado. *Draft Mitigated Negative Declaration – Bell Woods Project*. SCH#2005032044. Draft, February 2005. P. 3-82.

¹⁰⁷ County of El Dorado. *Initial Study and Mitigated Negative Declaration – Hawk View Project*. SCH#2005012107. Draft, January 2005. Pp. 3-51.

information of substantial importance showing that the project would have one or more significant effects not previously discussed or that any previously examined significant effects would be substantially more severe than significant effects shown in the prior CEQA documents. Nor is there new information of substantial importance showing (i) that mitigation measures or alternatives previously found not to be feasible would in fact be feasible, and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative or (ii) that mitigation measures or alternatives considerably different from those analyzed in the prior CEQA documents would substantially reduce one or more significant effects, but the proponents decline to adopt the mitigation measure or alternative.

Specific Plan and Other Standard Mitigation Measures

Specific Plan Section 3.3, Residential Development Standards

3. Neighborhood service zones within villages would be permitted per Land Use Element Policy 2.3.9 of the draft General Plan. Nonresidential uses such as daycare facilities, churches, and group homes would be permitted within parcels identified for neighborhood service uses in accordance with the El Dorado County Zoning Ordinance. Such facilities would be designed and constructed consistent with Plan design guidelines. Said facilities would be located on corner lots at road intersections.
6. Villages would be zoned to include the PD Combining Zone District prior to development. Clustering of residential units would be encouraged, in order to maximize land use while conserving natural site features, resources, and open space.

Specific Plan Section 5.1, General Public Services and Facility Standards

1. Public facilities, such as fire stations and utility substations, would be located, designed, and oriented in a manner which is harmonious with adjoining residential development and reduce impacts associated with noise, nighttime illumination, and odors.

Specific Plan Section 7.3, Agricultural Land Protection Standards

1. Residential lands adjacent to agricultural lands would be fenced in accordance with El Dorado County Ordinance 4111 and Resolution 98A-90.
2. New residential lots within the Plan area located adjacent to agriculturally zoned land outside of the Plan area would maintain a ten acre minimum lot size. Such parcels would not exceed a 3:1 length to width ratio.
3. No use or activity would be permitted on property adjoining agriculturally zoned land which conflicts with agricultural uses.
4. New lots within the Plan area adjacent to agriculturally zoned lands located outside of the Plan area would maintain a 200-foot setback for incompatible land uses (schools, dwellings, etc.).

Prior CEQA Mitigation Measures

1992 BLRSA Final PEIR

I01 Mitigation for potential land use conflicts between existing agricultural operations and urban development is provided by the El Dorado County General Plan policies which require maintaining a minimum of 10 acres for any parcel created adjacent to agriculturally zoned lands and that 200-foot setback be maintained for non-agricultural use including dwelling units.

1995 Addendum

No new mitigation measures.

2005 Bell Ranch MND

No new mitigation measures.

2005 Bell Woods MND

No new mitigation measures.

2005 Hawk View MND

No new mitigation measures.

2016 Mitigation Measures

No new mitigation measures.

Environmental Issue Area	Where Impact Was Analyzed in Prior Environmental Documents.	Do Proposed Changes Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information of Substantial Importance?	Prior Environmental Documents Mitigations Implemented or Address Impacts?
11. Mineral Resources. Would the Project:					
a. Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	Hawk View MND, p. 3-53; Bell Ranch MND, p. 3-88; Bell Woods MND, p. 3-84	No	No	No	Yes
b. Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	Hawk View MND, p. 3-53; Bell Ranch MND, p. 3-88; Bell Woods MND, p. 3-84	No	No	No	Yes

Discussion:

1. Changes to Project Related to Mineral Resources

As mentioned earlier in this addendum, the proposed project would only make minor changes in the alignment and timing of infrastructure improvements associated with development of the BLHSP area. The proposed COA Amendments would not alter the amount or quality of existing mineral resources within the vicinity or surrounding the BLHSP area. The proposed COA Amendments would not result in new changes or any loss involving known or locally-important mineral resources already analyzed in the previous documents. Additionally, the proposed project would not involve any mineral extraction.

2. Changes in Circumstances

The 1992 BLRSA Final PEIR and 1995 Addendum did not discuss mineral resources, but each of the 2005 MNDs provided a discussion of this issue. Since the preparation of the 1992 BLRSA Final PEIR, the Hollow Oak subdivision is the only subdivision built within the BLHSP area. Other development-related activities have taken place in and around the plan area, including: realignment and reconstruction of Bass Lake Road from Hollow Oak to Serrano Parkway; construction of two four-million gallon water tanks by EID at the north end of the Bell Ranch subdivision; installation of several water transmission lines; construction of El Dorado Hills Fire Station No. 86; construction of the Holy Trinity Catholic Church and School; acquisition of the proposed school site by the Buckeye School District; street and pad grading of the Hawk View subdivision has been started; clearing and grubbing of the Bell Woods subdivision in anticipation of grading; and grading of Morrison Road as part of underground utility line installation. Otherwise, much of the land has remained undeveloped. The 2005 MNDs each concluded that the proposed projects would not result in any significant use or extraction of mineral resources or preclude access to any known mineral resource areas. Currently, no new mineral resources have been determined to exist in the Plan area.

3. Comparative Impact Discussions

Although the 1992 BLRSA Final PEIR and 1995 Addendum did not examine mineral resources, these documents did examine impacts to geology, soils and seismicity. For an updated discussion on impacts related to geology, soils, and seismicity, please see the Geology and Soils section of this addendum. The BLHSP area still does not contain any known mineral resource areas. Construction of the proposed project would not result in the extraction or use of any mineral resource areas or the preclusion of access to mineral resources within the communities surrounding the BLHSP area. As a result, this impact would remain less than significant.

4. Conclusions

As described in the text and tables above, changes introduced by the proposed project and/or new circumstances relevant to the project would not, as compared to the prior CEQA documents, result in a new significant impact or significant impacts that are substantially more severe than significant impacts previously disclosed. In addition, there is no new information of substantial importance showing that the project would have one or more significant effects not previously discussed or that any previously examined significant effects would be substantially more severe than significant effects shown in the prior CEQA documents. Nor is there new information of substantial importance showing (i) that mitigation measures or alternatives previously found not to be feasible would in fact be feasible, and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative or (ii) that mitigation measures or alternatives considerably different from those analyzed in the prior CEQA documents would substantially reduce one or more significant effects, but the proponents decline to adopt the mitigation measure or alternative.

Specific Plan and Other Standard Mitigation Measures

None.

Prior CEQA Mitigation Measures

None.

2016 Mitigation Measures

None.

Environmental Issue Area	Where Impact Was Analyzed in Prior Environmental Documents.	Do Proposed Changes Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information of Substantial Importance?	Prior Environmental Documents Mitigations Implemented or Address Impacts?
12. Noise. Would the project result in:					
a. Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	PEIR, p. H-5, H-9 to H-11; Addendum, pp. 37-39; Hawk View MND, p. 3-55 to 56; Bell Woods MND, p. 3-86 to 87; Bell Ranch MND, p. 3-90 to 91	No	No	No	Yes
b. Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	Hawk View MND, pp. 3-56; Bell Woods MND, p. 3-87; Bell Ranch MND, p. 3-92	No	No	No	No
c. A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	PEIR, pp. H-9 to H-11; Addendum, p. 37; Hawk View MND, pp. 3-55; Bell Woods MND, p. 3-86; Bell Ranch MND, p. 3-90 to 3-92	No	No	No	Yes
d. A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	PEIR, p. H-10; Addendum, p. 37; Hawk View MND, pp. 3-56 to 3-57; Bell Woods MND, p. 3-87; Bell Ranch MND, p. 3-92 to 3-93	No	No	No	Yes
e. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	Hawk View MND, pp. 3-57; Bell Woods MND, p. 3-88; Bell Ranch MND, p. 3-93	No	No	No	No
f. For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	Hawk View MND, pp. 3-57; Bell Woods MND, p. 3-88; Bell Ranch MND, p. 3-93	No	No	No	No

Discussion:

1. Changes to the Project Related to Noise

Noise associated with the implementation of the BLHSP area would be generated by construction of the development and associated infrastructure, as well as traffic on BLHSP area roads, and the typical sounds associated with urban development. As described under Project Description, the proposed COA Amendments would alter the location and timing of several pieces of infrastructure, but would not otherwise change the noise characteristics of the development analyzed in prior CEQA documents.

2. Changes in Circumstances

Since evaluation in the 1992 BLRSA Final PEIR and the 1995 Addendum, the primary changes in the noise environment in the vicinity involves the continued development of the Serrano project, west of the BLHSP area, and additional

development in the Cameron Park neighborhoods near Bass Lake. These additional developments have not materially affected the noise levels on the site, but have added sensitive receptors that may be exposed to construction noise (especially if blasting is required). The noise environment in and around the BLHSP area is virtually unchanged since being evaluated for the 2005 MNDs for the Hawk View, Bell Ranch, and Bell Woods projects.

3. Comparative Impact Discussions

Construction

The 1992 BLRSA Final PEIR evaluated the potential noise impacts resulting from construction activities associated with the development of residential uses and associated infrastructure within the BLHSP area. As shown in Table H2 of the 1992 BLRSA Draft PEIR, construction noise levels can be expected to range from 70 to 95 dBA. If blasting is utilized, noise in excess of 100 dBA within 50 feet of detonation would be expected. The 1992 BLRSA Final PEIR included mitigation measure H01 to reduce construction noise impacts to less than significant.¹⁰⁸ Mitigation measure H01 states that construction equipment would be subject to established performance regulations and limits construction hours. The measure also states that instances of exceptional noise, such as blasting, may require a permit from the County of El Dorado. The 2005 MNDs acknowledged that mitigation measure H01 from the 1992 BLRSA Final PEIR would reduce construction noise impacts. The Bell Ranch and Bell Woods MNDs included mitigation measures MM 3.10.1 and MM 3.10.2 to reduce construction noise impacts to a less-than-significant level.^{109,110} The Hawk View MND included mitigation measures MM 3.10.1a and MM 3.10.1b to reduce construction noise impacts to a less-than-significant level.¹¹¹ These measures would also serve to mitigate the infrastructure that would be subject to realignment through the proposed COA Amendments. Thus, these temporary impacts would not be substantially more severe than disclosed in the prior CEQA documents.

Traffic

The 1992 BLRSA Final PEIR evaluated the potential for traffic noise from implementation of the BLHSP to contribute to a substantial increase in noise in the area. Assuming buildout of the BLHSP area in 2010, the Federal Highway Administration (FHWA) Traffic Noise Prediction Model predicted that the 65 dBA Ldn noise contour was predicted to be 858 feet from the centerline of Highway 50. Within the BLHSP area, the predicted distance to the 65 dBA Ldn contour was predicted to range from 138 to 166 feet from the centerline of Bass Lake Road. The 1992 BLRSA Final PEIR concluded that implementation of mitigation measure H02 would reduce potential traffic noise impacts to less than significant.¹¹²

The 2005 MNDs acknowledged the need for project-specific noise modeling and analysis as required by 1992 BLRSA Final PEIR mitigation measure H02. The traffic noise analyses for the subdivisions all determined that traffic noise impacts would be less than significant.^{113-114,115} The proposed COA Amendments would not affect these levels since they generally involve alterations to the alignment and/or timing of certain infrastructure improvements. Thus, the

¹⁰⁸ County of El Dorado. *Bass Lake Road Study Area Program Environmental Impact Report – Draft* (SCH#90020375). June 14, 1991. P. H-10.

¹⁰⁹ County of El Dorado. *Mitigated Negative Declaration – Bell Ranch Project*. SCH#2005022144. Draft, February 2005. P. 3-93.

¹¹⁰ County of El Dorado. *Draft Mitigated Negative Declaration – Bell Woods Project*. SCH#2005032044. Draft, February 2005. P. 3-88.

¹¹¹ County of El Dorado. *Initial Study and Mitigated Negative Declaration – Hawk View Project*. SCH#2005012107. Draft, January 2005. Pp. 3-56.

¹¹² County of El Dorado. *Bass Lake Road Study Area Program Environmental Impact Report – Draft* (SCH#90020375). June 14, 1991. P. H-11.

¹¹³ County of El Dorado. *Mitigated Negative Declaration – Bell Ranch Project*. SCH#2005022144. Draft, February 2005. P. 3-92.

¹¹⁴ County of El Dorado. *Draft Mitigated Negative Declaration – Bell Woods Project*. SCH#2005032044. Draft, February 2005. P. 3-86.

¹¹⁵ County of El Dorado. *Initial Study and Mitigated Negative Declaration – Hawk View Project*. SCH#2005012107. Draft, January 2005. Pp. 3-55.

proposed COA Amendments would not exacerbate or make substantially more severe the noise impacts identified in the prior CEQA documents.

Other Operational Noise Impacts

The 1992 BLRSA Final PEIR also evaluated potential noise impacts related to the planned fire station and residential development. The 1992 BLRSA Final PEIR stated that emergency vehicle noise is exempt from community noise standards and concluded that the impact would be less than significant. The permanent noise changes due to residential development would not generally violate noise standards, but that domestic noises would be regulated through nuisance ordinances or other similar regulatory systems.¹¹⁶

The 2005 MNDs evaluated whether the proximity to airports would create noise-related impacts on uses within the subdivisions. The 2005 MNDs noted that there are required disclosures for properties within 2 miles of an airport. Because the Bell Ranch and Hawk View subdivisions would be located approximately 2.5 miles from the nearest airport, the Cameron Airpark Airport, there would be a less-than-significant impact related to airport noise despite the possibility that aircraft may be heard at these subdivisions.¹¹⁷⁻¹¹⁸ Because the Bell Woods subdivision would be approximately 1.5 miles from the Cameron Airpark Airport, all property contracts would be required to include airport nuisance disclosure statements, but the impact would be less than significant.¹¹⁹ The proposed COA Amendments would not alter the location, density or design of future residential uses or other sensitive receptors. Thus, the proposed COA Amendments would have no effect on exposure of people to aircraft noise.

4. Conclusions

As described above, changes introduced by the proposed project and/or new circumstances relevant to the project would not, as compared to the prior CEQA documents, result in a new significant impact or significant impacts that are substantially more severe than significant impacts previously disclosed. In addition, there is no new information of substantial importance showing that the project would have one or more significant effects not previously discussed or that any previously examined significant effects would be substantially more severe than significant effects shown in the prior CEQA documents. Nor is there new information of substantial importance showing (i) that mitigation measures or alternatives previously found not to be feasible would in fact be feasible, and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative or (ii) that mitigation measures or alternatives considerably different from those analyzed in the prior CEQA documents would substantially reduce one or more significant effects, but the proponents decline to adopt the mitigation measure or alternative.

Specific Plan and Standard Mitigation Measures

Specific Plan Section 3.3, Residential Development Standards

5. Villages shall be separated from Bass Lake Road and local collector street pavement by landscape easements and unpaved right-of-way areas or berms which conform to Section 8.6 of the Design Guidelines, and the El Dorado Hills CSD Landscaping Guidelines.

¹¹⁶ County of El Dorado. *Bass Lake Road Study Area Program Environmental Impact Report – Draft* (SCH#90020375). June 14, 1991. P. H-11.

¹¹⁷ County of El Dorado. *Mitigated Negative Declaration – Bell Ranch Project*. SCH#2005022144. Draft, February 2005. P. 3-93.

¹¹⁸ County of El Dorado. *Initial Study and Mitigated Negative Declaration – Hawk View Project*. SCH#2005012107. Draft, January 2005. Pp. 3-57.

¹¹⁹ County of El Dorado. *Draft Mitigated Negative Declaration – Bell Woods Project*. SCH#2005032044. Draft, February 2005. P. 3-88.

Specific Plan Section 4.13, General Circulation and Trail Standards

8. Local streets within villages shall be designed to facilitate internal circulation and discourage through traffic.

Specific Plan Section 5.1, General Public Services and Facility Standards

1. Public facilities, such as fire stations and utility substations, shall be located, designed, and oriented in a manner which is harmonious with adjoining residential development and reduce impact associated with noise, night time illumination, and odors. (See Section 8.9 of the Design Guidelines)

Specific Plan Section 6.1, Grading Standards

Refer to Section 6.0, Grading Plan, which contains provisions to limit grading, thus reducing construction noise impacts.

10. All grading shall conform to the County Grading Ordinance and Subdivision Design and Improvement Manual (Hillside Regulations).

Specific Plan Section 7.1, Noise Standards

1. Interior and exterior noise levels for transportation sources shall not exceed levels contained in the Public Health, Safety, and Noise Element of the El Dorado County General Plan.
2. Tentative subdivisions which propose lots within the future 65 decibel Ldn contour lines shown along U.S. Highway 50 and Bass Lake Road in Figure 7-1, Noise Contour Map, shall submit acoustical analyses consistent with General Plan Noise Element policies and procedures.
3. Setbacks, berms, and/or other noise attenuation measures capable of reducing street and highway noise levels to standards contained in the Noise Element of the General Plan shall be provided where required in all residential areas and schools. Prohibiting the creation of additional housing units within the 65 dB/CNEL noise contour shall occur as an alternative to using sound walls to mitigate noise related impacts. A setback of at least 50 feet for residential units from Bass Lake Road shall be provided.
4. All noise attenuation structures and landscaping shall adhere to a common design theme outlined in Section 8.6.1 of the Design Guidelines.

Specific Plan Section 8.6.1, Streetscape

4. Where possible, earthen berms shall be employed in lieu of fences and walls in order to provide both noise attenuation and privacy. Where berms are used, particular attention shall be given to ensuring that storm drainage is not impaired.

Prior CEQA Mitigation Measures

1992 BLRSA Final PEIR

H01 Construction activity commonly occurs in developed or developing residential areas. Practical considerations and common sense have, in practice, minimized noise impacts to already occupied homes. All construction equipment is subject to established performance regulations which include adequate mufflers, enclosure panels, or other noise suppression attachments as appropriate. However, should the need arise, construction noise is subject to regulation through existing ordinances. In instances where difficulties arise, the County has the authority to restrict the hours that noisy activities can be conducted to 7am- 7pm weekdays, and 8am-8pm weekends. In instances of exceptional noise, such as blasting, a special County permit may be required and warning or temporary relocation of neighbors may be necessary.

H02 As individual projects are proposed within the study area, they will be subjected to an environmental review. This review will include the determination of the need for further noise analysis. This analysis will include, as appropriate, an on-site noise assessment to determine the actual location of noise contours. In situations where the

predicted 65 dBA noise contour falls outside of the roadway right of way and within residential property, projects will be required to implement measures to reduce the noise to the recognized standards included in the El Dorado County General Plan Noise Element. Typical measures which may be implemented include setbacks, sound walls, and landscaped berms.

In some instances, noise attenuation of individual residential units will be most appropriate. Construction techniques which may be utilized to reduce interior noise levels include in wall insulation, double pane windows, properly sealed joints, and placement of bedrooms away from noise sources. In accordance with State standards, residential housing must attain interior noise levels of less than 45 dBA.

2005 Bell Ranch MND

MM 3.10.1: In noise sensitive areas, construction equipment, compressors, and generators, shall be fitted with heavy duty mufflers specifically designed to reduce noise impacts.

MM 3.10.2: Construction contractors shall conduct construction activities in such a manner in order to not exceed 70 dB noise levels at residential facades during nighttime construction activities, except where existing noise conditions already exceed 70 dB at residential facade. In those cases, construction activities shall not increase existing noise conditions by more than 5 dB. Nighttime construction is defined as 9:00 p.m. until 7:00 a.m. during the weekdays and 7:00 p.m. to 8:00 a.m. on the weekends. Construction work may occur on the holidays if in compliance with these standards.

2005 Bell Woods MND

MM 3.10.1: In noise sensitive areas, construction equipment, compressors, and generators, shall be fitted with heavy duty mufflers specifically designed to reduce noise impacts.

MM 3.10.2: Construction contractors shall conduct construction activities in such a manner in order to not exceed 70 dB noise levels at residential facades during nighttime construction activities, except where existing noise conditions already exceed 70 dB at residential facade. In those cases, construction activities shall not increase existing noise conditions by more than 5 dB. Nighttime construction is defined as 9:00 p.m. until 7:00 a.m. during the weekdays and 7:00 p.m. to 8:00 a.m. on the weekends. Construction work may occur on the holidays if in compliance with these standards.

2005 Hawk View MND

MM 3.10.1a: In noise sensitive areas, construction equipment, compressors, and generators, shall be fitted with heavy duty mufflers specifically designed to reduce noise impacts.

MM 3.10.1b: Construction contractors shall conduct construction activities in such a manner in order to not exceed 70 dB noise levels at residential facades during nighttime construction activities, except where existing noise conditions already exceed 70 dB at residential facade. In those cases, construction activities shall not increase existing noise conditions by more than 5 dB. Nighttime construction is defined as 9:00 p.m. until 7:00 a.m. during the weekdays and 7:00 p.m. to 8:00 a.m. on the weekends. Construction work may occur on the holidays if in compliance with these standards.

2016 Mitigation Measures

No new mitigation measures.

Environmental Issue Area	Where Impact Was Analyzed in Prior Environmental Documents.	Do Proposed Changes Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information of Substantial Importance?	Prior Environmental Documents Mitigations Implemented or Address Impacts?
13. Population and Housing. Would the Project:					
a. Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	PEIR, p. I-10 to I-11; Addendum, p. 43; Hawk View MND, p. 3-58 to 3-59; Bell Ranch MND, p. 3-96 to 3-97; Bell Woods MND, p. 3-89 to 3-90	No	No	No	Yes
b. Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	Addendum, p. 43; Hawk View MND, p. 3-58 to 3-59; Bell Ranch MND, p. 3-89 to 3-90	No	No	No	Yes
c. Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	Addendum, p. 43; Hawk View MND, p. 3-58 to 3-59; Bell Ranch MND, p. 3-89 to 3-90	No	No	No	Yes

Discussion:

1. Changes to Project Related to Population and Housing

The proposed COA Amendments would not create or alter the number of existing or proposed housing units or population numbers within the vicinity of the BLHSP area. The proposed COA Amendments would not alter the projections and demand for housing, and would not induce additional housing or population figures already analyzed in the previous documents.

2. Changes in Circumstances

Although less developed in the vicinity of the BLHSP area in 1992, El Dorado County, along with the Sacramento region, currently continues to grow in terms of its residential population. In 1992, the County assumed that the population per household in future single family housing would be 3.3 persons per household. Based on that assumption and an estimate that a total of 2,901 single family houses would be developed in the Bass Lake Road study area, it was projected that, at full buildout, there would be a study area population of approximately 9,573 persons.

While plans for the specific number of housing units and the anticipated population increase have not substantially changed from the numbers envisioned in the 1992 BLRSA Final PEIR, the surrounding communities of Serrano to the west and Cameron Park to the east have increased their residential population and number of housing units during this time period. In addition, the Hollow Oak residential development, located within the BLHSP area, has been developed and is occupied, resulting in an on-site population increase since 1992.

By 1995, when the Addendum was prepared, the County had reduced the persons per household assumption from 3.3 to 2.66. In combination with a reduction in the total housing units in the BLHSP to 1,458, the future population of the BLHSP area was reduced from 9,573 to 3,878.

In the intervening years, population estimates have continued to decrease. As noted in the Housing Element, the results of the 2010 Census report that the residents of unincorporated El Dorado County lived in 68,654 housing units, an increase of 23,126 units since 2000. Persons-per household are determined by dividing the total number of occupied housing units by the population. The 2010 average countywide household size (persons/occupied unit) is 2.55. The number is only slightly lower in renter-occupied units, at 2.53. In the unincorporated areas only, the average household

size is 2.59 persons per occupied unit. Based on an average household size of 2.59, the 1,458 units in the BLHSP will generate a population of 3,776 persons.

3. Comparative Impact Discussions

Population Growth

The 1992 BLRSA Final PEIR assumed the potential impact of adding 2,901 new residential dwelling units within the BLHSP area would add approximately 9,573 new residents.¹²⁰ The 1995 Addendum noted that population projections had changed, so implementation of the BLHSP would only develop 1,458 new dwelling units and 3,878 new residents.¹²¹ The 1992 BLRSA Final PEIR determined that such population growth would result in significant and unavoidable impacts to wildlife, air quality, traffic, services, and utilities. For this reason, the impacts of the population increase itself were considered significant and unavoidable. The 2005 MNDs evaluated the potential for population growth and concluded that the proposed subdivisions would have less-than-significant impacts related to population growth because the subdivisions were consistent with the BLHSP.¹²²⁻¹²³⁻¹²⁴ The proposed COA Amendments would involve changes to the timing and alignment of improvements previously considered in the prior CEQA documents, and would not add any dwelling units or additional residents.

Displacement of Existing Housing

The 2005 MNDs considered whether the subdivisions would cause displacement of existing housing. The 2005 MNDs concluded that because those projects would add new homes on currently vacant land, no existing homes would be displaced.¹²⁵⁻¹²⁶⁻¹²⁷ The proposed COA Amendments would not involve any activities that would cause displacement of existing housing. Therefore, there would be no displacement of existing housing and no need for the construction of replacement housing elsewhere.

Displacement of People

The 2005 MNDs considered whether the subdivisions would cause displacement of people. The 2005 MNDs concluded that because those projects would not displace any people.¹²⁸⁻¹²⁹⁻¹³⁰ The proposed project would not result in the displacement of people and would not necessitate the construction of replacement housing elsewhere.

As noted above, the proposed COA Amendments would not alter the type, density, or intensity of land uses within the BLHSP or the Hawk View, Bell Woods or Bell Ranch subdivisions. As such, the proposed project would have no effect on population and housing impacts disclosed in the prior CEQA documents. In fact, as described above, decreases in average household size have resulted in a reduction in the projected population of the Bass Lake Hills study area from

¹²⁰ County of El Dorado. *Bass Lake Road Study Area Program Environmental Impact Report – Draft* (SCH#90020375). June 14, 1991. P. 1-11.

¹²¹ County of El Dorado, *Addendum to the Bass Lake Road Study Area Program EIR* (SCH#90020375), certified November 7, 1995, P. 43.

¹²² County of El Dorado. *Mitigated Negative Declaration – Bell Ranch Project*. SCH#2005022144. Draft, February 2005. P. 3-96.

¹²³ County of El Dorado. *Draft Mitigated Negative Declaration – Bell Woods Project*. SCH#2005032044. Draft, February 2005. P. 3-89.

¹²⁴ County of El Dorado. *Initial Study and Mitigated Negative Declaration – Hawk View Project*. SCH#2005012107. Draft, January 2005. Pp. 3-58.

¹²⁵ County of El Dorado. *Mitigated Negative Declaration – Bell Ranch Project*. SCH#2005022144. Draft, February 2005. P. 3-96.

¹²⁶ County of El Dorado. *Draft Mitigated Negative Declaration – Bell Woods Project*. SCH#2005032044. Draft, February 2005. P. 3-89.

¹²⁷ County of El Dorado. *Initial Study and Mitigated Negative Declaration – Hawk View Project*. SCH#2005012107. Draft, January 2005. Pp. 3-58.

¹²⁸ County of El Dorado. *Mitigated Negative Declaration – Bell Ranch Project*. SCH#2005022144. Draft, February 2005. P. 3-97.

¹²⁹ County of El Dorado. *Draft Mitigated Negative Declaration – Bell Woods Project*. SCH#2005032044. Draft, February 2005. P. 3-90.

¹³⁰ County of El Dorado. *Initial Study and Mitigated Negative Declaration – Hawk View Project*. SCH#2005012107. Draft, January 2005. Pp. 3-59.

9,573 persons in the 1992 BLRSA Final PEIR to 3,776 persons under the BLHSP using current household density figures.

The proposed project would not alter the current projections for new housing and population figures in terms of growth inducement.

4. Conclusions

As described in the text and tables above, changes introduced by the proposed project and/or new circumstances relevant to the project would not, as compared to the prior CEQA documents, result in a new significant impact or significant impacts that are substantially more severe than significant impacts previously disclosed. In addition, there is no new information of substantial importance showing that the project would have one or more significant effects not previously discussed or that any previously examined significant effects would be substantially more severe than significant effects shown in the prior CEQA documents. Nor is there new information of substantial importance showing (i) that mitigation measures or alternatives previously found not to be feasible would in fact be feasible, and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative or (ii) that mitigation measures or alternatives considerably different from those analyzed in the prior CEQA documents would substantially reduce one or more significant effects, but the proponents decline to adopt the mitigation measure or alternative.

Specific Plan and Other Standard Mitigation Measures

None. There are no BLHSP policies that directly address this impact. Certain BLHSP policies addressing specific topics such as circulation, grading, and public facilities and services address impacts associated with the population increase resulting from implementation of the BLHSP. Those policies are contained elsewhere in this Addendum.

Prior CEQA Mitigation Measures

1992 BLRSA Final PEIR

No mitigation measures directly associated with the predicted population and housing increases are warranted. Mitigation measures for specific impacts which will result from the projected growth, such as vegetation, wildlife, traffic, air quality, services, and utilities, are discussed under the appropriate sections of this report.

2005 Bell Ranch MND

No new mitigation measures.

2005 Bell Woods MND

No new mitigation measures.

2005 Hawk View MND

No new mitigation measures.

2016 Mitigation Measures

No new mitigation measures.

Environmental Issue Area	Where Impact Was Analyzed in Prior Environmental Documents.	Do Proposed Changes Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information of Substantial Importance?	Prior Environmental Documents Mitigations Implemented or Address Impacts?
14. Public Services. Would the project:					
a. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:					
Fire protection?	PEIR, p. K-13 to K-14; Addendum, p. 57-58; Hawk View MND, 3-61 to 3-62; Bell Ranch MND, p. 3-99 to 3-100; Bell Woods MND, p. 3-92 to 3-93	No	No	No	Yes
Police protection?	PEIR, p. K-12 to K-13; Addendum, p. 57-58; Hawk View MND, 3-62; Bell Ranch MND, p. 3-100; Bell Woods MND, p. 3-93	No	No	No	Yes
Schools?	PEIR, p. K-17 to K-20; Addendum, p. 61-62; Hawk View MND, 3-62 to 3-63; Bell Ranch MND, p. 3-101; Bell Woods MND, p. 3-93 to 3-94	No	No	No	Yes
Parks?	Addendum, p. 45-46; Hawk View MND, p. 3-65 to 3-66; Bell Ranch MND, p. 3-103; Bell Woods MND, p. 3-96 to 3-97	No	No	No	Yes
Other public facilities?	Not addressed	Not addressed	Not addressed	Not addressed	Not addressed

Discussion:

1. Changes to Project Related to Public Services

The proposed project would not alter the type, density, or intensity of land uses within the BLHSP or the Hawk View, Bell Woods or Bell Ranch subdivisions and thus would not create or alter the number of existing or proposed public services or facilities within the vicinity of the BLHSP area, including fire, police, schools, libraries, or parks. Because impacts on public services are generated by the residential population of the BLHSP and the residential subdivisions, the proposed COA Amendments would have no effect on public services impacts disclosed in the prior CEQA documents. In fact, as described above, decreases in average household size have resulted in a reduction in the projected population of the BLHSP area from 9,573 persons in the 1992 BLRSA Final PEIR to 3,776 persons under the BLHSP in the 1995 Addendum using current household density figures. Demand for and impacts on public services would be

correspondingly decreased; based on the decrease in estimated population of the BLHSP area, the demand on public services will be approximately 60 percent less than originally described in the 1992 BLRSA Final PEIR.

A thorough discussion of parks is found in the Recreation section of this addendum.

2. Changes in Circumstances

At the time of the 1992 BLRSA Final PEIR, there were fewer residential developments to the west and east of the BLHSP area, resulting in a lesser demand for public services and facilities. Currently, developments to the west and east of the BLHSP area (Serrano and Cameron Park), as well as the built-out Hollow Oak development within the BLHSP, have yielded a greater demand for public services and facilities, which has been met by the various public service providers. In addition, the BLHSP area now has an existing fire station on site, Station 86, located at 3670 Bass Lake Road, which serves the BLHSP area and has been in service since 2002, but was not in service at the time of the 1992 BLRSA Final PEIR. As part of the Hollow Oak development, an elementary school site has been acquired and dedicated to Buckeye Union School District. These conditions were reflected in the 2005 MNDs. With the economic downturn and the subsequent slowing down of development on site, the provision and demand for public services was similarly slowed down and changes in the context on the project site have been minimal in relation to the BLHSP area.

3. Comparative Impact Discussions

Fire Protection

The 1992 BLRSA Final PEIR stated that construction of a new fire station would be required to serve the BLHSP area. The 1992 BLRSA Final PEIR concluded that even with implementation of mitigation measure K06, potential impacts related to fire protection would be significant and unavoidable because a new station site could not be named at that time.¹³¹ Mitigation measure K06 required assessment of a development fee of \$308 per dwelling unit, which would generate \$893,508¹³² to fund the needed increase in fire protection services for the self-supporting (from a property tax base) El Dorado Hills Fire Department. At the time of this document, it was seen that this funding mechanism would be sufficient for the fire protection needs of the BLHSP area.

The 2005 MNDs noted that the effects of development of the BLHSP area on fire protection were studied in the 1992 BLRSA Final PEIR and the 1995 Addendum. Since the time of the 1992 BLRSA Final PEIR and 1995 Addendum, the EDHFD acquired the site and built, equipped, and staffed a new fire station (EDHFD Station 86) located near the intersection of Bass Lake Road and Silver Dove Way. Mitigation Measure K06 from the 1992 BLRSA Final PEIR (and also reflected in the 1995 Addendum) states that the development fee applied to each residential unit should cover capital costs for structure and equipment for the needed fire station. The 2005 MNDs concluded that with implementation of mitigation measure MM 3.12.1, impacts to fire protection were considered reduced to a less-than-significant level.¹³³⁻¹³⁴⁻¹³⁵ Mitigation measure MM 3.12.1 includes requirements related to fire and emergency medical services protection.

The proposed COA Amendments would alter the alignment and timing of infrastructure improvements previously identified as necessary to support implementation of the BLHSP. In terms of roadway improvements, the COA Amendments seek to reconstruct Bass Lake Road (except median landscaping) consistent with the BLHSP from the

¹³¹ County of El Dorado. *Bass Lake Road Study Area Program Environmental Impact Report – Draft* (SCH#90020375). June 14, 1991. P. K-14.

¹³² County of El Dorado, *Addendum to the Bass Lake Road Study Area Program EIR* (SCH#90020375), certified November 7, 1995, P. 65.

¹³³ County of El Dorado. *Mitigated Negative Declaration – Bell Ranch Project*. SCH#2005022144. Draft, February 2005. P. 3-99.

¹³⁴ County of El Dorado. *Mitigated Negative Declaration – Bell Ranch Project*. SCH#2005022144. Draft, February 2005. P. 3-92.

¹³⁵ County of El Dorado. *Initial Study and Mitigated Negative Declaration – Hawk View Project*. SCH#2005012107. Draft, January 2005. Pp. 3-61.

Highway 50 westbound off-ramp intersection to the relocated Country Club Drive intersection (H to B), signalize the Bass Lake Road/Eastbound off ramp intersection, alter the Southbound Approach at the Bass Lake Road/Westbound Ramps to include one through lane plus 300-foot right turn pocket, and alter the northbound merge lane from the westbound off-ramp tapering to one lane north of ramp. With the proposed COA Amendments, some roadway improvements and utility improvements are now the obligations of later projects. For example, the school site access and utilities are being proposed for later construction because the Buckeye Union School District does not know when the school will be needed and the El Dorado Irrigation District (EID) prefers the utilities not be constructed until the school site is needed.¹³⁶ The Bell Woods project will still be obligated to secure right-of-way and improvement plans for access to the school site. The Bell Ranch project will still be obligated to secure right-of-way and improvement plans for utilities to the school site. This will allow these improvements to be built in advance of the demand for them. The overall roadway system would remain the same. No roadways segments would be removed from the BLHSP project.

The proposed COA Amendments would not preclude the ability of the subdivisions to comply with the requirements outlined in MM 3.12.1 for each of the subdivisions. In fact, MM 3.12.1 is no longer applicable to the subdivisions because the requirements contained therein have been included in the proposed COA Amendments. Therefore, adequate fire and emergency access would be provided and the proposed COA Amendments would have a less-than-significant impact.

Police Protection

The 1992 BLRSA Final PEIR noted that the service ratio at that time was one officer per 1,200 residents, though the El Dorado County Sheriff's Department stated that they would like to increase the ratio to 1.0 or 1.2 officers per 1,000 residents. In order to maintain that level of service, approximately 10 new officers would be needed. The 1992 BLRSA Final PEIR concluded that impacts related to police protection would be less than significant with implementation of mitigation measure K05.¹³⁷ Mitigation measure K05 stated that the County Board of Supervisors has the responsibility to allocate funds to maintain an adequate level of service.

The 2005 MNDs stated that the BLSHP project's effects on police protection were studied in the 1992 BLRSA Final PEIR and 1995 Addendum, and mitigation measure K05 was incorporated which reduce the level of potential impact to less than significant.¹³⁸⁻¹³⁹⁻¹⁴⁰ Mitigation Measure K05 from the 1992 BLRSA EIR states that the Sheriff's Department is funded through the County General Fund, and that the County Board of Supervisors has the responsibility to allocate funds to maintain an adequate level of service.

The proposed COA Amendments would not affect the residential capacity of the BLHSP area or the planned subdivisions. As such, the demand for police protection services would be unchanged.

Schools

The Hawk View project is located in the Rescue Union School District (RUSD). Students in the Hawk View project would attend Lakeview Elementary in El Dorado Hills, or a future site within BLHSP. On October 22, 2015, the El Dorado County Planning Commission determined that acquisition of a 21-acre property southeast of Serrano Parkway and east of and adjacent to Bass Lake Road would be consistent with the applicable policies of the General Plan and the BLHSP. The Bell Woods and Bell Ranch projects are located in the Buckeye Union School District (BUSD). The 1992

¹³⁶ El Dorado Irrigation District (EID). Letter to El Dorado County Community Development Agency Development Services Division dated December 9, 2014 regarding water and sewer infrastructure.

¹³⁷ County of El Dorado. *Bass Lake Road Study Area Program Environmental Impact Report – Draft* (SCH#90020375). June 14, 1991. P. K-12.

¹³⁸ County of El Dorado. *Mitigated Negative Declaration – Bell Ranch Project*. SCH#2005022144. Draft, February 2005. P. 3-100.

¹³⁹ County of El Dorado. *Draft Mitigated Negative Declaration – Bell Woods Project*. SCH#2005032044. Draft, February 2005. P. 3-93.

¹⁴⁰ County of El Dorado. *Initial Study and Mitigated Negative Declaration – Hawk View Project*. SCH#2005012107. Draft, January 2005. Pp. 3-62.

BLRSA Final PEIR calculated that implementation of the BLHSP would generate 1,131 elementary students, 348 middle school students, and 667 high school students.¹⁴¹ The 1992 BLRSA Final PEIR calculated that this number of new students would generate the need for approximately 2.3 elementary schools, 46% of a middle school, and 44% of a high school.¹⁴² While mitigation measures K08 and K09 would help reduce impacts, the impact would be significant and unavoidable because, as a matter of policy, the Buckeye School District does not consider development impacts to be resolved to a less than significant level until needed sites and financing are identified.¹⁴³ Implementation of mitigation measure K08 would provide the necessary financial mechanism, and mitigation measure K09 would minimize impacts to existing schools.

The 2005 MNDs acknowledged that construction of the new residential units within the three subdivisions would generate students for schools. The 2005 MNDs noted that impacts to schools were addressed in the 1992 BLRSA Final PEIR and that at that time the Buckeye Union School District (BUSD), which serves most of the BLHSP area, as well as El Dorado Hills and Cameron Park, identified the need for a school site. The 1992 BLRSA Final PEIR determined impacts to schools to be significant and unavoidable because a school site had not been accepted by the BUSD.

The 2005 MNDs reflected that the BUSD established a need for a 10-acre school site in the BLHSP area that could be utilized for a K-6 school facility planned to accommodate approximately 800 students on a year-round schedule, and that the school site was acquired and dedicated to the BUSD as part of the Hollow Oak development. The BUSD does not have plans to build the school in the BLHSP in the near future. The timing of the school construction depends on the rate of build-out of the balance of the BLHSP and surrounding areas. The Bell Woods and Bell Ranch projects would add 167 new single family units within the BUSD, adding approximately 60 new elementary students. The Bell Woods project is required to provide right-of-way and plans for access to the school site along Country Club Drive east of Bass Lake Road and Silver Dove Way north from Country Club Drive to the north end of the school site. The Bell Ranch project would still be obligated to secure right-of-way and improvement plans for water and waste water utilities to serve the school site. All three projects would pay specific plan area fees that can be used to build the access and utility improvements when they are needed.

Section 3.5.1 of the Development Agreement for the Specific Plan established a school mitigation fee that is adjusted annually. Pursuant to the PFFP, the County will notify the County Office of Education of each final map recorded within the Specific Plan (PFFP, page 49), and the County Office of Education will collect the school mitigation fees. Therefore, the 2005 MNDs concluded that impacts to school facilities would be less than significant.¹⁴⁴⁻¹⁴⁵⁻¹⁴⁶

As discussed above, the proposed COA Amendments would not affect the residential capacity of the BLHSP area or the subdivisions, and would not alter the provisions for the payment of school facilities fees. As such, the effects on public schools would be unchanged, and would remain less than significant with the proposed COA Amendments.

Other Public Facilities

The 1992 BLRSA Final PEIR, 1995 Addendum, and the 2005 MNDs did not discuss any other public facilities, such as libraries, but did describe impacts to utilities and utility provision impacts (refer to the Utilities section for a detailed

¹⁴¹ County of El Dorado. *Bass Lake Road Study Area Program Environmental Impact Report – Draft* (SCH#90020375). June 14, 1991. P. K-19.

¹⁴² County of El Dorado. *Bass Lake Road Study Area Program Environmental Impact Report – Draft* (SCH#90020375). June 14, 1991. P. K-19.

¹⁴³ County of El Dorado. *Bass Lake Road Study Area Final Program Environmental Impact Report* (SCH#90020375). January 24, 1992. P. 20.

¹⁴⁴ County of El Dorado. *Mitigated Negative Declaration – Bell Ranch Project*. SCH#2005022144. Draft, February 2005. P. 3-101.

¹⁴⁵ County of El Dorado. *Draft Mitigated Negative Declaration – Bell Woods Project*. SCH#2005032044. Draft, February 2005. P. 3-94.

¹⁴⁶ County of El Dorado. *Initial Study and Mitigated Negative Declaration – Hawk View Project*. SCH#2005012107. Draft, January 2005. Pp. 3-63.

analysis of impacts on utilities). For the proposed project, similar to fire protection, police protection, and schools, the funding of additional public facilities would be provided through in-lieu fees as the BLHSP area develops. These fees would be paid throughout the BLHSP area. The proposed COA Amendments would not have any substantial effect on the demand for, provision of, or deterioration of other public facilities or resources.

4. Conclusions

As described in the text and tables above, changes introduced by the proposed project and/or new circumstances relevant to the project would not, as compared to the prior CEQA documents, result in a new significant impact or significant impacts that are substantially more severe than significant impacts previously disclosed. In addition, there is no new information of substantial importance showing that the project would have one or more significant effects not previously discussed or that any previously examined significant effects would be substantially more severe than significant effects shown in the prior CEQA documents. Nor is there new information of substantial importance showing (i) that mitigation measures or alternatives previously found not to be feasible would in fact be feasible, and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative or (ii) that mitigation measures or alternatives considerably different from those analyzed in the prior CEQA documents would substantially reduce one or more significant effects, but the proponents decline to adopt the mitigation measure or alternative.

Specific Plan and Other Standard Mitigation Measures

Specific Plan Section 5.6.2, Recreation Facility Standards

3. Parks would be landscaped with drought tolerant and fire resistant plant species, excluding lawn areas, to the maximum extent possible to reduce irrigation and maintenance requirements.
6. Parks would be designed to front along at least two roads to facilitate security surveillance and public access.

Specific Plan Section 5.7.1, Open Space Policies

5. Public open space areas would be accessible to fire suppression equipment to the satisfaction of the fire department.

Specific Plan Section 5.8.1, Fire Protection Policies

1. Tentative maps may be approved only after fire department determines that adequate fire protection services would be provided.

Specific Plan Section 8.5.1, Open Space Policies

5. Fuel modification zones represent a physical separation between non-irrigated natural open spaces and the built environment created by the installation of plant materials which are fire resistant. The purpose of such zones is to reduce the hazard of wildfires and to allow for a naturalized, visual transition between developed areas and natural open space.

Specific Plan Section 5.5, Schools

As shown in Figure 3-1 of the BLHSP, Specific Plan Land Use Diagram, the Plan designated a site reservation for an elementary school in accordance with the needs identified in the 1992 BLRSA Final PEIR. Final school site selection is the responsibility of the school districts. School site selection and design would be encouraged to adhere to policies set forth in Section 8.9 and 9.1.7 of the Plan.

Specific Plan Section 9.1.7, Land Dedications and Encumbrances

The school site reservation, as depicted in the Plan and approved by the State Office of Legislative Affairs (OLA), would be shown on the effected tentative subdivision maps and would be offered for dedication to the applicable school district,

in conjunction with the subdivision approval process. The site would be purchased by the area-wide assessment district, or other arrangement dedicated to the school district.

Prior CEQA Mitigation Measures

Fire Protection

1992 BLRSA Final PEIR

K06 The El Dorado Hills Fire Department is supported by development fees and is a self-supporting enterprise fund with a property tax base. For this reason, there will be no net impact on the County General Fund. The development fee of \$308 per dwelling unit would generate \$893,508 which should cover capital costs for structure and equipment for the needed new station.

1995 Addendum

No new mitigation measures.

2005 Bell Ranch MND:

MM 3.12.1: The applicant would comply with the following in order to provide the project with adequate fire and emergency medical services protection:

- The potable water system for the purpose of fire protection for this residential development would provide a minimum fire flow of 1,000 gallons per minute (gpm) with a minimum residual pressure of 20 pounds per square inch (psi) for a two-hour duration. This requirement is based upon a side lot setback of 10 feet or greater. This fire flow rate would be in excess of the maximum daily consumption rate for this development. A set of engineering calculations reflecting the fire flow capabilities of the system would be supplied to the El Dorado Hills Fire Department for review and approval.
- This development would install Mueller Dry Barrel fire hydrants conforming to El Dorado Irrigation District specifications for the purpose of providing water for fire protection. The spacing between hydrants in this development would not exceed 500 feet. The exact location of each hydrant would be determined by the El Dorado Hills Fire Department.
- To enhance nighttime visibility, each hydrant would be painted with safety white enamel and marked in the roadway with a blue reflective marker as specified by the El Dorado Hills Fire Department and Fire Safe Regulations.
- In order to provide this development with adequate fire and emergency medical response during construction, all access roadways and fire hydrant systems would be installed and in service prior to framing of any combustible members as specified by El Dorado Hills Fire Department Standard 113.
- All streets within the project would be constructed in accordance with El Dorado County and El Dorado Hills Fire Department requirements.
- The turnaround for "K" Court is a hammerhead. This type of turnaround is not acceptable to the El Dorado Hills Fire Department and would be changed to a cul-de-sac bulb turnaround.
- The open space Lot 'K' between the two developments has no access for emergency personnel and equipment to suppress a wildland fire within this area. The applicant would be required to provide not less than three all-weather access roadways into this area in accordance with El Dorado Hills Fire Department requirements.
- The lots that back up to Wildland Open Space would be required to use non-combustible type fencing.

- During any phase of construction, this development would be required to provide two independent, non-obstructed points of access.
- The driveways serving this project would be designed to a maximum of 15 percent grade as required by the Uniform Fire Code.
- The applicant would develop and implement a wildland fire safety plan that is approved by the Fire Department.
- This development would be prohibited from installing any type of traffic calming device that utilizes a raised bump section of roadway.
- The construction of Morrison Road would be completed prior to the start of any type of construction within this development.
- This development would provide an all-weather access roadway designed in accordance with Fire Department requirements that provides access to the open space to the west of Lots 3 through 13.

2005 Bell Woods MND:

The first second of MM 3.12.1 listed below would no longer apply to the proposed project because revised Condition of Approval #47 would require adequate fire flow for homes up to 6,200 square feet in size and all homes would be required to be sprinklered. However, the full text from MM 3.12.1 is included here for informational purposes.

MM 3.12.1: The applicant would comply with the following in order to provide the project with adequate fire and emergency medical services protection:

- The entire project site would be annexed into the El Dorado Hills Fire Department and would pay all fees associated with that annexation.
- The potable water system for the purpose of fire protection for this residential development would provide a minimum fire flow of 1,000 gpm with a minimum residual pressure of 20 psi for a two-hour duration. This requirement is based on a single family dwelling 3,600 square feet or less in size. This fire flow rate would be in excess of the maximum daily consumption rate for this development. A set of engineering calculations reflecting the fire flow capabilities of this system would be supplied to the El Dorado Hills Fire Department for review and approval.
- This development would install Mueller Dry Barrel fire hydrants conforming to El Dorado Irrigation District specifications for the purpose of providing water for fire protection. The spacing between hydrants in this development would not exceed 500 feet. The exact location of each hydrant would be determined by the El Dorado Fire Department.
- To enhance nighttime visibility, each hydrant would be painted with safety white enamel and marked in the roadway with a blue reflective marker as specified by the El Dorado Hills Fire Department and the Fire Safe Regulations.
- In order to provide this development with adequate fire and emergency medical response during construction, all access roadways and fire hydrant systems would be installed and in service prior to framing of any combustible members as specified by El Dorado Hills Fire Department Standard 103.
- All streets within the project would be constructed in accordance with El Dorado County and El Dorado Hills Fire Department requirements.
- Any single access roadway would serve a maximum of 24 lots, consistent with El Dorado County design standards.

- The applicant would develop and implement a Wildland Fire Safe Plan that is approved by the El Dorado Hills Fire Department.
- If phasing of this development creates any dead-end access roadways in excess of 150 feet, the roadway would be provided with a turnaround in accordance with El Dorado Hills Fire Department standards.

2005 Hawk View MND:

The first bullet of MM 3.12.1 listed below would no longer apply to the proposed project because revised Condition of Approval #37 would require adequate fire flow for homes up to 6,200 square feet in size and all homes would be required to be sprinklered. However, the full text from MM 3.12.1 is included here for informational purposes.

MM 3.12.1: The applicant would comply with the following in order to provide the project with adequate fire and emergency medical services protection:

- The potable water system for the purpose of fire protection for this residential development would provide a minimum fire flow of 1,000 gallons per minute (gpm) with a minimum residual pressure of 20 pounds per square inch (psi) for a two-hour duration. This requirement is based upon a side lot setback of 10 feet or greater. This fire flow rate would be in excess of the maximum daily consumption rate for this development. A set of engineering calculations reflecting the fire flow capabilities of the system would be supplied to the El Dorado Hills Fire Department for review and approval.
- This development would install Mueller Dry Barrel fire hydrants conforming to El Dorado Irrigation District specifications for the purpose of providing water for fire protection. The spacing between hydrants in this development would not exceed 500 feet. The exact location of each hydrant would be determined by the El Dorado Hills Fire Department.
- To enhance nighttime visibility, each hydrant would be painted with safety white enamel and marked in the roadway with a blue reflective marker as specified by the El Dorado Hills Fire Department and Fire Safe Regulations.
- In order to provide this development with adequate fire and emergency medical response during construction, all access roadways and fire hydrant systems would be installed and in service prior to framing of any combustible members as specified by El Dorado Hills Fire Department Standard 113.
- All streets within the project would be constructed in accordance with El Dorado County and El Dorado Hills Fire Department requirements.
- During each phase of this project, a minimum of two independent access roadways would be provided for projects over 25 lots.
- The applicant would have a wildland fire safety plan developed for this project.
- If phasing of this development creates any dead-end access roadways in excess of 150 feet, the roadway would be provided with a turnaround in accordance with El Dorado Hills Fire Department specifications.
- The hammer head turnaround shown at the south end of the existing Bass Lake Road would be replaced by a cul-de-sac turnaround constructed in accordance with El Dorado County Design standards.

Police Protection

1992 BLRSA Final PEIR

K05 The Sheriff's Department is funded through the County General Fund. The County Board of Supervisors has the responsibility to allocate funds to maintain an adequate level of service.

1995 Addendum

No new mitigation measures.

2005 Bell Ranch MND

No new mitigation measures.

2005 Bell Woods MND

No new mitigation measures.

2005 Hawk View MND

No new mitigation measures.

Schools

1992 BLRSA Final PEIR

K08 Prior to recordation official maps, developers shall be required to enter into an agreement with the affected school districts to either pay the school mitigation fees for the project or to pay the special tax levied under the CFD. The amount of the fee shall be \$7,760 per unit, such amount to be increased annually by the Consumer Price Index. If a special tax is levied under a CFD, the amount of the special tax shall be approved by the school districts. This mitigation measure shall be included on all tentative maps.

K09 The ability to provide service to new students can only be determined by the respective school districts on a project-by-project basis. Projects desiring to proceed prior to the availability of new school(s) must obtain an "ability to serve" letter from the school districts. The school districts are responsible for determining the number of students that can be accommodated in available facilities prior to construction of a new school(s).

1995 Addendum

No new mitigation measures.

2005 Bell Ranch MND

No new mitigation measures.

2005 Bell Woods MND

No new mitigation measures.

2005 Hawk View MND

No new mitigation measures.

2016 Mitigation Measures

No new mitigation measures.

Environmental Issue Area	Where Impact Was Analyzed in Prior Environmental Documents.	Do Proposed Changes Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information of Substantial Importance?	Prior Environmental Documents Mitigations Implemented or Address Impacts?
15. Recreation. Would the project:					
a. Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	Addendum, p. 45-46; Hawk View MND, p. 3-65 to 3-66; Bell Ranch MND, p. 3-103; Bell Woods MND, p. 3-96 to 3-97	No	No	No	Yes
b. Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	Addendum, p. 45-46; Hawk View MND, p. 3-65 to 3-66; Bell Ranch MND, p. 3-103; Bell Woods MND, p. 3-96 to 3-97	No	No	No	Yes

Discussion:

1. Changes to Project Related to Recreation

As mentioned earlier in this addendum, the proposed project would only make minor changes in the alignment and timing of infrastructure improvements associated with the subdivisions in the BLHSP area, and would not create or alter the number of existing or proposed recreational facilities within the vicinity of the Plan area. The proposed COA Amendments would not alter the projections and demand for recreational facilities already analyzed in the previous documents.

The COA Amendments would remove the requirement for park dedication from Hawk View and Bell Woods, but the requirement would remain in place for Bell Ranch. This change reflects communications with the County about the placement of parks within multiple CSDs and the timing of bringing such facilities online.

2. Changes in Circumstances

At the time of the 1992 BLRSA EIR, there were fewer residential developments to the west and east of the Plan area, with recreational facilities only located at Bass Lake and some facilities in Cameron Park to the east. Allen Lindsey Park, approximately one mile to the west of the Plan area, has been available to the neighboring Serrano development since 2002, and Laurel Oaks Park opened in 2007 in the Hollow Oak development. As a result of these newer and existing developments, there has been an increase in the number of current recreational facilities.

The Bell Woods project has been annexed to the Cameron Park Community Services District (CSD). The Bell Woods project would pay fees to the Cameron Park CSD. The Bell Woods project would also annex into the Cameron Park CSD facility financing district.

Through communication with the El Dorado Hills CSD (EDH CSD), the project applicant and County staff learned that the El Dorado Hills CSD prefers collecting Park Development Fees rather than receiving dedicated land for park facilities.¹⁴⁷ The payment of fees to the EDH CSD will allow them to purchase land in areas that meet the needs and goals identified by the CSD and maintain areas already within their jurisdiction.¹⁴⁸ Therefore, the proposed project would pay Park Development Fees to the EDH CSD rather than dedicating a park site within the BLHSP area.

¹⁴⁷ El Dorado Hills Community Services District. Letter to Tiffany Schmid at El Dorado County dated June 18, 2015 regarding Bell Ranch revised conditions of approval.

¹⁴⁸ El Dorado Hills Community Service District. *Re: Bass Lake Hills Specific Plan*. May 21, 2013.

3. Comparative Impact Discussions

The 1992 BLRSA Final PEIR concluded that establishing an agreement with the El Dorado County Board of Supervisors for appropriate park sizing would be the only mitigation measure necessary to mitigate impacts to a less-than-significant level. The 1995 Addendum added further requirements to the mitigation measures that included a larger variety of requirements and standards. In addition to the size requirements, the 1995 Addendum also required that the projects be made for public use and in accordance with the El Dorado Hills CSD Recreational Facilities Master Plan Facility Standards, front at least two roads for public access, and be connected to a pedestrian and bicycle system. The 1995 Addendum also emphasizes the need for an integrated pedestrian and bicycle system that provides access throughout the communities, recreational facilities, and open space areas within the BLHSP area. Further, the 2005 MNDs all concluded that a less-than-significant impact would occur on the three subdivisions following the additional requirements of paying in-lieu fees for parkland construction and adherence to the 1992 BLRSA Final PEIR mitigation measures.¹⁴⁹⁻¹⁵⁰⁻¹⁵¹

In the case of the proposed COA Amendments, at the request of the EDH CSD, the acquisition of land for the park and the design of the recreational facilities would be handled by the EDH CSD. However, as the Hawk View and Bell Ranch subdivisions develop, the subdivisions would still be required to provide funding through in-lieu fees and adequate recreational facilities would be constructed upon buildout. The BLHSP area as a whole would be required to provide adequate in-lieu fees and recreational facilities that meet the requirements found within the mitigation measures from the 1992 BLRSA Final PEIR, 1995 Addendum, and the 2005 MNDs. The proposed project would not have any substantial effect on the demand for, provision of, or deterioration of recreational facilities. As a result, this impact would remain less than significant.

4. Conclusions

As described in the text and tables above, changes introduced by the proposed project and/or new circumstances relevant to the project would not, as compared to the prior CEQA documents, result in a new significant impact or significant impacts that are substantially more severe than significant impacts previously disclosed. In addition, there is no new information of substantial importance showing that the project would have one or more significant effects not previously discussed or that any previously examined significant effects would be substantially more severe than significant effects shown in the prior CEQA documents. Nor is there new information of substantial importance showing (i) that mitigation measures or alternatives previously found not to be feasible would in fact be feasible, and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative or (ii) that mitigation measures or alternatives considerably different from those analyzed in the prior CEQA documents would substantially reduce one or more significant effects, but the proponents decline to adopt the mitigation measure or alternative.

Specific Plan and Other Standard Mitigation Measures

Specific Plan Section 4.13, General Circulation and Trail Standards

3. Pathways would be constructed at locations convenient to residential lots to facilitate pedestrian travel to open space trails, local streets, local collectors, and Bass Lake Road. Such pedestrian and bike lane connections would be located and protected to restrict access to adjoining private property.
6. Where practical and compatible, pedestrian paths would be constructed in open space to separate pedestrians from motor vehicles.

¹⁴⁹ County of El Dorado. *Mitigated Negative Declaration – Bell Ranch Project*. SCH#2005022144. Draft, February 2005. P. 3-103.

¹⁵⁰ County of El Dorado. *Draft Mitigated Negative Declaration – Bell Woods Project*. SCH#2005032044. Draft, February 2005. P. 3-96.

¹⁵¹ County of El Dorado. *Initial Study and Mitigated Negative Declaration – Hawk View Project*. SCH#2005012107. Draft, January 2005. Pp. 3-65.

7. The Mormon Carson Trail, an off-road pedestrian/equestrian/bicycle trail connecting the eastern and western boundaries of the Plan area, would be created within the approximate alignment of the historic Clarksville Toll Road (In certain instances, this alignment may coincide with the current alignment of Country Club Drive). To facilitate access to the trail, a parking lot capable of containing approximately ten vehicles would be created at the eastern end of Country Club Drive, at the Plan area boundary. The Trail and the park-and-ride lot would be constructed to allow joint use of the parking facilities. These improvements would be funded by the area-wide assessment district and built during the improvements to Country Club Drive.
11. Parks and open space shown on the Specific Plan Land Use Diagram and Parks and Open Space Plan would be linked by a pedestrian and bicycle circulation system.

Specific Plan Section 5.6.2, Recreation Facility Standards *(while items 1-3 below indicate compliance with the EDH CSD, subdivisions within the Cameron Park CSD would comply with the equivalent requirements of the CP CSD)*

1. Parks would be sized and contain the recreation facilities consistent with the requirements of the El Dorado Hills CSD Recreational Facilities Master Plan to serve the needs of nearby residents.
2. Whenever possible, school sites should be located adjacent to park sites. Joint use agreements between the El Dorado Hills CSD and the school districts are encouraged in order to allow the sharing of costs and operational responsibilities. In such instances, recreation amenities, including play equipment should be coordinated to minimize duplication. Such facilities would be subject to Table 1 of Appendix 1 of the El Dorado Hills CSD, Recreational Facilities Master Plan.
3. Parks would be landscaped with drought tolerant and fire resistant plant species, excluding lawn areas, to the maximum extent possible to reduce irrigation and maintenance requirements.
6. Parks would be designed to front along at least two roads to facilitate security surveillance and public access.
7. All parks within the Plan area would be offered for public dedication in accordance with the El Dorado Hills CSD Recreational Facilities Master Plan Facility Standards. Parks would be developed concurrently with residential development.
8. Park locations would be determined through the approval of planned developments (PDs) and installed at the time of final map approval.
9. Important natural features within park sites, such as oak trees and stream and drainage corridors, should be preserved and incorporated into the park development.

Specific Plan Section 5.7.1, Open Space Policies

4. All pedestrian paths and trails would be designed in accordance with standards contained in the El Dorado County Hiking and Equestrian Trails Master Plan.

Prior CEQA Mitigation Measures

1992 BLRSA Final PEIR

102 El Dorado County ordinances require an agreement with the Board of Supervisors as to the manner in which the park requirements are met. This may be land dedication, payment of fees, or a combination of both.

1995 Addendum

No new mitigation measures.

2005 Bell Ranch MND

No new mitigation measures.

2005 Bell Woods MND

No new mitigation measures.

2005 Hawk View MND

No new mitigation measures.

2016 Mitigation Measures

No new mitigation measures.

Environmental Issue Area	Where Impact Was Analyzed in Prior Environmental Documents.	Do Proposed Changes Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information of Substantial Importance?	Prior Environmental Documents Mitigations Implemented or Address Impacts?
16. Transportation/Traffic. Would the project:					
a. Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	Addendum, pp. 49 to 51; Bell Woods MND, (d) pp. 3-98 to 3-99; and (f) pp. 2-10, 3-5; Bell Ranch MND, (d) pp. 3-104 to 3-105; and (f) pp. 2-19 to 2-20, 3-4 to 3-5; Hawk View MND, (d) pp. 3-67 to 3-69; and (f) pp. 2-1	No	No	No	Yes
b. Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	PEIR, pp. J-19 to J-21; Addendum, pp. 49 to 51; Bell Woods MND, (d) pp. 3-98, 3-100; Bell Ranch MND, (d) pp. 3-104, 3-106; and (f) pp. 2-19, 3-4 to 3-5 Hawk View MND, (d) pp. 3-67, 3-69	No	No	No	Yes
c. Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	Bell Woods MND, (d) pp. 3-98, 3-100 Bell Woods MND, (d) pp. 3-104, 3-106; Hawk View MND, (d) pp. 3-67, 3-69	No	No	No	Yes
d. Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	Bell Woods MND, (d) pp. 3-98, 3-100; Bell Woods MND, (f) pp. 3-4, 4-22; Bell Ranch MND, (d) pp. 3-104, 3-106; Hawk View MND, (d) pp. 3-67, 3-39	No	No	No	Yes
e. Result in inadequate emergency access?	Bell Woods MND, (d) pp. 3-98, 3-100; and (f) pp. 2-20 to 2-23, 3-6; Bell Ranch MND, (d) pp. 3-104, 3-106 Hawk View MND, pp. 3-67, 3-69	No	No	No	Yes
f. Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	PEIR, J-21; Addendum, pp. 50; Bell Woods MND, (d) pp. 3-98, 3-101; and (f) pp. 3-4 to 3-5; Bell Ranch MND, (d) pp. 3-104, 3-107; Hawk View MND, (d) pp. 3-67, 3-69	No	No	No	Yes

Discussion:

1. Changes to Project Related to Transportation and Circulation

The BLHSP is located on the north side of Highway 50 along both sides of Bass Lake Road. At the time of preparation of the 1992 BLRSA Final PEIR, the existing residences (approximately 35) within the BLHSP site were served by a system of unimproved local drives. Primary access to the site was via Country Club Drive and Bass Lake Road, which is the only north-south arterial in the study area.

The 1992 BLRSA Final PEIR anticipated that the 1,196 acre BLHSP site would be converted from grazing land and rural residential use to suburban development, with approximately 33% of the site being developed as homes, roads and associated infrastructure. The BLHSP entailed the development of nine residential projects within the BLHSP site, comprising development of 1,403 homes. The 1992 BLRSA Final PEIR assumed that these projects would be developed as proposed, with remainder of the study area being developed under the Reduced General Plan Scenario, described in the Project Description of the 1992 BLRSA Final PEIR. Under this scenario, implementation of the BLHSP would result in development of approximately 2,901 units in the study area.

Developments within the BLHSP site would connect to Bass Lake Road and/or Country Club Road (EIR Figure J-1). Primary collector roads for the BLHSP project would be Country Club Drive, Stone Hill Road, Silver Dove Road, Hollow Oak Road and Hawk View Road. Proposed roadway improvements in the BLHSP included an internal street network including local loop roadways and cul-de-sacs serving individual lots. Local roadways would be constructed to conform to existing topography. Bass Lake Road was proposed as the primary north-south arterial between Highway 50 and Green Valley Road, supported by designated east-west collector roads.

The COA amendments propose changes to the sequence and timing of certain previously-approved transportation and utility infrastructure improvements presented in the 1992 BLRSA Final PEIR, and undertake minor changes to improvements to better serve incremental development of the tentative maps described in the 1992 BLRSA Final PEIR and also in the 2005 MNDs for the Bell Woods, Bell Ranch and Hawk View projects (see below for more details).

The proposed project would realign County Club Drive from Bass Lake Road to Morrison Road (H to I) and realign Country Club Drive east of Tierra De Dios Drive to connect to Tierra De Dios Drive consistent with the alignment shown in the BLHSP. A new traffic signal would be constructed at the Bass Lake Road/Country Club (realigned) intersection, along with intersection improvements including one through lane and one 200-foot long right turn pocket on the northbound approach; one through lane and one 300-foot long left turn pocket on the southbound approach; and one through lane and 300-foot long left turn pocket on the westbound approach.

Some roadway improvements (e.g., Bass Lake Interchange) would result in slightly larger/different footprints when compared to the BLHSP as evaluated in the 1992 BLRSA Final PEIR, but these would all be within the original boundary of the BLHSP site and the development footprint of the area approved under the 1992 BLRSA Final PEIR would not change. Improvements to the Bass Lake Road Interchange are included in the County's 20-year Capital Improvement Program, with completion of construction anticipated prior to 2035. The proposed project includes proposed interim improvements to this interchange which would be implemented prior to its eventual replacement. These proposed interim changes were included as mitigation within the 1992 BLRSA Final PEIR (see Section 5, mitigation measure J01) and were further described and analyzed in a Traffic Impact Analysis and subsequent Addendum undertaken in 2014, referred to in this report as the 2014 Traffic Impact Assessment and 2014 Traffic Addendum, respectively (see Appendix C). The 2014 Traffic Impact Assessment also recommended the following improvements to accommodate buildout of the BLHSP project; these improvements are consistent with those proposed in Mitigation Measure J01.

- Addition of a 240-foot, or longer, left turn pocket to the eastbound off-ramp.
- Restriping Bass Lake Road between the eastbound and westbound ramps to include two northbound lanes.

- Widening Bass Lake Road between the westbound ramps and Country Club Drive to include a northbound trap lane accessing Country Club Drive and a southbound trap lane accessing westbound Highway 50.
- Signalization of the eastbound ramp intersection.
- Signalization of the westbound ramp intersection when warranted and necessary to maintain LOS D. The westbound ramp intersection was found not to require signalization in 2019, but would need to be signalized by 2035.
- Ramp metering was found not to be warranted.

2. Changes in Circumstances

At the time of preparation of the 1992 BLRSA Final PEIR, land use in the Bass Lake study area was dominated by low density rural residential and agricultural uses. The ± 35 residences in the study area were served by a modest roadway system consisting of small unimproved drives which access Bass Lake Road. The most notable drive was Stone Hill Road, which intersects Bass Lake Road about one mile north of Highway 50. Stone Hill Road is a two-lane drive which provides access to a dozen homes located east of Bass Lake Road.

Access to the BLHSP site was, and continues to be, via Country Club Drive and Bass Lake Road. Country Club Drive is a two-lane improved frontage road which parallels the north side of Highway 50. In 1992, there were no residences along Country Club Drive in the vicinity of the BLHSP site, and the roadway functions as a residential collector in the Cameron Park community located east of the study area. The alignment of Country Club Drive through the study area serves as an alternate route from Highway 50 to western and northwestern areas of Cameron Park.

In 1992, Bass Lake Road was the sole north-south arterial in the study area, providing access to Highway 50 south of the study area, and to Green Valley Road approximately two miles north of the BLHSP site. Bass Lake Road is a narrow paved two-lane roadway with numerous horizontal and vertical curves, many of which were substandard with estimated design speeds of less than 25 mph.

Highway 50, which parallels the southern boundary of the Bass Lake study area, served as the primary east/west travel corridor through El Dorado County. From the BLHSP site, Highway 50 continues east through Placerville, South Lake Tahoe, and into Nevada. To the west, Highway 50 connects El Dorado County to the Sacramento metropolitan area. Highway 50 is currently paved and striped to provide three lanes of travel in each direction. In the past, traffic between Sacramento and Lake Tahoe comprised the majority of traffic on the highway. However, as a consequence of development in the foothill communities, an increasing proportion of the traffic is of local origin, commuting to/from the Sacramento area.

Green Valley Road was once the major east-west roadway connecting Sacramento with Placerville and the smaller foothill towns. Completion of Highway 50 in the mid 1970s provided a more direct route for regional traffic, transforming Green Valley Road into a rural collector used principally by local businesses and residents. However, like Highway 50, development of the foothill communities has resulted in notable increases in traffic volumes, particularly during peak commute periods.

Since the certification of the 1992 BLRSA Final PEIR, the BLHSP site has remained essentially undeveloped, with the exception of the Hollow Oak subdivision, located approximately one mile east of Bass Lake Road. This is the only suburban density development within the BLHSP site; there are 99 single family homes on approximately 39 acres in this subdivision. Other development-related activities have taken place in and around the plan area, including: realignment and reconstruction of Bass Lake Road from Hollow Oak to Serrano Parkway; construction of two four-million gallon water tanks by EID at the north end of the Bell Ranch subdivision; installation of several water transmission lines; construction of El Dorado Hills Fire Station No. 86; construction of the Holy Trinity Catholic Church and School; acquisition of the proposed school site by the Buckeye School District; street and pad grading of the Hawk

View subdivision has been started; clearing and grubbing of the Bell Woods subdivision in anticipation of grading; and grading of Morrison Road as part of underground utility line installation.

Since 1992, lands around the BLHSP area also have experienced additional new development. Lands to the east, in Cameron Park, were largely developed by 1992, with the primary development since that time occurring northeast of the BLHSP area, near Bass Lake, in the Hills of El Dorado, Woodridge, and Bridlewood Canyon neighborhoods. Lands to the west have undergone substantial new development in the Serrano project that has been developed in the El Dorado Hills Specific Plan area. Improvements to the Bass Lake Road interchange recommended in mitigation measure J01 and in the 2014 Traffic Impact Analysis have not yet been constructed.

The 1992 BLRSA Final PEIR estimated that the BLHSP project would include around 2,903 homes¹⁵² at full buildout, generating around 2,903 trips during the PM peak hour period at full buildout in 2010, with an Average Daily Traffic Volume (ADT) from the project of 29,320.¹⁵³ Modelling undertaken for the 1992 BLRSA Final PEIR assumed that 50% of the PM peak hour trips would have destinations west on Highway 50, 10% would travel east on Highway 50, and 40% would travel north to Green Valley Road. Traffic volume estimates associated with individual development areas and proposals in the study area were manually assigned to the roadway network based upon proposed street connections and estimated least time travel paths.

The 2005 MNDs did not include any description of existing or projected traffic conditions; however, as very limited development has occurred in the BLHSP project site to date, it is reasonable to assume that existing traffic conditions within the BLHSP site and surrounding area are fairly similar to those described in the 1992 BLRSA Final PEIR.

The 2014 Traffic Addendum updated the 1992 analysis by evaluating traffic operations using a ten year planning scenario, with the year 2025 used for full buildout. Because any development within the BLHSP would be required to provide the interim interchange improvements which are part of the proposed project, the 2025 Without Project scenario in the 2014 Traffic Addendum assumed no development within the BLHSP area. The 2025 With Project scenario in the 2014 Traffic Impact Analysis revised the 1992 full buildout projections downwards, assuming construction of 815 homes in the BLHSP area rather than approximately 2,903 homes as projected in the 1992 BLRSA Final PEIR. Of those, 281 homes would be associated with Hawk View, Bell Woods, and Bell Ranch, with the remaining 534 homes reflecting later phases of construction of the BLHSP. This reduction in units reflects a depressed housing market due to the great recession.

1. Comparative Impact Discussions

The 1992 BLRSA Final PEIR identified that the proposed development of the study area would contribute to the volume of traffic using local roadways. Without improvements, virtually all local facilities would function at unacceptable Levels of Service (LOS).

The 1992 BLRSA Final PEIR identified impacts on traffic associated with the BLHSP project that would remain significant even after the implementation of available mitigation. The analysis in the 1992 BLRSA Final PEIR compared impacts of the BLHSP project against existing traffic volumes (Existing Plus Project), evaluated predicted future conditions without the project (Future Without Project) and then analyzed the BLHSP in the context of those projected future volumes (Future Plus Project). The 1992 BLRSA Final PEIR used 2010 as the future year in which build-out of the area was predicted to occur.

¹⁵² While the actual number of dwelling units cited in the project description was 2,901, page J-5 identified 2,903 homes. This is a typographical error and does not impact the analysis.

¹⁵³ County of El Dorado. *Bass Lake Road Study Area Program Environmental Impact Report – Draft* (SCH#90020375). June 14, 1991. P. J-5.

Existing Plus Project Scenario

The 1992 BLRSA Final PEIR identified five existing intersections as critical to traffic circulation in the vicinity.

- Bass Lake Road / Highway 50 East Bound (EB) Ramps
- Bass Lake Road/ Highway 50 West Bound (WB) Ramps
- Bass Lake Road / Green Valley Road
- Bass Lake Road/ Stone Hill Road
- Bass Lake Road/Country Club Drive

In 1992, all of these intersections were stop sign controlled and none had any notable improvements beyond two lanes providing a left turn lane and a through plus right turn lane where required. Traffic volume counts conducted during the PM peak hour period for the 1992 PEIR indicated that all of the examined intersections functioned at LOS A and did not warrant signalization.

The 1992 PEIR analysis found that the addition of BLHSP project traffic to existing volumes would result in unacceptable LOS at all existing facilities (**Table 16-1**). The only intersection predicted to function at a satisfactory level was the proposed junction of Country Club Drive with Bell Ranch Road. All segments of Bass Lake Road south of Hollow Oak Drive would function at LOS F. Under Existing Plus Project conditions, the predicted 12,280 daily trips on Bass Lake Road south of Hollow Oak Road would produce LOS D conditions. South of Country Club Drive, the predicted volume is $\pm 19,650$ trips, resulting in LOS F operating conditions.

Table 16-1
Intersection and Roadway Levels of Service Existing Plus Project Conditions

Intersection	LOS without Improvements	Warrants Signalization?
Bass Lake Road at Green Valley	F	Yes
Bass Lake Road At Hollow Oak Road	F	Yes
Bass Lake Road at Stone Hill Road	F	No
Bass Lake Road at Country Club Drive	F	Yes
Bass Lake Road at Highway 50 WB Ramps	E	No
Bass Lake Road at Highway 50 EB Ramps	F	No
Country Club Drive at Bell Ranch Road	A	Yes
Bass Lake Road south of Hollow Oak Road	D	2 Lanes
Bass Lake Road south of Country Club Drive	F	2 Lanes

Source: 1992 BLRSA Draft PEIR, Table J1

Under the Existing Plus Project scenario, improvements identified in the 1992 PEIR that would be required to maintain satisfactory levels of service at impacted facilities included:

- The intersection of Bass Lake Road and Hawk View Road warranted signalization. With signalization, the intersection was projected to operate at LOS B.
- The intersection of Bass Lake Road and Country Club Drive was projected to meet peak hour signal warrant criteria. In addition to signalization, provision of four travel lanes (two lanes per direction) and separate left turn lanes on the Bass Lake Road approaches would be required to maintain LOS C.

- Northbound left turns from the eastbound Highway 50 off-ramp at Bass Lake Road were projected to function at LOS F during the PM peak hour. Traffic control which conveyed off-ramp traffic onto Bass Lake Road without interruption would be sufficient to relieve the LOS F condition. Installation of stop signs on the northbound and southbound Bass Lake Road approaches would provide the necessary control.
- Widening of Bass Lake Road to four lanes would be required to maintain LOS C under the Existing Plus Project scenario. With four lanes, Bass Lake Road would function at LOS A south of Hollow Oak Road, and LOS B south of Country Club Drive. This widening was specified by the El Dorado Hills Specific Plan for implementation by the year 2000.

All other intersections and facilities were projected to function at acceptable levels without improvements.

Analysis of Future Scenarios

In addition to the five existing intersections presented previously, the 1992 PEIR also identified five additional intersections which did not exist in 1992 but which were proposed for construction by 2010. These were:

- Bass Lake Road and Country Club Drive
- Bass Lake Road and Village Green Parkway
- Bass Lake Road and Hollow Oak Road
- Bass Lake Road and New Bass Lake Road
- New Bass Lake Road and Green Valley Road

The 1992 PEIR also assumed that numerous improvements proposed to the area roadway system would be implemented before 2010, regardless of the BLHSP project. Most of the significant improvements were specified in the El Dorado Hills Specific Plan, and were to be financed by a fee ordinance. These improvements included:

- Signalization of the intersection of Bass Lake Road and the Highway 50 WB ramps.
- Signalization of the intersection of Bass Lake Road and the Highway 50 EB ramps.
- Widening of Bass Lake Road to four lanes from Village Green Parkway to Highway 50.

In addition to the improvements specified by the El Dorado Hills Specific Plan, a new alignment of Bass Lake Road was proposed between Bass Lake and Green Valley Road. In this discussion, the existing alignment is referred to as Bass Lake Road, and the new alignment as New Bass Lake Road.

Future Without Project Scenario

Under the Future Without Project scenario, all of the area intersections were predicted to function at less than acceptable LOS E or F (**Table 16-2**).

Table 16-2
Intersection and Roadway Levels of Service Future Without Project Conditions

Intersection	LOS*	Warrants Signalization?
Existing Intersection		
Old Bass Lake Road at Green Valley	E	No
Bass Lake Road at Stone Hill Road	E	No
Bass Lake Road At Country Club Drive	F	Yes
Bass Lake Road at Highway 50 WB Ramps	F	1.10
Bass Lake Road at Highway 50 EB Ramps	F	1.52

Table 16-2
Intersection and Roadway Levels of Service Future Without Project Conditions

Intersection	LOS*	Warrants Signalization?
Future Intersections		
Bass Lake Road at Hollow Oak Road	E	No
Bass Lake Road at New Bass Lake Road	E	Marginal
Bass Lake Road at Village Green Parkway	F	Yes
New Bass Lake Road at Green Valley	F	Yes
Country Club Drive at Bell Ranch Road	-	Yes
Roadways		
Bass Lake Road south of Hollow Oak	F	4 lanes
Bass Lake Road south of Country Club	F	4 lanes

Note:

* LOS calculated assuming intersections on the four lane segment of Bass Lake Road are assumed to provide an exclusive left turn lane, one through lane, and a through plus right turn lane on Bass Lake Road. Side streets are assumed to provide an exclusive left turn lane and a combination through plus right turn lane. Highway 50 ramp geometries assume separate lanes for each approach movement.

Source: 1992 BLRSA Draft PEIR, Table J2

The 1992 PEIR provides detailed description of improvements that would be needed to address LOS deficiencies under Future Without Project conditions (pp. J-11 though J-14) in order to improve LOS on all intersections listed in **Table 16-2**, above.

Future With Project Scenario

Traffic volumes projected for the Future Plus Project scenario (**Table 16-3**) included traffic generated by new development including the BLHSP project, as well as traffic from outside of the area that would use local roadways as a consequence of new roadway improvements, such as Village Green Parkway.

The 1992 PEIR acknowledges that without additional improvements over and above those described in the EIR under the Future Without Project scenario, numerous intersections (**Table 16-3**) would function at LOS F. The 1992 PEIR describes detailed improvements that would be needed to maintain acceptable LOS levels (pp. J-16 though J-19). However, the 1992 PEIR acknowledges that even with the implementation of future improvements proposed for construction irrespective of the BLHSP project and mitigation measures J01 and J02, the BLHSP project would result in significant and unavoidable impacts on traffic, as follows:

- Proposed development of the Bass Lake study area will contribute to the volume of traffic using local roadways. Without improvements, virtually all local facilities will function at unacceptable Levels of Service. Even with implementation of the identified mitigation, Bass Lake Road is predicted to function at LOS F. This impact will be mitigated, but not to a less than significant level by implementation of measures J01 and J02.

Traffic was also addressed in brief in the 1995 Addendum. This confirmed that, similar to the 1992 PEIR, the BLHSP project would contribute to the volume of traffic using local roadways. Without improvements, virtually all local facilities would function at an unacceptable LOS. With implementation of the identified mitigation, Bass Lake Road is still predicted to function at LOS E under the full buildout scenario, which would be considered a significant and unavoidable impact.

Table 16-3
Levels of Service Future Plus Project Conditions

Intersection	LOS*
Existing Intersection	
Old Bass Lake Road at Green Valley	E
Bass Lake Road at Stone Hill Road	F
Bass Lake Road At Country Club Drive	F
Bass Lake Road at Highway 50 WB Ramps	F
Bass Lake Road at Highway 50 EB Ramps	F
Future Intersections	
Bass Lake Road at Hollow Oak Road	F
Bass Lake Road at New Bass Lake Road	F
Bass Lake Road at Village Green Parkway	F
New Bass Lake Road at Green Valley	F
Country Club Drive at Bell Ranch Road	A
Roadways	
Bass Lake Road south of Hollow Oak	F
Bass Lake Road south of Country Club	F
Note: * LOS calculated assuming intersections on the four lane segment of Bass Lake Road are signalized and provide an exclusive left turn lane, one through lane, and a through plus right turn lane on Bass Lake Road. Side streets are assumed to provide an exclusive left turn lane and a combination through plus right turn lane. Highway 50 ramp geometries assume separate lanes for each approach movement. Source: 1992 BLRSA Draft PEIR, Table 2	

Potential impacts on traffic were also discussed within the 2005 MNDs. These three analyses found that, similar to the analysis provided in the 1992 BLRSA Final PEIR, the implementation of the Bell Ranch, Bell Woods and Hawk View projects would not result in any additional impacts other than those identified in the 1992 PEIR. Each project would be required to comply with mitigation included in the 1992 PEIR and 1995 Addendum, and would be responsible for their fair share of improvements to roadways as identified in the 1992 BLRSA Final PEIR.

The 2014 Traffic Addendum evaluated traffic impacts associated with the improvements to the Bass Lake Road Interchange. The analysis was based on a reduced level of projected development for the BLHSP when compared to that analyzed in the 1992 PEIR and 1995 Addendum.¹⁵⁴ This reduced level of development, coupled with the implementation of the required interim interchange improvements included in the 1992 PEIR as MM J01, further recommended in the 2014 Traffic Impact Analysis, and currently proposed as part of the project, means that the project would not result in any impacts over and above those analyzed in the 1992 PEIR, and with the implementation of the proposed interchange improvements, would be expected to result in fewer and less severe traffic impacts. In addition, the 2014 Traffic Impact Analysis (Appendix C of this Addendum) demonstrated no geometric improvements would be necessary between realigned County Club Drive and Hollow Oak Drive, and no improvements are proposed. Mitigation described below would continue to be required and would be implemented as part of the project. Thus, the proposed project would not create a new significant impact, nor a substantially more severe significant impact, compared to the prior CEQA documents.

¹⁵⁴ The 2014 Traffic Addendum assumed 2/3 of the development proposed in the 1992 BLRSA Final PEIR. This amount is greater than the current anticipated development of approximately half the number of residences originally planned. The traffic analysis assumed a greater number of residences than currently planned in order to provide a conservative analysis.

Issues Not Addressed in Prior CEQA Documents

Vehicle Miles Travelled

Vehicle Miles of Travel (VMT) was not a measure that was evaluated in the 1992 BLRSA Final PEIR or 1995 Addendum. VMT is a measure that in recent years has become considered an important measure of overall effects of a project on the transportation network, air pollution and greenhouse gas emissions. The proposed project would affect only a small area of the BHLSP site, and would not result in any greater traffic when compared to that evaluated in the 1992 PEIR and the 2005 MNDs. No additional traffic impacts or increased VMT would occur as a result of the proposed project above and beyond that evaluated in the prior CEQA documents. Additionally, the proposed project would be implemented within a reduced development scenario when compared to that analyzed in the 1992 PEIR and the 1995 Addendum, and would result in far fewer trips at full buildout, with a correspondingly reduced VMT. Thus, the proposed project would not create a new significant impact, nor a substantially more severe significant impact, compared to the prior CEQA documents.

Additional Transportation Issues

The 1992 BLRSA Final PEIR and 1995 Addendum did not analyze the potential impact of the BLHSP on air traffic patterns. However this issue was evaluated within the 2005 MNDs, which concluded that there would not be any air traffic impacts associated with any of the three tentative map projects. The proposed project would not have any aviation impacts, as the site of the proposed COA Amendments is not located within an airport safety zone or within the approach or departure points for any aircraft using an airport. There would not be any impacts associated with the proposed project under this criterion.

The 1992 BLRSA Final PEIR also did not analyze whether the BLHSP would create hazards due to a design feature or incompatible use. This issue is evaluated within the 2005 MNDs. All three analyses conclude that the projects would be designed to be consistent with El Dorado County DOT Engineering standards and the BLHSP, and included mitigation to this effect. Impacts would therefore be less than significant with mitigation under this criterion.

Although not specifically evaluated as an impact, the BLHSP identified roadway improvements which would ensure adequate emergency access to the project site. This issue was also evaluated in the three MNDs, which include mitigation requiring the Bell Woods, Bell Ranch and Hawk View projects to provide emergency access to the satisfaction of the El Dorado Hills Fire Department. Impacts would therefore be less than significant with mitigation under this criterion.

Parking capacity was not evaluated as an issue within the 1992 EIR and 1995 Addendum. This issue was evaluated in the MNDs. All three analyses noted that all development projects within the BLHSP area are subject to parking requirements established in the El Dorado County Zoning Code for the proposed land uses. Therefore there would be no impact under this criterion.

With respect to alternative transportation, mitigation measure G04 of the BLHSP EIR requires individual projects to provide turnout lane(s), bus shelters, or other infrastructure necessary to facilitate extension of transit services to the Specific Plan area. The location, number, and design of these facilities will be established based on consultation with the El Dorado County DOT. Impacts would therefore be less than significant with mitigation under this criterion.

4. Conclusions

Changes introduced by the proposed project and/or new circumstances relevant to the project would not, as compared to the prior CEQA documents, result in a new significant impact or significant impacts that are substantially more severe than significant impacts previously disclosed. In addition, there is no new information of substantial importance showing that the project will have one or more significant effects not previously discussed or that any previously examined significant effects would be substantially more severe than significant effects shown in the prior CEQA documents. Nor is there new information of substantial importance showing (i) that mitigation measures or alternatives previously found

not to be feasible would in fact be feasible, and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative or (ii) that mitigation measures or alternatives considerably different from those analyzed in the prior CEQA documents would substantially reduce one or more significant effects, but the proponents decline to adopt the mitigation measure or alternative.

Specific Plan and Other Standard Mitigation Measures

Specific Plan Section 3.3, Residential Development Standards

4. Newly subdivided residential lots shall not have direct access to urban collectors or primary local roads.

Specific Plan Section 4.12, Bus Stops

In anticipation that a bus system for the general public and school children will be extended into the Plan area, bus stops will be provided at intersections of primary local roads with Bass Lake Road in accordance with standards and criteria of El Dorado County Transit and the local school districts.

Specific Plan Section 4.13, General Circulation and Trail Standards

3. Pathways shall be constructed at locations convenient to residential lots to facilitate pedestrian travel to open space trails, secondary local roads, primary local roads, and Bass Lake Road. Such pedestrian and bike lane connections shall be located and protected to restrict access to adjoining private property.
4. A streetscape plan shall be submitted with tentative map applications and approved by the El Dorado Hills CSD and the County as a component of tentative map approval.
8. Secondary local roads within villages shall be designed to facilitate internal circulation and discourage through traffic.
9. Secondary local road connections with primary local roads shall be spaced a minimum of 600 feet apart, except where such secondary local roads contain 12 or fewer lots.
10. Parking on Bass Lake Road and primary local roads shall be prohibited.
11. Parks and open space shown on the Specific Plan Land Use Diagram and Parks and Open Space Plan shall be linked by a pedestrian and bicycle circulation system.
12. Secondary local roads shall be constructed on a subdivision-by-subdivision basis within individual villages. Primary local roads, as shown on Figure 4-1, Circulation Plan, may be constructed in advance of village development, as needed for access and public safety.
13. In accordance with Caltrans requirements, a park-and-ride lot capable of accommodating 100 vehicles, expandable to 200 (approximately 2.0 acres) shall be provided in the approximate location shown on Figure 3-1, Specific Plan Land Use Diagram, and Figure 4-1, Circulation Plan, beyond the ultimate right-of-way of the Bass Lake Road/ Highway 50 interchange. (See Section 8.0 of the Design Guidelines)
14. The non-vehicular right-of-way of Bass Lake Road and primary local roads not devoted to non-vehicular paving shall be granted to the CSD and be subject to a common design theme.
16. Residential driveways connecting to Bass Lake Road and primary local roads are prohibited unless otherwise permitted pursuant to Section 4.2.
19. Subdivisions proposed between Bass Lake Road and designated primary local shall be required to provide secondary local road stub connections to properties which might otherwise be landlocked by development of that property.
23. Subdivision designs shall minimize through traffic in villages to the maximum extent possible.

Specific Plan Section 5.1, General Public Service and Facility Standards

4. Public facilities and services shown in this Plan, including parks, roads, and infrastructure, shall be offered for dedication in conjunction with the residential subdivision process. Bass Lake Road, primary local roads, and infrastructure trunklines may be constructed in advance of village development, as needed.

Prior CEQA Mitigation Measure

Measures that were proposed for implementation irrespective of the BLHSP project

- Construction of Proposed Improvements to Bass Lake Road and Highway 50 Interchange
- Construction of Village Green Parkway from El Dorado Hills to Bass Lake Road
- Construction of new Bass Lake Road alignment from north of Bass Lake to Green Valley Road
- Widening of Bass Lake Road from Village Green Parkway to Highway 50

1992 BLRSA Final PEIR

G04 Provision of turn out lane(s), bus stop shelters, or other infrastructure necessary to facilitate extension of transit services to the study area. Individual projects will provide turn out lane(s), bus stop shelters, or other infrastructure necessary to facilitate extension of transit services to the study area. The location, number, and design of these facilities will be established based on consultation with RT and the El Dorado County Department of Public Works. The required facilities will be identified on Tentative Maps and identified as conditions of approval of the various projects.

J01 Specific Roadway improvements, beyond those required irrespective of the Project, will be provided to accommodate project traffic. Roadway improvements, beyond those required to serve Future Without Project conditions, will be provided to accommodate project traffic. Even with these improvements, Highway 50 is predicted to remain at LOS E, and Bass Lake Road would deteriorate to LOS F. Developments in the Bass Lake study area will provide construction and/or funding to construct individual improvements required by those projects. These improvements include:

- Bass Lake Road at Hollow Oak Road: signalization will provide LOS C
- Bass Lake Road at Stone Hill Road: signalization will provide LOS C
- Bass Lake Road at Country Club Drive:
 - add left-turn lanes to the SB and EB approaches
 - add dual left- turn lanes to the NB approach
 - add a second left- turn lane to the WB approach
- Bell Ranch at Country Club Drive: this intersection will be created with an EB left turn pocket.
- Bass Lake Road at Highway 50:
 - addition of a third northbound lane on Bass Lake Road under Highway 50,
 - installation of a two phase signal at each ramp intersection will be required.

J02 Developments within the Bass Lake study area will pay County transportation fees, participate in an Area of Benefit, or other similar financing mechanism to provide required transportation facilities.

1995 Addendum

No new mitigation measures.

2005 Bell Ranch MND

No new mitigation measures.

2005 Bell Woods MND

No new mitigation measures.

2005 Hawk View MND

No new mitigation measures.

2016 Mitigation Measures

No new mitigation measures.

Environmental Issue Area	Where Impact Was Analyzed in Prior Environmental Documents.	Do Proposed Changes Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information of Substantial Importance?	Prior Environmental Documents Mitigations Implemented or Address Impacts?
17. Utilities and Service Systems. Would the project:					
a. Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	PEIR, pp. K-6 to K-9; Addendum, pp. 55-56; Bell Ranch, pp. 3-109 to 3-111; Bell Woods, pp. 3-103 to 3-105; Hawk View, pp. 3-71 to 3-73	No	No	No	Yes
b. Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	PEIR, pp. K-6 to K-9; Addendum, pp. 53-56; Bell Ranch, pp. 3-109 to 3-115; Bell Woods, pp. 3-105 to 3-108; Hawk View, pp. 3-71 to 3-76	No	No	No	Yes
c. Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	PEIR, pp. E-1 to E-5; Addendum, pp. 21-24; Bell Ranch, pp. 3-115 to 3-117; Bell Woods, pp. 3-108 to 3-110; Hawk View, p. 3-76	No	No	No	Yes
d. Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	PEIR, pp. K-1 to K-5; Addendum, pp. 53-54; Bell Ranch, p. 3-117; Bell Woods, pp. 3-102 to 3-103, 3-110; Hawk View, pp. 3-71 to 3-77	No	No	No	Yes
e. Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	PEIR, pp. K-6 to K-9; Bell Ranch, pp. 3-111 to 3-117; Bell Woods, pp. 3-103 to 3-110; Hawk View, pp. 3-71 to 3-77	No	No	No	Yes
f. Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	PEIR, pp. K-15 to K-16; Bell Ranch, p. 3-117; Bell Woods, p. 3-110; Hawk View, p. 3-77	No	No	No	Yes
g. Comply with federal, state, and local statutes and regulations related to solid waste?	PEIR, pp. K-15 to K-16; Addendum, p. 61; Bell Ranch, p. 3-117; Bell Woods, p. 3-110; Hawk View, p. 3-77	No	No	No	Yes
h. Use substantial amounts of fuel or energy, or result in a substantial increase in demand upon existing sources of energy or require the development of new sources of energy?	PEIR, pp. K-9 to K-10; Addendum, pp. 57-58	No	No	No	Yes
i. Result in the need for new, or substantial alteration to, electricity, natural gas, or communications systems?	PEIR, pp. K-9 to K-12; Addendum, pp. 57-58	No	No	No	Yes

Discussion:

1. Changes to Project Related to Utilities and Service Systems

For this discussion, utilities and service systems include water supply, wastewater (or sewer service), electricity, gas, and telephone service. Impacts related to the conveyance and treatment of storm water is addressed in Section 9, Hydrology and Water Quality. As presented in the Project Description, the following are proposed changes to COA Amendments related to utilities and service systems (As mentioned above, bullet points 5 thru 9 below are not part of the COA amendments):

- The project will no longer use recycled water for landscape irrigation.
- The requirement to implement water and sewer infrastructure associated with the school site will be removed from Hawk View, Bell Wood sand Bell Ranch, but the obligation to secure right-of-way and improvement plans for school site access will remain with Bell Woods and the obligation to secure right-of-way and improvement plan for utilities to the school site will remain with Bell Ranch.
- The 8.7 acre park site will be removed from Hawk View and Bell Woods but remain an obligation of Bell Ranch, resulting in the need for water and sewer service at a later phase of project development.
- In certain locations, median landscaping will not be required until later phases, when the County determines that the number of developed residential units supports the required maintenance activities.
- Underground pipes for water, sewer, and drainage would be installed to connect through the Hawk View subdivision to an existing gravel road in the El Dorado Hills Specific Plan area. Two trenches, one near the northwest corner and one at the southwest corner of the Hawk View subdivision would connect existing and proposed utilities through an already disturbed area. The sewer line would be a parallel line constructed on top of an existing sewer line that is within the El Dorado Irrigation District (EID) gravel road west of the project site.
- A new alignment for a sewer line would connect existing sewer pipelines within the El Dorado Hills Specific Plan area with the proposed elementary school within the Bass Lake Hills Specific Plan area. Although a sewer connection between these two specific plan areas was previously anticipated in the Bass Lake Road Study Area EIR, the proposed pipeline alignment shifts the pipeline north. If El Dorado Hills Specific Plan Village C-2 is not approved or is withdrawn, the proposed pipeline extending westward from the project would be installed in the “Wagon Road” alignment analyzed in previous CEQA documents.
- An underground pipe would extend northeast from the Bell Woods subdivision to provide a sewer connection to the existing lift station east of the project site. In addition, a small water pipe would extend directly east to connect to an existing water pipe.
- Two trenches would be dug and pipelines installed. The northern pipeline would provide water and recycled water tie-ins to an adjacent, off-site residential area. The southern pipeline would provide a pipe to drain a detention basin at the southern tip of the Bell Woods subdivision. The pipe would carry storm drainage south along an existing drainage corridor. The pipe would then daylight in the drainage corridor that runs parallel to Castana Drive. These connections would occur along residential property lines within utility easements
- A new pump would be installed adjacent to two EID water tanks on a fenced parcel immediately north of the Bell Ranch subdivision. The pump would be electric and would include a backup generator in the event of a power failure. The site is already paved with asphalt.

2. Changes in Circumstances

The development characteristics of the site remain largely the same as compared to the conditions described in the 1992 BLRSA Final PEIR, the 1995 Addendum, and again in the 2005 MNDs. Since 2005, the Hollow Oak subdivision (99

single-family homes on 39 acres) has been developed. Other development-related activities have taken place in and around the plan area, including: realignment and reconstruction of Bass Lake Road from Hollow Oak to Serrano Parkway; construction of two four-million gallon water tanks by EID at the north end of the Bell Ranch subdivision; installation of several water transmission lines; construction of El Dorado Hills Fire Station No. 86; construction of the Holy Trinity Catholic Church and School; acquisition of the proposed school site by the Buckeye School District; street and pad grading of the Hawk View subdivision has been started; clearing and grubbing of the Bell Woods subdivision in anticipation of grading; and grading of Morrison Road as part of underground utility line installation. The majority of the BLHSP area (the project site) remains undeveloped, and it is largely used for open grazing land (grasslands) and rural residences. There is some increased demand for water supply, wastewater, gas, electricity, and telephone services associated with this limited development, and, accordingly, some utility infrastructure has been installed and is operational.

There have been no material changes to the regulatory climate regarding water supply, wastewater, solid waste, natural gas, electricity, or telephone services since 2005.

3. Comparative Impact Discussions

Water Supply

Impacts to water supply were addressed in the 1992 BLRSA Final PEIR and found to be significant and unavoidable because water was not available when the document was prepared and certified despite implementation of mitigation measure K01.¹⁵⁵ Mitigation measure K01 required properties that were not currently within EID's boundary to petition the Local Agency Formation Commission (LAFCo) for annexation into the district.

As discussed in the 2005 MNDs, water supply has since been authorized for use through the El Dorado Irrigation District (EID) under the SWRCB-issued Water Right Order WR2002-22 (water right) issued on October 16, 2001. The water supply for the BLHSP is predominantly provided by Folsom Lake.^{156,157,158} but EID has the flexibility to obtain water from other sources. EID has estimated that the ultimate buildout of 1,458 dwelling units will require 892,000 gallons of water per day and that EID could begin using the water right in 2003.^{159,160,161} The 2005 MNDs noted that EID has indicated that water is available for the proposed project and concluded that this impact is considered less than significant.^{162,163,164,165,166}

The proposed COA Amendments would remove requirements for use of recycled water in the Hawk View and Bell Woods subdivisions. The removal of these requirements is proposed in order to reflect the recent determination from EID

¹⁵⁵ County of El Dorado. *Bass Lake Road Study Area Program Environmental Impact Report – Draft* (SCH#90020375). June 14, 1991. P. K-5.

¹⁵⁶ County of El Dorado. *Mitigated Negative Declaration – Bell Ranch Project*. SCH#2005022144. Draft, February 2005. P. 3-109.

¹⁵⁷ County of El Dorado. *Draft Mitigated Negative Declaration – Bell Woods Project*. SCH#2005032044. Draft, February 2005. P. 3-103.

¹⁵⁸ County of El Dorado. *Initial Study and Mitigated Negative Declaration – Hawk View Project*. SCH#2005012107. Draft, January 2005. P. 3-76.

¹⁵⁹ County of El Dorado. *Mitigated Negative Declaration – Bell Ranch Project*. SCH#2005022144. Draft, February 2005. P. 3-109.

¹⁶⁰ County of El Dorado. *Draft Mitigated Negative Declaration – Bell Woods Project*. SCH#2005032044. Draft, February 2005. P. 3-103.

¹⁶¹ County of El Dorado. *Initial Study and Mitigated Negative Declaration – Hawk View Project*. SCH#2005012107. Draft, January 2005. Pp. 3-76 and 3-77.

¹⁶² County of El Dorado. *Mitigated Negative Declaration – Bell Ranch Project*. SCH#2005022144. Draft, February 2005. P. 3-117.

¹⁶³ County of El Dorado. *Draft Mitigated Negative Declaration – Bell Woods Project*. SCH#2005032044. Draft, February 2005. P. 3-110.

¹⁶⁴ County of El Dorado. *Initial Study and Mitigated Negative Declaration – Hawk View Project*. SCH#2005012107. Draft, January 2005. P. 3-77.

¹⁶⁵ CTA. Draft Engineering Report for Bell Ranch, Facility Plan Report. Second Submittal May 2006.

¹⁶⁶ CTA. Draft Engineering Report for Bell Woods, Facility Plan Report. Second Submittal October 7, 2005.

that it is unlikely that recycled water would be available to serve these subdivisions in the future, due in part to the high cost of delivery systems and in part due to the reduced overall supply of recycled water that is anticipated in the future as a result of water conservation.

The 2005 MNDs did not include project level estimates of water demand, but reported that total water demand for the 1,458 units in the Bass Lake Hills Specific Plan area was 892,000 gallons per day, or 999.16 acre feet per year (afy); this estimate results in an assumed demand of 612 gpd per unit. Since the approval of the 2005 MNDs, estimated demands for water on a per unit basis have decreased due to increased water efficiency requirements in state and local building codes. As a result, as presented below, the total demand for potable water from the Hawk View and Bell Woods subdivisions, without use of recycled water for landscape irrigation, is now estimated to be less than the estimated demand reported in the 2005 MNDs with use of recycled water. As presented in **Table 17-1**, below, in summary, the potable water demand for Hawk View and Bell Woods subdivisions would total 106.86 afy, compared to a total demand of 115.13 afy assumed in the 2005 MNDs.

Table 17-1
Water Demand Summary Table

Project	2005 MND Assumed Demand (afy)	2015 EID Demand (afy)
Hawk View	78.12	62.94
Bell Woods	37.01	43.92
Total	115.13	106.86

Source: ESA, 2015

Table 17-2 provides a detailed calculation of the potable water demand for the Hawk View subdivision. Using current EID water demand calculation factors, the demand for the Hawk View subdivision would be 62.94 afy. By comparison, assuming 612 gpd per unit, the 2005 MND assumed a demand of 78.12 afy (or 69,745 gpd).

Table 17-2
Hawk View Potable Water Demand

2015 EID Water Demand Category	Units	Current Factor (af/du)	Conservation Applied	Factor Use (af/du)	Total Demand (af/y)
3-Acre Custom Estate Lot 3 acres		3.48	10%	3.13	0
1-Acre Custom Home Lot 1 acre		1.16	10%	1.04	0
¼ and ½-Acre Hillside Lot	16	0.87	8%	0.8	12.8
8,000 to 10,000 SF Lot	62	0.55	5%	0.53	32.86
5,000 to 7,000 SF Lot	36	0.50	5%	0.48	17.28
Age Restricted Large Lot		0.50	5%	0.48	0
Age Restricted Small Lot		0.50	5%	0.48	0
Total Acre Feet per Year	114				62.94
Total Gallons per Day					56,189.51

Table 17-3 provides a detailed calculation of the potable water demand for the Hawk View subdivision. Using current EID water demand calculation factors, the demand for the Hawk View subdivision would be 43.92 afy. By comparison, assuming 612 gpd per unit, the 2005 MND assumed a demand of 37.01 afy (or 33,037 gpd).

The analysis in the tables and text above show that removal of the recycled water requirement for the Bell Woods and Hawk View subdivisions as proposed in the COA Amendments would not increase potable water demand beyond the amount originally allocated for the subdivisions. Because the proposed COA Amendments would not increase potable water demand, the proposed project would not result in any new significant effects, or substantially increase the severity of any significant effects.

Table 17-3
Bell Woods Potable Water Demand

2015 EID Water Demand Category	Units	Current Factor (af/du)	Conservation Applied	Factor Use (af/du)	Total Demand (af/y)
3-Acre Custom Estate Lot 3 acres		3.48	10%	3.13	0
1-Acre Custom Home Lot 1 acre	3	1.16	10%	1.04	3.12
¼ and ½-Acre Hillside Lot	51	0.87	8%	0.8	40.8
8,000 to 10,000 SF Lot		0.55	5%	0.53	0
5,000 to 7,000 SF Lot		0.50	5%	0.48	0
Age Restricted Large Lot		0.50	5%	0.48	0
Age Restricted Small Lot		0.50	5%	0.48	0
Total Acre Feet per Year					43.92
Total Gallons per Day					39,209.46

Wastewater (Sewer) Service

Impacts to wastewater (sewer) service were also addressed in the 1992 BLRSA Final PEIR. The 1992 PEIR concluded that implementation of mitigation measure K02 would reduce the potentially significant impact to less than significant.¹⁶⁷ Mitigation measure K02 required developers to enter into service agreements with EID which may include developer installation of conveyance facilities. The 1995 Addendum added policies from the BLHSP that would help mitigate sewer impacts.

Part of the analysis in the 2005 MNDs was whether the subdivisions would necessitate any new or expanded wastewater treatment facilities. The 2005 MNDs included mitigation measures to reduce the impacts to less than significant and ensure that mitigation measures K01 and K02 from the 1992 PEIR would be implemented at the project level.¹⁶⁸⁻¹⁶⁹⁻¹⁷⁰ As further affirmed in the 2005 MNDs, the BLHSP would not conflict with applicable CVRWQCB requirements or standards, and the proposed facilities would fully accommodate the sewer flows anticipated from the proposed development. The 1992 BLRSA Final PEIR and the 2005 MNDs concluded that less-than-significant wastewater (sewer) impacts would result from implementation of the BLHSP. Because the proposed COA Amendments would not result in any new or different land uses that would generate wastewater (e.g., residential, commercial, or industrial), there would be no change in the conclusions of the previous environmental documents. The proposed COA Amendments would not result in any new or substantially more severe impacts related to wastewater (sewer) service as compared to the prior CEQA documents.

¹⁶⁷ County of El Dorado. *Bass Lake Road Study Area Program Environmental Impact Report – Draft* (SCH#90020375). June 14, 1991. P. K-9.

¹⁶⁸ County of El Dorado. *Mitigated Negative Declaration – Bell Ranch Project*. SCH#2005022144. Draft, February 2005. P. 3-111.

¹⁶⁹ County of El Dorado. *Draft Mitigated Negative Declaration – Bell Woods Project*. SCH#2005032044. Draft, February 2005. P. 3-103.

¹⁷⁰ County of El Dorado. *Initial Study and Mitigated Negative Declaration – Hawk View Project*. SCH#2005012107. Draft, January 2005. P. 3-75.

Solid Waste

The 1992 BLRSA Final PEIR evaluated impacts related to solid waste and concluded that implementation of mitigation measure K07 would reduce impacts to a less-than-significant level.¹⁷¹ Mitigation measure K07 discusses the need for additional landfill capacity. The 1995 Addendum noted that the decreased anticipated number of dwelling units would decrease the amount of solid waste that would be generated by the BLHSP.¹⁷² The 2005 MNDs indicated that there is ample available and planned capacity at the Lockwood Landfill to accommodate County needs into the foreseeable future (El Dorado County, 2003, as cited in the Hawk View Project IS/MND, January 2005). As of April 2015, the landfill has a capacity of 60(10⁶) yards (http://ndep.nv.gov/bwm/landfill_lockwood.htm, accessed on April 13, 2015), indicating that capacity remains available to serve the project site. Because the proposed COA Amendments would not result in any new or different land uses that would generate solid waste (e.g., residential, commercial, or industrial), there would be no change in the conclusions of the previous environmental documents. While available capacity exists to dispose of solid waste associated with the BLHSP, the County has also recently embarked on preparation of a 2010 Action Plan that seeks to achieve a 75% landfill diversion rate, which would further reduce the less-than-significant impacts associated with the BLHSP. The proposed COA Amendments would not result in any new or substantially more severe impacts related to solid waste as compared to the prior CEQA documents.

Gas, Electricity, and Telephone

The 1992 BLRSA Final PEIR evaluated impacts to gas and electricity and concluded that implementation of mitigation measure K03 would reduce potential impacts to less than significant.¹⁷³ The analysis also concluded that implementation of mitigation measure K04 would reduce potential impacts related to telephone service to a less than significant level.¹⁷⁴ The 2005 MNDs identified that, natural gas, telephone, and cable infrastructure would be extended to the proposed land uses within the BLHSP area. Further, PG&E has indicated that gas and electric service can be extended to the site from distribution mains through El Dorado Hills.¹⁷⁵ While extension agreements with developers, in accordance with PUC regulations, would be required, the BLHSP project's effects on electrical, natural gas, and telephone service were studied in the 1992 PEIR and mitigation measures were incorporated that reduce the level of potential impact to a less-than-significant level. The proposed COA Amendments would not result in any new or substantially more severe impacts related to gas, electricity, and telephone as compared to the prior CEQA documents.

4. Conclusions

As described in the text and table above, changes introduced by the proposed project and/or new circumstances relevant to the project would not, as compared to the prior CEQA documents, result in a new significant impact or significant impacts that are substantially more severe than significant impacts previously disclosed. In addition, there is no new information of substantial importance showing that the project would have one or more significant effects not previously discussed or that any previously examined significant effects would be substantially more severe than significant effects shown in the prior CEQA documents. Nor is there new information of substantial importance showing (i) that mitigation measures or alternatives previously found not to be feasible would in fact be feasible, and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative or (ii) that mitigation measures or alternatives considerably different from those analyzed in the prior CEQA documents

¹⁷¹ County of El Dorado. *Bass Lake Road Study Area Program Environmental Impact Report – Draft* (SCH#90020375). June 14, 1991. P. K-15.

¹⁷² County of El Dorado, *Addendum to the Bass Lake Road Study Area Program EIR* (SCH#90020375), certified November 7, 1995. P. 61.

¹⁷³ County of El Dorado. *Bass Lake Road Study Area Program Environmental Impact Report – Draft* (SCH#90020375). June 14, 1991. P. K-10.

¹⁷⁴ County of El Dorado. *Bass Lake Road Study Area Program Environmental Impact Report – Draft* (SCH#90020375). June 14, 1991. P. K-11.

¹⁷⁵ County of El Dorado. *Bass Lake Road Study Area Program Environmental Impact Report – Draft* (SCH#90020375). June 14, 1991. P. K-9.

would substantially reduce one or more significant effects, but the proponents decline to adopt the mitigation measure or alternative.

Specific Plan and Standard Mitigation Measures

Specific Plan Section 5.1, General Public Service and Facility Standards

1. Public facilities, such as fire stations and utility substations, shall be located, designed and oriented in a manner which is harmonious with adjoining residential development and reduce impacts associated with noise, nighttime illumination, and odors (See Section 8.9 of the Design Guidelines).
2. With the exception of existing high voltage transmission lines, all new electrical and communication facilities shall be installed underground; however, pad-mounted transformers and electrical substations are permitted. This policy shall not apply to 5-acre parcels or larger.
3. To minimize visual impacts, the architectural and site design for all public facilities, including fire station, pump stations, and electrical substations, shall conform with Section 8.9 of the Design Guidelines.
4. Public facilities and services shown in this Plan, including parks, roads, and infrastructure, shall be offered for dedication in conjunction with the residential subdivision process. Bass Lake Road, primary local roads, and infrastructure trunklines may be constructed in advance of village development, as needed.

Specific Plan Section 5.2.3 Water Conservation Standards

1. Landscaping, excluding lawn areas in all public parks and street rights-of-way, shall be achieved with low water-using native plants and trees and irrigation systems which utilize the best available technology for water conservation and comply with State and local regulations.
2. Construction of residential projects shall be encouraged to utilize low water-using plants and irrigation and plumbing systems which utilize the best available technology for water conservation and comply with State or local regulations.
3. Established indigenous plants, trees, and shrubs shall be protected as much as possible.
4. Efficient irrigation systems which minimize runoff and evaporation and maximize the water that will reach plant roots shall be utilized; i.e., drip irrigation, soil moisture sensors and automatic irrigation systems, should be used to the maximum extent possible.

Specific Plan Section 5.6.2, Recreation Facility Standards

3. Parks shall be landscaped with drought-tolerant and fire resistant plant species, excluding lawn areas, to the maximum extent possible to reduce irrigation and maintenance requirements.
4. Parks shall comply with El Dorado County Water Conserving Landscape Standards (Resolution 69-93).

Prior CEQA Mitigation Measures

1992 BLRSA Final PEIR

K01 Those projects which are not currently within the District will be required to petition LAFCO for annexation. As a responsible public agency, LAFCO cannot approve such annexation unless it reasonably concludes that there is adequate guarantee that future water will be available to serve new development. Each project will be required to obtain an "ability to serve" letter from EID. Such a letter cannot be issued until sufficient water supply is available and the moratorium is lifted. Pursuant to Resolution No. 90-39, EID has indicated that it will only issue water meters

when new sources of water become available. Consequently, service to the project area will not have a significant impact on the cost of adequacy of service within the District.

K02 Presently, proposed capacity with programmed expansions are adequate to handle anticipated growth in the near term, as described above. For the long term, other options will need to be examined by EID to assure that capacity for ultimate needs is available. In accordance with EID and PUC regulations, developers will be required to enter into the necessary service agreement(s) with EID. Included in these agreements will be developer installation of conveyance facilities in accordance with EID requirements. Parcels not already within the District will require annexation.

K03 Developers will need to enter into the required agreements with PG&E for the provision of services to the project in accordance with PUC regulations. Developers will need to be responsible for relocation or rearrangement of the existing gas and/or electric facilities required to facilitate each development.

K04 In accordance with Pacific Bell and PUC regulations, developers will be responsible for any relocation costs of existing overhead telephone facilities, and will provide the underground supporting structure to each lot.

K07 El Dorado Disposal Service has indicated that pickup services can be extended to the new development in the study area. The El Dorado County Environmental Management Department has indicated that recent actions of the Board of Supervisors allow for the expansion of the disposal site that provides capacity to the year 2012.

2005 Bell Ranch MND

MM 3.15.1: The Bell Ranch project shall construct water infrastructure to service the project the satisfaction the EID.

MM 3.15.2: The applicant shall submit two copies of a Facility Plan Report (FPR) and appropriate fees to El Dorado Irrigation District for review and approval. The FPR shall address the expansion of the water and sewer facilities and the specific fire flow requirements for all phases of the project.

MM 3.15.3: There is an existing 8-inch sewer line in Bertella Road in the Bar J subdivision and there is an existing 8-inch sewer line in Morrison Road. This sewer line has adequate capacity at this time. In order to receive service from this line, an extension of adequate size shall be constructed.

MM 3.15.4: Proposed water lines, sewer lines and related facilities shall be located within an easement accessible by conventional maintenance vehicles. When the water lines or sewer lines are within streets, they shall be located within the paved section of the roadway. No structures shall be permitted within the easements of any existing or proposed facilities. EID must have unobstructed access to these easements at all times, and does not generally allow water or sewer facilities along lot lines.

MM 3.15.5: Easements for any new EID facilities constructed by the project shall be granted to EID prior to EID approval of water and/or sewer improvement plans, whether onsite or offsite. Due to either nonexistent or prescriptive easements for some older facilities, any existing onsite EID facilities that will remain in place after the development of this property must also have an easement granted to EID.

2005 Bell Woods MND

MM 3.15.1: The project proponent shall construct an extension from the 18-inch water line in the Hollow Oak subdivision through the Bell Woods site to the 12-inch water line to the east, just south of the Bridlewood sewer lift station. This extension must be an 18-inch diameter pipe. In order to provide this fire flow and receive service, a water line extension connecting to the proposed 18-inch water line in the Hollow Oak subdivision must be constructed. A static hydraulic grade line of 1,474 feet should be used to determine the pipe class and an operating hydraulic grade line of 1,425 feet should be used in the Facility Plan Report.

MM 3.15.2:¹⁷⁶ The project shall use recycled water for landscape irrigation. There is a 16-inch recycled water line near the southwest corner of the project location. The project may require other extensions of the recycled water system to receive service. This shall be addressed in the Facility FPR. The following items shall be submitted to EID for review and approval prior to provision of recycled water:

1) Non-Residential Sites:

- a. A User Reclamation Plan (URP) prepared in accordance with the Recycled Water On-site Design and Construction Standards; and
- b. On-site recycled water landscape plans submitted with improvement plans.

2) Residential Sites:

- a. An Engineer's Report as described in California Code of Regulations, Title 22. EID will work with the developer in obtaining State of California, Department of Health Services approval of the Engineer's Report; and
- b. On-site recycled water landscape plans submitted for each individual home lot or standard plans to be used with production homes.

All costs shall be borne by the applicant.

MM 3.15.3: The applicant shall submit two copies of a FPR and appropriate fees to El Dorado EID for review and approval. The FPR shall address the expansion of the water, recycled water and sewer facilities and the specific fire flow requirements for all phases of the project.

MM 3.15.4: In order to receive service from the proposed 6-inch sewer line in the Hollow Oaks subdivision, an extension of facilities of adequate size shall be constructed. Further analysis of the off site sewer shall need to be addressed in the FPR.

MM 3.15.5: Proposed water lines, sewer lines and related facilities shall be located within an easement accessible by conventional maintenance vehicles. When the water lines or sewer lines are within streets, they shall be located within the paved section of the roadway. No structures shall be permitted within the easements of any existing or proposed facilities. EID must have unobstructed access to these easements at all times, and does not generally allow water or sewer facilities along lot lines.

MM 3.15.6: Easements for any new EID facilities constructed by the project shall be granted to EID prior to EID approval of water and/or sewer improvement plans, whether onsite or offsite. Due to either nonexistent or prescriptive easements for some older facilities, any existing onsite EID facilities that will remain in place after the development of this property must also have an easement granted to EID.

2005 Hawk View MND

MM 3.15.1: The Hawk View project shall construct a 12-inch water line extension from the existing 24-inch line in Bass Lake Road to the existing 18-inch line to the west of the project site. A static hydraulic grade line of 1,474 feet shall be used to determine the pipe class and an operating hydraulic grade line of 1,462 feet shall be used in the Facility Plan Report.

MM 3.15.2:¹⁷⁷ The project shall use recycled water for landscape irrigation. There are proposed 6-inch recycled water lines in Damasco Drive, to the west of Hawk View, and in Beckett Drive (Serrano Village G - Unit 10), to the north of Hawk View. The applicant shall construct a recycled water line extension and pressure reducing station to the

¹⁷⁶ Per a letter from EID to Norm Brown dated November 18, 2014, EID no longer requires the use of recycled water.

¹⁷⁷ Per a letter from EID to Norm Brown dated November 18, 2014, EID no longer requires the use of recycled water.

new Bridlewood tank to the east to serve the project site. The applicant shall also connect this new recycled water line to the 6-inch recycled water lines in Daminco Drive and Beckett Drive. The hydrologic grade line for the existing recycled water distribution facilities is 1,389 feet above mean sea level. The project may require other extensions of the recycled water system to receive service.

The following items shall be submitted to EID for review and approval prior to provision of recycled water: 1) An Engineer's Report as described in California Code of Regulations, Title 22; and 2) On-site recycled water landscape plans submitted for each individual home lot or standard plans to be used with production homes.

MM 3.15.3: The applicant shall submit two copies of a Facility Plan Report and appropriate fees to El Dorado Irrigation District for review and approval.

MM 3.15.4: Construct an extension of facilities of adequate size to the existing 12-inch sewer line, South Upland Trunk Sewer, located to the west of the project site.

MM 3.15.5: Proposed water lines, sewer lines and related facilities shall be located within an easement accessible by conventional maintenance vehicles. When the waterlines are within streets, they shall be located within the paved section of the roadway. No structures shall be permitted within the easements of any existing or proposed facilities. EID must have unobstructed access to these easements at all times, and does not generally allow water or sewer facilities along lot lines.

MM 3.15.6: Easements for any new EID facilities constructed by the project shall be granted to the EID prior to EID approval of water and/or sewer improvement plans, whether onsite or offsite. Due to either nonexistent or prescriptive easements for some older facilities, any existing onsite EID facilities that will remain in place after the development of this property must also have an easement granted to EID.

2016 Mitigation Measures

No new mitigation measures.

Environmental Issue Area	Where Impact Was Analyzed in Prior Environmental Documents.	Do Proposed Changes Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information of Substantial Importance?	Prior Environmental Documents Mitigations Implemented or Address Impacts?
18. Mandatory Findings of Significance.					
a. Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of an endangered, rare or threatened species or eliminate important examples of the major periods of California history or prehistory?	PEIR, pp. F-16 to F-20 and N-3 to N-4; Addendum, pp. 25 to 81 and 102 to 103; Bell Ranch, p. 3-119; Bell Woods, p. 3-111; Hawk View, p.3-78.	No	No	No	Yes
b. Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	PEIR, pp. O-1 to O-6; Bell Ranch, p. 3-119 and 4-1 to 4-3; Bell Woods, 3-111 and 4-1 to 4-3; Hawk View, 3-78 and 4-1 to 4-3.	No	No	No	Yes
c. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	PEIR, pp. B-2 to B-15; Bell Ranch, p. 3-119; Bell Woods, p.3-111; Hawk View, p.3-78.	No	No	No	Yes

Discussion:

As discussed below, Environmental Issue Areas 18(a) and 18(c) represent summaries of information discussed elsewhere in this document. The focus of the discussion below is on Cumulative Impacts, addressed in Environmental Issue Area 18(b) and discussed in the 1992 BLRSA Draft PEIR in Section O, pages O-1 through O-6. The 2005 MNDs also evaluated cumulative impacts, each one in Section 4.0 of the MNDs.

1. Relevant Changes to the Project

The proposed changes to the project include revisions to three approved tentative maps and COAs. None of these changes would allow for greater development than previously analyzed and approved. The amended COAs, if approved, would refine the sequence and timing of required infrastructure improvements, changing the order in which improvements are made. In addition, minor alterations to infrastructure improvements are proposed that would facilitate incremental development of the tentative maps. In some cases, conditions for unneeded improvements or infrastructure would be removed from the three maps. In other cases, new conditions were added to address new or existing impacts.

2. Relevant Changes in Circumstances

The cumulative impact analysis in the 1992 PEIR examined planned growth to the year 2010.¹⁷⁸ Background studies estimated that the population of El Dorado County would increase by approximately 81,000 persons between 1990 and 2010.¹⁷⁹ According to U.S. Census Bureau data, the population of El Dorado County in 1990 was 125,995¹⁸⁰ and the

¹⁷⁸ County of El Dorado. *Bass Lake Road Study Area Program Environmental Impact Report – Draft* (SCH#90020375). June 14, 1991. P. O-1.

¹⁷⁹ County of El Dorado. *Bass Lake Road Study Area Program Environmental Impact Report – Draft* (SCH#90020375). June 14, 1991. P. O-1.

¹⁸⁰ U.S. Census Bureau. *California Population of Counties by Decennial Census: 1900 to 1990*. March 27, 1995.

population in 2010 was 181,057.¹⁸¹ Thus, the population of El Dorado County under actual conditions fell short of the estimate used for analysis in the 1992 PEIR. Since the preparation of the 1992 PEIR, additional projects have been approved or are pending in El Dorado County. However, the growth within the County since the 1992 PEIR has not met or exceeded the level of growth assumed in the 1992 PEIR's cumulative analysis.

3. Comparative Impact Discussions

The 1992 PEIR noted that the BLHSP would result in several cumulative significant impacts. Each of those cumulative impacts is discussed below.

Vegetation and Wildlife

The 1992 PEIR noted that conversion of rural land to an urban condition would displace species and cause impacts to natural conditions through the loss of habitat, introduction of new predators, use of pesticides and herbicides, and improper care of existing vegetation. Because the inherent incompatibility between residential land uses and natural area could not be mitigated, this impact was determined to be cumulatively significant and unavoidable. Today, much of the land within the BLHSP has not yet been developed and substantial areas of natural open space remain. However, the proposed changes to the tentative maps and COAs would not cause a worsening of impacts to species, habitat, or natural communities. Thus, the proposed COA Amendments would not exacerbate or make substantially more severe the cumulative biological resources impacts identified in the prior CEQA documents.

Air Quality

The 1992 EIR disclosed that the BLHSP would contribute to cumulative impacts related to air pollutant emissions. As discussed in Environmental Issue Area 3, mitigation measures have been applied in the prior CEQA documents and new mitigation measures have been added within this Addendum to comply with existing practices. While air quality impacts would be significant in the cumulative setting, there would no new significant cumulative air quality impacts, and no substantial increase in severity of any previously identified significant cumulative air quality impacts.

Land Use

The 1992 PEIR noted that the BLHSP, along with several other development proposals, would result in the conversion of undeveloped rural land to a mixture of urban land uses. The changes were determined to be significant because they would replace rural areas with urban and suburban land uses. Today, much of the land within the BLHSP has not yet been developed and substantial areas of natural open space remain. However, the proposed changes to the tentative maps and COAs would not cause any new significant cumulative land use impacts, and no substantial increase in the severity of any previously identified significant land use impacts.

Population and Housing

The 1992 PEIR determined that the BLHSP, along with several other development proposals, would result in approximately 48,536 new residents within the cumulative setting.¹⁸² Because of the magnitude of the impacts to vegetation and wildlife, air quality, traffic, water supply, and aesthetics, the 1992 PEIR concluded that impacts related to population and housing would be significant and unavoidable. The proposed changes to the tentative maps and COAs would not cause any change in the amount of new residents or dwelling units within the BLHSP area or the cumulative setting. Thus, the proposed COA Amendments would result in no new significant cumulative impacts, and no substantial increase in the severity of any previously identified significant population and housing impacts.

¹⁸¹ U.S. Census Bureau. El Dorado County QuickFacts from the US Census Bureau. Last revised December 2, 2015. Available: <http://quickfacts.census.gov/qfd/states/06/06017.html>.

¹⁸² County of El Dorado. *Bass Lake Road Study Area Program Environmental Impact Report – Draft* (SCH#90020375). June 14, 1991. P. O-4.

Schools

The 1992 PEIR observed that all area school districts were impacted, and that payment of impact fees would help mitigate impacts. However, because there was no guarantee that new school facilities would be constructed, overcrowding was anticipated to continue. The proposed changes to the tentative maps and COAs would not cause any change in the amount of new residents, which means that there would not be additional students generated by the proposed COA Amendments. Thus, the proposed COA Amendments would result in no new significant cumulative impacts, and no substantial increase in the severity of any previously identified significant impacts related to schools.

Traffic

The 1992 PEIR determined that anticipated growth in the cumulative area would contribute to overall volume of traffic on Highway 50 and roadways. As more fully discussed in Environmental Issue Area 16, the 2014 Traffic Addendum (see Appendix C of this Addendum) updated the 1992 analysis and evaluated the potential traffic impacts associated with the proposed COA Amendments and concluded that the proposed COA Amendments would not create a new significant impact, nor a substantially more severe significant impact, compared to the prior CEQA documents. Thus, the proposed COA Amendments would not result in any new significant cumulative impacts nor any substantial increase in the severity of any previously identified significant cumulative impacts related to traffic.

Water Supply

The 1992 PEIR acknowledged that sufficient water to supply new development had not been identified, resulting in cumulative impacts to water supply to be significant and unavoidable. Since that time, water supply has been identified for the BLHSP development. While water supply continues to be an issue for development in California due to drought conditions, the proposed COA Amendments would not increase the amount of water required to serve development of the BLHSP. Thus, the proposed COA Amendments would not result in any new significant cumulative impacts nor any substantial increase in the severity of any previously identified significant cumulative impacts related to water supply.

Visual and Aesthetic Resources

The 1992 PEIR determined that development of the BLHSP as well as other development anticipated in the cumulative area would result in permanent changes from rural and largely undeveloped, to a typical urban residential environment, and that these changes would be cumulatively significant and unavoidable. None of the proposed COA Amendments would result in any new or additional impacts to visual and aesthetic resources. Thus, the proposed COA Amendments would not result in any new significant cumulative impacts nor any substantial increase in the severity of any previously identified significant cumulative impacts related to visual and aesthetic resources.

4. Conclusions

As described in the text and tables above, changes introduced by the proposed COA Amendments and/or circumstances relevant to the project would not, as compared to prior CEQA document, result in a new significant impact or significant impacts that are substantially more severe than significant impacts previously disclosed. In addition, there is no new information of substantial importance showing that the proposed COA Amendments would have one or more significant effects not previously discussed or that any previously examined significant effects would be substantially more severe than shown in the previous CEQA document. Nor is there new information of substantial importance showing (i) that mitigation measures or alternatives previously found not to be feasible would in fact be feasible, and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative or (ii) that mitigation measures or alternatives considerably different from those analyzed in the previous CEQA documents would substantially reduce one or more significant effects, but the proponents decline to adopt the mitigation measure or alternative.

Standard Mitigation Measures

None.

1992 EIR Mitigation Measures

None.

2016 Mitigation Measures

None.

Appendix A

Biological Resources Letter Report





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February 27, 2015

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Subject: Bass Lake Hills - Condition of Approval Amendments, El Dorado County – Biological Constraints

Introduction

BL Road, LLC, is seeking approval of a range of amendments to the prior-approved conditions of approval for three tentative maps within the Bass Lake Hills Specific Plan area of El Dorado County. The amended conditions of approval (COA), if approved, would refine the sequence and timing of required infrastructure improvements, and would add several interim infrastructure improvements that would facilitate incremental development of the tentative maps. Pursuant to CEQA, El Dorado County is the lead agency and responsible for approval or certification of the adequacy of any CEQA document.

BL Road requested assistance from Environmental Science Associates (ESA) to prepare CEQA documents to support the County's consideration of the proposed amendments, as well as to coordinate and support regulatory permitting for the relevant infrastructure.

As part of this process, BL Road, LLC requested that ESA prepare a review of "off-site" improvements for the project and do the follow biological resource study tasks:

- Review existing biological resources documentation;
- Conduct an updated search of the California Natural Diversity Database (CNDDDB) and other relevant databases;
- Conduct a reconnaissance-level survey of the study area to characterize biological resources, including the potential for the study area to support sensitive biological resources (sensitive habitats and special-status species); and
- Prepare a letter report summarizing the results of the biological resources investigation.

This report analyzes biological resource constraints associated with implementation of the "off-site" improvements for the project. The purpose of this constraints-level analysis is to document for BL Road information on existing biological resources in the proposed project study area as well as provide information on potential biological and regulatory constraints associated with implementation of the proposed project. This report is intended to support the preparation of required California Environmental Quality Act (CEQA)



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environmental review documentation and other regulatory compliance efforts that may be needed to proceed with the proposed project.

Project Location

The project is in El Dorado County between the communities of El Dorado Hills and Cameron Park, on the lower western slope of the foothills of the Sierra Nevada. Specifically the project is located on the Clarksville, CA U.S.G.S. 7.5' map in T9N/R8E: Section 1; T9N/R9E: Sections 5 and 6; and T10N/R9E: Sections 31 and 32 (see **Figure 1** and **Figure 2**).

Data Sources / Methodology

Biological resources within the study area were identified by ESA biologist Joshua Boldt through a field reconnaissance survey conducted on January 29, 2015. Prior to the survey, a review of pertinent literature and database queries were conducted for the study area. The primary sources of data referenced for this section include the following:

- “Federal Endangered and Threatened Species that may be Affected by Projects in the Clarksville, California 7.5-Minute Topographic Quadrangle” (United States Fish and Wildlife Service [USFWS], 2015a);
- USFWS Critical Habitat for Threatened and Endangered Species (online mapping program) (USFWS, 2015b);
- California Natural Diversity Database (CNDDDB), Rarefind 5 computer program (v5.0)(California Department of Fish and Wildlife [CDFW], 2015a);
- California Native Plant Society (CNPS) Inventory of Rare and Endangered Plants (v8-02) (CNPS, 2015);
- Special Vascular Plants, Bryophytes, and Lichens List (CDFW, 2015b);
- Special Animals List (CDFW, 2015c); and
- National Wetlands Inventory (USFWS, 2015b).

The Bass Lake Hills development has been the subject of a series of biological and general environmental studies over the last three decades. In addition, adjacent properties, with which the current study area overlaps, have been the subject of similar studies. The following studies related to the Bass Lake Hills development were reviewed in preparation of this report:

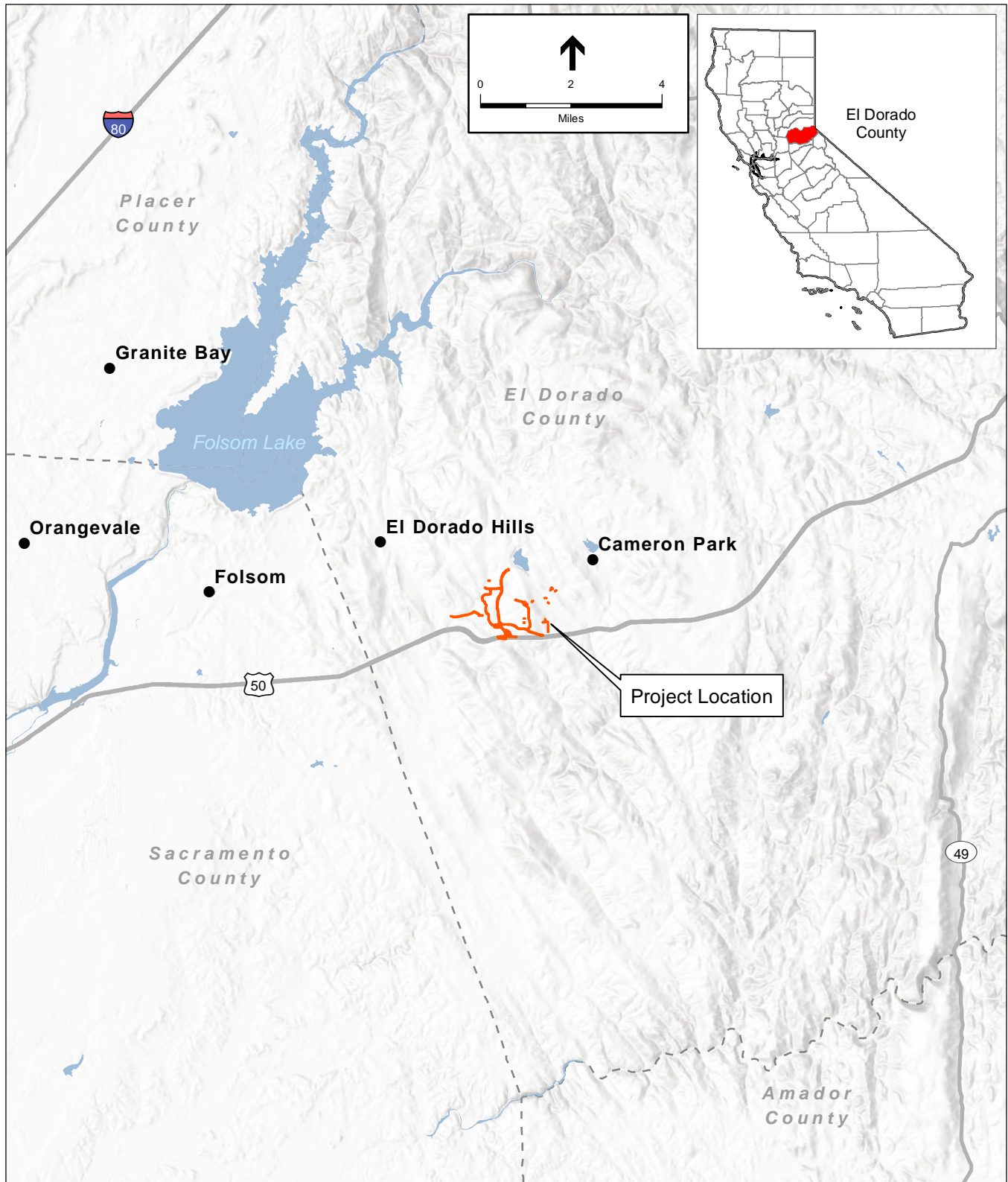
- Preliminary Assessment of Wetland/Biotic Resources for the Bass Lake Road General Development Plan Program EIR (Sugnet & Associates Environmental Consultants, 1991);
- Bass Lake Road Study Area Program EIR (R.C. Fuller Associates, 1991);
- Bass Lake Road Study Area Final Program EIR (R.C. Fuller Associates, 1992);



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- Hollow Oak Wetland Delineation (Kelley & Associates Environmental Sciences, Inc., 1992);
- Bass Lake Hills Specific Plan (Randy M. Chafin, 1995a);
- Draft Program EIR Addendum for the Bass Lake Hills Specific Plan (Randy M. Chafin, 1995b);
- Addendum to the Bass Lake Road Study Area Program EIR(Randy M. Chafin, 1995c);
- Initial Study and Mitigated Negative Declaration for the Hawk View Project (El Dorado County, 2005a);
- Draft Initial Study and Mitigated Negative Declaration for the Bell Woods Project (El Dorado County, 2005b);
- Initial Study and Mitigated Negative Declaration for the Bell Ranch Project (El Dorado County, 2005c);
- Draft Initial Study and Mitigated Negative Declaration for the Bass Lake Road Reconstruction and Surface Improvements Project (El Dorado County, 2006);
- Bell Ranch Streambed Alteration Agreement (California Department of Fish and Game, 2006);
- Bell Ranch Nationwide Permit Pre-construction Notification (U.S. Army Corps of Engineers, 2007a); and
- Bell Woods Jurisdictional Determination (U.S. Army Corps of Engineers, 2007b);
- Bell Woods Jurisdictional Determination (U.S. Army Corps of Engineers, 2012)..

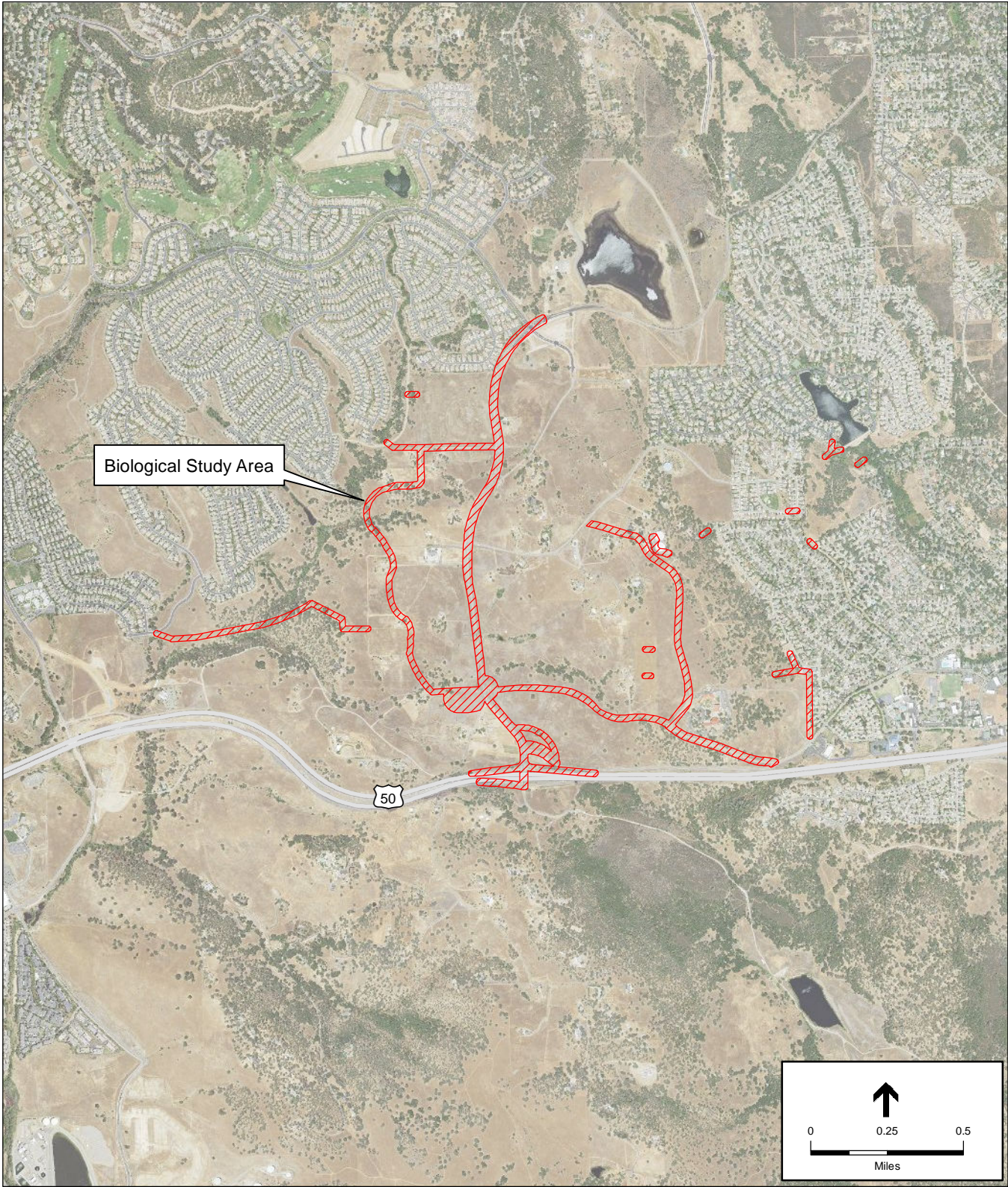
The reconnaissance survey was conducted on foot and existing habitat types, plants, and wildlife species within and adjacent to the study area were recorded. Plant communities and wildlife habitats were identified using aerial photo interpretation and field reconnaissance. Prior to the field survey, special-status species characteristics and habitat requirements were reviewed to aid in field recognition of suitable habitats. During the survey, habitats were evaluated for their potential to support regionally occurring special-status species and the presence of any other biologically sensitive resources such as wetlands, riparian habitat, or drainages. A formal wetland delineation was not conducted. Based on the information collected, ESA identified specific biological constraints that could potentially be encountered by future development in the study area.



SOURCE: ESRI, 2015

Bass Lake Hills Project . 140843

Figure 1
Project Location



SOURCE: NAIP, 2014

Bass Lake Hills Project . 140843
Figure 2
Study Area



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Environmental Setting

Regional Setting

The project is in western El Dorado County between the communities of El Dorado Hills and Cameron Park. Regionally, the study area is located in the Sierra Nevada foothills, just west of the Sierra Nevada Range. Within the Sierra Nevada foothills ecological section, the site is located in the Lower Foothills Metamorphic Belt subsection (Miles and Goudey, 1997). Natural plant communities of the study area region include those that are prevalent to the Sierra Nevada foothills, such as blue oak woodlands, chamise chaparral, and mixed oak/foothill pine woodlands. The region has a hot and subhumid climate, with mean annual temperatures ranging from 52 to 62 degrees Fahrenheit and average annual precipitation is approximately 20 to 40 inches. For site-specific climate information, data from the Western Regional Climate Center for the Folsom Dam, California weather station indicates that average annual precipitation is 23.92 inches. The average maximum annual temperature is 74.1 degrees (F) and average minimum annual temperature is 49.4 degrees (F) (Western Regional Climate Center, 2015).

Plant Communities and Wildlife Habitats

Wildlife habitats are generally described in terms of dominant plant species and plant communities along with landform, disturbance regime, and other unique environmental characteristics. The wildlife habitats described in this section are based on the California Department of Fish and Wildlife's (CDFW) *A Guide to Wildlife Habitats* (Mayer and Laudenslayer, 1988) that is used in CDFW's California Wildlife Habitat Relationships System. The California Wildlife Habitat Relationships (CWHHR) habitat classification scheme has been developed to support the CWHHR System, a wildlife information system and predictive model for California's regularly occurring birds, mammals, reptiles and amphibians.

Wildlife habitats generally correspond to plant communities. Plant communities are assemblages of plant species that occur together in the same area and are repeated across landscapes. Both species composition and relative abundance define them. Plant communities within the study area were identified using field reconnaissance and aerial photography. Within CDFW's current vegetation classification system, vegetation alliances are the scientifically derived hierarchical class that corresponds best with plant communities and are designed to be the unit for conservation of rare or threatened plant communities (Sawyer et al., 2009). Vegetation alliances typically represent a much finer scale of vegetation description than wildlife habitats, but correspond appropriately with one or several wildlife habitat types.

Table 1 and **Figure 3** summarize the extent of wildlife habitats in the study area.



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TABLE 1
STUDY AREA WILDLIFE HABITATS

Wildlife Habitat	Acres
Annual Grassland	69.20
Blue Oak Woodland	11.77
Chaparral	1.53
Valley Foothill Riparian	0.39
Urban/Residential	37.92
Disturbed	3.20
Freshwater Emergent Wetland	0.01
Seasonal Wetland (Disturbed)	0.25
Riverine	0.18
Total:	124.45

SOURCE: ESA, 2015.

Upland Vegetative Communities

Annual Grassland

Annual grassland is dominated mostly by nonnative Mediterranean annual grasses such as wild oats (*Avena* spp.), bromes (*Bromus diandrus*, *B. hordeaceus*), ryegrass (*Festuca* spp.), and barleys (*Hordeum* spp.). This vegetation community includes native and nonnative forbs as well. Examples noted in the study area include lupines (*Lupinus* sp.), bluedicks (*Dichelostemma capitatum* ssp. *capitatum*), harvest brodiaea (*Brodiaea elegans* ssp. *elegans*), clovers (*Trifolium* spp.), broadleaf filaree (*Erodium botrys*), yellow starthistle (*Centaurea solstitialis*), vetch (*Vicia sativa*), and curly dock (*Rumex crispus*). Cover is typically dense and vegetation ranges from a few inches to four to five feet in height depending on the species and time of year. This vegetation community also forms the understory of many of the woodland communities in the study area.

Annual grassland that contains a mosaic of important wildlife habitat features may provide cover, foraging, and breeding habitat for a variety of wildlife species. Common wildlife species that use annual grassland include western fence lizard (*Sceloporus occidentalis*), common garter snake (*Thamnophis sirtalis*), California ground squirrel (*Spermophilus beecheyi*), western meadowlark (*Sturnella neglecta*), and a variety of raptors such as northern harrier (*Circus cyaneus*), red-tailed hawk (*Buteo jamaicensis*), and American kestrel (*Falco sparverius*).



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Blue Oak Woodland

Blue oak (*Quercus douglasii*) is the dominant tree species in this open woodland. Other species comprising a lesser component of the canopy include valley oak (*Quercus lobata*) and interior live oak (*Quercus wislizeni*). Generally these woodlands have an overstory of scattered trees, although the canopy can become nearly closed on better quality sites. The shrub layer is scattered and rarely extensive. Shrub species associated with this type include manzanita (*Arctostaphylos* spp.), poison oak (*Toxicodendron diversilobum*), and buck brush (*Ceanothus cuneatus*). The understory is mainly comprised of annual grassland vegetation.

Oak woodlands (including blue oak woodlands) are important wildlife habitats that provide abundant cover, foraging, nesting, and resting opportunities. Species common to this habitat include acorn woodpecker (*Melanerpes formicivorus*), oak titmouse (*Parus inornatus*), bushtit (*Psaltiriparus minimus*), white-breasted nuthatch (*Sitta carolinensis*), California scrub jay (*Aphelocoma californica*), western gray squirrel (*Sciurus griseus*), dusky-footed woodrat (*Neotoma fuscipes*), striped skunk (*Mephitis mephitis*), and black-tailed deer (*Odocoileus hemionus californicus*). Black-tailed deer use the woodland to forage and rest, and as a movement corridor to access other habitat types. Red-shouldered hawk (*Buteo lineatus*), red-tailed hawk, Cooper's hawk (*Accipiter cooperii*), and great horned owl (*Bubo virginianus*) may nest within this community and forage within it or within adjacent grasslands. Bats, such as fringed myotis (*Myotis thysanodes*), California myotis (*Myotis californicus*), and pallid bat (*Antrozous pallidus*) are likely to occur in oak woodlands as well. Reptile and amphibian species common to blue oak woodland include western fence lizard, western rattlesnake (*Crotalus viridis*), common kingsnake (*Lampropeltis getulus*), sharp-tailed snake (*Contia tenuis*), and California slender salamander (*Batrachoseps attenuatus*).

Chaparral

Coyote brush scrub is a common plant community in the region that establishes well in uplands adjacent to blue oak woodlands and annual grasslands. It is also often found in a mosaic with grasslands and oak woodlands in the hills east of the study area; however, within the study area it is limited in distribution to slopes adjacent to Highway 50. The chaparral within the study area has high cover of coyote brush (*Baccharis pilularis*) with an understory of yellow starthistle and annual grasses. Because of its proximity to Highway 50, this habitat type provides limited opportunities for wildlife species.

Valley Foothill Riparian

The vegetation of riparian habitats is quite variable and often structurally diverse. Usually, riparian habitat occurs as a narrow, often dense grove of broad-leaved, winter deciduous trees with a subcanopy tree layer and an understory shrub layer. In the study area, characteristic species include valley oak as the main canopy tree with white alder (*Alnus rhombifolia*) and willows (*Salix* spp.) forming the subcanopy. The understory consists of California blackberry (*Rubus ursinus*), Himalayan blackberry (*Rubus armeniacus*), poison oak, hoary coffeeberry (*Frangula*



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californica ssp. *tomentella*), California wild grape (*Vitis californica*), and a variety of grasses and forbs, including miner's lettuce (*Claytonia perfoliata*) and red maids (*Calandrinia ciliata*).

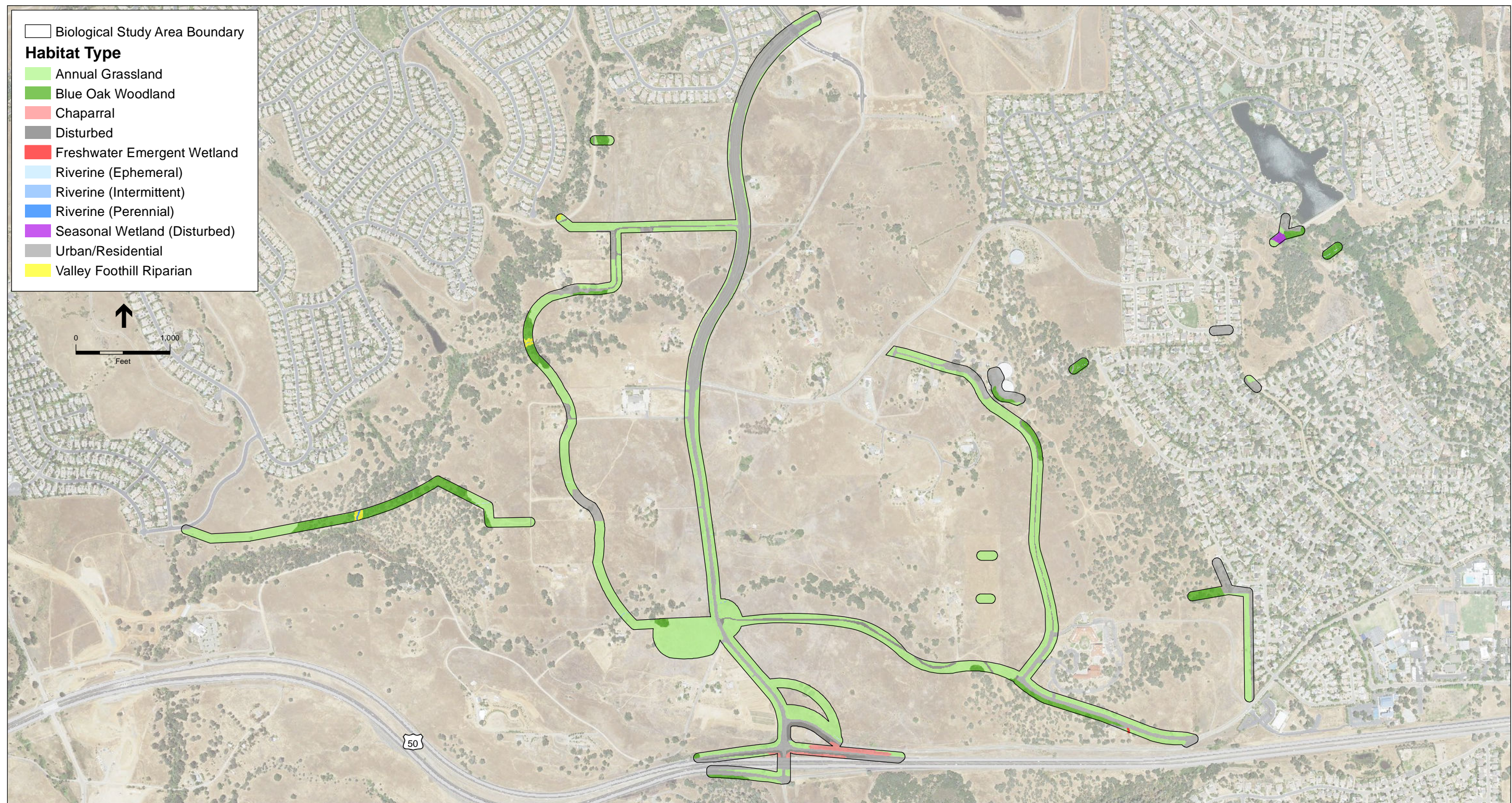
All riparian habitats have an exceptionally high value for many wildlife species. Such areas provide water, thermal cover, migration corridors, and diverse nesting and feeding opportunities. The shape of many riparian zones, particularly the linear nature of streams, maximizes the development of the ecotone which is highly productive for wildlife. A wide range of amphibians, reptiles, birds, and mammals utilize montane riparian habitat for food, cover and reproduction.

Urban/Developed

Urban/developed portions of the study area include paved roadways, parking lots, houses and other various developments. Urban areas are paved or otherwise developed and generally lack natural vegetation. Vegetation associated with developed areas consists of lawns and ornamental shrubs and trees.

Disturbed

Disturbed areas include unpaved roads and parking areas, as well as areas experiencing continual or ongoing disturbance.



SOURCE: ESA, 2015

Bass Lake Hills Project . 140843

Figure 3
Habitat Types



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Aquatic Plant Communities and Habitats

Freshwater Emergent Wetland

This wetland type is characterized by erect, rooted herbaceous hydrophytes. Dominant vegetation consists of perennial monocots such as cattail (*Typha latifolia*), nutsedge, (*Cyperus eragrostis*), and rushes (*Juncus* spp.).

The freshwater wetland in the study area is too small and isolated to support animal species typically found in this habitat type, but aquatic reptiles and amphibians such as garter snake (*Thamnophis* sp.) and Pacific chorus frogs may use this habitat.

Seasonal Wetland (Disturbed)

Seasonal wetlands are ephemeral wetlands that pond or remain flooded for extended periods during a portion of the year, often the wet season, then may dry in spring or early summer. The only seasonal wetland in the study area appears to be manmade. It appears to receive runoff from the surrounding residential development. The wetland is disturbed, with numerous user-created trails formed throughout the feature. Common species found in these types of features include spikerush (*Eleocharis macrostachya*), curly dock (*Rumex crispus*) and perennial ryegrass (*Festuca perennis*).

Seasonal wetlands may support a diversity of birds, invertebrates, amphibians, and few reptiles that may use the wetland for foraging, cover, and/or breeding. Common wildlife species that may use seasonal wetlands include common garter snake, Pacific chorus frog, and black phoebe (*Sayornis nigricans*).

Riverine

Riverine habitats are distinguished by intermittent or continually running water, and occur in association with a variety of terrestrial habitats. A number of stream channels are found within the study area, and are discussed in more detail in the section below.

Wetlands and Other Waters of the U.S.

Wetlands are ecologically complex habitats that support a variety of both plant and animal life. In a jurisdictional sense, the federal government defines wetlands in Section 404 of the Clean Water Act as “areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support (and do support, under normal circumstances) a prevalence of vegetation typically adapted for life in saturated soil conditions” (33 CFR 328.3[b] and 40 CFR 230.3). Under normal circumstances, the federal definition of wetlands requires three wetland identification parameters be present: wetland hydrology, hydric soils, and hydrophytic vegetation. Examples of wetlands include freshwater emergent wetlands, seasonal wetlands, and wet meadows that have a hydrologic link to other waters of the U.S. (see definition below for “other waters of the U.S.”). The U.S. Army Corps of Engineers (USACE) is the responsible agency for regulating wetlands under Section 404 of the Clean Water Act, while the Environmental Protection Agency has overall responsibility for the Act. The CDFW does



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not normally have direct jurisdiction over wetlands unless they are subject to jurisdiction under Streambed Alteration Agreements or they support state-listed endangered species; however, CDFW has trust responsibility for wildlife and habitats pursuant to California law.

“Other waters of the U.S.” refers to those hydric features that are regulated by the Clean Water Act but are not wetlands (33 CFR 328.4). To be considered jurisdictional, these features must exhibit a defined bed and bank and an ordinary high-water mark. Examples of other waters of the U.S. include rivers, creeks, intermittent and ephemeral channels, ponds, and lakes.

A comprehensive formal delineation of wetlands and other waters of the U.S. has not been completed for the study area although delineations have been completed for various portions of the Bass Lake Hills area; however, based on the site visit it appears that there are a number of potentially jurisdictional wetlands and other waters in the study area. Potentially jurisdictional features in the study area include wetland habitats such as freshwater emergent wetland and seasonal wetland, as well as riverine features such as ephemeral and perennial streams.

Wetlands

Freshwater Emergent Wetland

Freshwater emergent wetlands occur in habitats that have some flooding regime; they may be permanently flooded, regularly flooded, semi-permanently flooded, seasonally flooded, or irregularly flooded. The freshwater emergent wetland in the study area is classified as “palustrine emergent wetlands (semi-permanently flooded)” using the *Classification of Wetlands and Deepwater Habitats of the United States* (Cowardin et. al, 1979). As discussed above, freshwater emergent wetlands are characterized by erect, rooted herbaceous hydrophytes. All emergent wetlands are flooded frequently enough so the roots of the vegetation prosper in an anaerobic environment. The freshwater emergent wetland in the study area may meet the USACE criteria of a wetland or other waters of the United States, depending on site-specific vegetation, soils, and hydrologic conditions, and may be subject to sections 401 and/or 404 of the Clean Water Act (CWA).

Seasonal Wetland

Seasonal wetland in the study area is classified as “palustrine emergent wetland (seasonally flooded)” using the *Classification of Wetlands and Deepwater Habitats of the United States* (Cowardin et. al, 1979). In the study area, this community is dominated by a variety of weakly to strongly hydrophytic species. This area may meet the USACE criteria of a wetland or other waters of the United States, depending on site-specific vegetation, soils, and hydrologic conditions, and may be subject to sections 401 and/or 404 of the CWA.

Ephemeral Channel

Ephemeral channels are classified as “riverine intermittent” using the *Classification of Wetlands and Deepwater Habitats of the United States* (Cowardin et. al, 1979). An ephemeral channel has flowing water only during, and for a short duration after, precipitation events in a typical year. Ephemeral stream beds are located above the water



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table year-round. Groundwater is not a source of water for the stream. Runoff from rainfall is the primary source of water for stream flow.

Several ephemeral channels were identified during the reconnaissance survey. These ephemeral drainages tend to be narrow, averaging approximately 1 to 6 feet in width. The drainages convey surface flows only during and after precipitation events, and the channel hydrology is not influenced by groundwater. This is due to the topographic position and relative small surface area encompassed within each drainage feature. It is assumed that the frequency and duration of precipitation events precludes anaerobic and/or reducing conditions from occurring, thus hydric soils are not present within the drainage banks. The ephemeral drainage features within the study area do not support aquatic vegetation. During the reconnaissance survey, the ephemeral channels within the study area were dry and did not show evidence of recent flows.

Intermittent Drainage

Intermittent channels are classified as “riverine intermittent” using the *Classification of Wetlands and Deepwater Habitats of the United States* (Cowardin et. al, 1979). An intermittent channel has flowing water during certain times of the year, when groundwater provides water for stream flow. During dry periods, intermittent streams may not have flowing water. Runoff from rainfall is a supplemental source of water for stream flow. In the study area, intermittent channels generally flow throughout the winter season and into the late spring or early summer.

These drainages average approximately 4 to 8 feet in width, and convey flows during and after precipitation events as well as when the groundwater levels are high enough. It is assumed that the frequency and duration of precipitation events precludes anaerobic and/or reducing conditions from occurring, thus hydric soils are not present within the drainage banks. The intermittent drainages do not support aquatic vegetation; however they do support riparian woodland in some areas. During the reconnaissance survey, intermittent channels were flowing.

Perennial Channel

Perennial channels are classified as “riverine perennial” using the *Classification of Wetlands and Deepwater Habitats of the United States* (Cowardin et. al, 1979). A perennial channel has continuous flow in parts or all of its stream bed year round during years of normal rainfall. Groundwater, as well as runoff from snowmelt and rainfall, provides the source of water for stream flow. In the study area, Carson Creek, a perennial drainage, drains the project area towards the southwest. Carson Creek averages approximately 8 to 12 feet in width, and convey flows during and after precipitation events as well as when the groundwater levels are high enough.

Wildlife Movement Corridors

Wildlife movement corridors are considered an important ecological resource by various agencies (CDFW and USFWS) and under CEQA. Movement corridors may provide favorable locations for wildlife to travel between different habitat areas such as foraging sites, breeding sites, cover areas, and preferred summer and winter range locations. They may also function as dispersal corridors allowing animals to move between various locations



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within their range. Topography and other natural factors, in combination with urbanization, can fragment or separate large open-space areas. Areas of human disturbance or urban development can fragment wildlife habitats and impede wildlife movement between areas of suitable habitat. This fragmentation creates isolated “islands” of vegetation that may not provide sufficient area to accommodate sustainable populations, and can adversely affect genetic and species diversity. Movement corridors mitigate the effects of this fragmentation by allowing animals to move between remaining habitats, which in turn allows depleted populations to be replenished and promotes genetic exchange between separate populations.

Carson Creek and its associated riparian corridor provide a movement corridor for areas between its terminuses. The corridor allows common aquatic and terrestrial wildlife species to safely disperse back and forth between suitable habitats upstream and downstream. Highways and roads can present an impassable barrier to many wildlife species and are hazardous for wildlife to cross. Relatively unimpeded waterways such as the Carson Creek (along with its associated riparian corridor) provide important movement corridors, which allow dispersal and subsequent gene flow between wildlife populations separated by roads and populated areas.

General Wildlife

Oak woodlands (including blue oak woodlands) are important wildlife habitats that provide abundant cover, foraging, nesting, and resting opportunities. Species common to this habitat include acorn woodpecker (*Melanerpes formicivorus*), oak titmouse (*Parus inornatus*), bushtit (*Psaltiriparus minimus*), white-breasted nuthatch (*Sitta carolinensis*), California scrub jay (*Aphelocoma californica*), western gray squirrel (*Sciurus griseus*), dusky-footed woodrat (*Neotoma fuscipes*), striped skunk (*Mephitis mephitis*), and mule deer. Mule deer use the woodland to forage and rest, and as a movement corridor to access other habitat types. Red-shouldered hawk, red-tailed hawk, Cooper’s hawk, and great horned owl (*Bubo virginianus*) may nest within this community and forage within it or within adjacent grasslands. Bats, such as fringed myotis (*Myotis thysanodes*), California myotis (*Myotis californicus*), and pallid bat (*Antrozous pallidus*) are likely to occur in oak woodlands as well. Reptile and amphibian species common to blue oak woodland include western fence lizard, western rattlesnake (*Crotalus oreganus*), common kingsnake (*Lampropeltis getulus*), sharp-tailed snake (*Contia tenuis*), and California slender salamander (*Batrachoseps attenuatus*).

Riparian habitats are extremely valuable for an abundance of wildlife, providing food, water, migration and dispersal corridors, and escape, nesting, and thermal cover for numerous species. The shape of many riparian zones, particularly the linear nature of streams, maximizes the development of edge which is highly productive for wildlife. The range of wildlife that uses montane riparian habitat for food, cover and reproduction include amphibians, reptiles, birds and mammals. Wildlife species occurring in this habitat type are similar to those of blue oak series, but may also include more riparian associates such as red-shouldered hawk, various warblers (*Setophaga* spp.), and raccoon (*Procyon lotor*).



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Wildlife that may use the freshwater emergent wetland and seasonal wetland habitats include amphibians such as American bullfrog (*Lithobates catesbeiana*) and Pacific tree frog, and aquatic reptiles such as the common garter snake. Songbirds such as red-winged blackbird (*Agelaius phoeniceus*), and wading birds such as egrets and herons are common to this habitat as well. Fresh emergent wetlands are among the most productive wildlife habitats in California. They provide food, cover, and water for more than 160 species of birds, and numerous mammals, reptiles, and amphibians. Many species rely on fresh emergent wetlands for their entire life cycle. However, the freshwater emergent wetland in the study area is very limited in size and is isolated from adjacent habitat types. It is unlikely to support a robust suite of wildlife species.

Annual grassland provides habitat for a variety of wildlife species, many of which use this habitat for foraging. Annual grassland that contains a mosaic of important wildlife habitat features may provide cover and breeding habitat for wildlife as well. Common wildlife species that use annual grassland include western fence lizard (*Sceloporus occidentalis*), common garter snake, California ground squirrel (*Spermophilus beecheyi*), western meadowlark (*Sturnella neglecta*), and a variety of raptors such as northern harrier (*Circus cyaneus*), red-tailed hawk, and American kestrel (*Falco sparverius*).

Special-Status Species

Special-status species are legally protected under the state and federal Endangered Species Acts or other regulations or are species that are considered sufficiently rare by the scientific community to qualify for such listing. These species are classified under the following categories:

1. Species listed or proposed for listing as threatened or endangered under the federal Endangered Species Act (50 Code of Federal regulations [CFR] 17.12 [listed plants], 17.11 [listed animals] and various notices in the Federal Register [FR] [proposed species]).
2. Species that are candidates for possible future listing as threatened or endangered under the federal Endangered Species Act (61 FR 40, February 28, 1996);
3. Species listed or proposed for listing by the State of California as threatened or endangered under the California Endangered Species Act (14 California Code of Regulations [CCR] 670.5);
4. Animals fully protected in California (California Fish and Game Code, Sections 3511 [birds], 4700 [mammals], and 5050 [reptiles and amphibians]);
5. Plants listed as rare or endangered under the California Native Plant Protection Act (California Fish and Game Code, Section 1900 et seq.);
6. Species that meet the definitions of rare and endangered under CEQA. CEQA Section 15380 provides that a plant or animal species may be treated as “rare or endangered” even if not on one of the official lists (State CEQA Guidelines, Section 15380); and



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7. Plants considered under the CNPS to be “rare, threatened or endangered in California” (Rank 1A, 1B, and 2 in CNPS, 2013) as well as CNPS Rank 3 and 4¹ plant species.

A list of special-status species that have the potential to occur within the vicinity of the study area was compiled based on data contained in the CNDDDB (CDFW, 2015a), the USFWS list of Federal Endangered and Threatened Species that occur in the study area (USFWS, 2015a), and the California Native CNPS Inventory of Rare and Endangered Plants (CNPS, 2015) (see Appenix). **Table 2** lists the special-status species with the potential to occur within the vicinity of the study area. **Figure 4** identifies the locations of regional CNDDDB occurrences. No special-status fish species have the potential to occur in the study area; therefore, they are not included in Table 2 below.

The “Potential to Occur” category is defined as follows:

- **Unlikely:** The study area and/or project site do not support suitable habitat for a particular species. The study area is outside of the species known range.
- **Low Potential:** The study area and/or project site only provide limited and low quality habitat for a particular species. In addition, the known range for a particular species may be outside of the immediate study area.
- **Medium Potential:** The study area and/or project site provide suitable habitat for a particular species.
- **High Potential:** The study area and/or project site provide ideal habitat conditions for a particular species and/or known populations occur in immediate area or within the potential area of impact.

TABLE 2
REGIONALLY OCCURRING SPECIAL-STATUS SPECIES

Scientific Name Common Name	Listing Status USFWS/ CDFG/CNPS	General Habitat	Potential to Occur in the Study Area
Invertebrates			
<i>Andrena blennospermatis</i> blennosperma vernal pool andrenid bee	--/--/--	Native bee. This bee is oligolectic on vernal pool blennosperma (<i>Blennosperma nanum</i>). Nests in uplands near vernal pools.	Unlikely. Suitable habitat is not present within the study area.

¹ Rank 3 plants may be analyzed under CEQA §15380 if sufficient information is available to assess potential impacts to such plants. Factors such as regional rarity vs. statewide rarity should be considered in determining whether cumulative impacts to a Rank 4 plant are significant even if individual project impacts are not. CNPS Rank 3 and 4 may be considered regionally significant if, e.g., the occurrence is located at the periphery of the species’ range, or exhibits unusual morphology, or occurs in an unusual habitat/substrate. For these reasons, CNPS List 3 and 4 plants should be included in the special-status species analysis. Rank 3 and 4 plants are also included in the CNDDDB Special Plants, Bryophytes, and Lichens List. The current online published list is available at: <http://www.dfg.ca.gov/biogeodata>.



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Scientific Name Common Name	Listing Status USFWS/ CDFG/CNPS	General Habitat	Potential to Occur in the Study Area
<i>Banksula californica</i> Alabaster Cave harvestman	--/--/--	Lifecycle restricted to caves. Known only from the type locality, Alabaster Cave, in El Dorado County. The type locality has been partly destroyed by mining and the species may be extinct.	Unlikely. This species is known only from Alabaster Cave. Suitable habitat is not present within the study area.
<i>Branchinecta lynchi</i> vernal pool fairy shrimp	FT/--/--	Lifecycle restricted to vernal pools.	Unlikely. Suitable habitat is not present within the study area.
<i>Branchinecta mesoallensis</i> midvalley fairy shrimp	--/--/--	Lifecycle restricted to vernal pools.	Unlikely. Suitable habitat is not present within the study area.
<i>Desmocerus californicus dimorphus</i> valley elderberry longhorn beetle	FT/--/--	Breeds and forages exclusively on elderberry shrubs (<i>Sambucus</i> sp.) typically associated with riparian forests, riparian woodlands, elderberry savannas, and other Central Valley habitats. Occurs only in the Central Valley and surrounding foothills.	Low. Elderberry shrubs are present. However, the shrubs do not support suitable habitat (i.e. stems greater than one inch in diameter) for valley elderberry longhorn beetle. A formal survey for elderberry shrubs was not conducted for this report.
<i>Dumontia oregonensis</i> hairy water flea	--/--/--	Lifecycle restricted to vernal pools. In California known only from Mather Field.	Unlikely. Suitable habitat is not present within the study area.
<i>Hydrochara rickseckeri</i> Ricksecker's water scavenger beetle	--/--/--	Small aquatic beetle known only from pond habitats.	Unlikely. Suitable habitat is not present within the study area.
<i>Lepidurus packardii</i> vernal pool tadpole shrimp	FE/--/--	Lifecycle restricted to vernal pools.	Unlikely. Suitable habitat is not present within the study area.
<i>Linderiella occidentalis</i> California linderiella	--/--/--	Lifecycle restricted to vernal pools.	Unlikely. Suitable habitat is not present within the study area.
Amphibians			
<i>Ambystoma californiense</i> California tiger salamander	FT/ST/--	Annual grassland and grassy understory of valley-foothill hardwood habitats in central and northern California. Needs underground refuges and vernal pools or other seasonal water sources.	Unlikely. Suitable habitat is not present within the study area.
<i>Rana boylei</i> foothill yellow-legged frog	--/CSC/--	Partly shaded, shallow streams and riffles with a rocky substrate in a variety of habitats. Need at least some cobble-sized substrate for egg-laying. Need at least 15 weeks to attain metamorphosis.	Medium. Carson Creek provides suitable habitat for this species.
<i>Rana draytonii</i> California red-legged frog	FT/CSC/--	Breeds in slow moving streams, ponds, and marshes with emergent vegetation; forages in nearby uplands within about 200 feet.	Unlikely. Suitable habitat is not present within the study area.



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TABLE 2 (Continued)
REGIONALLY OCCURRING SPECIAL-STATUS SPECIES

Scientific Name Common Name	Listing Status USFWS/ CDFG/CNPS	General Habitat	Potential to Occur in the Study Area
<i>Spea hammondi</i> western spadefoot	--/CSC/--	Prefers open areas in grasslands, prairies, chaparral, and woodlands, with sandy or gravelly soils. Breeds in shallow, temporary pools formed by winter rains. Takes refuge in burrows.	Unlikely. Suitable habitat is not present within the study area.
Reptiles			
<i>Emys marmorata</i> western pond turtle	--/CSC/--	Ponds, marshes, rivers, streams, and irrigation ditches with aquatic vegetation. Requires basking sites and suitable upland habitat for egg-laying. Nest sites most often characterized as having gentle slopes (<15%) with little vegetation or sandy banks.	Medium. Carson Creek provides suitable habitat for this species.
<i>Phrynosoma blainvillii</i> coast horned lizard	--/CSC/--	Frequents a wide variety of habitats, most common in lowlands along sandy washes with scattered low bushes. Open areas for sunning, bushes for cover, patches of loose soil for burial, and abundant supply of ants & other insects.	Unlikely. Suitable habitat is not present within the study area.
<i>Thamnophis gigas</i> giant garter snake	FT/ST/--	Prefers freshwater marsh and low gradient streams. Has adapted to drainage canals and irrigation ditches. This is the most aquatic of the garter snakes in California.	Unlikely. Suitable habitat is not present within the study area.
Birds			
<i>Accipiter cooperii</i> Cooper's hawk	--/WL/--	Nests in dense riparian vegetation and oak woodlands in close proximity to open water. Forages at woodland edges.	Low. Some suitable foraging habitat, but only marginal nesting habitat as there are no densely wooded areas or large open water habitats present in the study area.
<i>Agelaius tricolor</i> tricolored blackbird	--/CSC/--	Largely endemic to California, most numerous in the Central Valley and nearby vicinity. Typically requires open water, protected nesting substrate, and foraging grounds within vicinity of the nesting colony. Nests in dense thickets of cattails, tules, and willow.	Unlikely. Suitable habitat is not present within the study area.
<i>Ammodramus savannarum</i> Grasshopper sparrow	--/CSC/--	Prairie, cultivated grasslands, weedy fallow fields, and alfalfa fields. Prefer drier sparse sites, with open or bare ground for feeding. Nests are built on the ground, near clumps of tall grass or at the base of a shrub with overhanging vegetation.	Unlikely. Suitable habitat is not present within the study area.



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TABLE 2 (Continued)
REGIONALLY OCCURRING SPECIAL-STATUS SPECIES

Scientific Name Common Name	Listing Status USFWS/ CDFG/CNPS	General Habitat	Potential to Occur in the Study Area
<i>Aquila chrysaetos</i> golden eagle	BEPA/CSC, CFP/--	Forages in open habitats such as grasslands and oak savanna. Nests on cliffs or large trees with substantial horizontal branches for roosting and perching.	Low. Some suitable foraging habitat present, but no suitable nesting is present within the study area.
<i>Ardea alba</i> great egret (rookery)	--/--/--	Forages in fresh and salt marshes, marshy ponds and tidal flats. Nests in trees or shrubs.	Unlikely. Suitable habitat is not present within the study area.
<i>Ardea herodias</i> great blue heron (rookery)	--/--/--	Groves of tall trees, especially near shallow water foraging areas such as marshes, tide-flats, lakes, rivers/streams and wet meadows.	Unlikely. Suitable habitat is not present within the study area.
<i>Athene cunicularia</i> burrowing owl	--/CSC/--	Forages in open plains, grasslands, and prairies; typically nests in abandoned small mammal burrows.	Medium. Suitable foraging and nesting habitat present within the study area.
<i>Buteo swainsoni</i> Swainson's hawk	--/ST/--	Forages in open plains, grasslands, and prairies; typically nests in trees or large shrubs generally associated with riparian systems.	Low. Suitable foraging and nesting habitat is not present within the study area as it typically occurs at lower elevations on the valley floor.
<i>Elanus leucurus</i> white tailed kite	--/CFP/--	Forages in open plains, grasslands and prairies. Typically nests in isolated trees with dense canopies located near foraging area.	Medium. Suitable foraging and nesting habitat present within the project site
<i>Falco columbarius</i> merlin	--/WL/--	Seacoast, tidal estuaries, open woodlands, savannahs, edges of grasslands and deserts, farms & ranches. Clumps of trees or windbreaks are required for roosting in open country.	Unlikely. Suitable habitat is not present within the study area.
<i>Haliaeetus leucocephalus</i> bald eagle	BEPA/ SE, CFP/--	Found at lakes, reservoirs, river systems, and coastal wetlands. The breeding range is generally in mountainous areas near lake or river margins, where they find large trees (usually conifers) with open branches for nesting.	Unlikely. Suitable habitat is not present within the study area.
<i>Laterallus jamaicensis</i> <i>coturniculus</i> California black rail	--/ST, CFP/--	Inhabits freshwater marshes, wet meadows, and shallow margins of saltwater marshes bordering larger bays. Needs water depths of about 1 inch that do not fluctuate during the year and dense vegetation for nesting habitat.	Unlikely. Suitable habitat is not present within the study area.
<i>Pandion haliaetus</i> osprey	--/WL/--	Forages over large bodies of water with abundant fish supply. Nests within close proximity of water body at the top of large trees or snags.	Unlikely. Suitable habitat is not present within the study area.



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TABLE 2 (Continued)
REGIONALLY OCCURRING SPECIAL-STATUS SPECIES

Scientific Name Common Name	Listing Status USFWS/ CDFG/CNPS	General Habitat	Potential to Occur in the Study Area
<i>Phalacrocorax auritus</i> double-crested cormorant	--/WL/--	Colonial nester on coastal cliffs, offshore islands, and along lake margins in the interior of the state. Nests along coast on sequestered islets, usually on ground with sloping surface, or in tall trees along lake margins.	Unlikely. Suitable habitat is not present within the study area.
<i>Progne subis</i> purple martin	--/CSC/--	Inhabits woodlands, low elevation coniferous forest of Douglas-fir, ponderosa pine, and Monterey pine. Nests in old woodpecker cavities mostly, also in human-made structures. Nest often located in tall, isolated tree/snag.	Unlikely. Suitable habitat is not present within the study area.
<i>Riparia riparia</i> bank swallow	--/ST/--	Banks of rivers, creeks, lakes, and seashores; nests in excavated dirt tunnels near the top of steep banks.	Unlikely. Suitable habitat is not present within the study area.
Mammals			
<i>Antrozous pallidus</i> Pallid bat	--/CSC/--	Day roosts are mainly in caves, crevices, and abandoned mines. Forages in open lowland areas.	Low. Suitable foraging habitat is present. However, suitable roosting sites are absent from the study area.
<i>Lasionycteris noctivagans</i> silver-haired bat	--/--/--	Primarily a coastal and montane forest dweller feeding over streams, ponds, and open brushy areas. Roosts in hollow trees, beneath exfoliating bark, abandoned woodpecker holds, and rarely under rocks.	Unlikely. Suitable habitat is not present within the study area.
<i>Pekania pennanti</i> fisher – West Coast DPS	FPT/SCT/CSC	Intermediate to large-tree stages of coniferous forests and deciduous-riparian areas with high percent canopy closure. Uses cavities, snags, logs and rocky areas for cover and denning. Needs large areas of mature, dense forest..	Unlikely. Suitable habitat is not present within the study area.
<i>Taxidea taxus</i> American badger	--/CSC/--	Occurs in a wide variety of open forest, shrub, and grassland habitats that have friable soils for digging.	Unlikely. Suitable habitat is not present within the study area.
Plants			
<i>Allium jepsonii</i> Jepson's onion	--/--/1B.2	Perennial bulbiferous herb occurring in chaparral, cismontane woodland, and lower montane coniferous forest, particularly in serpentine or volcanic soils. Found between 300 and 1,320 meters elevation. Blooms April through August.	Unlikely. Suitable habitat is not present within the study area.



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TABLE 2 (Continued)
REGIONALLY OCCURRING SPECIAL-STATUS SPECIES

Scientific Name Common Name	Listing Status USFWS/ CDFG/CNPS	General Habitat	Potential to Occur in the Study Area
<i>Allium sanbornii</i> var. <i>sanbornii</i> Sanborn's onion	--/--/4.2	Perennial bulbiferous herb occurring in chaparral, cismontane woodland, and lower montane coniferous forest, particularly in serpentine or gravelly soils. Found between 260 and 1,510 meters elevation. Blooms May through September.	Unlikely. Suitable habitat is not present within the study area.
<i>Balsamorhiza macrolepis</i> big-scale balsamroot	--/--/1B.2	Perennial herb found in chaparral, cismontane woodland, and grasslands, often in serpentine soils, between 90 and 1,555 meters elevation. Blooms March through June.	Medium. Suitable habitat is present within the study area.
<i>Calandrinia breweri</i> Brewer's calandrine	--/--/4.2	Annual herb found on sandy or loamy soils within chaparral and coastal scrub, typically on disturbed or burned sites. Elevations range between 10 and 1,220 meters elevation. Blooms March through June.	Unlikely. Suitable habitat is not present within the study area.
<i>Calystegia stebbinsii</i> Stebbin's morning-glory	--/--/1B.1	Perennial rhizomatous herb found on rocky gabbroic or serpentine soils within chaparral or cismontane woodland, between 185 and 1,090 meters elevation. Blooms April through July.	Unlikely. Suitable habitat is not present within the study area.
<i>Ceanothus fresnensis</i> Fresno ceanothus	--/--/4.3	Evergreen shrub found in cismontane woodland and lower montane coniferous forest, between 900 and 2,103 meters elevation. Blooms May through July.	Unlikely. Suitable habitat is not present within the study area.
<i>Ceanothus roderickii</i> Pine Hill ceanothus	FE/SR/1B.2	Evergreen shrub found on serpentine or gabbroic soils within within chaparral or cismontane woodland, between 245 and 1,090 meters elevation. Blooms April through June.	Unlikely. Suitable habitat is not present within the study area.
<i>Chlorogalum grandiflorum</i> Red Hills soaproot	--/--/1B.2	Perennial bulbiferous herb found on serpentine or gabbroic soils within chaparral, cismontane woodland, and lower montane coniferous forest, between 245 and 1,240 meters elevation. Blooms May through July.	Unlikely. Suitable habitat is not present within the study area.
<i>Clarkia biloba</i> subsp. <i>brandegeae</i> Brandegee's clarkia	--/--/4.2	Annual herb found in chaparral, cismontane woodland, and lower montane coniferous forest, between 75 and 915 meters elevation. Blooms May through July.	Unlikely. Suitable habitat is not present within the study area.



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TABLE 2 (Continued)
REGIONALLY OCCURRING SPECIAL-STATUS SPECIES

Scientific Name Common Name	Listing Status USFWS/ CDFG/CNPS	General Habitat	Potential to Occur in the Study Area
<i>Claytonia parviflora</i> subsp. <i>grandiflora</i> streambank spring beauty	--/--/4.2	Annual herb found on rocky soils in cismontane woodland, between 250 and 1,200 meters elevation. Blooms February through May.	Medium. Suitable habitat is present within the study area.
<i>Crocانthemum suffrutescens</i> Bisbee Peak rush-rose	--/--/3.2	Evergreen shrub occurring in chaparral, often on serpentine, gabbroic, or lone soil. Found between 75 and 670 meters elevation. Blooms April through June.	Unlikely. Suitable habitat is not present within the study area.
<i>Downingia pusilla</i> dwarf downingia	--/--/2B.2	Prefers lake margins, vernal pools and wet places sometimes playas and grasslands. Blooms below 445 meters in elevation from March through May.	Unlikely. Suitable habitat is not present within the study area.
<i>Eryngium pinnatisectum</i> Tuolumne button-celery	--/--/1B.2	Occurs in vernal pools and wet depressions. Elevations range from 70 to 915 meters. Blooms June through August.	Unlikely. Suitable habitat is not present within the study area.
<i>Fremontodendron decumbens</i> Pine Hill flannelbush	FE/SR/1B.2	Evergreen shrub found on gabbroic or serpentine, rocky soils in chaparral and cismontane woodland. Elevations range from 425 to 760 meters. Blooms April through July.	Unlikely. Suitable habitat is not present within the study area.
<i>Galium californicum</i> subsp. <i>sierrae</i> El Dorado bedstraw	FE/SR/1B.2	Perennial herb found on gabbroic soils in chaparral, cismontane woodland, and lower montane coniferous forest. Elevations range from 100 to 585 meters. Blooms May to June.	Unlikely. Suitable habitat is not present within the study area.
<i>Gratiola heterosepala</i> Boggs Lake hedge-hyssop	--/SE/1B.2	Marshes and swamps, lake margins, and in clay substrate in vernal pools. Elevations range from 10 to 2,375 meters. Blooms April through August.	Unlikely. Suitable habitat is not present within the study area.
<i>Horkelia parryi</i> Parry's horkelia	--/--/1B.2	Openings in chaparral or woodland; especially known from the lone formation in Amador County. Elevations range from 80 to 1,070 meters. Blooms April through September.	Unlikely. Suitable habitat is not present within the study area.
<i>Juncus leiospermus</i> var. <i>ahartii</i> Ahart's dwarf rush	--/--/1B.2	Occurs in vernal pools and wet depressions. Elevations range from 30 to 229 meters. Blooms June through August.	Unlikely. Suitable habitat is not present within the study area.
<i>Legenere limosa</i> legenere	--/--/1B.1	Occurs in vernal pool beds. Blooms April to June. Found below 880 meters in elevation.	Unlikely. Suitable habitat is not present within the study area.



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TABLE 2 (Continued)
REGIONALLY OCCURRING SPECIAL-STATUS SPECIES

Scientific Name Common Name	Listing Status USFWS/ CDFG/CNPS	General Habitat	Potential to Occur in the Study Area
<i>Lilium humboldtii</i> subsp. <i>humboldtii</i> Humboldt lily	--/--/4.2	Perennial bulbiferous herb found in openings in chaparral, cismontane woodland, and lower montane coniferous forest. Elevation range from 90 to 1,280 meters. Blooms May through July.	Medium. Suitable habitat is present within the study area.
<i>Navarretia myersii</i> subsp. <i>myersii</i> pincushion navarretia	--/--/1B.1	Annual herb occurring in valley and foothill vernal pools. Elevations range from 20 to 330 meters. Blooms in April and May.	Unlikely. Suitable habitat is not present within the study area.
<i>Orcuttia tenuis</i> slender orcutt grass	FT/SE/1B.1	Occurs in vernal pools. Blooms May through October. Found between 35 and 1,760 meters in elevation.	Unlikely. Suitable habitat is not present within the study area.
<i>Orcuttia viscida</i> Sacramento orcutt grass	FE/SE/1B.1	Occurs in vernal pools. Blooms April through July. Found between 30 and 100 meters in elevation.	Unlikely. Suitable habitat is not present within the study area.
<i>Packera layneae</i> Layne's ragwort	FT/SR/1B.2	Perennial herb found on serpentine or gabbroic soils in chaparral and cismontane woodland. Elevations range from 200 to 1,085 meters. Blooms April through August.	Unlikely. Suitable habitat is not present within the study area.
<i>Sagittaria sanfordii</i> Sanford's arrowhead	--/--/1B.2	Perennial rhizomatous herb found in marshes, swamps, and assorted shallow freshwater habitats. Elevations range from 0 to 650 meters. Blooms May through August.	Unlikely. Suitable habitat is not present within the study area.
<i>Trichostema rubisepalum</i> Hernandez bluecurls	--/--/4.3	Annual herb found on volcanic or serpentine, gravelly soils, in vernal pools. Elevations range from 300 to 1,435 meters. Blooms June through August.	Unlikely. Suitable habitat is not present within the study area.
<i>Wyethia reticulata</i> El Dorado County mule ears	--/--/1B.2	Perennial herb found on clay or gabbroic soils in chaparral, cismontane woodland, and lower montane coniferous forest. Elevations range from 185 to 630 meters. Blooms April through August.	Unlikely. Suitable habitat is not present within the study area.

STATUS CODES:

FEDERAL (U.S. Fish and Wildlife Service):

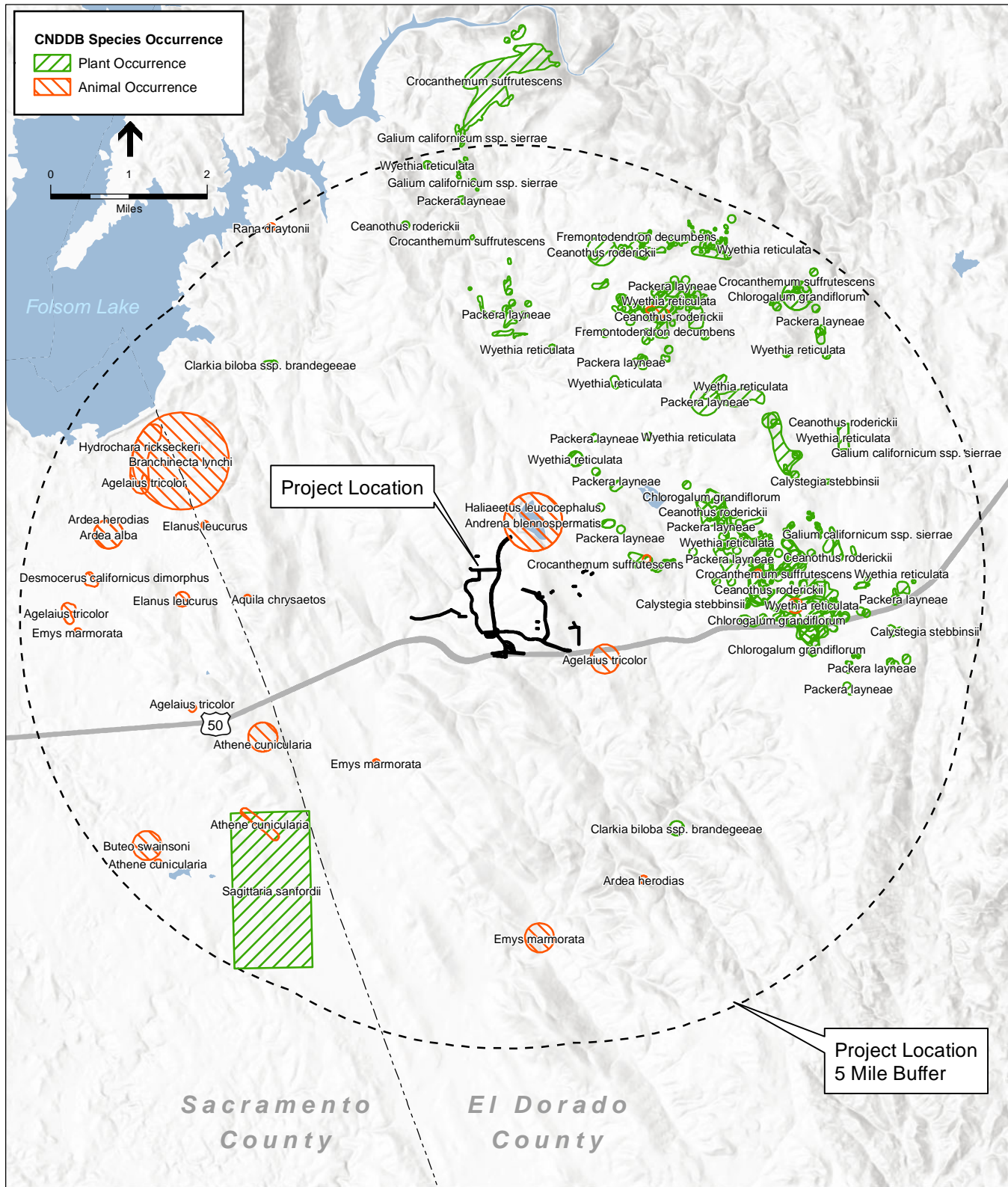
BEPA = Bald Eagle Protection Act
FE = Listed as Endangered by the Federal Government
FT = Listed as Threatened by the Federal Government
FPD = Proposed for De-listing
FPE = Proposed for Listing as Endangered
FPT = Proposed for Listing as Threatened
FC = Candidate for Federal listing



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TABLE 2 (Continued)
REGIONALLY OCCURRING SPECIAL-STATUS SPECIES

Scientific Name Common Name	Listing Status USFWS/ CDFG/CNPS	General Habitat	Potential to Occur in the Study Area
STATE (California Department of Fish and Game):			
SE = Listed as Endangered by the State of California			
ST = Listed as Threatened by the State of California			
SR = Listed as Rare by the State of California (plants only)			
SCE = Candidate for State Listing (Endangered)			
SCT = Candidate for State Listing (Threatened)			
CSC = California species of special concern			
CFP = California fully protected bird species			
WL = Watch List			
California Native Plant Society (CNPS):			
Rank 1A = Plants presumed extirpated in California and either rare or extinct elsewhere			
Rank 1B = Plants rare, threatened, or endangered in California and elsewhere			
Rank 2A = Plants presumed extirpated in California but common elsewhere			
Rank 2B = Plants rare, threatened, or endangered in California but more common elsewhere			
Rank 3 = Plants about which more information is needed			
Rank 4 = Plants of limited distribution			
CNPS Code Extensions			
.1 = Seriously threatened in California (over 80% of occurrences threatened / high degree and immediacy of threat)			
.2 = Fairly threatened in California (20-80% occurrences threatened)			
.3 = Not very threatened in California (less than 20% of occurrences threatened or no current threats known)			
SOURCE: CNPS, 2015; CDFW, 2015a; USFWS, 2015a			



SOURCE: ESRI, 2015; CDFWS, 2015

Bass Lake Hills Project . 140843

Figure 4
CNDDDB Occurrences



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Critical Habitat

Critical habitats are areas considered essential for the conservation of a species listed as endangered or threatened under the federal Endangered Species Act. Critical habitats are specific geographic areas that contain features essential for conservation of listed species and may require special management and protection. Critical habitat may include an area not currently used by an endangered or threatened species, but that will be needed for species recovery. Projects involving a federal agency or federal funding are required to consult with the USFWS to ensure that project actions will not destroy or adversely modify critical habitat.

A review of GIS-based habitat data for *USFWS Critical Habitat for Threatened and Endangered Species* shows that the study area is not located within designated critical habitat for any listed species.

Regulatory Setting

Federal

Federal Endangered Species Act

The Federal Endangered Species Act (FESA) grants protection over species that are formally listed as threatened, endangered, or proposed for listing. The primary protective requirement in the case of projects requiring federal permits, authorizations, or funding, is Section 7 of FESA, which requires federal lead agencies to consult (or “confer” in the case of proposed species or proposed critical habitat) with the USFWS (and National Oceanic Atmospheric Administration, National Marine Fisheries Service (NMFS) where marine and/or anadromous species may be affected) to ensure that their actions do not jeopardize the continued existence of federally listed species. In addition to Section 7 requirements, Section 9 of the FESA protects listed wildlife species from “take.” Take is broadly defined as those activities that “harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect [a protected species], or attempt to engage in any such conduct.” An activity can be in violation of take prohibitions even if the activity is unintentional or accidental. Significant modification or degradation of occupied habitat for listed species, or activities that prevent or significantly impair essential behavioral patterns, including breeding, feeding, or sheltering, are also considered “take” under the FESA. Federal agencies may receive authorization for the incidental take of listed species under Section 7 through the issuance of a Biological Opinion from the USFWS and/or NMFS. State, local, and private entities may receive incidental take authorization under an approved Habitat Conservation Plan (HCP) through Section 10 of FESA.

Clean Water Act

The federal Clean Water Act (CWA) was enacted as an amendment to the federal Water Pollution Control Act of 1972, which outlined the basic structure for regulating discharges of pollutants to waters of the United States. The CWA serves as the primary federal law protecting the quality of the nation’s surface waters, including lakes, rivers, and coastal wetlands.



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Section 401 – Under CWA Section 401, applicants for a federal license or permit to conduct activities which may result in the discharge of a pollutant into waters of the United States must obtain certification from the state in which the discharge would originate or, if appropriate, from the interstate water pollution control agency with jurisdiction over affected waters at the point where the discharge would originate. Therefore, all projects that have a federal component and may affect state water quality (including projects that require federal agency approval, such as issuance of a Section 404 permit) must also comply with CWA Section 401.

Section 402 – Under the CWA Section 402, the State Water Resources Control Board (SWRCB) has adopted a *General Construction Activity Storm Water Permit* (General Permit) for storm water discharges associated with any construction activity including clearing, grading, excavation reconstruction, and dredge and fill activities that results in the disturbance of at least one acre of total land area. The general permit requires the site owner to notify the state, to prepare and implement a Storm Water Pollution Prevention Plan (SWPPP), and to monitor the effectiveness of the plan.

De minimis discharge activities that are regulated by an individual or general NPDES permit, such as discharges resulting in construction dewatering, also require the General Order for Dewatering and Other Low Threat Discharge to Surface Waters Permit (Section 402). Project applicants/proponents should apply for this permit concurrently with the NPDES permit application.

Section 404 – CWA Section 404 regulates the discharge of dredged and fill materials into waters of the United States. Waters of the United States refers to oceans, bays, rivers, streams, lakes, ponds, and wetlands. Applicants must obtain a permit from the USACE for all discharges of dredged or fill material into waters of the United States, including wetlands, before proceeding with a proposed activity. Waters of the United States are under the jurisdiction of the USACE and the Environmental Protection Agency (EPA).

Compliance with CWA Section 404 requires compliance with several other environmental laws and regulations. The USACE cannot issue an individual permit or verify the use of a general nationwide permit until the requirements of NEPA, ESA, and the National Historic Preservation Act (NHPA) have been met. In addition, the USACE cannot issue or verify any permit until a water quality certification or a waiver of certification has been issued pursuant to CWA Section 401.

Migratory Bird Act

The Migratory Bird Treaty Act (MBTA) of 1918 makes it unlawful to take or attempt to take any migratory bird, any part, nest, or egg of any such bird except under the terms of a permit issued by the U. S. Department of the Interior. In total, 836 bird species are protected by the MBTA, 58 of which are currently legally hunted as game birds. A migratory bird is any species or family of birds that live, reproduce or migrate within or across international borders at some point during their annual life cycle.



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Bald Eagle Protection Act

The Bald Eagle Protection Act (16 U.S.C. 668-668c) prohibits anyone, without a permit issued by the Secretary of the Interior, from “taking” bald and golden eagles, including their parts, nests, or eggs. The Act defines “take” as “pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest or disturb.” In addition to immediate impacts, this definition also covers impacts that result from human-induced alterations initiated around a previously used nest site during a time when eagles are not present, if, upon the eagle's return, such alterations agitate or bother an eagle to a degree that interferes with or interrupts normal breeding, feeding, or sheltering habits, and causes injury, death or nest abandonment.

State

Regional Water Quality Control Board

The SWRCB and the Regional Water Quality Control Boards (RWQCBs) (together “Boards”) are the principal state agencies with primary responsibility for the coordination and control of water quality. In the Porter-Cologne Water Quality Control Act (Porter-Cologne), the Legislature declared that the “state must be prepared to exercise its full power and jurisdiction to protect the quality of the waters in the state from degradation...” (California Water Code section 13000). Porter-Cologne grants the Boards the authority to implement and enforce the water quality laws, regulations, policies and plans to protect the groundwater and surface waters of the state. Waters of the State determined to be jurisdictional would require, if impacted, waste discharge permitting and/or a Clean Water Act Section 401 certification (in the case of the required USACE permit). The enforcement of the State's water quality requirements is not solely the purview of the Boards and their staff. Other agencies (e.g., the California Department of Fish and Wildlife) have the ability to enforce certain water quality provisions in state law.

California Endangered Species Act

Pursuant to the California Endangered Species Act (CESA) and Section 2081 of the California Fish and Game Code, a permit from the CDFW is required for a project that could result in the take of a state-listed threatened or endangered species (i.e., species listed under CESA). Under CESA, the definition of “take” includes an activity that would directly or indirectly kill an individual of a species, but the state definition does not include “harm” or “harass,” as the federal definition does. As a result, the threshold for take under the CESA is typically higher than that under the FESA. Under CESA, CDFW maintains a list of threatened species and endangered species (California Fish and Game Code 2070). The CDFW also maintains two additional lists: (1) a list of candidate species that are species CDFW has formally noticed as being under review for addition to either the list of endangered species or the list of threatened species; and (2) a list of “species of special concern;” these lists serve as “watch lists.”

California Fish and Game Code

The California Fish and Game Code protects a variety of species from take. Certain species are considered *fully protected*, meaning that the code explicitly prohibits all take of individuals of these species except for take permitted for scientific research. It also is possible for a species to be protected under the California Fish and Game Code, but not fully protected.



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Fully Protected Species – Certain species are considered *fully protected*, meaning that the code explicitly prohibits all take of individuals of these species except for take permitted for scientific research. Section 5050 lists fully protected amphibians and reptiles, Section 5515 lists fully protected fish, Section 3511 lists fully protected birds, and Section 4700 lists fully protected mammals.

It is possible for a species to be protected under the California Fish and Game Code, but not fully protected. For instance, mountain lion (*Puma concolor*) is protected under Section 4800 et seq., but is not a fully protected species.

Protection of Birds and Their Nests – Under Section 3503 of the California Fish and Game Code, it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by this code or any regulation made pursuant thereto. Section 3503.5 of the code prohibits take, possession, or destruction of any birds in the orders Falconiformes (hawks) or Strigiformes (owls), or of their nests and eggs. Migratory non-game birds are protected under Section 3800, while other specified birds are protected under Section 3505.

Stream and Lake Protection – CDFW has jurisdictional authority over streams and lakes and the wetland resources associated with these aquatic systems under California Fish and Game Code Sections 1600 et seq. through administration of lake or streambed alteration agreements. Such agreements are not a permit, but rather a mutual accord between CDFW and the project proponent. California Fish and Game Code Section 1600 et seq. was repealed and replaced in October of 2003 with the new Section 1600–1616 that took effect on January 1, 2004 (Senate Bill No. 418 Sher). Under the new code, CDFW has the authority to regulate work that will “substantially divert or obstruct the natural flow of, or substantially change or use any material from the bed, channel, or bank of, any river, stream, or lake, or deposit or dispose of debris, waste, or other material containing crumbled, flaked, or ground pavement where it may pass into any river lake or stream.” CDFW enters into a streambed alteration agreement with the project proponent and can impose conditions in the agreement to minimize and mitigate impacts to fish and wildlife resources. Because CDFW includes under its jurisdiction streamside habitats that may not qualify as wetlands under the federal CWA definition, CDFW jurisdiction may be broader than the USACE jurisdiction.

A project proponent must submit a notification of streambed alteration to CDFW before construction. The notification requires an application fee for streambed alteration agreements, with a specific fee schedule to be determined by CDFW. CDFW can enter into programmatic agreements that cover recurring operation and maintenance activities and regional plans. These agreements are sometimes referred to as Master Streambed Alteration Agreements (MSAAs).

Under Fish and Game Code Section 1602 (Streambed Alteration Agreements), the CDFW takes jurisdiction over the stream zone which is defined top of bank or outside extent of riparian vegetation, whichever is the greatest. Within the stream zone, waters of the State of California are typically delineated to include the streambed to the top of the bank and adjacent areas that would meet any one of the three wetland parameters in the USACE



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definition (vegetation, hydrology, and/or soils). Whereas federal jurisdiction requires meeting all three parameters, in practice meeting one parameter, or even the presence (rather than dominance) of wetland plants in an area associated with a jurisdictional streambed would qualify an area as waters of the State of California. CDFW jurisdiction is not limited to navigable waters or tributaries to navigable waters, however, isolated wetlands and wetlands not associated with a streambed are not subject to CDFW jurisdiction.

California Native Plant Protection Act

State listing of plant species began in 1977 with the passage of the California Native Plant Protection Act (NPPA), which directed the CDFW to carry out the legislature's intent to "preserve, protect, and enhance endangered plants in this state." The NPPA gave the California Fish and Game Commission the power to designate native plants as endangered or rare and to require permits for collecting, transporting, or selling such plants. CESA expanded on the original NPPA and enhanced legal protection for plants. CESA established threatened and endangered species categories, and grandfathered all rare animals—but not rare plants—into the act as threatened species. Thus, three listing categories for plants are employed in California: rare, threatened, and endangered.

California Native Plant Society

The CNPS maintains a list of plant species native to California that have low numbers, limited distribution, or are otherwise threatened with extinction. This information is published in the Inventory of Rare and Endangered Vascular Plants of California. Potential impacts to populations of CNPS-listed plants receive consideration under CEQA review. The following identifies the definitions of the CNPS rankings:

Rank 1A: Plants presumed extirpated in California and either rare or extinct elsewhere.

Rank 1B: Plants Rare, Threatened, or Endangered in California and elsewhere.

Rank 2A: Plants presumed extirpated in California, but more common elsewhere.

Rank 2B: Plants Rare, Threatened, or Endangered in California, but more common elsewhere.

Rank 3: Plants about which more information is needed - A Review List.

Rank 4: Plants of limited distribution - A Watch List.

Potential Biological Constraints

The biological resources constraints criteria are based on policies and guidelines established by USFWS (through the federal Endangered Species Act), Corps (Section 404 of the Clean Water Act), CDFG (through the California Endangered Species Act and Streambed Alteration Agreement), and CEQA. The constraints evaluation is intended to assist a decision maker in responding to Section IV of a standard CEQA checklist (as presented in Appendix G of the CEQA Guidelines). This study identifies constraints as low, medium, and high. In many cases, the difference between a medium constraint and a high constraint is the difficulty in obtaining the appropriate permits and



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whether mitigation would be considered feasible. Both NEPA (National Environmental Policy Act) and CEQA define the key concept of mitigation as follows:

- A. Avoiding the impact altogether by not taking a certain action or parts of an action.
- B. Minimizing impacts by limiting the degree or magnitude of the action and its implementation.
- C. Rectifying the impact by repairing, rehabilitating, or restoring the impacted environment.
- D. Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action.
- E. Compensating for the impact by replacing or providing substitute resources or environments.

When species are listed as threatened or endangered, and a project would result in the hypothetical loss of individuals, mitigation must be pursued through a process that eventually creates a Habitat Conservation Plan (HCP). There is no a priori guarantee that an HCP will result in a permit. The HCP process was developed through amendments to the state and federal Endangered Species Acts to allow landowners and managers to mitigate impacts even though protected species would be taken. Even when technically feasible, an HCP can be lengthy and expensive. For this reason, the need to prepare an HCP would be considered a high constraint. This constraint level may be reduced to “medium” if a potential federal nexus can be identified which would allow the proposed action to proceed under Section 7 of the federal Endangered Species Act, a much less timely and complex process.

As described previously, areas with wetlands or other waters of the U.S. may be subject to permitting under the Clean Water Act and the State Fish and Game Code. As with endangered species permitting, wetland permitting can be an extensive process if the total area of fill is more than 0.5 acre. The discharge of fill into more than 0.5 acre of wetlands would be assigned to a “high constraint” category.

“Medium constraints” include areas of known or potential locations of plant or animal species (individuals or populations) designated by the state or federal government as candidates for endangered or threatened status, or species with a “species of concern” designation at the state level, where adequate mitigation is considered feasible. Medium constraints are also sensitive plant communities that may be addressed under certain policies, such as trees or plant communities protected under El Dorado County guidelines. Lastly, impacts to wetlands that are less than 0.5 acre are considered a medium constraint, for the application process with the Corps is typically through the Nationwide Permit program.

“Low constraints” are areas with vegetative communities which are not protected (typically common and widespread throughout the state or are severely degraded and have little to no potential to support listed, candidate, or special concern species). In the project area, this criterion would apply to disturbed areas.



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Described below in detail are the specific constraints of the study area. Many of the constraints described below are based on the potential for the proposed project to remove or modify existing habitats, including wetlands and other waters of the U.S.

Constraint 1 – Special Status Species

The project study area habitats provide potential habitat for several special status species. Project implementation may impact these species. This potential impact is considered a medium constraint.

These potentially impacted species are as follows:

- A. Foothill yellow-legged frog. Carson Creek provides suitable habitat for this species. Direct or indirect impacts to the creek may result in impacts to this species.
- B. Western pond turtle. Carson Creek provides suitable aquatic habitat for western pond turtle. No occurrences of this species are currently known from those ponds. Direct or indirect impacts to the creek may result in impacts to western pond turtle.
- C. Burrowing owl. The study area provides potential habitat for burrowing owl within annual grasslands. Small mammal burrows provide nesting habitat for the owl, and the open grasslands provide foraging opportunities. Direct or indirect impacts to the annual grassland habitat may result in impacts to this species.
- D. White-tailed kite. The riparian corridor of Carson Creek and adjacent woodlands provide potential nesting habitat for white-tailed kite, while the annual grasslands in the study area provide potential foraging habitat. Direct or indirect impacts to these habitats may result in impacts to this species.
- E. Nesting raptors, water fowl, and migratory songbirds. The study area provides nesting habitat for many raptor species, such as red-tailed hawk, barn owl, great-horned owl, and Cooper's hawk that may nest in the woodlands and riparian areas. In addition, these areas also provide habitat for migratory songbirds. Impacts to woodlands and riparian habitat may impact raptor and songbird nests. Impacts may include take of an individual, or impacts to the habitat, including disturbance during breeding season. Raptors are protected under Fish and Game Code and the Bald and Golden Eagle Protection Act, and migratory bird species are protected by the Migratory Bird Treaty Act.
- F. Special-status plants. The study area may provide habitat for the following plant species: big-scale balsamroot, streambank spring beauty, and Humboldt lily. Any direct disturbance of these plant species would be considered an impact.
- G. Valley elderberry longhorn beetle. Although the biological resource survey in 2015 did not identify suitable habitat in the study area, this species may occur within the vicinity. Elderberry shrubs were identified; however, these shrubs do not support suitable habitat for VELB (i.e. stems greater than one inch in diameter). A formal survey for elderberry shrubs was not conducted for this report. In the event suitable VELB habitat is identified within 100 feet of proposed future project construction, potential effects as a result of construction would need to be analyzed and the USFWS would need to be consulted either informally or formally under Section 7 of the Endangered Species Act.



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Constraint 2 – Wetlands and Waters of the U.S.

Construction activities within the project study area may result in the temporary and permanent fill of other waters of the U.S. and wetlands. This potential fill is considered a medium to high constraint, depending on the amount of fill. As described previously, a formal wetland delineation was not prepared for this report. However, it is likely that features described in this report are under the jurisdiction of Section 404 of the Clean Water Act. In addition, the Regional Water Quality Control Board (RWQCB) regulates these features under Section 401 of the Clean Water Act. CDFW also regulates stream channels and wetlands through the Streambed Alteration Agreement (SAA) Program as required by Fish and Game Code 1600+. Potential impacts to these jurisdictional features would require off-set mitigation that may include wetland or stream channel habitat creation, enhancement, or protection of existing resources.

Constraint 3 – Riparian Habitat

Construction activities within the project study area may result in the temporary and permanent loss of riparian habitat associated with Carson Creek. This is considered a medium constraint. Riparian habitats are considered under the jurisdiction of CDFW, and provide opportunities for a variety of sensitive animal species. A Streambed Alteration Agreement (SAA) from CDFW would be required for removal of this habitat, and off-set mitigation would be required. Direct impacts could include vegetation removal and ground disturbance, and indirect impacts could include water quality and hydrological effects.

Constraint 4 – Protected Trees

Construction activities in the project area could result in the removal of oak trees and oak woodland. This could conflict with State and local policies and guidelines. The removal of these oak woodlands is considered a medium constraint. Mitigation is likely to be required for removal of native oak trees. Mitigation can include setting aside similar habitats to be managed as open space preserve in perpetuity. Mitigation can also include planting and creation of oak woodland habitat.

Constraint 5 – Wildlife Corridors

As previously discussed, Carson Creek and its associated riparian corridor provide suitable dispersal corridor and movement habitat for special-status and common wildlife species. However, the study area is not situated within a known wildlife movement corridor. Therefore, while future development in the study area may temporarily disrupt wildlife movement, the disturbance would be temporary in nature. This is considered a low constraint.

Constraint 6 – Common Habitats

In addition to the loss of habitats addressed above, project development may result in the loss of habitats common to El Dorado County including annual grassland. This loss is considered a low constraint.



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Permitting Requirements

Federal Endangered Species Act Consultation Summary

The USFWS has jurisdiction over species that are formally listed as threatened, endangered, or proposed under FESA. The primary protective requirement in the case of projects requiring federal permits, authorizations, or funding, is the FESA Section 7 requirement for federal lead agencies to consult (or “confer” in the case of proposed species or proposed critical habitat) with the USFWS to ensure that their actions do not jeopardize the continued existence of threatened or endangered species. In addition to Section 7 requirements, Section 9 of the FESA protects listed wildlife species from “take”. Take is broadly defined as those activities that “harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect [a protected species], or attempt to engage in any such conduct.” An activity can be in violation of take prohibitions even if the activity is unintentional or accidental. Significant modification or degradation of the habitats of listed species, or activities that prevent or significantly impair essential behavioral patterns, including breeding, feeding, or sheltering, are also considered “take” under the FESA and are regulated by the USFWS.

California Endangered Species Act Consultation Summary

Under the California Endangered Species Act (CESA), CDFW has the responsibility for maintaining a list of threatened species and endangered species (California Fish and Game Code 2070). The CDFW also maintains a list of candidate species, species that the CDFW has formally noticed as being under review for addition to either the list of endangered species or the list of threatened species. The CDFW also maintains lists of species of special concern, which serve as “watch lists.” Pursuant to CESA requirements, an agency reviewing a proposed project within its jurisdiction must determine whether any state-listed endangered or threatened species could be present in the project area and determine whether the project would have a potentially significant impact on such species. In addition, the CDFW encourages coordination on any project that could impact a candidate species.

Wetlands and Other Waters Coordination Summary

U.S. Army Corps of Engineers

The USACE has primary federal responsibility for administering regulations that concern waters of the U.S. within the study area. The USACE acts under two statutory authorities, the Rivers and Harbors Act (Sections 9 and 10), which governs specified activities in the navigable waters of the U.S., and the Clean Water Act (Section 404), which governs specified activities in other waters of the U.S., including wetlands. The USACE requires that a permit be obtained if a project proposes placing structures within, over, or under navigable waters and/or discharging dredged or fill material into waters of the U.S. below the ordinary high-water mark in non-tidal waters. The U.S. Environmental Protection Agency, USFWS, NOAA Fisheries, and several other agencies provide comment on USACE permit applications.



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The discharge of fill into a jurisdictional feature requires a permit from the USACE. The USACE has the option to issue a permit on a case-by-case basis (individual permit) or at a program level (general permit). Nationwide Permits (NWP) are an example of general permits; they cover specific activities that generally have minimal environmental effects. Activities covered under a particular NWP must fulfill several general and specific conditions, as defined by the NWP. If a project cannot meet these conditions, an individual permit may be required.

State Regulations

The state's authority to regulate activities in waters of the U.S. resides primarily with the CDFW and the California State Water Resources Control Board (SWRCB). CDFW comments on USACE permit actions under the Fish and Wildlife Coordination Act. CDFW is also authorized under the California Fish and Game Code, Sections 1600–1616 to develop mitigation measures and enter into Streambed Alteration Agreements with applicants who propose projects that would obstruct the flow of or alter the bed, channel, or bank of a river or stream in which there is a fish or wildlife resource, including intermittent and ephemeral streams. The SWRCB, acting through the appropriate RWQCB, must certify that an USACE permit action meets state water quality objectives (Section 401, Clean Water Act).

California Fish and Game Code Sections 1600–1616 require that the CDFW be notified of any activity that could affect the bank or bed of any stream that has value to fish and wildlife, or of the activity will affect any existing fish or wildlife resource. Upon this notification, the CDFW is responsible for preparing a Streambed Alteration Agreement, in consultation with the project proponent. CDFW may require that certain avoidance measures be implemented for nesting cliff swallows as a condition of the Streambed Alteration Agreement.

Central Valley Regional Water Quality Control Board

The National Pollutant Discharge Elimination System (NPDES) permit program under Section 402(p) of the CWA controls water pollution by regulating stormwater discharges into the waters of the U.S. California has an approved state NPDES program. The EPA has delegated authority for water permitting to the California State Water Resources Control Board (SWRCB), which has nine regional boards. The Central Valley Regional Water Quality Control Board (CVRWQCB) regulates water quality in the project area.

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Appendix

Species Lists



CNPS *California Native Plant* Rare and Endangered Plant Inventory

Plant List

29 matches found. *Click on scientific name for details*

Search Criteria

Found in 9 Quads around 38121F1

Scientific Name	Common Name	Family	Lifeform	Rare Plant Rank	State Rank	Global Rank
Allium jepsonii	Jepson's onion	Alliaceae	perennial bulbiferous herb	1B.2	S1	G1
Allium sanbornii var. sanbornii	Sanborn's onion	Alliaceae	perennial bulbiferous herb	4.2	S4?	G3T4?
Balsamorhiza macrolepis	big-scale balsamroot	Asteraceae	perennial herb	1B.2	S2	G2
Calandrinia breweri	Brewer's calandrinia	Montiaceae	annual herb	4.2	S34	G4
Calystegia stebbinsii	Stebbins' morning-glory	Convolvulaceae	perennial rhizomatous herb	1B.1	S1	G1
Ceanothus fresnensis	Fresno ceanothus	Rhamnaceae	perennial evergreen shrub	4.3	S4	G4
Ceanothus roderickii	Pine Hill ceanothus	Rhamnaceae	perennial evergreen shrub	1B.1	S1	G1
Chlorogalum grandiflorum	Red Hills soaproot	Agavaceae	perennial bulbiferous herb	1B.2	S3	G3
Clarkia biloba ssp. brandegeae	Brandegee's clarkia	Onagraceae	annual herb	4.2	S4	G4G5T4
Claytonia parviflora ssp. grandiflora	streambank spring beauty	Montiaceae	annual herb	4.2	S3	G5T3
Crocanthemum suffrutescens	Bisbee Peak rush-rose	Cistaceae	perennial evergreen shrub	3.2	S2	G2Q
Downingia pusilla	dwarf downingia	Campanulaceae	annual herb	2B.2	S2	GU
Erigeron miser	starved daisy	Asteraceae	perennial herb	1B.3	S2	G2
Eriophyllum jepsonii	Jepson's woolly sunflower	Asteraceae	perennial herb	4.3	S3	G3
Eryngium pinnatisectum	Tuolumne button-celery	Apiaceae	annual / perennial herb	1B.2	S2	G2
Fremontodendron decumbens	Pine Hill flannelbush	Malvaceae	perennial evergreen shrub	1B.2	S1	G1
Galium californicum ssp. sierrae	El Dorado bedstraw	Rubiaceae	perennial herb	1B.2	S1	G5T1
Gratiola heterosepala	Boggs Lake hedge-hyssop	Plantaginaceae	annual herb	1B.2	S2	G2
Horkelia parryi	Parry's horkelia	Rosaceae	perennial herb	1B.2	S2	G2
Juncus leiospermus var. ahartii	Ahart's dwarf rush	Juncaceae	annual herb	1B.2	S1	G2T1

Legenere limosa	legenere	Campanulaceae	annual herb	1B.1	S2	G2
Lilium humboldtii ssp. humboldtii	Humboldt lily	Liliaceae	perennial bulbiferous herb	4.2	S3	G4T3
Navarretia myersii ssp. myersii	pincushion navarretia	Polemoniaceae	annual herb	1B.1	S1	G1T1
Orcuttia tenuis	slender Orcutt grass	Poaceae	annual herb	1B.1	S2	G2
Orcuttia viscida	Sacramento Orcutt grass	Poaceae	annual herb	1B.1	S1	G1
Packera layneae	Layne's ragwort	Asteraceae	perennial herb	1B.2	S2	G2
Sagittaria sanfordii	Sanford's arrowhead	Alismataceae	perennial rhizomatous herb	1B.2	S3	G3
Trichostema rubisepalum	Hernandez bluecurls	Lamiaceae	annual herb	4.3	S4	G4
Wyethia reticulata	El Dorado County mule ears	Asteraceae	perennial herb	1B.2	S2	G2

Suggested Citation

CNPS, Rare Plant Program. 2015. Inventory of Rare and Endangered Plants (online edition, v8-02). California Native Plant Society, Sacramento, CA. Website <http://www.rareplants.cnps.org> [accessed 11 February 2015].

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Selected Elements by Scientific Name
California Department of Fish and Wildlife
California Natural Diversity Database



Query Criteria: Quad is (Clarksville (3812161) or Rocklin (3812172) or Pilot Hill (3812171) or Coloma (3812078) or Folsom (3812162) or Shingle Springs (3812068) or Buffalo Creek (3812152) or Folsom SE (3812151) or Latrobe (3812058))

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
<i>Accipiter cooperii</i> Cooper's hawk	ABNKC12040	None	None	G5	S4	WL
<i>Agelaius tricolor</i> tricolored blackbird	ABPBXB0020	None	Endangered	G2G3	S1S2	SSC
<i>Allium jepsonii</i> Jepson's onion	PMLIL022V0	None	None	G1	S1	1B.2
<i>Ammodramus savannarum</i> grasshopper sparrow	ABPBXA0020	None	None	G5	S2	SSC
<i>Andrena blennospermatis</i> Blennosperma vernal pool andrenid bee	IIHYM35030	None	None	G2	S2	
<i>Antrozous pallidus</i> pallid bat	AMACC10010	None	None	G5	S3	SSC
<i>Aquila chrysaetos</i> golden eagle	ABNKC22010	None	None	G5	S3	FP
<i>Ardea alba</i> great egret	ABNGA04040	None	None	G5	S4	
<i>Ardea herodias</i> great blue heron	ABNGA04010	None	None	G5	S4	
<i>Athene cunicularia</i> burrowing owl	ABNSB10010	None	None	G4	S3	SSC
<i>Balsamorhiza macrolepis</i> big-scale balsamroot	PDAST11061	None	None	G2	S2	1B.2
<i>Banksula californica</i> Alabaster Cave harvestman	ILARA14020	None	None	GH	SH	
<i>Branchinecta lynchi</i> vernal pool fairy shrimp	ICBRA03030	Threatened	None	G3	S2S3	
<i>Branchinecta mesovallensis</i> midvalley fairy shrimp	ICBRA03150	None	None	G2	S2	
<i>Buteo swainsoni</i> Swainson's hawk	ABNKC19070	None	Threatened	G5	S3	
<i>Calystegia stebbinsii</i> Stebbins' morning-glory	PDCON040H0	Endangered	Endangered	G1	S1	1B.1
<i>Ceanothus roderickii</i> Pine Hill ceanothus	PDRHA04190	Endangered	Rare	G1	S1	1B.2
<i>Central Valley Drainage Hardhead/Squawfish Stream</i> Central Valley Drainage Hardhead/Squawfish Stream	CARA2443CA	None	None	GNR	SNR	
<i>Chlorogalum grandiflorum</i> Red Hills soaproot	PMLIL0G020	None	None	G3	S3	1B.2



Selected Elements by Scientific Name
California Department of Fish and Wildlife
California Natural Diversity Database



Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
<i>Clarkia biloba ssp. brandegeae</i> Brandegee's clarkia	PDONA05053	None	None	G4G5T4	S4	4.2
<i>Cosumnoperla hypocreana</i> Cosumnes stripetail	IIPLE23020	None	None	G2	S2	
<i>Crocانthemum suffrutescens</i> Bisbee Peak rush-rose	PDCIS020F0	None	None	G2Q	S2	3.2
<i>Desmocerus californicus dimorphus</i> valley elderberry longhorn beetle	IICOL48011	Threatened	None	G3T2	S2	
<i>Downingia pusilla</i> dwarf downingia	PDCAM060C0	None	None	GU	S2	2B.2
<i>Dumontia oregonensis</i> hairy water flea	ICBRA23010	None	None	G1G3	S1	
<i>Elanus leucurus</i> white-tailed kite	ABNKC06010	None	None	G5	S3S4	FP
<i>Emys marmorata</i> western pond turtle	ARAAD02030	None	None	G3G4	S3	SSC
<i>Eryngium pinnatisectum</i> Tuolumne button-celery	PDAP10Z0P0	None	None	G2	S2	1B.2
<i>Falco columbarius</i> merlin	ABNKD06030	None	None	G5	S3S4	WL
<i>Fremontodendron decumbens</i> Pine Hill flannelbush	PDSTE03030	Endangered	Rare	G1	S1	1B.2
<i>Galium californicum ssp. sierrae</i> El Dorado bedstraw	PDRUB0N0E7	Endangered	Rare	G5T1	S1	1B.2
<i>Gratiola heterosepala</i> Boggs Lake hedge-hyssop	PDSCR0R060	None	Endangered	G2	S2	1B.2
<i>Haliaeetus leucocephalus</i> bald eagle	ABNKC10010	Delisted	Endangered	G5	S2	FP
<i>Hydrochara rickseckeri</i> Ricksecker's water scavenger beetle	IICOL5V010	None	None	G2?	S2?	
<i>Juncus leiospermus var. ahartii</i> Ahart's dwarf rush	PMJUN011L1	None	None	G2T1	S1	1B.2
<i>Lasionycteris noctivagans</i> silver-haired bat	AMACC02010	None	None	G5	S3S4	
<i>Laterallus jamaicensis coturniculus</i> California black rail	ABNME03041	None	Threatened	G3G4T1	S1	FP
<i>Legenere limosa</i> legenere	PDCAM0C010	None	None	G2	S2	1B.1
<i>Lepidurus packardii</i> vernal pool tadpole shrimp	ICBRA10010	Endangered	None	G3	S2S3	
<i>Linderiella occidentalis</i> California linderiella	ICBRA06010	None	None	G2G3	S2S3	



Selected Elements by Scientific Name
California Department of Fish and Wildlife
California Natural Diversity Database



Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
<i>Navarretia myersii</i> ssp. <i>myersii</i> pincushion navarretia	PDPLM0C0X1	None	None	G1T1	S1	1B.1
Northern Hardpan Vernal Pool Northern Hardpan Vernal Pool	CTT44110CA	None	None	G3	S3.1	
Northern Volcanic Mud Flow Vernal Pool Northern Volcanic Mud Flow Vernal Pool	CTT44132CA	None	None	G1	S1.1	
<i>Oncorhynchus mykiss irideus</i> steelhead - Central Valley DPS	AFCHA0209K	Threatened	None	G5T2Q	S2	
<i>Orcuttia tenuis</i> slender Orcutt grass	PMPOA4G050	Threatened	Endangered	G2	S2	1B.1
<i>Orcuttia viscida</i> Sacramento Orcutt grass	PMPOA4G070	Endangered	Endangered	G1	S1	1B.1
<i>Packera layneae</i> Layne's ragwort	PDAST8H1V0	Threatened	Rare	G2	S2	1B.2
<i>Pandion haliaetus</i> osprey	ABNKC01010	None	None	G5	S4	WL
<i>Pekania pennanti</i> fisher - West Coast DPS	AMAJF01021	Proposed Threatened	Candidate Threatened	G5T2T3Q	S2S3	SSC
<i>Phalacrocorax auritus</i> double-crested cormorant	ABNFD01020	None	None	G5	S4	WL
<i>Phrynosoma blainvillii</i> coast horned lizard	ARACF12100	None	None	G3G4	S3S4	SSC
<i>Progne subis</i> purple martin	ABPAU01010	None	None	G5	S3	SSC
<i>Rana boylei</i> foothill yellow-legged frog	AAABH01050	None	None	G3	S2S3	SSC
<i>Rana draytonii</i> California red-legged frog	AAABH01022	Threatened	None	G2G3	S2S3	SSC
<i>Riparia riparia</i> bank swallow	ABPAU08010	None	Threatened	G5	S2	
<i>Sagittaria sanfordii</i> Sanford's arrowhead	PMALI040Q0	None	None	G3	S3	1B.2
<i>Spea hammondi</i> western spadefoot	AAABF02020	None	None	G3	S3	SSC
<i>Taxidea taxus</i> American badger	AMAJF04010	None	None	G5	S3	SSC
<i>Thamnophis gigas</i> giant garter snake	ARADB36150	Threatened	Threatened	G2	S2	
Valley Needlegrass Grassland Valley Needlegrass Grassland	CTT42110CA	None	None	G3	S3.1	
<i>Wyethia reticulata</i> El Dorado County mule ears	PDAST9X0D0	None	None	G2	S2	1B.2

Record Count: 61



Selected Elements by Scientific Name
California Department of Fish and Wildlife
California Natural Diversity Database



Query Criteria: Quad is (Clarksville (3812161))

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
<i>Agelaius tricolor</i> tricolored blackbird	ABPBXB0020	None	Endangered	G2G3	S1S2	SSC
<i>Andrena blennospermatis</i> Blennosperma vernal pool andrenid bee	IIHYM35030	None	None	G2	S2	
<i>Aquila chrysaetos</i> golden eagle	ABNKC22010	None	None	G5	S3	FP
<i>Ardea alba</i> great egret	ABNGA04040	None	None	G5	S4	
<i>Ardea herodias</i> great blue heron	ABNGA04010	None	None	G5	S4	
<i>Athene cunicularia</i> burrowing owl	ABNSB10010	None	None	G4	S3	SSC
<i>Branchinecta lynchi</i> vernal pool fairy shrimp	ICBRA03030	Threatened	None	G3	S2S3	
<i>Ceanothus roderickii</i> Pine Hill ceanothus	PDRHA04190	Endangered	Rare	G1	S1	1B.2
<i>Chlorogalum grandiflorum</i> Red Hills soaproot	PMLIL0G020	None	None	G3	S3	1B.2
<i>Clarkia biloba ssp. brandegeae</i> Brandegee's clarkia	PDONA05053	None	None	G4G5T4	S4	4.2
<i>Crocانthemum suffrutescens</i> Bisbee Peak rush-rose	PDCIS020F0	None	None	G2Q	S2	3.2
<i>Desmocerus californicus dimorphus</i> valley elderberry longhorn beetle	IICOL48011	Threatened	None	G3T2	S2	
<i>Elanus leucurus</i> white-tailed kite	ABNKC06010	None	None	G5	S3S4	FP
<i>Emys marmorata</i> western pond turtle	ARAAD02030	None	None	G3G4	S3	SSC
<i>Fremontodendron decumbens</i> Pine Hill flannelbush	PDSTE03030	Endangered	Rare	G1	S1	1B.2
<i>Galium californicum ssp. sierrae</i> El Dorado bedstraw	PDRUB0N0E7	Endangered	Rare	G5T1	S1	1B.2
<i>Haliaeetus leucocephalus</i> bald eagle	ABNKC10010	Delisted	Endangered	G5	S2	FP
<i>Hydrochara rickseckeri</i> Ricksecker's water scavenger beetle	IICOL5V010	None	None	G2?	S2?	
<i>Packera layneae</i> Layne's ragwort	PDAST8H1V0	Threatened	Rare	G2	S2	1B.2
<i>Rana draytonii</i> California red-legged frog	AAABH01022	Threatened	None	G2G3	S2S3	SSC



Selected Elements by Scientific Name
California Department of Fish and Wildlife
California Natural Diversity Database



Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
<i>Sagittaria sanfordii</i> Sanford's arrowhead	PMALI040Q0	None	None	G3	S3	1B.2
<i>Wyethia reticulata</i> El Dorado County mule ears	PDAST9X0D0	None	None	G2	S2	1B.2

Record Count: 22



Multiple Occurrences per Page
California Department of Fish and Wildlife
California Natural Diversity Database



Query Criteria: Quad is (Clarksville (3812161) or Rocklin (3812172) or Pilot Hill (3812171) or Coloma (3812078) or Folsom (3812162) or Folsom SE (3812151) or Shingle Springs (3812068) or Buffalo Creek (3812152) or Latrobe (3812058))

Spea hammondi

Element Code: AAABF02020

western spadefoot

Listing Status: **Federal:** None

CNDDDB Element Ranks: **Global:** G3

State: None

State: S3

Other: BLM_S-Sensitive, CDFW_SSC-Species of Special Concern, IUCN_NT-Near Threatened

Habitat: **General:** OCCURS PRIMARILY IN GRASSLAND HABITATS, BUT CAN BE FOUND IN VALLEY-FOOTHILL HARDWOOD WOODLANDS.

Micro: VERNAL POOLS ARE ESSENTIAL FOR BREEDING AND EGG-LAYING.

Occurrence No.	55	Map Index:	32324	EO Index:	2650	Element Last Seen:	1978-03-05
Occ. Rank:	Unknown	Presence:	Presumed Extant	Site Last Seen:	1978-03-05		
Occ. Type:	Introduced Back into Native Hab./Range	Trend:	Unknown	Record Last Updated:	1995-07-20		

Quad Summary: Folsom (3812162)

County Summary: Sacramento

Lat/Long:	38.65123 / -121.21958	Accuracy:	nonspecific area
UTM:	Zone-10 N4279578 E654929	Elevation (ft):	260
PLSS:	T09N, R07E, Sec. 09 (M)	Acres:	47.4

Location: PHOENIX PARK, PHOENIX FIELD, FAIR OAKS; APPROX. 0.5 KM ESE OF THE INTERSECTION BETWEEN SUNSET AVENUE AND HAZEL AVENUE.

Detailed Location:

Ecological: PHOENIX FIELD VERNAL POOLS.

General: CAPTURED & RELEASED 2 MALES. FIRST EVIDENCE OF POP AT THIS SITE; MCCREADY BELIEVES FROGS ARE INTRODUCED. NO EVIDENCE OF BREEDING; INFORMED FAIR OAKS RECREATION & PARK DISTRICT AS POOLS REGISTERED IN NATIONAL REGISTRY OF NATURAL LANDMARKS.

Owner/Manager: CITY OF FAIR OAKS

Occurrence No.	56	Map Index:	32325	EO Index:	2582	Element Last Seen:	1978-03-07
Occ. Rank:	Excellent	Presence:	Presumed Extant	Site Last Seen:	1978-03-07		
Occ. Type:	Natural/Native occurrence	Trend:	Unknown	Record Last Updated:	2009-06-08		

Quad Summary: Buffalo Creek (3812152)

County Summary: Sacramento

Lat/Long:	38.53084 / -121.21486	Accuracy:	nonspecific area
UTM:	Zone-10 N4266226 E655599	Elevation (ft):	150
PLSS:	T08N, R07E, Sec. 21 (M)	Acres:	6158.4

Location: ADJACENT TO (FORMER) MATHER AIR FORCE BASE. AREA BORDERED BY SUNRISE BLVD, STATE ROUTE 16, GRANT LINE RD & DOUGLAS RD.

Detailed Location: MANY PONDS AND VERNAL POOLS WITHIN THE AREA.

Ecological: VERNAL POOLS. MCCREADY HAS STUDIED THIS AREA SINCE 1967, HE CONSIDERS THESE TO BE SOME OF THE FINEST VERNAL POOLS IN CALIFORNIA.

General: 65 MALES HEARD CALLING; TADPOLES OBS IN 25 DIFFERENT POOLS DURING SEVERAL LATER SPRING SURVEYS. SOME INDIVIDUAL PONDS OFF KEIFER BLVD & JAEGER RD HAD TADPOLES OF SPADEFOOT, WESTERN TOAD, & PACIFIC TREEFROG, WHICH IS AN UNUSUAL PHENOMENON.

Owner/Manager: UNKNOWN



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Rana draytonii

Element Code: AAABH01022

California red-legged frog

Listing Status: **Federal:** Threatened

CNDDB Element Ranks: **Global:** G2G3

State: None

State: S2S3

Other: CDFW_SSC-Species of Special Concern, IUCN_VU-Vulnerable

Habitat: **General:** LOWLANDS & FOOTHILLS IN OR NEAR PERMANENT SOURCES OF DEEP WATER WITH DENSE, SHRUBBY OR EMERGENT RIPARIAN VEGETATION.

Micro: REQUIRES 11-20 WEEKS OF PERMANENT WATER FOR LARVAL DEVELOPMENT. MUST HAVE ACCESS TO ESTIVATION HABITAT.

Occurrence No.	814	Map Index:	61448	EO Index:	61484	Element Last Seen:	2005-05-12
Occ. Rank:	Fair	Presence:	Presumed Extant	Site Last Seen:		2005-05-12	
Occ. Type:	Natural/Native occurrence	Trend:	Unknown	Record Last Updated:		2005-05-31	

Quad Summary: Clarksville (3812161)

County Summary: El Dorado

Lat/Long:	38.73547 / -121.08304	Accuracy:	80 meters
UTM:	Zone-10 N4289167 E666615	Elevation (ft):	485
PLSS:	T10N, R08E, Sec. 10 (M)	Acres:	0.0

Location: DRAINAGE/WATERCOURSE AT THE END OF FITCH WAY, EAST SIDE OF FOLSOM LAKE, SW OF IRON MOUNTAIN.

Detailed Location: THIS DRAINAGE EMANATES FROM A PVC PIPE AT THE END OF FITCH WAY; FROG OBSERVED ON A SMALL FOOTBRIDGE CROSSING THE WATERCOURSE.

Ecological: HABITAT CONSISTS OF A SMALL WATERCOURSE THAT DRAINS INTO FOLSOM LAKE; VEGETATED BY SEDGES AND HIMALAYAN BLACKBERRY.

General: 1 JUVENILE FROG WITH DISTINCT DORSOLATERAL FOLDS AND REDISH UNDER THIGHS OBSERVED ON 12 MAY 2005 BY A STATE PARK BIOLOGIST.

Owner/Manager: DPR-FOLSOM LAKE SRA, USBOR



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Rana boylei

Element Code: AAABH01050

foothill yellow-legged frog

Listing Status:	Federal: None	CNDDDB Element Ranks:	Global: G3
	State: None		State: S2S3
	Other: BLM_S-Sensitive, CDFW_SSC-Species of Special Concern, IUCN_NT-Near Threatened, USFS_S-Sensitive		
Habitat:	General: PARTLY-SHADED, SHALLOW STREAMS & RIFFLES WITH A ROCKY SUBSTRATE IN A VARIETY OF HABITATS.		
	Micro: NEED AT LEAST SOME COBBLE-SIZED SUBSTRATE FOR EGG-LAYING. NEED AT LEAST 15 WEEKS TO ATTAIN METAMORPHOSIS.		

Occurrence No.	389	Map Index:	53198	EO Index:	53198	Element Last Seen:	2003-10-27
Occ. Rank:	Excellent	Presence:	Presumed Extant	Site Last Seen:			2003-10-27
Occ. Type:	Natural/Native occurrence	Trend:	Unknown	Record Last Updated:			2003-11-06

Quad Summary: Coloma (3812078)

County Summary: El Dorado

Lat/Long:	38.83467 / -120.90623	Accuracy:	nonspecific area
UTM:	Zone-10 N4300513 E681732	Elevation (ft):	1000
PLSS:	T11N, R10E, Sec. 06 (M)	Acres:	70.3

Location: INDIAN CREEK, TRIBUTARY TO THE SOUTH FORK OF THE AMERICAN RIVER, 2 MILES NORTH OF LOTUS.

Detailed Location:

Ecological: HABITAT CONSISTS OF A PERENNIAL STREAM WITH INTERMITTENT POOLS.

General: >100 ADULTS AND JUVENILES OBSERVED ON 27 OCT 2003.

Owner/Manager: BLM



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***Phalacrocorax auritus***

Element Code: ABNFD01020

double-crested cormorant

Listing Status:	Federal: None	CNDDDB Element Ranks:	Global: G5
	State: None		State: S4
	Other: CDFW_WL-Watch List, IUCN_LC-Least Concern		
Habitat:	General: COLONIAL NESTER ON COASTAL CLIFFS, OFFSHORE ISLANDS, & ALONG LAKE MARGINS IN THE INTERIOR OF THE STATE.		
	Micro: NESTS ALONG COAST ON SEQUESTERED ISLETS, USUALLY ON GROUND WITH SLOPING SURFACE, OR IN TALL TREES ALONG LAKE MARGINS.		

Occurrence No.	37	Map Index: 17123	EO Index: 60310	Element Last Seen: 2005-02-25
Occ. Rank:	Good	Presence:	Presumed Extant	Site Last Seen: 2005-02-25
Occ. Type:	Natural/Native occurrence	Trend:	Stable	Record Last Updated: 2005-02-28

Quad Summary: Folsom (3812162)**County Summary:** Sacramento

Lat/Long:	38.64689 / -121.19683	Accuracy:	specific area
UTM:	Zone-10 N4279135 E656918	Elevation (ft):	150
PLSS:	T09N, R07E, Sec. 10 (M)	Acres:	19.3

Location: MISSISSIPPI BAR, ON THE WEST SIDE OF LAKE NATOMA, ACROSS FROM WILLOW CREEK ACCESS, FOLSOM LAKE STATE RECREATION AREA.**Detailed Location:****Ecological:** NESTING SUBSTRATE CONSISTS OF GRAY PINES (AKA FOOTHILL PINES). GREAT BLUE HERONS AND GREAT EGRETS ALSO NEST AT THIS ROOKERY SITE.**General:** 3+ PAIRS OCCUPYING NESTS AND PERFORMING COURSHIP DISPLAYS ON 25 FEB 2005. THIS HAS BEEN AN ACTIVE ROOKERY FOR 25+ YEARS.**Owner/Manager:** DPR-FOLSOM LAKE SRA***Ardea herodias***

Element Code: ABNGA04010

great blue heron

Listing Status:	Federal: None	CNDDDB Element Ranks:	Global: G5
	State: None		State: S4
	Other: CDF_S-Sensitive, IUCN_LC-Least Concern		
Habitat:	General: COLONIAL NESTER IN TALL TREES, CLIFFSIDES, AND SEQUESTERED SPOTS ON MARSHES.		
	Micro: ROOKERY SITES IN CLOSE PROXIMITY TO FORAGING AREAS: MARSHES, LAKE MARGINS, TIDE-FLATS, RIVERS AND STREAMS, WET MEADOWS.		



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Occurrence No.	30	Map Index:	17072	EO Index:	12140	Element Last Seen:	1989-06-05
Occ. Rank:	None			Presence:	Possibly Extirpated	Site Last Seen:	1990-XX-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	1990-11-07
Quad Summary:	Clarksville (3812161), Folsom (3812162)						
County Summary:	Sacramento						
Lat/Long:	38.67918 / -121.12308				Accuracy:	1/5 mile	
UTM:	Zone-10 N4282847 E663263				Elevation (ft):	350	
PLSS:	T10N, R08E, Sec. 32 (M)				Acres:	0.0	
Location:	JUST SOUTH OF THE INTERSECTION OF BLUE RAVINE RD AND THE RD CONNECTING BLUE RAVINE AND GREEN VALLEY RDS, S OF FOLSOM LK.						
Detailed Location:	ROOKERY IS LOCATED IN SOME COTTONWOODS BORDERING DREDGER TAILINGS.						
Ecological:							
General:	14 ADULTS AND 2 JUVENILES OBSERVED IN 1989; NONE IN 1990. GREAT EGRETS ALSO NEST HERE.						
Owner/Manager:	PVT						
Occurrence No.	32	Map Index:	17120	EO Index:	12168	Element Last Seen:	1990-03-18
Occ. Rank:	Excellent			Presence:	Presumed Extant	Site Last Seen:	1990-03-18
Occ. Type:	Natural/Native occurrence			Trend:	Stable	Record Last Updated:	1991-04-09
Quad Summary:	Folsom (3812162)						
County Summary:	Sacramento						
Lat/Long:	38.69921 / -121.16554				Accuracy:	1/5 mile	
UTM:	Zone-10 N4284995 E659525				Elevation (ft):	200	
PLSS:	T10N, R07E, Sec. 25 (M)				Acres:	0.0	
Location:	AMERICAN RIVER CANYON, ADJACENT TO FOLSOM STATE PRISON, ON THE EAST SIDE OF THE AMERICAN RIVER, 0.6 MI BELOW FOLSOM DAM.						
Detailed Location:	22 ADULTS OBSERVED NESTING IN COTTONWOOD TREES.						
Ecological:	HABITAT IS A COTTONWOOD RIPARIAN WOODLAND. NO VISIBLE DISTURBANCES, DESPITE ITS PROXIMITY TO THE STATE PRISON BUILDINGS.						
General:	NESTS WERE ALREADY BUILT IN THE COTTONWOOD TREES; MOST ADULTS WERE STANDING IN PAIRS ON THE NESTS, ALTHOUGH ONE NEST HAD AN ADULT SITTING ON THE NEST.						
Owner/Manager:	DOC-FOLSOM STATE PRISON						



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Occurrence No.	33	Map Index:	17121	EO Index:	12156	Element Last Seen:	1990-03-18
Occ. Rank:	Excellent			Presence:	Presumed Extant	Site Last Seen:	1990-03-18
Occ. Type:	Natural/Native occurrence			Trend:	Stable	Record Last Updated:	1991-04-09
Quad Summary:	Folsom (3812162)						
County Summary:	Sacramento						
Lat/Long:	38.70602 / -121.16197				Accuracy:	1/5 mile	
UTM:	Zone-10 N4285757 E659820				Elevation (ft):	200	
PLSS:	T10N, R07E, Sec. 24 (M)				Acres:	0.0	
Location:	0.25 MI SOUTH OF THE BASE OF FOLSOM DAM, ON THE WEST SIDE OF THE AMERICAN RIVER CANYON.						
Detailed Location:	32 ADULTS OBSERVED NESTING IN COTTONWOOD TREES.						
Ecological:	HABITAT IS COTTONWOOD RIPARIAN WOODLAND.						
General:	APPROXIMATELY 20 NESTS WERE OBSERVED IN JANUARY BY SOGGE WITH 10 UNPAIRED, STANDING ADULTS; MOST ADULTS WERE STANDING IN PAIRS ON THE NESTS BY MARCH WHEN OBSERVED BY JOHNSON, ALTHOUGH 2 NESTS HAD ADULTS SITTING ON NESTS, AS WELL.						
Owner/Manager:	USBOR						

Occurrence No.	34	Map Index:	17123	EO Index:	12165	Element Last Seen:	2005-02-25
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	2005-02-25
Occ. Type:	Natural/Native occurrence			Trend:	Stable	Record Last Updated:	2005-02-28
Quad Summary:	Folsom (3812162)						
County Summary:	Sacramento						
Lat/Long:	38.64689 / -121.19683				Accuracy:	specific area	
UTM:	Zone-10 N4279135 E656918				Elevation (ft):	150	
PLSS:	T09N, R07E, Sec. 10 (M)				Acres:	19.3	
Location:	MISSISSIPPI BAR, ON WEST SIDE OF LAKE NATOMA, ACROSS FROM THE WILLOW CREEK ACCESS, FOLSOM LAKE STATE RECREATION AREA.						
Detailed Location:							
Ecological:	NESTING SUBSTRATE CONSISTS OF GRAY PINES (AKA FOOTHILL PINES). GREAT EGRETS AND DOUBLE-CRESTED CORMORANTS ALSO NEST AT THIS ROOKERY SITE.						
General:	UNKNOWN NUMBER OF NESTS OBSERVED IN THE TOPS OF SOME FOOTHILL PINES ON 10 MAY 1989. 20+ PAIRS OCCUPYING NESTS AND PERFORMING COURTSHIP DISPLAYS ON 25 FEB 2005. THIS HAS BEEN AN ACTIVE ROOKERY FOR 25+ YEARS.						
Owner/Manager:	DPR-FOLSOM LAKE SRA						



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Occurrence No.	133	Map Index:	94843	EO Index:	95961	Element Last Seen:	2014-05-23
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2014-05-23
Occ. Type:	Natural/Native occurrence			Trend:	Stable	Record Last Updated:	2015-01-12
Quad Summary:	Latrobe (3812058)						
County Summary:	El Dorado						
Lat/Long:	38.61305 / -120.99832				Accuracy:	80 meters	
UTM:	Zone-10 N4275738 E674276				Elevation (ft):	800	
PLSS:	T09N, R09E, Sec. 28 (M)				Acres:	0.0	
Location:	ABOUT 0.5 AIR MI S OF DEER CREEK AT MARBLE CREEK, 1.5 MI NE OF LATROBE RD AT COTHRIN RANCH RD, 4 MI E OF MALBY CROSSING.						
Detailed Location:	SOUTH SIDE OF DEER CREEK. MAPPED TO PROVIDED COORDINATES FOR 2014 ROOKERY TREE.						
Ecological:	ROOKERY IN TALLEST TREES ABOVE CREEK ON STEEP NORTH-FACING SLOPE. OAK WOODLAND WITH BLUE OAK, LIVE OAK, GRAY PINE, PONDEROSA PINE, MANZANITA, AND TOYON. SURROUNDED BY 10+ ACRE RESIDENTIAL PARCELS; 1 LARGE UNDEVELOPED PARCEL NEARBY (2014).						
General:	REPORTS OF ROOKERY BY AREA RESIDENTS AS EARLY AS 1998 CONTINUING THROUGH 2014. SEVERAL NESTS SUPPORTED 3 CHICKS IN 2012, SUGGESTING RICH HABITAT. PHOTOGRAPHED DURING MAY OF 2012, 2013, & 2014.						
Owner/Manager:	PVT						



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**Ardea alba**

Element Code: ABNGA04040

great egret

Listing Status:	Federal:	None	CNDDDB Element Ranks:	Global:	G5
	State:	None		State:	S4
	Other:	CDF_S-Sensitive, IUCN_LC-Least Concern			
Habitat:	General:	COLONIAL NESTER IN LARGE TREES.			
	Micro:	ROOKERY SITES LOCATED NEAR MARSHES, TIDE-FLATS, IRRIGATED PASTURES, AND MARGINS OF RIVERS AND LAKES.			

Occurrence No.	15	Map Index:	17072	EO Index:	12096	Element Last Seen:	1989-05-09
Occ. Rank:	None			Presence:	Possibly Extirpated	Site Last Seen:	1990-XX-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	1990-11-07

Quad Summary: Clarksville (3812161), Folsom (3812162)**County Summary:** Sacramento

Lat/Long:	38.67918 / -121.12308	Accuracy:	1/5 mile
UTM:	Zone-10 N4282847 E663263	Elevation (ft):	350
PLSS:	T10N, R08E, Sec. 32 (M)	Acres:	0.0

Location: JUST SOUTH OF THE INTERSECTION OF BLUE RAVINE RD AND THE RD CONNECTING BLUE RAVINE AND GREEN VALLEY RDS, S OF FOLSOM LK.**Detailed Location:** ROOKERY IS LOCATED IN SOME COTTONWOODS BORDERING DREDGER TAILINGS.**Ecological:****General:** 4 ADULTS OBSERVED NESTING IN 1989; NONE IN 1990. GREAT BLUE HERONS ALSO NEST AT THIS LOCATION.**Owner/Manager:** PVT

Occurrence No.	32	Map Index:	17123	EO Index:	60309	Element Last Seen:	2005-02-25
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2005-02-25
Occ. Type:	Natural/Native occurrence			Trend:	Stable	Record Last Updated:	2005-02-28

Quad Summary: Folsom (3812162)**County Summary:** Sacramento

Lat/Long:	38.64689 / -121.19683	Accuracy:	specific area
UTM:	Zone-10 N4279135 E656918	Elevation (ft):	150
PLSS:	T09N, R07E, Sec. 10 (M)	Acres:	19.3

Location: MISSISSIPPI BAR, ON WEST SIDE OF LAKE NATOMA, ACROSS FROM THE WILLOW CREEK ACCESS, FOLSOM LAKE STATE RECREATION AREA.**Detailed Location:****Ecological:** NESTING SUBSTRATE CONSISTS OF GRAY PINES (AKA FOOTHILL PINES). GREAT BLUE HERONS AND DOUBLE-CRESTED CORMORANTS ALSO NEST AT THIS ROOKERY SITE.**General:** 15+ PAIRS OCCUPYING NESTS AND PERFORMING COURTSHIP DISPLAYS ON 25 FEB 2005. THIS HAS BEEN AN ACTIVE ROOKERY FOR 25+ YEARS.**Owner/Manager:** DPR-FOLSOM LAKE SRA



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***Pandion haliaetus***

Element Code: ABNKC01010

osprey

Listing Status:	Federal: None	CNDDDB Element Ranks:	Global: G5
	State: None		State: S4
	Other: CDF_S-Sensitive, CDFW_WL-Watch List, IUCN_LC-Least Concern		
Habitat:	General: OCEAN SHORE, BAYS, FRESH-WATER LAKES, AND LARGER STREAMS.		
	Micro: LARGE NESTS BUILT IN TREE-TOPS WITHIN 15 MILES OF A GOOD FISH-PRODUCING BODY OF WATER.		

Occurrence No.	446	Map Index: 76581	EO Index: 77561	Element Last Seen:	2008-06-11
Occ. Rank:	Fair		Presence: Presumed Extant	Site Last Seen:	2008-06-11
Occ. Type:	Natural/Native occurrence		Trend: Unknown	Record Last Updated:	2009-09-16

Quad Summary: Rocklin (3812172)**County Summary:** Placer

Lat/Long:	38.85499 / -121.23054	Accuracy:	80 meters
UTM:	Zone-10 N4302173 E653537	Elevation (ft):	575
PLSS:	T12N, R07E, Sec. 30 (M)	Acres:	0.0

Location: NORTHWEST EDGE OF "TWELVE BRIDGES GOLF COURSE POND", EAST OF CATTI VERDERA COUNTRY CLUB, LINCOLN.**Detailed Location:** NEST LOCATED ATOP WOODEN POLE. LOCATION MAPPED ACCORDING TO PROVIDED COORDINATES AND LOCATION SHOWN ON MAP.**Ecological:** RESIDENTIAL BUILDOUT IS OCCURRING ALONG ADJACENT PARCELS.**General:** NESTING PAIR OBSERVED ON 11 JUNE 2008.**Owner/Manager:** PVT***Elanus leucurus***

Element Code: ABNKC06010

white-tailed kite

Listing Status:	Federal: None	CNDDDB Element Ranks:	Global: G5
	State: None		State: S3S4
	Other: BLM_S-Sensitive, CDFW_FP-Fully Protected, IUCN_LC-Least Concern		
Habitat:	General: ROLLING FOOTHILLS AND VALLEY MARGINS WITH SCATTERED OAKS & RIVER BOTTOMLANDS OR MARSHES NEXT TO DECIDUOUS WOODLAND.		
	Micro: OPEN GRASSLANDS, MEADOWS, OR MARSHES FOR FORAGING CLOSE TO ISOLATED, DENSE-TOPPED TREES FOR NESTING AND PERCHING.		

Occurrence No.	22	Map Index: 24817	EO Index: 12178	Element Last Seen:	1990-06-23
Occ. Rank:	Good		Presence: Presumed Extant	Site Last Seen:	1990-06-23
Occ. Type:	Natural/Native occurrence		Trend: Unknown	Record Last Updated:	1993-12-06

Quad Summary: Buffalo Creek (3812152), Carmichael (3812153)**County Summary:** Sacramento

Lat/Long:	38.55327 / -121.24791	Accuracy:	1/5 mile
UTM:	Zone-10 N4268659 E652671	Elevation (ft):	160
PLSS:	T08N, R07E, Sec. 18 (M)	Acres:	0.0

Location: SE CORNER OF MATHER LAKE, MATHER AIR FORCE BASE.**Detailed Location:** NEST IS LOCATED IN A TREE AT THE EDGE OF A FRESHWATER LAKE.**Ecological:****General:** 2 ADULTS AND 2 JUVENILES OBSERVED IN 1990.**Owner/Manager:** DOD-MATHER AFB



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Occurrence No.	23	Map Index:	24818	EO Index:	12685	Element Last Seen:	1990-06-01
Occ. Rank:	Fair			Presence:	Presumed Extant	Site Last Seen:	1990-06-01
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	1994-02-03
Quad Summary:	Buffalo Creek (3812152)						
County Summary:	Sacramento						
Lat/Long:	38.52377 / -121.20708			Accuracy:	80 meters		
UTM:	Zone-10 N4265454 E656293			Elevation (ft):	180		
PLSS:	T08N, R07E, Sec. 28 (M)			Acres:	0.0		
Location:	N SIDE OF BLODGETT RESERVOIR, AT THE UPSTREAM END, JUST SOUTH OF KIEFER BLVD, 2 MILES NW OF SLOUGHHOUSE.						
Detailed Location:							
Ecological:	NEST TREE IS A LIVE OAK WITH ADJACENT EUCALYPTUS TREES.						
General:	BLODGETT RESERVOIR IS A PRIVATE GUN/FISHING CLUB. 2 ADULTS AND 4 JUVENILES WERE OBSERVED IN 1990.						
Owner/Manager:	PVT						
Occurrence No.	24	Map Index:	24819	EO Index:	12136	Element Last Seen:	1989-06-XX
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	1989-06-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	1993-12-06
Quad Summary:	Buffalo Creek (3812152)						
County Summary:	Sacramento						
Lat/Long:	38.60061 / -121.13253			Accuracy:	80 meters		
UTM:	Zone-10 N4274111 E662619			Elevation (ft):	290		
PLSS:	T09N, R08E, Sec. 29 (M)			Acres:	0.0		
Location:	NORTH SIDE OF SCOTT ROAD, 0.5 MILE NORTH OF THE BRIDGE OVER COYOTE CREEK, 5 MILES SOUTH OF FOLSOM.						
Detailed Location:	NEST APPEARED TO BE LOCATED IN A CLUMP OF MISTLETOE.						
Ecological:	NEST TREE IS A LIVE OAK; SURROUNDING FORAGING HABITAT CONSISTS OF OAK/GRASSLAND IN A ROLLING TERRAIN CONTAINING SMALL, SEASONAL CREEKS.						
General:	2 ADULTS OBSERVED FROM FEBRUARY-JUNE 1989; NESTING SUCCESS UNKNOWN.						
Owner/Manager:	PVT						
Occurrence No.	29	Map Index:	24812	EO Index:	6462	Element Last Seen:	1989-06-20
Occ. Rank:	Excellent			Presence:	Presumed Extant	Site Last Seen:	1989-06-20
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	1993-12-07
Quad Summary:	Folsom (3812162)						
County Summary:	Sacramento						
Lat/Long:	38.66673 / -121.19425			Accuracy:	80 meters		
UTM:	Zone-10 N4281341 E657099			Elevation (ft):	200		
PLSS:	T09N, R07E, Sec. 03 (M)			Acres:	0.0		
Location:	SNIPES/PERSHING RAVINE, ON THE WEST SIDE OF LAKE NATOMA, ORANGEVALE.						
Detailed Location:							
Ecological:	MIX OF BLUE OAK, FOOTHILL PINE, POISON OAK, AND BUCKEYE.						
General:	2 ADULTS AND 3 JUVENILES OBSERVED IN 1989.						
Owner/Manager:	PVT						



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Occurrence No.	30	Map Index:	24811	EO Index:	6461	Element Last Seen:	1988-06-XX
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	1988-06-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	1995-11-02
Quad Summary:	Folsom (3812162)						
County Summary:	Sacramento						
Lat/Long:	38.63745 / -121.24341				Accuracy:	80 meters	
UTM:	Zone-10 N4278009 E652884				Elevation (ft):	125	
PLSS:	T09N, R07E, Sec. 17 (M)				Acres:	0.0	
Location:	SAILOR BAR, NEAR THE END OF KENNETH AVENUE, NORTH OF THE AMERICAN RIVER AND 1 MILE WEST OF HAZEL AVENUE, FAIR OAKS.						
Detailed Location:	NEST IS LOCATED IN THE CENTER-TOP OF A LIVE OAK FOUND AMONG DREDGER TAILINGS, BETWEEN THE BLUFFS TO THE NORTH AND THE SERVICE ROAD FOLLOWING THE RIVER TO THE SOUTH.						
Ecological:	NEST TREE IS A LIVE OAK; SURROUNDING VEGETATION CONSISTS OF COTTONWOODS, WILLOWS, COYOTE BUSH, POISON OAK, WILD GRAPE, AND ELDERBERRY.						
General:	ONE BIRD OBSERVED ON NEST IN 1988.						
Owner/Manager:	SAC COUNTY						
Occurrence No.	31	Map Index:	24810	EO Index:	6463	Element Last Seen:	1992-XX-XX
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	1992-XX-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	1993-12-07
Quad Summary:	Folsom (3812162)						
County Summary:	Sacramento						
Lat/Long:	38.71458 / -121.23824				Accuracy:	80 meters	
UTM:	Zone-10 N4286577 E653169				Elevation (ft):	200	
PLSS:	T10N, R07E, Sec. 20 (M)				Acres:	0.0	
Location:	WOODBIDGE PARK, EAST SIDE OF LINDA CREEK, 0.5 MILE SOUTH OF OLD AUBURN ROAD, ORANGEVALE.						
Detailed Location:	NEST SITE LOCATED SOUTH OF POND AND EAST OF THE TENNIS COURTS, BORDERING THE FENCELINE; DEVELOPED PARK ON ONE SIDE AND LINDA CREEK RIPARIAN AREA ON THE OTHER.						
Ecological:	HABITAT CONSISTS OF OAK/RIPARIAN WOODLAND ALONG THE CREEKSIDE.						
General:	NEST WITH 2 ADULTS OBSERVED ON 26 MAY 1992; 2 YOUNG OBSERVED IN NEST DURING A SUBSEQUENT VISIT.						
Owner/Manager:	UNKNOWN						



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Occurrence No.	40	Map Index:	24987	EO Index:	22256	Element Last Seen:	1991-03-10
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	1991-03-10
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	1994-02-15
Quad Summary:	Folsom (3812162)						
County Summary:	Sacramento						
Lat/Long:	38.63314 / -121.19923				Accuracy:	80 meters	
UTM:	Zone-10 N4277605 E656739				Elevation (ft):	160	
PLSS:	T09N, R07E, Sec. 15 (M)				Acres:	0.0	
Location:	S OF FOLSOM BLVD, S OF PAC BELL BLDG, PRIOR TO ENTRANCE TO AEROJET, 1 MI E OF HAZEL AVE EXIT ON HWY 50, RANCHO CORDOVA.						
Detailed Location:							
Ecological:	TRANSITIONAL PLANT COMMUNITIES, FOOTHILL PINE, TOYAN PRESENT.						
General:	1 ADULT OBSERVED SITTING ON A NEST IN A TREE IN 1991.						
Owner/Manager:	UNKNOWN						

Occurrence No.	74	Map Index:	52426	EO Index:	52426	Element Last Seen:	2003-07-XX
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2003-07-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2003-09-11
Quad Summary:	Rocklin (3812172)						
County Summary:	Placer						
Lat/Long:	38.85073 / -121.20688				Accuracy:	80 meters	
UTM:	Zone-10 N4301740 E655600				Elevation (ft):	400	
PLSS:	T12N, R07E, Sec. 33 (M)				Acres:	0.0	
Location:	TRAYLOR RANCH, BETWEEN DELMAR AVENUE AND COLWELL AVENUE, SOUTH OF LINCOLN WAY, 2 MILES WEST OF PENRYN.						
Detailed Location:							
Ecological:	HABITAT CONSISTS OF OAK WOODLAND/RIPARIAN ASSOCIATED WITH ANTELOPE CREEK; DOMINATED BY BLUE OAKS. THIS 240-ACRE SITE IS SURROUNDED BY SMALLER (5-20 ACRE) RANCHETTES.						
General:	ADULT OBSERVED CARRYING A PREY ITEM TO THE HIDDEN NEST IN JUN 2003; 5 NEWLY-FLEDGED YOUNG OBSERVED IN EARLY JUL 2003 SITTING IN THE NEST TREE AND AN ADJACENT TREE, WATCHING ADULTS HUNTING AND OCCASIONALLY TAKING SHORT FLIGHTS WITH THEM.						
Owner/Manager:	SIERRA FOOTHILLS AUDUBON						



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Occurrence No.	96	Map Index:	65930	EO Index:	66009	Element Last Seen:	1990-05-07
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1990-05-07
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-08-22
Quad Summary:	Clarksville (3812161)						
County Summary:	Sacramento						
Lat/Long:	38.66683 / -121.10599				Accuracy:	1/10 mile	
UTM:	Zone-10 N4281507 E664778				Elevation (ft):	440	
PLSS:	T09N, R08E, Sec. 04 (M)				Acres:	0.0	
Location:	ABOUT 3.4 MI ESE OF FOLSOM, 1.6 MI NNE OF INTERSECTION OF PLACERVILLE ROAD (EAST BIDWELL ST) & HWY 50.						
Detailed Location:							
Ecological:							
General:	ACTIVE NEST OBSERVED ON 7 MAY 1990. A PAIR WAS OBSERVED IN COURTSHIP 12 MAR 1990 THAT MAY BE THE SAME PAIR OF KITES THAT WERE SUBSEQUENTLY OBSERVED ON 7 MAY 1990.						
Owner/Manager:	UNKNOWN						

Occurrence No.	149	Map Index:	78437	EO Index:	79359	Element Last Seen:	2008-08-11
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2008-08-11
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2010-03-25
Quad Summary:	Clarksville (3812161)						
County Summary:	El Dorado						
Lat/Long:	38.68049 / -121.10018				Accuracy:	80 meters	
UTM:	Zone-10 N4283034 E665252				Elevation (ft):	585	
PLSS:	T10N, R08E, Sec. 33 (M)				Acres:	0.0	
Location:	JUST EAST OF SOPHIA PKWY ABOUT 0.4 MI SOUTH OF ALEXANDRA DR, EL DORADO HILLS.						
Detailed Location:	MAPPED TO PROVIDED MARKED AERIAL IMAGE.						
Ecological:	WEST-FACING HILL SLOPE ABOVE EL DORADO/SACRAMENTO COUNTY LINE ABOVE SOPHIA PARKWAY, DOMINATED BY DISTURBED ANNUAL GRASSLAND WITH WIDELY SCATTERED OAKS.						
General:	2 ADULTS OBSERVED AT NEST ON 11 AUG 2008.						
Owner/Manager:	PVT						



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***Haliaeetus leucocephalus***

Element Code: ABNKC10010

bald eagle

Listing Status:	Federal:	Delisted	CNDDDB Element Ranks:	Global:	G5	
	State:	Endangered		State:	S2	
	Other:	BLM_S-Sensitive, CDF_S-Sensitive, CDFW_FP-Fully Protected, IUCN_LC-Least Concern, USFS_S-Sensitive, USFWS_BCC-Birds of Conservation Concern				
Habitat:	General:	OCEAN SHORE, LAKE MARGINS, & RIVERS FOR BOTH NESTING & WINTERING. MOST NESTS WITHIN 1 MI OF WATER.				
	Micro:	NESTS IN LARGE, OLD-GROWTH, OR DOMINANT LIVE TREE W/OPEN BRANCHES, ESPECIALLY PONDEROSA PINE. ROOSTS COMMUNALLY IN WINTER.				

Occurrence No.	130	Map Index:	22872	EO Index:	11783	Element Last Seen:	1996-01-16
Occ. Rank:	Fair			Presence:	Presumed Extant	Site Last Seen:	1996-01-16
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	1996-02-07
Quad Summary:	Clarksville (3812161)						
County Summary:	El Dorado						
Lat/Long:	38.67978 / -121.02259				Accuracy:	2/5 mile	
UTM:	Zone-10 N4283097 E672004				Elevation (ft):	1250	
PLSS:	T10N, R09E, Sec. 31 (M)				Acres:	0.0	
Location:	BASS LAKE, 3 MILES ENE OF EL DORADO HILLS.						
Detailed Location:							
Ecological:	WINTERING TERRITORY. HABITAT CONSISTS OF FOOTHILL PINE/OAK WOODLAND; OAK WOODLAND DOMINATES THE NORTH AND WEST EDGE OF THE RESERVOIR, FOOTHILL PINES DOMINATE THE EAST EDGE, AND GRASSLAND IS FOUND ALONG THE REMAINING AREA.						
General:	EAGLES HAVE BEEN OBSERVED WINTERING AT THIS SITE FOR THE PAST 40 YEARS. TWO ADULTS WINTERED IN 1992-93; TWO ADULTS WINTERED IN 1993-94; ONE ADULT WINTERED IN 1994-95; ONE ADULT WINTERED IN 1995-96.						
Owner/Manager:	EL DORADO IRRIGATION DISTRICT						
Occurrence No.	272	Map Index:	71321	EO Index:	72225	Element Last Seen:	2013-02-XX
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2013-02-XX
Occ. Type:	Natural/Native occurrence			Trend:	Stable	Record Last Updated:	2013-03-05
Quad Summary:	Pilot Hill (3812171)						
County Summary:	El Dorado						
Lat/Long:	38.79240 / -121.10377				Accuracy:	80 meters	
UTM:	Zone-10 N4295447 E664682				Elevation (ft):	475	
PLSS:	T11N, R08E, Sec. 20 (M)				Acres:	0.0	
Location:	ALONG N FORK AMERICAN RIVER, ANDERSON ISLAND NATURAL PRESERVE, FOLSOM RESERVOIR, ABOUT 0.7 MI SSE OF STERLING POINTE CT.						
Detailed Location:	NEST IN GRAY PINE IN MIDDLE OF NORTH SIDE OF ANDERSON ISLAND. ROOST SITES ON EAST SIDE OF LAKE & ON 2 GRAY PINES ON SOUTH SIDE OF ISLAND.						
Ecological:	1ST BALD EAGLE NEST RECORD AT FOLSOM LAKE. RECREATION LAKE SURROUNDED BY OAKS, GRAY PINES & CALIF BUCKEYE. UNDERSTORY CONSISTED OF POISON OAK & ANNUAL GRASSES. SITE PREVIOUSLY USED BY EGRETS & HERONS. GREAT BLUE HERON ROOKERY IN VICINITY.						
General:	NEST ACTIVE IN 2005 & 2006. 2 FLEDGLINGS OBS, 20 JUN 2008. 1 FLEDGLING OBS, 24 JUN 2009. ADULT ON NEST W/ 1+ EGG IN FEB & 2 EAGLETS/2 ADULTS OBS 12 APR, 2010. ADULT IN NEST 1 APR 2011. ADULT IN NEST 4 MAY 2012. ADULT INCUBATING IN FEB 2013.						
Owner/Manager:	DPR-FOLSOM LAKE SRA, USBOR						



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Accipiter cooperii

Element Code: ABNKC12040

Cooper's hawk

Listing Status: **Federal:** None **CNDDB Element Ranks:** **Global:** G5
State: None **State:** S4
Other: CDFW_WL-Watch List, IUCN_LC-Least Concern
Habitat: **General:** WOODLAND, CHIEFLY OF OPEN, INTERRUPTED OR MARGINAL TYPE.
Micro: NEST SITES MAINLY IN RIPARIAN GROWTHS OF DECIDUOUS TREES, AS IN CANYON BOTTOMS ON RIVER FLOOD-PLAINS; ALSO, LIVE OAKS.

Occurrence No. 53 **Map Index:** 17186 **EO Index:** 12046 **Element Last Seen:** 1990-05-14
Occ. Rank: Fair **Presence:** Presumed Extant **Site Last Seen:** 1990-05-14
Occ. Type: Natural/Native occurrence **Trend:** Unknown **Record Last Updated:** 1990-11-27

Quad Summary: Buffalo Creek (3812152)

County Summary: Sacramento

Lat/Long: 38.59458 / -121.19843 **Accuracy:** 80 meters
UTM: Zone-10 N4273327 E656893 **Elevation (ft):** 200
PLSS: T09N, R07E, Sec. 34 (M) **Acres:** 0.0

Location: NORTH SIDE OF WHITE ROCK ROAD, APPROXIMATELY 1 MI WEST OF GRANT LINE ROAD, EAST OF SACRAMENTO.
Detailed Location: ADULT OBSERVED SEVERAL TIMES IN THIS VICINITY; ONE TIME, CARRYING FOOD INTO COTTONWOOD TREES, ALTHOUGH NO NEST COULD BE OBSERVED.
Ecological: HABITAT IS DISTURBED AREA, CONSISTING OF GRAVEL PILES, COYOTE BUSH, AND SCATTERED COTTONWOOD TREES.
General:
Owner/Manager: PVT-GENCORP AEROJET

Occurrence No. 54 **Map Index:** 17187 **EO Index:** 12153 **Element Last Seen:** 1990-06-30
Occ. Rank: Good **Presence:** Presumed Extant **Site Last Seen:** 1990-06-30
Occ. Type: Natural/Native occurrence **Trend:** Unknown **Record Last Updated:** 1990-11-27

Quad Summary: Folsom (3812162)

County Summary: Sacramento

Lat/Long: 38.64610 / -121.19863 **Accuracy:** 80 meters
UTM: Zone-10 N4279044 E656763 **Elevation (ft):** 150
PLSS: T09N, R07E, Sec. 10 (M) **Acres:** 0.0

Location: MISSISSIPPI BAR, ON THE WEST SIDE OF LAKE NATOMA NEAR THE BIKE TRAIL, ORANGEVALE.
Detailed Location:
Ecological: 3 JUVENILES OBSERVED IN AN AREA OF LIVE OAKS, COTTONWOODS, FOOTHILL PINE AND POISON OAK.
General:
Owner/Manager: DPR-FOLSOM LAKE SRA

Buteo swainsoni

Element Code: ABNKC19070

Swainson's hawk

Listing Status: **Federal:** None **CNDDB Element Ranks:** **Global:** G5
State: Threatened **State:** S3
Other: BLM_S-Sensitive, IUCN_LC-Least Concern, USFWS_BCC-Birds of Conservation Concern
Habitat: **General:** BREEDS IN GRASSLANDS WITH SCATTERED TREES, JUNIPER-SAGE FLATS, RIPARIAN AREAS, SAVANNAHS, & AGRICULTURAL OR RANCH LANDS WITH GROVES OR LINES OF TREES.
Micro: REQUIRES ADJACENT SUITABLE FORAGING AREAS SUCH AS GRASSLANDS, OR ALFALFA OR GRAIN FIELDS SUPPORTING RODENT POPULATIONS.



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Occurrence No.	193	Map Index:	11920	EO Index:	27107	Element Last Seen:	1998-07-01
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1998-07-01
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2013-03-29
Quad Summary:	Sloughhouse (3812142), Buffalo Creek (3812152)						
County Summary:	Sacramento						
Lat/Long:	38.50279 / -121.17573				Accuracy:	nonspecific area	
UTM:	Zone-10 N4263180 E659072				Elevation (ft):	150	
PLSS:	T08N, R07E, Sec. 35 (M)				Acres:	75.0	
Location:	ALONG DEER CREEK, FROM THE KIEFER BLVD CROSSING EAST, ABOUT 1 MILE NE OF SLOUGHHOUSE.						
Detailed Location:	E POLYGON: TERRITORY #SA003 FROM CDFW SWHA DATABASE. MAPPED TO LOCATIONS GIVEN ON 1992 FIELD SURVEY FORMS: "KIEFER & LATROBE JUNCTION-N ON KIEFER;" EXACT NEST LOCATION UNKNOWN. W POLYGON: MAPPED TO POINT ON MAP ATTACHED TO 1998 SURVEY FORM.						
Ecological:	1992: HABITAT WAS GRASSLAND AND PASTURE. 1998: SUSPECTED NEST TREE A LARGE VALLEY OAK IN DENSE STRIP OF VALLEY FOOTHILL RIPARIAN ALONG DEER CREEK, BORDERED BY ANNUAL GRASSLAND, PASTURE, AND CROPLAND.						
General:	1 ADULT OBSERVED IN 1979 BUT NO NEST FOUND. NO SWHA OR NEST FOUND IN 1982. BREEDING PAIR DETECTED JUL 1992; NO FURTHER DETAILS GIVEN; OUTCOME UNKNOWN. PAIR & POSSIBLE NEST OBS IN 1994. PAIR DEFENDING SUSPECTED NEST TREE OBS ON 1 JUL 1998.						
Owner/Manager:	PVT, SAC COUNTY						

Occurrence No.	200	Map Index:	12012	EO Index:	27098	Element Last Seen:	1982-06-28
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1982-06-28
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	1989-08-10
Quad Summary:	Folsom SE (3812151)						
County Summary:	Sacramento						
Lat/Long:	38.62129 / -121.11550				Accuracy:	1/5 mile	
UTM:	Zone-10 N4276436 E664054				Elevation (ft):	400	
PLSS:	T09N, R08E, Sec. 20 (M)				Acres:	0.0	
Location:	INTERSECTION OF WHITE ROCK AND SCOTT RDS, ABOUT 1.5 MI S OF HWY 50.						
Detailed Location:							
Ecological:							
General:	DFG SWHA TERRITORY #SA001. 1 ADULT OBS IN AREA BOTH 1979 AND 1982. NO NESTS FOUND.						
Owner/Manager:	PVT						



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Occurrence No.	659	Map Index:	26343	EO Index:	4374	Element Last Seen:	1993-06-17
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	1993-06-17
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	1994-12-06
Quad Summary:	Buffalo Creek (3812152)						
County Summary:	Sacramento						
Lat/Long:	38.50592 / -121.15879				Accuracy:	80 meters	
UTM:	Zone-10 N4263556 E660542				Elevation (ft):	100	
PLSS:	T08N, R07E, Sec. 36 (M)				Acres:	0.0	
Location:	ALONG CREVIS CREEK, JUST EAST OF ITS CONFLUENCE WITH DEER CREEK, 0.5 MILE NE OF KIEFER BLVD CROSSING OVER DEER CREEK.						
Detailed Location:	NEST STRUCTURE IS VISIBLE FROM KIEFER BLVD.						
Ecological:	HABITAT CONSISTS OF VALLEY OAK RIPARIAN; ADJACENT HABITAT DOMINATED BY CULTIVATED FIELDS AND NON-NATIVE GRASSLAND.						
General:	PAIR WAS FIRST OBSERVED IN THE AREA ON 13 APRIL 1993; NEST SITE WAS REVISITED ON 17 JUNE 1993 AND NEST SITE WAS STILL ACTIVE AT THAT TIME.						
Owner/Manager:	PVT						
Occurrence No.	660	Map Index:	26342	EO Index:	4377	Element Last Seen:	1993-06-17
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	1993-06-17
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	1995-01-26
Quad Summary:	Buffalo Creek (3812152)						
County Summary:	Sacramento						
Lat/Long:	38.53242 / -121.14261				Accuracy:	80 meters	
UTM:	Zone-10 N4266526 E661894				Elevation (ft):	130	
PLSS:	T08N, R08E, Sec. 19 (M)				Acres:	0.0	
Location:	ALONG DEER CREEK, JUST SOUTH OF ITS CONFLUENCE WITH CARSON CREEK, 3.5 MILES ENE OF BLODGETT RESERVOIR.						
Detailed Location:							
Ecological:	HABITAT CONSISTS OF VALLEY OAK RIPARIAN SURROUNDED BY NON-NATIVE GRASSLAND; GRASSLAND ON GENTLE TO MODERATELY SLOPING HILLS.						
General:	PAIR OBSERVED COURTING/NEST-BUILDING ON 16 AND 17 JUNE 1993.						
Owner/Manager:	PVT						



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Occurrence No.	2203	Map Index:	88584	EO Index:	89601	Element Last Seen:	2011-04-20
Occ. Rank:	Fair			Presence:	Presumed Extant	Site Last Seen:	2011-04-20
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2013-05-10
Quad Summary:	Buffalo Creek (3812152)						
County Summary:	Sacramento						
Lat/Long:	38.59555 / -121.16126				Accuracy:	specific area	
UTM:	Zone-10 N4273499 E660127				Elevation (ft):	315	
PLSS:	T09N, R07E, Sec. 36 (M)				Acres:	12.0	
Location:	ABOUT 0.8 MILES SSE OF WHITE ROCK RD AT AEROJET RD, JUST INSIDE THE WEST BOUNDARY OF PRAIRIE CITY OHV RECREATIONAL AREA.						
Detailed Location:	MAPPED TO COORDINATES GIVEN ON FIELD SURVEY FORMS FROM 2010 AND 2011 (THE DETECTION REPORTED IN 2009 WAS NOT A CONFIRMED NEST SITE, AND WAS NOT MAPPED).						
Ecological:	2010 NEST IN FREMONT COTTONWOOD, 2011 NEST IN NEARBY TREE. IN DISTURBED AREA: ANNUAL GRASSLAND W/COTTONWOOD, SANDBAR WILLOW, ELDERBERRY & COYOTE BUSH AMONGST EXTENSIVE DREDGE TAILINGS. USED AS OHV PARK, NEAR GRAVEL QUARRY & GRAZING LAND.						
General:	PAIR OBSERVED IN PARK DURING 2009; NESTING SUSPECTED. 1 ADULT OBS PERCHED IN NEST, 2ND HUNTING NEAR NEST TREE IN 2010; PAIR OF RED-TAILED HAWKS IN THE VICINITY. PAIR OBSERVED NEST-BUILDING AND FORAGING ON 20 APR 2011. NEST OUTCOMES UNKNOWN.						
Owner/Manager:	DPR-PRAIRIE CITY SVRA						
Occurrence No.	2209	Map Index:	88597	EO Index:	89614	Element Last Seen:	1992-07-10
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	1992-07-10
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2013-05-10
Quad Summary:	Folsom SE (3812151)						
County Summary:	Sacramento						
Lat/Long:	38.54107 / -121.10458				Accuracy:	1/5 mile	
UTM:	Zone-10 N4267554 E665189				Elevation (ft):	200	
PLSS:	T08N, R08E, Sec. 16 (M)				Acres:	0.0	
Location:	ALONG SCOTT RD, ABOUT 1.5 MI N OF THE LATROBE RD JUNCTION AND 3 MI NNW OF HWY 16 AT STONEHOUSE RD IN RANCHO MURIETA.						
Detailed Location:	MAPPED TO LOCATION MARKED ON TOPO MAP ATTACHED TO 1992 FIELD SURVEY FORM FOR DETECTION OF BREEDING PAIR BY CDFW SURVEYORS; NEST LOCATION UNCERTAIN. TERRITORY SA074 FROM 1992 VERSION OF CDFW SWAINSON'S HAWK OBSERVATIONS DATABASE.						
Ecological:	HABITAT WAS UPLAND GRASSLANDS AND OAKS, SURROUNDED BY GRASSLAND, AGRICULTURAL FIELDS AND URBAN DEVELOPMENT.						
General:	A BREEDING PAIR WAS DETECTED 10 JULY 1992; NESTING OUTCOME UNKNOWN/NOT RECORDED.						
Owner/Manager:	UNKNOWN, DPR-PRAIRIE CITY SVRA						



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Occurrence No.	2234	Map Index:	88682	EO Index:	89700	Element Last Seen:	2012-07-18
Occ. Rank:	Fair			Presence:	Presumed Extant	Site Last Seen:	2012-07-18
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2013-05-13
Quad Summary:	Buffalo Creek (3812152)						
County Summary:	Sacramento						
Lat/Long:	38.60785 / -121.16531			Accuracy:	80 meters		
UTM:	Zone-10 N4274857 E659747			Elevation (ft):	290		
PLSS:	T09N, R07E, Sec. 25 (M)			Acres:	0.0		
Location:	PRAIRIE CITY SVRA, JUST E OF WHITE ROCK RD AT AEROJET RD AND 2.4 MILES SSW OF HWY 50 AT PRAIRIE CITY RD.						
Detailed Location:	MAPPED TO COORDINATES GIVEN ON 2012 FIELD SURVEY FORM. NEST TREE WAS NEAR THE WESTERN ENTRANCE OF THE PARK.						
Ecological:	NEST IN LARGE COTTONWOOD. SURROUNDING LAND USE INCLUDED CATTLE GRAZING. AREA WAS HISTORICALLY USED FOR AGGREGATE MINING.						
General:	NESTING PAIR WITH 1 YOUNG OBSERVED ON 18 JUL 2012.						
Owner/Manager:	DPR-PRAIRIE CITY SVRA						
Occurrence No.	2662	Map Index:	68576	EO Index:	91833	Element Last Seen:	1962-05-19
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1962-05-19
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2013-10-25
Quad Summary:	Folsom (3812162)						
County Summary:	Sacramento						
Lat/Long:	38.67716 / -121.16626			Accuracy:	1 mile		
UTM:	Zone-10 N4282547 E659510			Elevation (ft):	290		
PLSS:	T10N, R07E, Sec. 36 (M)			Acres:	0.0		
Location:	VICINITY OF FOLSOM.						
Detailed Location:	MAPPED TO LOCALITY "NEAR FOLSOM," PROVIDED IN REPORT. EXACT COLLECTION LOCATION UNKNOWN.						
Ecological:	NEST TREE WAS A BLACK OAK.						
General:	ACTIVE NEST OBSERVED BY GARY BEEMAN ON 19 MAY 1962, AS REPORTED IN BLOOM (1979).						
Owner/Manager:	UNKNOWN						



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Aquila chrysaetos

Element Code: ABNKC22010

golden eagle

Listing Status: **Federal:** None **CNDDDB Element Ranks:** **Global:** G5
State: None **State:** S3
Other: BLM_S-Sensitive, CDF_S-Sensitive, CDFW_FP-Fully Protected, CDFW_WL-Watch List, IUCN_LC-Least Concern, USFWS_BCC-Birds of Conservation Concern
Habitat: **General:** ROLLING FOOTHILLS, MOUNTAIN AREAS, SAGE-JUNIPER FLATS, & DESERT.
Micro: CLIFF-WALLED CANYONS PROVIDE NESTING HABITAT IN MOST PARTS OF RANGE; ALSO, LARGE TREES IN OPEN AREAS.

Occurrence No. 321 **Map Index:** 91698 **EO Index:** 92770 **Element Last Seen:** 2014-06-XX
Occ. Rank: Good **Presence:** Presumed Extant **Site Last Seen:** 2014-11-XX
Occ. Type: Natural/Native occurrence **Trend:** Unknown **Record Last Updated:** 2014-12-12

Quad Summary: Clarksville (3812161)

County Summary: El Dorado

Lat/Long: 38.66666 / -121.09054 **Accuracy:** 80 meters
UTM: Zone-10 N4281516 E666122 **Elevation (ft):** 850
PLSS: T09N, R08E, Sec. 03 (M) **Acres:** 0.0

Location: ABOUT 0.2 MI SW OF POWERS DR AT GLEN RIDGE WAY, BETWEEN EMPIRE RANCH RD & EL DORADO HILLS BLVD, EL DORADO HILLS.

Detailed Location: MAPPED TO PROVIDED COORDINATES FOR NEST LOCATION CLARIFIED ON 2014 FIELD SURVEY FORM. GENERAL LOCATION DESCRIPTION OF "TERMINUS OF VIA TREVISO" & "WEST OF VIA FIORI."

Ecological: OAK WOODLAND & GRAY PINES WITH STEEP HILL SIDES. ADJACENT TO GRASSLAND & LOW TO HIGH DENSITY HOUSING TO THE N, E, & S. REPORTER STATES THAT EAGLES ARE "MODERATELY ACCUSTOMED TO SOME LEVEL OF DISTURBANCE." NEST TREE BLEW DOWN IN NOV 2014.

General: 2 ADULTS & 2 JUVENILES OBSERVED ON NEST & ADJACENT BRANCHES IN MID-MORNING 8 AUG 2013. PAIR OBSERVED SWITCHING OFF OF NEST ON 27 FEB 2014, APPEARED TO BE INCUBATING. ONE CHICK FLEDGED IN JUN & ALL 3 EAGLES SEEN IN AREA THROUGH FALL 2014.

Owner/Manager: UNKNOWN, PVT



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Falco columbarius

Element Code: ABNKD06030

merlin

Listing Status: **Federal:** None

CNDDDB Element Ranks: **Global:** G5

State: None

State: S3S4

Other: CDFW_WL-Watch List, IUCN_LC-Least Concern

Habitat: **General:** SEACOAST, TIDAL ESTUARIES, OPEN WOODLANDS, SAVANNAHS, EDGES OF GRASSLANDS & DESERTS, FARMS & RANCHES.

Micro: CLUMPS OF TREES OR WINDBREAKS ARE REQUIRED FOR ROOSTING IN OPEN COUNTRY.

Occurrence No.	15	Map Index:	71855	EO Index:	72726	Element Last Seen:	2004-02-17
Occ. Rank:	Excellent	Presence:	Presumed Extant	Site Last Seen:		2004-02-17	
Occ. Type:	Natural/Native occurrence	Trend:	Unknown	Record Last Updated:		2008-08-13	

Quad Summary: Folsom (3812162)

County Summary: Sacramento

Lat/Long:	38.64893 / -121.19154	Accuracy:	80 meters
UTM:	Zone-10 N4279370 E657373	Elevation (ft):	130
PLSS:	T09N, R07E, Sec. 10 (M)	Acres:	0.0

Location: LAKE NATOMA, AT WILLOW CREEK PARK ACCESS, 0.7 MILES SW OF BENCH MARK 162 (NATOMA), FOLSOM.

Detailed Location: FOLSOM LAKE SRA, WILLOW CREEK PARK UNIT (ACCESS FROM FOLSOM BLVD). MAPPED TO PROVIDED COORDINATES.

Ecological:

General: 1 WINTERING ADULT OBSERVED ON 17 FEB 2004.

Owner/Manager: DPR-FOLSOM LAKE SRA



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***Laterallus jamaicensis coturniculus***

Element Code: ABNME03041

California black rail

Listing Status:	Federal: None	CNDDDB Element Ranks:	Global: G3G4T1
	State: Threatened		State: S1
	Other: BLM_S-Sensitive, CDFW_FP-Fully Protected, IUCN_NT-Near Threatened, NABCI_RWL-Red Watch List, USFWS_BCC-Birds of Conservation Concern		
Habitat:	General: INHABITS FRESHWATER MARSHES, WET MEADOWS & SHALLOW MARGINS OF SALTWATER MARSHES BORDERING LARGER BAYS.		
	Micro: NEEDS WATER DEPTHS OF ABOUT 1 INCH THAT DO NOT FLUCTUATE DURING THE YEAR & DENSE VEGETATION FOR NESTING HABITAT.		

Occurrence No.	134	Map Index: 65182	EO Index: 65261	Element Last Seen:	2006-06-09
Occ. Rank:	Excellent		Presence: Presumed Extant	Site Last Seen:	2006-06-09
Occ. Type:	Natural/Native occurrence		Trend: Unknown	Record Last Updated:	2009-10-08

Quad Summary: Rocklin (3812172)**County Summary:** Placer

Lat/Long:	38.83449 / -121.22509	Accuracy:	1/10 mile
UTM:	Zone-10 N4299907 E654054	Elevation (ft):	360
PLSS:	T11N, R07E, Sec. 05 (M)	Acres:	0.0

Location: CLOVER CREEK, IN CLOVER VALLEY, ABOUT 2.2 MI EAST OF TELEGRAPH HILL, ABOUT 2 MILES NW OF LOOMIS.**Detailed Location:** TEC: COORDS PROVIDED. RIC: GENERAL LOC PROVIDED VIA MAP (INDICATES SAME APPROX LOC, AND MAY REFER TO SAME DETECTION); OUTSIDE OF CORE STUDY AREA. MAPPED TO TEC LOCATION.**Ecological:** LARGE, TYPHA-DOMINATED WETLAND SURROUNDING CLOVER CREEK; FIRM SUBSTRATE, UNSATURATED MUD WITH ALMOST NO STANDING WATER ELSEWHERE IN THE WETLAND. NO WATER FLOW WAS OBSERVED, BUT INFLOW IS AT NORTH END.**General:** 1 RAIL (PROBABLE TERRITORIAL MALE) RESPONDED TO TAPED CALL ON 9 JUN 2006; LIKELY THE DETECTION NOTED IN RIC08A. RECENT DETECTIONS IN N PLA CO & NEARBY INDICATE THIS AS IMPORTANT S EXTENSION OF THE PATCHY INLAND DISTRIBUTION OF THE CA BLRA.**Owner/Manager:** PVT***Athene cunicularia***

Element Code: ABNSB10010

burrowing owl

Listing Status:	Federal: None	CNDDDB Element Ranks:	Global: G4
	State: None		State: S3
	Other: BLM_S-Sensitive, CDFW_SSC-Species of Special Concern, IUCN_LC-Least Concern, USFWS_BCC-Birds of Conservation Concern		
Habitat:	General: OPEN, DRY ANNUAL OR PERENNIAL GRASSLANDS, DESERTS & SCRUBLANDS CHARACTERIZED BY LOW-GROWING VEGETATION.		
	Micro: SUBTERRANEAN NESTER, DEPENDENT UPON BURROWING MAMMALS, MOST NOTABLY, THE CALIFORNIA GROUND SQUIRREL.		



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Occurrence No.	91	Map Index:	17158	EO Index:	5049	Element Last Seen:	1989-06-14
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	1989-06-14
Occ. Type:	Natural/Native occurrence			Trend:	Stable	Record Last Updated:	1994-08-11
Quad Summary:	Buffalo Creek (3812152)						
County Summary:	Sacramento						
Lat/Long:	38.55170 / -121.17270				Accuracy:	specific area	
UTM:	Zone-10 N4268613 E659228				Elevation (ft):	250	
PLSS:	T08N, R07E, Sec. 14 (M)				Acres:	10.5	
Location:	200 YDS SOUTH OF GLORY LANE, 0.75 MI EAST OF GRANT LINE ROAD, ENE OF MATHER AFB, RANCHO CORDOVA.						
Detailed Location:	TWO BURROWS OCCUPIED BY TWO PAIRS OF OWLS.						
Ecological:	HABITAT IS ROLLING GRASSLANDS WITH VERNAL POOLS.						
General:	THE WESTERN-MOST PAIR HAD 3 YOUNG AT THE BURROW IN THE EVENING.						
Owner/Manager:	PVT						

Occurrence No.	307	Map Index:	40373	EO Index:	35380	Element Last Seen:	1994-04-XX
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1994-04-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	1998-12-11
Quad Summary:	Buffalo Creek (3812152)						
County Summary:	Sacramento						
Lat/Long:	38.53037 / -121.18579				Accuracy:	80 meters	
UTM:	Zone-10 N4266223 E658134				Elevation (ft):	190	
PLSS:	T08N, R07E, Sec. 23 (M)				Acres:	0.0	
Location:	1.1 MILES NNW OF THE INTERSECTION OF KIEFER BLVD AND GRANT LINE RD.						
Detailed Location:	JUST NORTH OF THE KIEFER LANDFILL EXPANSION FOOTPRINT.						
Ecological:	BURROW FOUND IN ANNUAL GRASSLANDS WITH VERNAL POOLS.						
General:	ONE BURROW SHOWING SIGN OF RECENT OCCUPATION.						
Owner/Manager:	SAC COUNTY						

Occurrence No.	308	Map Index:	40374	EO Index:	35381	Element Last Seen:	1994-04-XX
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1994-04-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	1998-12-11
Quad Summary:	Buffalo Creek (3812152)						
County Summary:	Sacramento						
Lat/Long:	38.52053 / -121.19245				Accuracy:	80 meters	
UTM:	Zone-10 N4265120 E657575				Elevation (ft):		
PLSS:	T08N, R07E, Sec. 27 (M)				Acres:	0.0	
Location:	KIEFER LANDFILL SITE. 0.5 MILE EAST OF THE INTERSECTION OF KIEFER BOULEVARD AND GRANT LINE ROAD.						
Detailed Location:	JUST OUTSIDE THE KIEFER LANDFILL EXPANSION FOOTPRINT.						
Ecological:	BURROWS IN ANNUAL GRASSLANDS WITH VERNAL POOLS.						
General:	THREE BURROWS WITH SIGNS OF RECENT OCCUPATION OBSERVED IN APR 1994.						
Owner/Manager:	SAC COUNTY						



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Occurrence No.	1166	Map Index:	71593	EO Index:	72498	Element Last Seen:	2006-12-20
Occ. Rank:	Fair	Presence:	Presumed Extant	Site Last Seen:	2006-12-20	Record Last Updated:	2008-06-27
Occ. Type:	Natural/Native occurrence	Trend:	Unknown				
Quad Summary:	Clarksville (3812161)						
County Summary:	Sacramento						
Lat/Long:	38.64096 / -121.08761			Accuracy:	1/5 mile		
UTM:	Zone-10 N4278669 E666437			Elevation (ft):	750		
PLSS:	T09N, R08E, Sec. 15 (M)			Acres:	0.0		
Location:	0.50 MI SSW OF WHERE HWY 50 CROSSES THE SACRAMENTO/EL DORADO COUNTY LINE.						
Detailed Location:	HWY 50 TO THE NORTH, RESIDENTIAL DEVELOPMENT TO THE EAST, AND DRY GRAZING LAND TO THE WEST AND SOUTH.						
Ecological:	HABITAT CONSISTS OF ANNUAL GRASSLAND FOOTHILLS WITH A CLUSTER OF 5 COTTONWOOD & WILLOW TREES. SEVERAL SEASONAL WETLANDS AND BEDROCK OUTCROPPINGS ON SITE.						
General:	2 OWLS OBSERVED AT 2 LOCATIONS (UNKNOWN IF THEY WERE BURROWS) IN 2006 DURING PROJECT SURVEY. 2 ADULTS OBSERVED AT BURROW SITE ON 20 DEC 2006. NO RODENT BURROW-USING ROCK OUTCROPPINGS AS BURROWS. NOTED SEVERAL BURROWS.						
Owner/Manager:	PVT-FOLSOM HEIGHTS, LLC						
Occurrence No.	1261	Map Index:	78089	EO Index:	78969	Element Last Seen:	2010-01-03
Occ. Rank:	Unknown	Presence:	Presumed Extant	Site Last Seen:	2010-01-03	Record Last Updated:	2010-02-17
Occ. Type:	Natural/Native occurrence	Trend:	Unknown				
Quad Summary:	Folsom SE (3812151)						
County Summary:	Sacramento						
Lat/Long:	38.61800 / -121.11302			Accuracy:	80 meters		
UTM:	Zone-10 N4276075 E664278			Elevation (ft):	420		
PLSS:	T09N, R08E, Sec. 21 (M)			Acres:	0.0		
Location:	WILSON RANCH ON S SIDE OF WHITE ROCK RD ABOUT 1.3 MI WSW OF WHITE ROCK & ABOUT 4.8 MI SE OF FOLSOM P.O.						
Detailed Location:	MAPPED TO PROVIDED COORDINATES.						
Ecological:	PRIVATE PROPERTY WITH LIMITED ACCESS.						
General:	ACCORDING TO C. CONARD (CBC COORDINATOR), "TIM FITZER FINDS 1-2 YEARLY ON THE FOLSOM CHRISTMAS BIRD COUNT, & STATED THAT THEY HAVE BRED AT THIS LOCATION [DATE UNK]." 2-3 WINTERING OWLS PRESENT THROUGH 3 JAN 2010 (ASSUMED BURROWS PRESENT).						
Owner/Manager:	PVT-WILSON RANCH						



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Occurrence No.	1264	Map Index:	78099	EO Index:	78981	Element Last Seen:	200X-XX-XX
Occ. Rank:	Unknown	Presence:	Presumed Extant	Site Last Seen:	200X-XX-XX	Record Last Updated:	2010-02-09
Occ. Type:	Natural/Native occurrence	Trend:	Unknown				
Quad Summary:	Folsom SE (3812151)						
County Summary:	Sacramento						
Lat/Long:	38.54034 / -121.04690			Accuracy:	80 meters		
UTM:	Zone-10 N4267578 E670218			Elevation (ft):	500		
PLSS:	T08N, R08E, Sec. 13 (M)			Acres:	0.0		
Location:	LATROBE RD ABOUT 0.15 MI W OF MICHIGAN BAR RD, ABOUT 3.6 MI WSW OF LATROBE (TOWN) & ABOUT 13.7 MI SE OF ORANGEVALE PO.						
Detailed Location:	MAPPED TO PROVIDED COORDINATES.						
Ecological:							
General:	1-3 BUOW FOUND ALONG LATROBE & MICHIGAN BAR RDS AT NIGHT ON 18 OCT 2005. 2 OWLS FOUND AT THIS LOCATION (1 IN CULVERT ON NORTH SIDE OF ROAD & 1 IN OLD WELL STRUCTURE ON SOUTH SIDE OF ROAD) DURING FOLLOW-UP VISIT.						
Owner/Manager:	UNKNOWN						

Occurrence No.	1265	Map Index:	78100	EO Index:	78982	Element Last Seen:	2010-01-18
Occ. Rank:	Unknown	Presence:	Presumed Extant	Site Last Seen:	2010-01-18	Record Last Updated:	2010-02-09
Occ. Type:	Natural/Native occurrence	Trend:	Unknown				
Quad Summary:	Folsom SE (3812151), Clarksville (3812161)						
County Summary:	Sacramento						
Lat/Long:	38.62459 / -121.08824			Accuracy:	nonspecific area		
UTM:	Zone-10 N4276851 E666420			Elevation (ft):	500		
PLSS:	T09N, R08E, Sec. 22 (M)			Acres:	37.0		
Location:	ALONG PAYEN RD FROM WHITE ROCK RD SOUTH ABOUT 0.5 MI, ABOUT 5.2 TO 5.7 MI SE OF FOLSOM (FROM PO).						
Detailed Location:	DESCRIBED AS "PAYEN RD, S OF WHITE ROCK RD" & "ALONG THIS SHORT STRETCH OF ROAD." MAPPED ALONG ROAD FROM WHITE ROCK TO PROVIDED COORDINATES.						
Ecological:							
General:	3 BUOW OBS ON 7 NOV 2009; 2 IN CULVERTS ON N SIDE OF ROAD & 1 IN ROCKS ON S SIDE OF ROAD. 2 OBS ON 18 JAN 2010; NEAR CULVERTS ON N SIDE OF ROAD, DESPITE FLOODING FROM RECENT RAIN.						
Owner/Manager:	UNKNOWN						



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Occurrence No.	1632	Map Index:	81422	EO Index:	82399	Element Last Seen:	2010-02-22
Occ. Rank:	Excellent	Presence:	Presumed Extant	Site Last Seen:		2010-02-22	
Occ. Type:	Natural/Native occurrence	Trend:	Unknown	Record Last Updated:		2011-01-24	
Quad Summary:	Buffalo Creek (3812152)						
County Summary:	Sacramento						
Lat/Long:	38.52443 / -121.19387				Accuracy:	80 meters	
UTM:	Zone-10 N4265551 E657442				Elevation (ft):	220	
PLSS:	T08N, R07E, Sec. 27 (M)				Acres:	0.0	
Location:	0.5 MI ENE GRANT LINE RD AT KIEFER BLVD, NEAR MATHER LANDFILL AND ABOUT 2 MI N OF SLOUGHHOUSE.						
Detailed Location:							
Ecological:	HABITAT IS DESCRIBED AS VERNAL POOL PRESERVE WITH LANDFILL OPERATIONS TO THE SE. VISIBLE DISTURBANCES INCLUDE THE LANDFILL OPERATIONS BUILDING, WHICH IS LESS THAN 0.25 MI AWAY.						
General:	1 HEALTHY ADULT FLUSHED FROM A BURROW NEXT TO A LARGE PLAYA POOL DURING BIOLOGICAL SAMPLING ON 22 FEB 2010.						
Owner/Manager:	UNKNOWN						

Progne subis

Element Code: ABPAU01010

purple martin

Listing Status:	Federal:	None	CNDDDB Element Ranks:	Global:	G5
	State:	None		State:	S3
	Other:	CDFW_SSC-Species of Special Concern, IUCN_LC-Least Concern			
Habitat:	General:	INHABITS WOODLANDS, LOW ELEVATION CONIFEROUS FOREST OF DOUGLAS-FIR, PONDEROSA PINE, & MONTEREY PINE.			
	Micro:	NESTS IN OLD WOODPECKER CAVITIES MOSTLY, ALSO IN HUMAN-MADE STRUCTURES. NEST OFTEN LOCATED IN TALL, ISOLATED TREE/SNAG.			

Occurrence No.	27	Map Index:	70377	EO Index:	71268	Element Last Seen:	2007-05-23
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2007-05-23
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2007-10-31
Quad Summary:	Rocklin (3812172), Roseville (3812173)						
County Summary:	Placer						
Lat/Long:	38.77202 / -121.25187				Accuracy:	80 meters	
UTM:	Zone-10 N4292929 E651863				Elevation (ft):	216	
PLSS:	T11N, R06E, Sec. 25 (M)				Acres:	0.0	
Location:	HIGHWAY 65 OVERPASS OVER TAYLOR ROAD, ON THE SOUTH EDGE OF ROCKLIN.						
Detailed Location:							
Ecological:	HABITAT SURROUNDING FREEWAYS CONSISTS OF NON-NATIVE GRASSLAND AND OAK WOODLAND.						
General:	2 ADULTS (PAIR) OBSERVED NESTING IN OVERPASS DRAINAGE HOLE ON 23 MAY 2007.						
Owner/Manager:	CALTRANS, UNION PACIFIC ROW						



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Riparia riparia

Element Code: ABPAU08010

bank swallow

Listing Status:	Federal: None	CNDDDB Element Ranks:	Global: G5
	State: Threatened		State: S2
	Other: BLM_S-Sensitive, IUCN_LC-Least Concern		
Habitat:	General: COLONIAL NESTER; NESTS PRIMARILY IN RIPARIAN AND OTHER LOWLAND HABITATS WEST OF THE DESERT.		
	Micro: REQUIRES VERTICAL BANKS/CLIFFS WITH FINE-TEXTURED/SANDY SOILS NEAR STREAMS, RIVERS, LAKES, OCEAN TO DIG NESTING HOLE.		

Occurrence No.	295	Map Index: 78087	EO Index: 85439	Element Last Seen: 1873-XX-XX
Occ. Rank:	Unknown		Presence: Presumed Extant	Site Last Seen: 1873-XX-XX
Occ. Type:	Natural/Native occurrence		Trend: Unknown	Record Last Updated: 2011-12-06

Quad Summary: Camino (3812066), Placerville (3812067), Shingle Springs (3812068), Slate Mtn. (3812076), Garden Valley (3812077), Coloma (3812078)

County Summary: El Dorado

Lat/Long:	38.72948 / -120.79835	Accuracy:	5 miles
UTM:	Zone-10 N4289058 E691378	Elevation (ft):	2000
PLSS:	T10N, R11E, Sec. 07 (M)	Acres:	0.0

Location: NEAR PLACERVILLE.

Detailed Location: LOCATION STATED AS "NEAR PLACERVILLE."

Ecological: COLONY NESTED IN THE "ROUGH FACE OF A HIGH GRAVELLY HILL, THAT HAD BEEN WASHED DOWN FOR YEARS BY THE PROCESS OF HYDRAULICING FOR GOLD."

General: AN ALBINO BANK SWALLOW OBSERVED SOMETIME DURING 1873.

Owner/Manager: UNKNOWN



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Ammodramus savannarum

Element Code: ABPBXA0020

grasshopper sparrow

Listing Status: **Federal:** None

CNDDDB Element Ranks: **Global:** G5

State: None

State: S2

Other: CDFW_SSC-Species of Special Concern, IUCN_LC-Least Concern

Habitat: **General:** DENSE GRASSLANDS ON ROLLING HILLS, LOWLAND PLAINS, IN VALLEYS & ON HILLSIDES ON LOWER MOUNTAIN SLOPES.

Micro: FAVORS NATIVE GRASSLANDS WITH A MIX OF GRASSES, FORBS & SCATTERED SHRUBS. LOOSELY COLONIAL WHEN NESTING.

Occurrence No. 15 **Map Index:** 69693 **EO Index:** 70478 **Element Last Seen:** 2007-05-21
Occ. Rank: Excellent **Presence:** Presumed Extant **Site Last Seen:** 2007-05-21
Occ. Type: Natural/Native occurrence **Trend:** Unknown **Record Last Updated:** 2007-07-26

Quad Summary: Folsom SE (3812151)

County Summary: Sacramento

Lat/Long: 38.53354 / -121.09186 **Accuracy:** specific area
UTM: Zone-10 N4266741 E666315 **Elevation (ft):** 240
PLSS: T08N, R08E, Sec. 22 (M) **Acres:** 14.0

Location: 0.6 MILE NORTH OF LATROBE ROAD AND 0.7 MILE EAST OF SCOTT ROAD, DEER CREEK HILLS UNIT OF PRAIRIE CITY SVRA.

Detailed Location:

Ecological: HABITAT CONSISTS OF GRASSLAND, ROLLING HILLS, AND SWALES. CATTLE GRAZING MAY IMPROVE THIS SITE'S SUITABILITY FOR THE GRASSHOPPER SPARROW.

General: 2 ADULTS OBSERVED ON 21 MAY 2007.

Owner/Manager: DPR, SACTO VALLEY CONSERVANCY

Agelaius tricolor

Element Code: ABPBXB0020

tricolored blackbird

Listing Status: **Federal:** None

CNDDDB Element Ranks: **Global:** G2G3

State: Endangered

State: S1S2

Other: BLM_S-Sensitive, CDFW_SSC-Species of Special Concern, IUCN_EN-Endangered, NABCI_RWL-Red Watch List, USFWS_BCC-Birds of Conservation Concern

Habitat: **General:** HIGHLY COLONIAL SPECIES, MOST NUMEROUS IN CENTRAL VALLEY & VICINITY. LARGELY ENDEMIC TO CALIFORNIA.

Micro: REQUIRES OPEN WATER, PROTECTED NESTING SUBSTRATE, & FORAGING AREA WITH INSECT PREY WITHIN A FEW KM OF THE COLONY.



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Occurrence No.	4	Map Index:	11994	EO Index:	14208	Element Last Seen:	1994-XX-XX
Occ. Rank:	None			Presence:	Possibly Extirpated	Site Last Seen:	1997-XX-XX
Occ. Type:	Natural/Native occurrence			Trend:	Fluctuating	Record Last Updated:	2010-02-03
Quad Summary:	Folsom (3812162)						
County Summary:	Sacramento						
Lat/Long:	38.66519 / -121.13333				Accuracy:	specific area	
UTM:	Zone-10 N4281277 E662403				Elevation (ft):	350	
PLSS:	T09N, R08E, Sec. 06 (M)				Acres:	20.8	
Location:	"FOLSOM" COLONY SITE; ALONG NATOMAS DITCH/PLACERVILLE (SCOTT) ROAD, SE OF FOLSOM.						
Detailed Location:	BIRDS FORAGE IN GRASSLAND UP TO 3 MILES RADIUS FROM COLONY.						
Ecological:	1994: NESTING SUBSTRATE CONSISTS OF BLACKBERRIES, SURROUNDED BY GRASSLAND. 2008 AERIAL PHOTO SHOWS THAT THE AREA HAS BEEN DEVELOPED.						
General:	1330 BIRDS OBSERVED IN MAY 1982. EGGS COLLECTED IN APR 1987 FOR SELENIUM COMPARISON STUDY (KESTERSON). 75-100 PAIRS OBSERVED IN 1990. SITE MONITORED APRIL-JUNE 1992-94; 3000 ADULTS IN 1992, 3500 IN 1993, 6000 IN 1994. NONE OBSERVED IN 1997.						
Owner/Manager:	PVT						
Occurrence No.	93	Map Index:	12196	EO Index:	24734	Element Last Seen:	1987-05-31
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1992-06-30
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	1996-01-03
Quad Summary:	Clarksville (3812161)						
County Summary:	El Dorado						
Lat/Long:	38.65406 / -121.00633				Accuracy:	1/5 mile	
UTM:	Zone-10 N4280274 E673480				Elevation (ft):	1200	
PLSS:	T09N, R09E, Sec. 08 (M)				Acres:	0.0	
Location:	CRAZY HORSE CAMPGROUND, 150 YARDS SOUTH OF HIGHWAY 50, BETWEEN BASS LAKE EXIT AND CAMERON PARK EXIT.						
Detailed Location:							
Ecological:	NESTING SUBSTRATE IS CATTAILS ON A SMALL POND.						
General:	COLONY OF ~500 ADULTS OBSERVED; ADULTS CARRYING INSECTS TO YOUNG IN NESTS. SITE VISITED IN 1992; NO BIRDS OBSERVED, ALTHOUGH HABITAT WAS STILL PRESENT.						
Owner/Manager:	PVT						



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Occurrence No.	102	Map Index:	12177	EO Index:	24726	Element Last Seen:	1971-05-31
Occ. Rank:	Fair			Presence:	Presumed Extant	Site Last Seen:	1992-06-30
Occ. Type:	Natural/Native occurrence			Trend:	Decreasing	Record Last Updated:	1992-07-13
Quad Summary:	Pilot Hill (3812171)						
County Summary:	El Dorado						
Lat/Long:	38.79072 / -121.01967				Accuracy:	1 mile	
UTM:	Zone-10 N4295415 E671991				Elevation (ft):	1080	
PLSS:	T11N, R09E, Sec. 19 (M)				Acres:	0.0	
Location:	SALMON FALLS ROAD, 3.9 MI SOUTH OF PILOT HILL.						
Detailed Location:							
Ecological:	NESTING SUBSTRATE CONSISTS OF BLACKBERRIES.						
General:	SITE VISITED IN 1971; 400 BIRDS PRESENT. IN A 1992 SITE VISIT; HABITAT WAS PRESENT, BUT NO BIRDS WERE FOUND.						
Owner/Manager:	UNKNOWN						

Occurrence No.	103	Map Index:	12562	EO Index:	24725	Element Last Seen:	19XX-XX-XX
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1992-06-30
Occ. Type:	Natural/Native occurrence			Trend:	Decreasing	Record Last Updated:	1992-07-13
Quad Summary:	Placerville (3812067), Garden Valley (3812077), Coloma (3812078)						
County Summary:	El Dorado						
Lat/Long:	38.76237 / -120.86305				Accuracy:	1 mile	
UTM:	Zone-10 N4292575 E685668				Elevation (ft):	1720	
PLSS:	T11N, R10E, Sec. 33 (M)				Acres:	0.0	
Location:	ONE MILE EAST ON GOLD HILL ROAD, NEAR THE INTERSECTION OF HIGHWAY 49, GOLDFILL.						
Detailed Location:							
Ecological:	NESTING SUBSTRATE IS CATTAILS.						
General:	COLONY OF APPROXIMATELY 75 OBSERVED; DATE UNKNOWN. SITE CHECKED ON 30 JUN 1992; HABITAT STILL PRESENT, BUT NO BIRDS OBSERVED.						
Owner/Manager:	UNKNOWN						

Occurrence No.	158	Map Index:	11720	EO Index:	24681	Element Last Seen:	1972-XX-XX
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1972-XX-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2002-08-09
Quad Summary:	Elk Grove (3812143), Buffalo Creek (3812152), Carmichael (3812153)						
County Summary:	Sacramento						
Lat/Long:	38.51379 / -121.26440				Accuracy:	1 mile	
UTM:	Zone-10 N4264251 E651317				Elevation (ft):	140	
PLSS:	T08N, R06E, Sec. 25 (M)				Acres:	0.0	
Location:	NEAR JUNCTION OF JACKSON RD (HWY 16) AND EAGLES NEST RD, APPROX ONE MILE SOUTH OF MATHER REGIONAL PARK.						
Detailed Location:							
Ecological:	NESTING IN CATTAILS AND TULE.						
General:	OBSERVED NESTS CONTAINING 1 TO 4 EGGS. OLD NESTS ALSO PRESENT.						
Owner/Manager:	UNKNOWN						



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Occurrence No.	178	Map Index:	17177	EO Index:	12052	Element Last Seen:	1994-04-23
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	1994-04-23
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	1994-12-13
Quad Summary:	Sloughhouse (3812142), Buffalo Creek (3812152)						
County Summary:	Sacramento						
Lat/Long:	38.50135 / -121.16891				Accuracy:	1/5 mile	
UTM:	Zone-10 N4263032 E659670				Elevation (ft):	100	
PLSS:	T08N, R07E, Sec. 36 (M)				Acres:	0.0	
Location:	NORTH OF DEER CREEK, JUST SOUTH OF KIEFER BLVD, ~2 MILES SE THE INTERSECTION OF KIEFER BLVD AND GRANT LINE ROAD.						
Detailed Location:	IN 1990, BIRDS WERE NESTING IN TWO GROUPS, ~100 YARDS APART; BOTH GROUPS NESTING IN ~1/4 ACRE OF BLACKBERRY BRAMBLES.						
Ecological:	NESTING SUBSTRATE CONSISTS OF BLACKBERRY, WITH WILLOWS AND EUCALYPTUS ADJACENT, LOCATED AT THE BOTTOM OF A SWALE. FORAGING HABITAT CONSISTS OF OPEN FIELDS USED FOR GRAZING.						
General:	150-200 PAIRS OBSERVED NESTING IN 1990. IN 1994, ~20 BIRDS WERE OBSERVED NESTING AND ABOUT 40 BIRDS WERE OBSERVED FORAGING NEARBY.						
Owner/Manager:	PVT						

Occurrence No.	180	Map Index:	17305	EO Index:	11959	Element Last Seen:	1999-05-11
Occ. Rank:	Excellent			Presence:	Presumed Extant	Site Last Seen:	1999-05-11
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2004-05-13
Quad Summary:	Folsom SE (3812151)						
County Summary:	Sacramento						
Lat/Long:	38.51815 / -121.11901				Accuracy:	80 meters	
UTM:	Zone-10 N4264984 E663983				Elevation (ft):	150	
PLSS:	T08N, R08E, Sec. 29 (M)				Acres:	0.0	
Location:	ALONG CREVIS CREEK, JUST NORTH OF LATROBE ROAD, 1 MILE WEST OF SCOTT ROAD AND 2 MILES NORTH OF HWY 16, SACRAMENTO CO.						
Detailed Location:	COLONY SITE CONSISTS OF A BLACKBERRY PATCH, MEASURING ABOUT 180-FT X 20-FT, ON THE NORTH SIDE OF THE CREEK.						
Ecological:	NESTING SUBSTRATE CONSISTS OF BLACKBERRIES; SURROUNDING FORAGING HABITAT IS GRAZED GRASSLAND.						
General:	SITE WAS OBSERVED FROM 22 APRIL-10 JUN 1989; 300 ADULTS OBSERVED NESTING. 4000 ADULTS NESTED SUCCESSFULLY IN 1992 AND 1994, WITH MANY FLEDGLINGS OBSERVED. NO NESTING IN 1993 OR 1997. 3500 OBSERVED NESTING 11 MAY 1999 BY HAMILTON & COOK.						
Owner/Manager:	PVT						



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Occurrence No.	181	Map Index:	17306	EO Index:	17188	Element Last Seen:	2007-06-01
Occ. Rank:	Excellent			Presence:	Presumed Extant	Site Last Seen:	2007-06-01
Occ. Type:	Natural/Native occurrence			Trend:	Stable	Record Last Updated:	2007-06-05
Quad Summary:	Buffalo Creek (3812152)						
County Summary:	Sacramento						
Lat/Long:	38.58908 / -121.12878				Accuracy:	specific area	
UTM:	Zone-10 N4272839 E662971				Elevation (ft):	250	
PLSS:	T09N, R08E, Sec. 32 (M)				Acres:	4.0	
Location:	EAST SIDE OF SCOTT ROAD, 2 MILES ESE OF THE WHITE ROCK ROAD JUNCTION, 4 MILES SOUTH OF FOLSOM.						
Detailed Location:	COLONY OCCUPIES ~2 ACRES WITHIN THIS 4-ACRE POND. THIS MAY BE ONE OF THE FEW COLONY SITES LOCATED IN A RELATIVELY PRISTINE SETTING.						
Ecological:	NESTING SUBSTRATE CONSISTS OF TULES AND CATTAILS, IN A FRESHWATER MARSH. COLONY SUCCESS IS USUALLY POOR DUE TO PREDATION.						
General:	300+ PAIRS OBSERVED NEST-BUILDING ON 8 APR; IN JUN 1990, 1000 BIRDS MADE A SECOND NESTING ATTEMPT. 5000 BIRDS OBSERVED NESTING IN 1994. 300 NESTED IN 1997. 2000 BIRDS OBSERVED NESTING 24 APR 1999. ~600 ADULTS OBSERVED NESTING ON 1 JUN 2007.						
Owner/Manager:	PVT						

Occurrence No.	236	Map Index:	23673	EO Index:	7321	Element Last Seen:	1993-04-22
Occ. Rank:	Excellent			Presence:	Presumed Extant	Site Last Seen:	1993-04-22
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	1993-06-22
Quad Summary:	Folsom SE (3812151)						
County Summary:	Sacramento						
Lat/Long:	38.58884 / -121.11613				Accuracy:	nonspecific area	
UTM:	Zone-10 N4272834 E664074				Elevation (ft):	250	
PLSS:	T09N, R08E, Sec. 32 (M)				Acres:	84.6	
Location:	0.8 MILE EAST OF SCOTT ROAD AND 2 MILES SOUTH OF WHITE ROCK ROAD, APPROXIMATELY 6 MILES SE OF FOLSOM.						
Detailed Location:							
Ecological:	NESTING SUBSTRATE CONSISTS OF TULES, LOCATED ON A 3-ACRE POND; SURROUNDED BY GRAZED AGRICULTURAL LAND.						
General:	COLONY OF APPROXIMATELY 500 ADULTS OBSERVED NESTING ON 22 APRIL 1993.						
Owner/Manager:	PVT						



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Occurrence No.	252	Map Index:	23984	EO Index:	8658	Element Last Seen:	1990-05-XX
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1990-05-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	1993-08-19
Quad Summary:	Clarksville (3812161)						
County Summary:	Sacramento						
Lat/Long:	38.68877 / -121.11439				Accuracy:	specific area	
UTM:	Zone-10 N4283927 E663997				Elevation (ft):	400	
PLSS:	T10N, R08E, Sec. 28 (M)				Acres:	5.9	
Location:	ADJACENT TO NATOMAS DITCH, 0.7 MILE SOUTH OF GREEN VALLEY ROAD AT MORMON ISLAND DAM, FOLSOM.						
Detailed Location:							
Ecological:	NESTING SUBSTRATE CONSISTS OF BLACKBERRY THICKETS ON THE EAST SIDE OF NATOMAS DITCH.						
General:	200-250 PAIRS OF TRICOLORED'S OBSERVED IN 1990.						
Owner/Manager:	UNKNOWN						
Occurrence No.	330	Map Index:	36574	EO Index:	31571	Element Last Seen:	1997-04-20
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	1997-04-20
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2003-08-21
Quad Summary:	Folsom (3812162)						
County Summary:	Placer						
Lat/Long:	38.73287 / -121.21532				Accuracy:	80 meters	
UTM:	Zone-10 N4288646 E655122				Elevation (ft):	270	
PLSS:	T10N, R07E, Sec. 09 (M)				Acres:	0.0	
Location:	JUST NW OF GRANITE BAY HIGH SCHOOL, GRANITE BAY.						
Detailed Location:							
Ecological:	NESTING SUBSTRATE CONSISTS OF CATTAILS, IN FRESHWATER MARSH HABITAT. SITE APPEARS TO BE A WETLAND IN "RECOVERY," DUE TO SURROUNDING DEVELOPMENT.						
General:	250+ ADULTS (MAINLY MALES) OBSERVED FLYING EASTWARD (AND RETURNING), PRESUMABLY TO (AND FROM) A FORAGING AREA.						
Owner/Manager:	UNKNOWN						



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Occurrence No.	452	Map Index:	89894	EO Index:	90914	Element Last Seen:	2013-05-12
Occ. Rank:	Good	Presence:	Presumed Extant	Site Last Seen:	2013-05-12	Record Last Updated:	2013-08-06
Occ. Type:	Natural/Native occurrence	Trend:	Stable				
Quad Summary:	Clarksville (3812161)						
County Summary:	Sacramento						
Lat/Long:	38.64663 / -121.10416				Accuracy:	80 meters	
UTM:	Zone-10 N4279268 E664983				Elevation (ft):	560	
PLSS:	T09N, R08E, Sec. 09 (M)				Acres:	0.0	
Location:	JUST SE OF SERPA WAY AT IRON POINT RD, 0.25 MILES SW OF CARPENTER HILL (CARPENTER BM 828), JUST N OF HWY 50, FOLSOM.						
Detailed Location:	SITE IS EASILY VISIBLE FROM IRON POINT RD (NO PARKING) AND THE SITE IS ACCESSIBLE FROM SERPA WAY.						
Ecological:	NESTING IN BLACKBERRY PATCH ALONG UNNAMED DRAINAGE. SITE IS SURROUNDED BY RESIDENTIAL & COMMERCIAL BUILDINGS & A MAJOR FREEWAY. THE VICINITY HAS BEEN GRADED FOR DEVELOPMENT SINCE 2003, BUT NO STRUCTURES AS OF 2013. BIRDS FORAGE S OF HWY 50.						
General:	COLONY WAS ESTIMATED OF ABOUT 1,000 BIRDS ON 5 JUN 2011 WHEN FORAGING LINES OF BIRDS WERE OBSERVED FLYING OVER HWY 50; COLONY WAS VERY ACTIVE AND VOCALIZING CHICKS COULD BE HEARD. SIMILAR DETECTION OF ACTIVE COLONY ON 12 MAY 2013.						
Owner/Manager:	UNKNOWN						

Oncorhynchus mykiss irideus

Element Code: AFCHA0209K

steelhead - Central Valley DPS

Listing Status: **Federal:** Threatened

CNDDDB Element Ranks: **Global:** G5T2Q

State: None

State: S2

Other: AFS_TH-Threatened

Habitat: **General:** POPULATIONS IN THE SACRAMENTO AND SAN JOAQUIN RIVERS AND THEIR TRIBUTARIES.

Micro: ☐

Occurrence No.	3	Map Index:	90973	EO Index:	92020	Element Last Seen:	2007-XX-XX
Occ. Rank:	Poor	Presence:	Presumed Extant	Site Last Seen:	2007-XX-XX	Record Last Updated:	2014-03-28
Occ. Type:	Natural/Native occurrence	Trend:	Decreasing				
Quad Summary:	Folsom (3812162), Citrus Heights (3812163), Rio Linda (3812164), Pilot Hill (3812171), Rocklin (3812172), Roseville (3812173)						
County Summary:	Placer, Sacramento						
Lat/Long:	38.76061 / -121.25324				Accuracy:	nonspecific area	
UTM:	Zone-10 N4291660 E651767				Elevation (ft):		
PLSS:	T11N, R06E, Sec. 36 (M)				Acres:	4977.0	
Location:	DRY CREEK AND ITS TRIBUTARIES SECRET RAVINE AND MINERS RAVINE.						
Detailed Location:	MAPPED TO REACHES OF DRY CREEK & OCCUPIED TRIBUTARIES CURRENTLY NAVIGABLE BY STEELHEAD. COTTONWOOD DAM WAS TOTAL BARRIER ON MINERS PRIOR TO ITS FAILURE IN 2009. ALL SPAWNING REPORTS FROM U/S OF WASTEWATER TREATMENT PLANT (38.736, -121.316).						
Ecological:	MAINSTEM DRY CREEK (DC) USED AS MIGRATORY CORRIDOR, BUT WATER QUALITY & SUBSTRATE TOO DEGRADED TO SUPPORT SPAWNING. SPAWNING & REARING HABITAT UPSTREAM, IN SECRET (SR) & MINERS (MR) RAVINES.						
General:	1998-2000: ESTIMATED RUN TO UPPER DC "A FEW 100"; JUVENILES CAUGHT AT MR/SR CONFLUENCE, PRESUMED PRESENT IN BOTH TRIBS. '04-05 ELECTROFISHING SURVEYS CAUGHT 136 O. MYKISS IN SR, 0 IN DC & MR. EVIDENCE OF SPAWNING OBS IN SR IN 2007.						
Owner/Manager:	UNKNOWN						



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Occurrence No.	5	Map Index:	90985	EO Index:	92033	Element Last Seen:	2012-XX-XX
Occ. Rank:	Poor			Presence:	Presumed Extant	Site Last Seen:	2012-XX-XX
Occ. Type:	Natural/Native occurrence			Trend:	Decreasing	Record Last Updated:	2014-02-26
Quad Summary:	Carmichael (3812153), Sacramento East (3812154), Folsom (3812162), Citrus Heights (3812163)						
County Summary:	Sacramento						
Lat/Long:	38.62828 / -121.29761				Accuracy:	nonspecific area	
UTM:	Zone-10 N4276902 E648185				Elevation (ft):		
PLSS:	T09N, R06E, Sec. 14 (M)				Acres:	2592.0	
Location:	LOWER AMERICAN RIVER, FROM ITS MOUTH IN THE SACRAMENTO RIVER TO THE NIMBUS HATCHERY DAM (RM23).						
Detailed Location:	MAPPED TO 23 MI OF RIVER CURRENTLY NAVIGABLE BY STEELHEAD (SH). OLD FOLSOM DAM (RM27) BUILT 1895; NIMBUS AND FOLSOM DAMS BUILT 1955, CUT OFF NEARLY ALL OF SPAWNING HABITAT. RSTS FISHED BELOW WATT BRIDGE AT RM9.						
Ecological:	80-100% OF ADULTS OBSERVED IN RIVER DURING 2003-2012 SPAWNING SURVEYS & 92-99% OF RETURNS TO HATCHERY 2001-10 WERE HATCHERY-ORIGIN (HO). NIMBUS HATCHERY SH EXCLUDED FROM DPS; EGGS IMPORTED FROM EEL RIVER (1955-62) WA & OR (1969-73, '80-81).						
General:	1944-47: SUMMER RUN OF 400-1,246; GONE BY 1955. WINTER RUN ESTS: 3K-5K (LATE 60S); >19K (1971-72); >12K (1973-74); 255-1,462 (1990-93). RST CATCH 1994-99: 30-145; >2K IN 2012. # REDDS/YEAR: 155-215 (2002-05), 172 ('07), 89 ('11), 76 ('12).						
Owner/Manager:	SAC COUNTY, CITY OF SACRAMENTO						

Occurrence No.	24	Map Index:	91514	EO Index:	92591	Element Last Seen:	2013-01-07
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	2013-01-07
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2014-02-10
Quad Summary:	Galt (3812133), Bruceville (3812134), Carbondale (3812141), Sloughhouse (3812142), Elk Grove (3812143), Folsom SE (3812151)						
County Summary:	Amador, El Dorado, Sacramento, San Joaquin						
Lat/Long:	38.49658 / -121.06664				Accuracy:	nonspecific area	
UTM:	Zone-10 N4262685 E668600				Elevation (ft):		
PLSS:	T08N, R08E, Sec. 35 (M)				Acres:	4344.0	
Location:	COSUMNES RIVER, FROM ITS MOUTH IN THE MOKELUMNE RIVER TO LATROBE FALLS (~RM37.25).						
Detailed Location:	MAPPED TO RIVER REACH CURRENTLY ACCESSIBLE BY STEELHEAD (SH); LATROBE FALLS IS A NATURAL BARRIER TO ANADROMY. RECENT JUVENILE DETECTIONS BELOW LOW-WATER CROSSING AT ~RM6.75, THOUGH ADULTS SEEN ABOVE IT; IT MAY BE A BARRIER TO JUVENILE SH.						
Ecological:	COSUMNES MAY HOST NON-NATAL REARING HABITAT FOR SH FROM MOKELUMNE, OTHER NEARBY RIVERS. AVAILABLE HABITAT LOW-ELEVATION, LIKELY ONLY SUITABLE FOR SPAWNING IN WET YEARS. SH SEEN RECENTLY PRESUMED HATCHERY STRAYS. UNK IF HISTORIC RUN EXISTED.						
General:	1 PRESUMED "STEELHEAD" CAUGHT IN GILL NET SAMPLES, 5-6 FEB 1974. 0 TROUT CAUGHT IN 2000, 1 IN 2001, & 12 IN 2002 IN QUARTERLY ELECTROFISHING SAMPLES. 7 AD-CLIPPED SH, 16-27", RECORDED PAST CAMERA TRAP AT GRANLEES DAM 6 DEC 2012-7 JAN 2013.						
Owner/Manager:	UNKNOWN						



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Lasionycteris noctivagans

Element Code: AMACC02010

silver-haired bat

Listing Status:	Federal: None	CNDDB Element Ranks:	Global: G5
	State: None		State: S3S4
	Other: IUCN_LC-Least Concern, WBWG_M-Medium Priority		
Habitat:	General: PRIMARILY A COASTAL & MONTANE FOREST DWELLER FEEDING OVER STREAMS, PONDS & OPEN BRUSHY AREAS.		
	Micro: ROOSTS IN HOLLOW TREES, BENEATH EXFOLIATING BARK, ABANDONED WOODPECKER HOLES & RARELY UNDER ROCKS. NEEDS DRINKING WATER.		

Occurrence No.	63	Map Index: 68576	EO Index: 68944	Element Last Seen:	1990-09-25
Occ. Rank:	Unknown		Presence: Presumed Extant	Site Last Seen:	1990-09-25
Occ. Type:	Natural/Native occurrence		Trend: Unknown	Record Last Updated:	2007-03-20

Quad Summary: Folsom (3812162)

County Summary: Sacramento

Lat/Long:	38.67716 / -121.16626	Accuracy:	1 mile
UTM:	Zone-10 N4282547 E659510	Elevation (ft):	
PLSS:	T10N, R07E, Sec. 36 (M)	Acres:	0.0

Location: FOLSOM.

Detailed Location: MAPPED ACCORDING TO LAT/LONG COORDINATES PROVIDED BY MANIS, WITH UNCERTAINTY OF 30 M.

Ecological:

General: 1 FEMALE SPECIMEN (MVZ #182381) COLLECTED BY WILLIAM E. RAINEY ON 25 SEP 1990.

Owner/Manager: UNKNOWN

Occurrence No.	64	Map Index: 66566	EO Index: 68945	Element Last Seen:	1939-04-05
Occ. Rank:	Unknown		Presence: Presumed Extant	Site Last Seen:	1939-04-05
Occ. Type:	Natural/Native occurrence		Trend: Unknown	Record Last Updated:	2007-03-20

Quad Summary: Folsom (3812162)

County Summary: Sacramento

Lat/Long:	38.69846 / -121.20435	Accuracy:	3/5 mile
UTM:	Zone-10 N4284845 E656151	Elevation (ft):	
PLSS:	T10N, R07E, Sec. 27 (M)	Acres:	0.0

Location: 2 MILES NW OF FOLSOM.

Detailed Location: MAPPED ACCORDING TO LAT/LONG COORDINATES PROVIDED BY MANIS, WITH UNCERTAINTY OF 804.672 M.

Ecological:

General: 1 MALE SPECIMEN (MVZ #106637) COLLECTED BY P.Q TOMICH ON 5 APR 1939.

Owner/Manager: UNKNOWN



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Antrozous pallidus

Element Code: AMACC10010

pallid bat

Listing Status:	Federal: None	CNDDDB Element Ranks:	Global: G5
	State: None		State: S3
	Other: BLM_S-Sensitive, CDFW_SSC-Species of Special Concern, IUCN_LC-Least Concern, USFS_S-Sensitive, WBWG_H-High Priority		
Habitat:	General: DESERTS, GRASSLANDS, SHRUBLANDS, WOODLANDS & FORESTS. MOST COMMON IN OPEN, DRY HABITATS WITH ROCKY AREAS FOR ROOSTING.		
	Micro: ROOSTS MUST PROTECT BATS FROM HIGH TEMPERATURES. VERY SENSITIVE TO DISTURBANCE OF ROOSTING SITES.		

Occurrence No.	233	Map Index: 66566	EO Index: 66699	Element Last Seen: 1941-06-24
Occ. Rank:	Unknown		Presence: Presumed Extant	Site Last Seen: 1941-06-24
Occ. Type:	Natural/Native occurrence		Trend: Unknown	Record Last Updated: 2006-10-03

Quad Summary: Folsom (3812162)

County Summary: Sacramento

Lat/Long:	38.69846 / -121.20435	Accuracy:	3/5 mile
UTM:	Zone-10 N4284845 E656151	Elevation (ft):	250
PLSS:	T10N, R07E, Sec. 27 (M)	Acres:	0.0

Location: 2 MI NW OF FOLSOM.

Detailed Location: MAPPED ACCORDING TO THE LAT/LONG COORDINATES GIVEN IN MANIS, WITH UNCERTAINTY OF 804.672 M.

Ecological:

General: 1 FEMALE SPECIMEN COLLECTED BY P.Q. TOMICH ON 24 JUN 1941, MVZ #106649.

Owner/Manager: UNKNOWN



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Pekania pennanti

Element Code: AMAJF01021

fisher - West Coast DPS

Listing Status:	Federal:	Proposed Threatened	CNDDB Element Ranks:	Global:	G5T2T3Q
	State:	Candidate Threatened		State:	S2S3
	Other:	BLM_S-Sensitive, CDFW_SSC-Species of Special Concern, USFS_S-Sensitive			
Habitat:	General:	INTERMEDIATE TO LARGE-TREE STAGES OF CONIFEROUS FORESTS & DECIDUOUS-RIPARIAN AREAS WITH HIGH PERCENT CANOPY CLOSURE.			
	Micro:	USES CAVITIES, SNAGS, LOGS & ROCKY AREAS FOR COVER & DENNING. NEEDS LARGE AREAS OF MATURE, DENSE FOREST.			

Occurrence No.	700	Map Index:	78087	EO Index:	78967	Element Last Seen:	1916-07-XX
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1916-07-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2010-02-08

Quad Summary: Camino (3812066), Placerville (3812067), Shingle Springs (3812068), Slate Mtn. (3812076), Garden Valley (3812077), Coloma (3812078)

County Summary: El Dorado

Lat/Long:	38.72948 / -120.79835	Accuracy:	5 miles
UTM:	Zone-10 N4289058 E691378	Elevation (ft):	2000
PLSS:	T10N, R11E, Sec. 07 (M)	Acres:	0.0

Location: NEAR PLACERVILLE.

Detailed Location:

Ecological:

General: FIVE FISHERS WERE KILLED FOR THEIR PELTS NEAR PLACERVILLE DURING JULY 1916.

Owner/Manager: UNKNOWN



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***Taxidea taxus***

Element Code: AMAJF04010

American badger

Listing Status:	Federal: None	CNDDDB Element Ranks:	Global: G5
	State: None		State: S3
	Other: CDFW_SSC-Species of Special Concern, IUCN_LC-Least Concern		
Habitat:	General: MOST ABUNDANT IN DRIER OPEN STAGES OF MOST SHRUB, FOREST, AND HERBACEOUS HABITATS, WITH FRIABLE SOILS.		
	Micro: NEEDS SUFFICIENT FOOD, FRIABLE SOILS & OPEN, UNCULTIVATED GROUND. PREYS ON BURROWING RODENTS. DIGS BURROWS.		

Occurrence No.	72	Map Index: 56588	EO Index: 56604	Element Last Seen:	1990-04-12
Occ. Rank:	None		Presence: Extirpated	Site Last Seen:	1990-04-12
Occ. Type:	Natural/Native occurrence		Trend: Unknown	Record Last Updated:	2009-06-08

Quad Summary: Buffalo Creek (3812152)**County Summary:** Sacramento

Lat/Long:	38.54756 / -121.23574	Accuracy:	1/10 mile
UTM:	Zone-10 N4268046 E653743	Elevation (ft):	170
PLSS:	T08N, R07E, Sec. 17 (M)	Acres:	0.0

Location: 0.4 MILE EAST OF SSUNRISE BLVD AND 0.8 MILES SOUTH OF DOUGLAS ROAD, SOUTHEAST RANCHO CDOVA.**Detailed Location:****Ecological:** ANNUAL GRASSLAND. AREA HAS >500 VERNAL POOLS & SEVERAL LINEAR MILES OF INTERMITTENT STREAMS & OTHER WETLANDS. HIGH CONCENTRATION OF MICROTUS & FEW GROUND SQUIRRELS. 2008 AERIAL PHOTO SHOWS THAT THIS AREA HAS BEEN COMPLETELY DEVELOPED.**General:** 3 INDIVIDUALS OBSERVED AT A DEN. THERE WERE ABOUT 15 BADGER SIZED DENS IN THE AREA - MOST FRESHLY DUG, A COUPLE WITH ENTRANCES FILLED WITH DIRT.**Owner/Manager:** PVT***Emys marmorata***

Element Code: ARAAD02030

western pond turtle

Listing Status:	Federal: None	CNDDDB Element Ranks:	Global: G3G4
	State: None		State: S3
	Other: BLM_S-Sensitive, CDFW_SSC-Species of Special Concern, IUCN_VU-Vulnerable, USFS_S-Sensitive		
Habitat:	General: A THOROUGHLY AQUATIC TURTLE OF PONDS, MARSHES, RIVERS, STREAMS & IRRIGATION DITCHES, USUALLY WITH AQUATIC VEGETATION, BELOW 6000 FT ELEVATION.		
	Micro: NEED BASKING SITES AND SUITABLE (SANDY BANKS OR GRASSY OPEN FIELDS) UPLAND HABITAT UP TO 0.5 KM FROM WATER FOR EGG-LAYING.		



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Occurrence No.	435	Map Index:	32697	EO Index:	1201	Element Last Seen:	1991-03-07
Occ. Rank:	None			Presence:	Possibly Extirpated	Site Last Seen:	1991-03-07
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2010-02-03
Quad Summary:	Folsom (3812162)						
County Summary:	Sacramento						
Lat/Long:	38.66115 / -121.13086				Accuracy:	80 meters	
UTM:	Zone-10 N4280833 E662627				Elevation (ft):	375	
PLSS:	T09N, R08E, Sec. 05 (M)				Acres:	0.0	
Location:	NATOMAS DITCH; NORTHEAST SIDE OF PLACERVILLE ROAD; 0.1-0.2 MILES N OF NATOMAS DITCH X PLACERVILLE ROAD.						
Detailed Location:							
Ecological:	1991: OLD MAN-MADE DITCH; VERY LITTLE AQUATIC VEGETATION; SPIKE RUSH AND BLACKBERRIES DOMINANT; SOME WILLOWS AND A FEW ALDERS; SURROUNDING HABITAT IS GRAZED GRASSLAND. 2008 AERIAL PHOTO SHOWS THAT THE AREA HAS BEEN DEVELOPED.						
General:	2 ADULTS OBSERVED, 1 RETAINED BY DFG AS LIVE SPECIMEN; SITE IS UNDER LITIGATION; GOOD POND TURTLE HABITAT, NOT MUCH FOR FISH; NO FROGS OBSERVED.						
Owner/Manager:	PVT						
Occurrence No.	436	Map Index:	32698	EO Index:	1156	Element Last Seen:	1993-04-25
Occ. Rank:	Fair			Presence:	Presumed Extant	Site Last Seen:	1993-04-25
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	1995-11-06
Quad Summary:	Folsom (3812162)						
County Summary:	Sacramento						
Lat/Long:	38.66391 / -121.19198				Accuracy:	80 meters	
UTM:	Zone-10 N4281032 E657303				Elevation (ft):	80	
PLSS:	T09N, R07E, Sec. 03 (M)				Acres:	0.0	
Location:	POND AT SNIPES-PERSHING RAVINE; ADJACENT TO LAKE NATOMAS (WEST SIDE), AT NORTH END OF MISSISSIPPI BAR; ORANGEVALE.						
Detailed Location:							
Ecological:	POND, MAY BE SOMEWHAT ARTIFICIAL; CULVERTS ON EAST END TO DELIVER EXCESS WATER TO RIVER SIDE OF BIKE TRAIL; MIXED VEGETATION, DOMINATED BY LIVE OAK AND FOOTHILL PINE SURROUNDING POND.						
General:	1 ADULT OBSERVED FORAGING; HIKING TRAIL ENCIRCLES HALF OF POND; BIKE TRAIL VISIBLE FROM POND.						
Owner/Manager:	DPR-FOLSOM LAKE SRA, PVT						



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Occurrence No.	444	Map Index:	32822	EO Index:	1134	Element Last Seen:	XXXX-XX-XX
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	XXXX-XX-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	1996-01-17
Quad Summary:	Garden Valley (3812077), Coloma (3812078)						
County Summary:	El Dorado						
Lat/Long:	38.78172 / -120.84922				Accuracy:	nonspecific area	
UTM:	Zone-10 N4294751 E686820				Elevation (ft):	800	
PLSS:	T11N, R10E, Sec. 22 (M)				Acres:	321.2	
Location:	NORTH OF PLACERVILLE ON SOUTH FORK AMERICAN RIVER, VICINITY OF COLOMA.						
Detailed Location:							
Ecological:							
General:	COLLECTION MADE BY G. FELLERS, DATE AND NUMBERS OF SPECIMENS UNKNOWN.						
Owner/Manager:	UNKNOWN						

Occurrence No.	446	Map Index:	32824	EO Index:	1472	Element Last Seen:	XXXX-XX-XX
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	XXXX-XX-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	1996-01-18
Quad Summary:	Folsom (3812162)						
County Summary:	Sacramento						
Lat/Long:	38.63370 / -121.22737				Accuracy:	1/5 mile	
UTM:	Zone-10 N4277619 E654288				Elevation (ft):	105	
PLSS:	T09N, R07E, Sec. 17 (M)				Acres:	0.0	
Location:	2.5 MILES EAST OF FAIR OAKS, IMMEDIATELY DOWNSTREAM FROM NIMBUS DAM AT NIMBUS FISH HATCHERY.						
Detailed Location:							
Ecological:							
General:	COLLECTION MADE BY DFG, DATE AND NUMBERS OF SPECIMENS UNKNOWN.						
Owner/Manager:	DFG-NIMBUS FISH HATCHERY						

Occurrence No.	447	Map Index:	32825	EO Index:	6654	Element Last Seen:	XXXX-XX-XX
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	XXXX-XX-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	1996-01-18
Quad Summary:	Clarksville (3812161)						
County Summary:	El Dorado						
Lat/Long:	38.63570 / -121.06092				Accuracy:	80 meters	
UTM:	Zone-10 N4278134 E668773				Elevation (ft):	520	
PLSS:	T09N, R08E, Sec. 14 (M)				Acres:	0.0	
Location:	SSW OF CLARKSVILLE; 2.2 KM SOUTH OF HIGHWAY 50, CARSON CREEK AT LATROBE ROAD.						
Detailed Location:							
Ecological:							
General:	COLLECTED BY R.W. HANSEN AND R.L. TREMPOR, DATE AND NUMBER OF SPECIMENS UNKNOWN.						
Owner/Manager:	UNKNOWN						



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Occurrence No.	468	Map Index:	32844	EO Index:	14223	Element Last Seen:	1988-08-16
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1988-08-16
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	1996-01-22
Quad Summary:	Folsom SE (3812151)						
County Summary:	El Dorado						
Lat/Long:	38.60266 / -121.02322				Accuracy:	1/5 mile	
UTM:	Zone-10 N4274538 E672134				Elevation (ft):	500	
PLSS:	T09N, R09E, Sec. 30 (M)				Acres:	0.0	
Location:	DEER CREEK AT LATROBE ROAD; APPROX. 3.8 MILES NORTHWEST OF LATROBE.						
Detailed Location:							
Ecological:							
General:	2 CAPTURED AND RETAINED BY D.C. HOLLAND ON 16 AUGUST 1988.						
Owner/Manager:	UNKNOWN						

Occurrence No.	496	Map Index:	37856	EO Index:	32863	Element Last Seen:	1997-04-19
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	1997-04-19
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	1998-01-08
Quad Summary:	Folsom (3812162)						
County Summary:	Placer, Sacramento						
Lat/Long:	38.71478 / -121.18053				Accuracy:	specific area	
UTM:	Zone-10 N4286697 E658187				Elevation (ft):	500	
PLSS:	T10N, R07E, Sec. 14 (M)				Acres:	26.8	
Location:	BALDWIN RESERVOIR WETLAND AND WILDLIFE PRESERVE, GRANITE BAY.						
Detailed Location:							
Ecological:	HABITAT CONSISTS OF FRESHWATER MARSH, SURROUNDING AN ABANDONED WATER DISTRICT RESERVOIR. OPEN WATER IS SURROUNDED BY SCIRPUS & TYPHA. ISLANDS & ROCKY BASKING SITES PRESENT. ADJACENT UPLANDS SUPPORT MOSTLY RUDERAL SPECIES.						
General:	2 ADULTS OBSERVED ON 19 APRIL 1997.						
Owner/Manager:	PVT-SAN JUAN WATER DIST						

Occurrence No.	531	Map Index:	46092	EO Index:	46092	Element Last Seen:	2001-09-26
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2001-09-26
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2001-10-10
Quad Summary:	Folsom SE (3812151), Buffalo Creek (3812152)						
County Summary:	Sacramento						
Lat/Long:	38.53992 / -121.12767				Accuracy:	nonspecific area	
UTM:	Zone-10 N4267384 E663179				Elevation (ft):	120	
PLSS:	T08N, R08E, Sec. 17 (M)				Acres:	37.0	
Location:	DEER CREEK, 8 MILES SSE OF LAKE NATOMA.						
Detailed Location:							
Ecological:	HABITAT CONSISTS OF AN ISOLATED POOL IN DEER CREEK.						
General:	5 ADULTS OBSERVED BASKING ON A SUBMERGED LOG ON 26 SEP 2001.						
Owner/Manager:	UNKNOWN						



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Occurrence No.	608	Map Index:	56206	EO Index:	56222	Element Last Seen:	2004-05-08
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2004-05-08
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2004-07-26
Quad Summary:	Pilot Hill (3812171)						
County Summary:	Placer						
Lat/Long:	38.79413 / -121.10850				Accuracy:	80 meters	
UTM:	Zone-10 N4295631 E664268				Elevation (ft):	475	
PLSS:	T11N, R08E, Sec. 20 (M)				Acres:	0.0	
Location:	1.5 MILES SE OF THE INTERSECTION OF HORSESHOE BAR ROAD AND AUBURN-FOLSOM ROAD, ON THE WEST EDGE OF FOLSOM LAKE.						
Detailed Location:							
Ecological:	HABITAT CONSISTS OF A SMALL POND CREATED BY A STONE WALL BUILT ACROSS A SMALL RAVINE ON THE EDGE OF FOLSOM LAKE.						
General:	1 JUVENILE OBSERVED ON 8 MAY 2004.						
Owner/Manager:	DPR-FOLSOM LAKE SRA						
Occurrence No.	658	Map Index:	69098	EO Index:	69874	Element Last Seen:	2007-04-28
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2007-04-28
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2007-04-30
Quad Summary:	Folsom (3812162)						
County Summary:	Sacramento						
Lat/Long:	38.63993 / -121.23708				Accuracy:	specific area	
UTM:	Zone-10 N4278294 E653430				Elevation (ft):	141	
PLSS:	T09N, R07E, Sec. 17 (M)				Acres:	2.0	
Location:	ILLINOIS POND, ON THE WEST SIDE OF ILLINOIS AVENUE, NEAR THE ENTRANCE TO SAILOR BAR, AMERICAN RIVER PARKWAY, FAIR OAKS.						
Detailed Location:							
Ecological:	HABITAT CONSISTS OF A MAN-MADE POND, WHICH IS DAMMED AT THE SOUTH END; A CEMENT-PAVED OUTFLOW CHANNEL EXTENDS FROM THE SW CORNER, PRESUMABLY ENDING AT THE AMERICAN RIVER. POND IS VEGETATED BY ELODEA AND PATCHES OF CATTAILS AROUND THE EDGE.						
General:	1 ADULT OBSERVED BASKING ON A LOG AT THE NORTH END OF THE POND ON 28 APR 2007.						
Owner/Manager:	SAC COUNTY-PARKS & REC						



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Occurrence No.	672	Map Index:	69845	EO Index:	70667	Element Last Seen:	2007-05-17
Occ. Rank:	Unknown	Presence:	Presumed Extant	Site Last Seen:		2007-05-17	
Occ. Type:	Natural/Native occurrence	Trend:	Unknown	Record Last Updated:		2007-09-04	
Quad Summary:	Buffalo Creek (3812152)						
County Summary:	Sacramento						
Lat/Long:	38.55650 / -121.24987				Accuracy:	80 meters	
UTM:	Zone-10 N4269015 E652493				Elevation (ft):	140	
PLSS:	T08N, R07E, Sec. 07 (M)				Acres:	0.0	
Location:	NE SIDE OF MATHER LAKE, 0.2 MILE SOUTH OF DOUGLAS ROAD, SE OF RANCHO CORDOVA.						
Detailed Location:							
Ecological:	HABITAT SURROUNDING MATHER LAKE CONSISTS OF VALLEY GRASSLAND, TRANSITIONING TO COYOTE BRUSH SCRUBLAND TOWARD THE ENE TOWARDS FOLSOM SOUTH CANAL AND SEASONAL WETLANDS ALONG THE LAKE EDGE.						
General:	1 ADULT, WITH MOIST MUD COVERING THE TURTLE'S REAR, WAS OBSERVED ON 17 MAY 2007.						
Owner/Manager:	DOD-USAF, SAC COUNTY PARKS						

<i>Phrynosoma blainvillii</i>				Element Code: ARACF12100			
coast horned lizard							
Listing Status:	Federal:	None			CNDDDB Element Ranks:	Global:	G3G4
	State:	None				State:	S3S4
	Other:	BLM_S-Sensitive, CDFW_SSC-Species of Special Concern, IUCN_LC-Least Concern					
Habitat:	General:	FREQUENTS A WIDE VARIETY OF HABITATS, MOST COMMON IN LOWLANDS ALONG SANDY WASHES WITH SCATTERED LOW BUSHES.					
	Micro:	OPEN AREAS FOR SUNNING, BUSHES FOR COVER, PATCHES OF LOOSE SOIL FOR BURIAL, & ABUNDANT SUPPLY OF ANTS & OTHER INSECTS.					

Occurrence No.	596	Map Index:	39878	EO Index:	34880	Element Last Seen:	1995-05-XX
Occ. Rank:	Unknown	Presence:	Presumed Extant	Site Last Seen:		1995-05-XX	
Occ. Type:	Natural/Native occurrence	Trend:	Unknown	Record Last Updated:		1998-10-01	
Quad Summary:	Shingle Springs (3812068)						
County Summary:	El Dorado						
Lat/Long:	38.71823 / -120.99206				Accuracy:	nonspecific area	
UTM:	Zone-10 N4287423 E674566				Elevation (ft):	1880	
PLSS:	T10N, R09E, Sec. 16 (M)				Acres:	20.6	
Location:	PINE HILL, ULLEN CAMP ROAD, 1.4 AIR MILES NW OF JUNCTION WITH GREEN VALLEY ROAD.						
Detailed Location:	SOUTHWEST, AND JUST DOWNHILL OF THE SUMMIT. PORTION OF SITE BURNED ~5 YEARS AGO; SOME FIRE ROADS.						
Ecological:	NORTHERN GABBOIC CHAPARRAL WITH ARCTOSTAPHYLOS VISCIDA, ADENOSTOMA FASCICULATUM, RHAMNUS CROCEZ ILLICIFOLIA DOMINANT SHRUBS; SITANION HYSTRIX, BROMUS RUBENS, B. TECTORUM, MEDICA TORREYONE DOMINANT GRASSES.						
General:	2 LIZARDS OBSERVED, 1995.						
Owner/Manager:	CDF-PINE HILL LOOKOUT						



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Occurrence No.	641	Map Index:	61823	EO Index:	61859	Element Last Seen:	2005-06-15
Occ. Rank:	Fair			Presence:	Presumed Extant	Site Last Seen:	2005-06-15
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2005-06-30
Quad Summary:	Shingle Springs (3812068)						
County Summary:	El Dorado						
Lat/Long:	38.66933 / -120.96969				Accuracy:	80 meters	
UTM:	Zone-10 N4282039 E676631				Elevation (ft):	1410	
PLSS:	T09N, R09E, Sec. 03 (M)				Acres:	0.0	
Location:	0.7 MILE NORTH OF HWY 50 AND 0.4 MILE EAST OF CAMERON PARK DRIVE, EAST OF CAMERON PARK.						
Detailed Location:							
Ecological:	HABITAT CONSISTS OF CHAPARRAL DOMINATED BY CEANOTHUS RODERICKII, BUT ALSO WITH ADENOSTOMA FASCICULATUM AND CERCIS OCCIDENTALIS; HERBS INCLUDED CALYCADENIA MULTIGLANDULOSA, BRACHYPODIUM DISTACHYON, AND OTHERS. ASPECT 240 DEGREES, SLOPE 6%.						
General:	1 ADULT OBSERVED ON 15 JUN 2005.						
Owner/Manager:	DFG-PINE HILL ER, BLM						

Occurrence No.	684	Map Index:	75673	EO Index:	76698	Element Last Seen:	2005-04-01
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	2005-04-01
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2009-08-26
Quad Summary:	Shingle Springs (3812068)						
County Summary:	El Dorado						
Lat/Long:	38.66318 / -120.96102				Accuracy:	1/10 mile	
UTM:	Zone-10 N4281372 E677401				Elevation (ft):	1400	
PLSS:	T09N, R09E, Sec. 02 (M)				Acres:	0.0	
Location:	0.25 NORTH OF HIGHWAY 50, BETWEEN CAMERON PARK DRIVE AND CANDLEWOOD ROAD, SHINGLE SPRINGS.						
Detailed Location:	LOCATED JUST NORTHWEST OF LOMA DRIVE.						
Ecological:	NORTHERN GABBROIC MIXED CHAPARRAL ON RESCUE SERIES SOILS. SOUTHERN ASPECT. DEVELOPMENT LOCATED TO THE SOUTH AND PRESERVE LOCATED TO THE NORTH.						
General:	2 OBSERVED DURING FIELD SURVEY OF STEBBINS'S MORNING-GLORY.						
Owner/Manager:	PVT						



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Occurrence No.	685	Map Index:	75674	EO Index:	76699	Element Last Seen:	2007-05-24
Occ. Rank:	Fair	Presence:	Presumed Extant	Site Last Seen:	2007-05-24	Record Last Updated:	2009-08-28
Occ. Type:	Natural/Native occurrence	Trend:	Unknown				
Quad Summary:	Shingle Springs (3812068)						
County Summary:	El Dorado						
Lat/Long:	38.67247 / -120.99593				Accuracy:	80 meters	
UTM:	Zone-10 N4282337 E674340				Elevation (ft):	1425	
PLSS:	T10N, R09E, Sec. 33 (M)				Acres:	0.0	
Location:	ALONG WOODLEIGH LN, 0.75 MILES SSW OF CAMERON PARK LAKE & 1 MILE N OF HWY 50 AT CAMBRIDGE ROAD, CAMERON PARK.						
Detailed Location:	WOODLEIGH LANE, 270 METERS NORTH OF SURRY LANE. MAPPED TO PROVIDED MAP.						
Ecological:	NORTHERN GABBROIC MIXED CHAPARRAL. SURROUNDED BY RESIDENTIAL AREA.						
General:	1 ADULT OBSERVED ON 24 MAY 2007. 2008 AERIAL IMAGE SHOWS THIS LOCATION NEAR THE SOUTH END OF A SMALL, UN-DEVELOPED CORRIDOR OF OPEN SPACE RANGING APPROXIMATELY 40 M-300 M IN WIDTH.						
Owner/Manager:	PVT						

<i>Thamnophis gigas</i>				Element Code: ARADB36150			
giant garter snake							
Listing Status:	Federal:	Threatened			CNDDDB Element Ranks:	Global:	G2
	State:	Threatened				State:	S2
	Other:	IUCN_VU-Vulnerable					
Habitat:	General:	PREFERS FRESHWATER MARSH AND LOW GRADIENT STREAMS. HAS ADAPTED TO DRAINAGE CANALS & IRRIGATION DITCHES.					
	Micro:	THIS IS THE MOST AQUATIC OF THE GARTER SNAKES IN CALIFORNIA.					

Occurrence No.	352	Map Index:	57565	EO Index:	94807	Element Last Seen:	1983-08-XX
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1983-08-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2014-09-03
Quad Summary:	Carbondale (3812141), Folsom SE (3812151)						
County Summary:	Amador, Sacramento						
Lat/Long:	38.50001 / -121.04407				Accuracy:	1 mile	
UTM:	Zone-10 N4263107 E670559				Elevation (ft):	180	
PLSS:	T08N, R08E, Sec. 36 (M)				Acres:	0.0	
Location:	INTERSECTION OF MICHIGAN BAR ROAD AND COSUMNES RIVER, EAST OF RANCHO MURIETA.						
Detailed Location:	MAPPED NON SPECIFICALLY TO LOCATION DESCRIPTION OF "MICHIGAN BAR RD., SLOUGHHOUSE, COSUMNES RIVER." LOCATION IS AT THE EASTERN EDGE OF THE EXPECTED RANGE FOR THE GIANT GARTERSNAKE.						
Ecological:	COLLECTION NOTES THAT SNAKE WAS "TWO-HEADED."						
General:	1 COLLECTED IN AUG 1983 BY E. RUMAN, D. RUMAN, AND D. RUMAN (CAS #156520).						
Owner/Manager:	UNKNOWN						



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Central Valley Drainage Hardhead/Squawfish Stream

Element Code: CARA2443CA

Central Valley Drainage Hardhead/Squawfish Stream

Listing Status: **Federal:** None

CNDDDB Element Ranks: **Global:** GNR

State: None

State: SNR

Other:

Habitat: **General:** ☐

Micro: ☐

Occurrence No.	3	Map Index:	35355	EO Index:	29426	Element Last Seen:	1979-09-07
Occ. Rank:	Fair	Presence:	Presumed Extant	Site Last Seen:		1979-09-07	
Occ. Type:	Natural/Native occurrence	Trend:	Decreasing	Record Last Updated:		1996-09-24	

Quad Summary: Aukum (3812056), Fiddletown (3812057), Latrobe (3812058), Camino (3812066), Placerville (3812067)

County Summary: Amador, El Dorado

Lat/Long:	38.58909 / -120.84447	Accuracy:	nonspecific area
UTM:	Zone-10 N4273382 E687736	Elevation (ft):	800
PLSS:	T08N, R10E, Sec. 35 (M)	Acres:	2604.2

Location: COSUMNES RIVER, NORTH OF PLYMOUTH.

Detailed Location: FROM LATROBE ROAD UPSTREAM TO FORK OF COSUMNES. INCLUDES LOWER REACHES OF NORTH AND MIDDLE FORK COSUMNES UP TO COUNTY ROAD E-16.

Ecological: SQUAWFISH AND SACRAMENTO SUCKERS PRESENT THROUHGOUT REACH; ONLY REPORT OF HARDHEAD IS 1 MILE BELOW HWY 49.

General: LITTLE INFORMATION ON AQUATIC ORGANISMS AVAILABLE FOR LOWER COSUMNES AS IT FLOWS THROUGH PRIVATE LANDS. NO MAJOR DAMS EXIST IN COSUMNES DRAINAGE, SO RIVER IS POTENTIALLY RESTORABLE.

Owner/Manager: PVT



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Valley Needlegrass Grassland

Element Code: CTT42110CA

Valley Needlegrass Grassland

Listing Status: **Federal:** None

CNDDDB Element Ranks: **Global:** G3

State: None

State: S3.1

Other:

Habitat: **General:** ☐

Micro: ☐

Occurrence No.	42	Map Index:	11960	EO Index:	13725	Element Last Seen:	1987-06-08
Occ. Rank:	Unknown	Presence:	Presumed Extant	Site Last Seen:		1988-12-09	
Occ. Type:	Natural/Native occurrence	Trend:	Unknown	Record Last Updated:		1998-07-15	

Quad Summary: Folsom (3812162)

County Summary: Sacramento

Lat/Long: 38.66712 / -121.15273 **Accuracy:** 1/5 mile

UTM: Zone-10 N4281457 E660711 **Elevation (ft):** 270

PLSS: T09N, R07E, Sec. 01 (M) **Acres:** 0.0

Location: SOUTH OF PLACERVILLE ROAD (=SCOTT ROAD) JUST EAST OF JUNCTION W/ BLUE RAVINE ROAD. NEAR HUMBURG CREEK, FOLSOM.

Detailed Location: JUST D/S FROM SMALL EARTH DAM SUPPORTING TYPHA MARSH.

Ecological: VIRTUALLY PURE STAND OF NASSELLA PULCHRA & JUNCUS BALTICUS. ASSOC SPP INCL CENTAURIUM VENUSTUM, EPILOBIUM DENSIFLORA. THOUGH SMALL, THE STAND IS LUSH, DENSE & NOT GRAZED.

General: ONLY SUCH STAND KNOWN FROM SACRAMENTO & PLACER COUNTIES PER BAILEY, 1986. STIPA PLANTS UNUSUALLY LARGE AND ROBUST. SEE WWW.DFG.CA.GOV/BIOGEODATA/VEGCAMP/NATURAL_COMM_BACKGROUND.ASP TO INTERPRET AND ADDRESS THE PRESENCE OF RARE COMMUNITIES.

Owner/Manager: PVT

Northern Hardpan Vernal Pool

Element Code: CTT44110CA

Northern Hardpan Vernal Pool

Listing Status: **Federal:** None

CNDDDB Element Ranks: **Global:** G3

State: None

State: S3.1

Other:

Habitat: **General:** ☐

Micro: ☐



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Occurrence No.	25	Map Index:	11862	EO Index:	28006	Element Last Seen:	1975-12-XX
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1975-12-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	1998-07-15
Quad Summary:	Folsom (3812162)						
County Summary:	Placer, Sacramento						
Lat/Long:	38.71378 / -121.20745				Accuracy:	1/5 mile	
UTM:	Zone-10 N4286540 E655849				Elevation (ft):	250	
PLSS:	T10N, R07E, Sec. 21 (M)				Acres:	0.0	
Location:	ROCK CORRAL VERNAL POOLS, ABOUT 0.4 MILE NORTH OF CHERRY AVENUE NEAR LINDA CREEK.						
Detailed Location:	POOL AND GRASSLAND ADJACENT TO RELATIVELY UNDISTURBED OAK WOODLAND/RIPARIAN COMMUNITY.						
Ecological:	UNABLE TO CONVERT TO FLORISTIC CLASSIFICATION, LACKS SPP. INFO.						
General:	LARGELY INTACT. SEE WWW.DFG.CA.GOV/BIOGEODATA/VEGCAMP/NATURAL_COMM_BACKGROUND.ASP TO INTERPRET AND ADDRESS THE PRESENCE OF RARE COMMUNITIES.						
Owner/Manager:	UNKNOWN						

Occurrence No.	27	Map Index:	11973	EO Index:	27517	Element Last Seen:	1983-XX-XX
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1983-XX-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	1998-07-15
Quad Summary:	Buffalo Creek (3812152)						
County Summary:	Sacramento						
Lat/Long:	38.60240 / -121.13828				Accuracy:	1/5 mile	
UTM:	Zone-10 N4274300 E662114				Elevation (ft):	350	
PLSS:	T09N, R08E, Sec. 30 (M)				Acres:	0.0	
Location:	PRAIRIE CITY ROAD, SOUTH FROM HWY 50 TO WHITE ROCK ROAD, EAST TO SCOTT ROAD, THEN SOUTH.						
Detailed Location:	SMALL AREA DENSE POOLS SEEN IN 1983 AERIAL PHOTOGRAPHS.						
Ecological:	UNABLE TO CONVERT TO FLORISTIC CLASSIFICATION, LACKS SPP. INFO.						
General:	SITE NEEDS FIELD CHECK. SEE WWW.DFG.CA.GOV/BIOGEODATA/VEGCAMP/NATURAL_COMM_BACKGROUND.ASP TO INTERPRET AND ADDRESS THE PRESENCE OF RARE COMMUNITIES.						
Owner/Manager:	UNKNOWN						

Occurrence No.	29	Map Index:	11854	EO Index:	27493	Element Last Seen:	1976-08-XX
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1976-08-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	1998-07-15
Quad Summary:	Folsom (3812162)						
County Summary:	Sacramento						
Lat/Long:	38.66156 / -121.20884				Accuracy:	1 mile	
UTM:	Zone-10 N4280742 E655841				Elevation (ft):	270	
PLSS:	T09N, R07E, Sec. 04 (M)				Acres:	0.0	
Location:	PHOENIX FIELD VERNAL POOLS VICINITY OF AIRPORT. AREA MOSTLY NORTH & EAST OF AIRPORT.						
Detailed Location:	POOLS IN FIELDS ON BLUFF TOPS W/EXTENSIVE MIMA MOUND TOPOGRAPHY.						
Ecological:	DOWNINGIA, 4 SPP OF BRODIAEA, LASTHENIA, POGOGYNE ZIZIPHOROIDES, LILAEA SCILLOIDES, RANUNCULUS ALVEOLATUS. UNABLE TO CONVERT TO FLORISTIC CLASSIFICATION, LACKS SPP. INFO.						
General:	DFG NOW PROTECTING 8 ACRES. SEE WWW.DFG.CA.GOV/BIOGEODATA/VEGCAMP/NATURAL_COMM_BACKGROUND.ASP TO INTERPRET AND ADDRESS THE PRESENCE OF RARE COMMUNITIES.						
Owner/Manager:	UNKNOWN						



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Occurrence No.	32	Map Index:	11910	EO Index:	16253	Element Last Seen:	1984-06-XX
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1984-06-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	1998-07-15
Quad Summary:	Buffalo Creek (3812152)						
County Summary:	Sacramento						
Lat/Long:	38.54185 / -121.18505				Accuracy:	specific area	
UTM:	Zone-10 N4267498 E658174				Elevation (ft):	250	
PLSS:	T08N, R07E, Sec. 14 (M)				Acres:	2415.2	
Location:	ON EAST & SE SIDE OF GRANT LINE ROAD. BETWEEN 1 & 6 MILES NORTH OF HWY 16 (JACKSON ROAD).						
Detailed Location:	TOPOGRAPHY LEVEL W/POOLS & SEVERAL LARGE VERNAL PONDS IN ANNUAL GRASSLAND W/MANY FLOWER SPP.						
Ecological:	ON UPPER (OLDEST) EDGE OF HIGH TERRACE ON REDDING SOIL SERIES SOILS. DRAINAGE TO WEST. ORCUTTIA VISCIDA PRESENT. UNABLE TO CONVERT TO FLORISTIC CLASSIFICATION, LACKS SPP. INFO.						
General:	SITE PARTIALLY ON LANDFILL LOCATION. SEE WWW.DFG.CA.GOV/BIOGEODATA/VEGCAMP/NATURAL_COMM_BACKGROUND.ASP TO INTERPRET AND ADDRESS THE PRESENCE OF RARE COMMUNITIES.						
Owner/Manager:	PVT, SAC COUNTY						

Occurrence No.	66	Map Index:	11800	EO Index:	16249	Element Last Seen:	1982-XX-XX
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1982-XX-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	1998-07-15
Quad Summary:	Folsom (3812162)						
County Summary:	Placer						
Lat/Long:	38.74267 / -121.23974				Accuracy:	specific area	
UTM:	Zone-10 N4289691 E652980				Elevation (ft):	230	
PLSS:	T10N, R07E, Sec. 08 (M)				Acres:	150.6	
Location:	BOTH SIDES DOUGLAS BLVD <1 MILE WEST OF JUNCTION WITH SIERRA COLLEGE BLVD, ROSEVILLE.						
Detailed Location:							
Ecological:	4 AREAS; 14 ACRES HIGH QUALITY POOLS ON HIGH TERRACE HARDPAN, ZONED AG; 50 AC HIGH QUALITY LOW TERRACE HARDPAN POOLS, ZONED RESID; 22 AC MED QUALITY VOLCANIC MUDFLOW POOLS, ZONED AG; 14 AC LOW QUALITY LOW TERRACE HARDPAN POOLS ZONED RESID.						
General:	RANKINGS AND 1977 ZONING FROM WESCO, 1982. UNABLE TO CONVERT TO FLORISTIC CLASSIFICATION, LACKS SPP. INFO. SEE WWW.DFG.CA.GOV/BIOGEODATA/VEGCAMP/NATURAL_COMM_BACKGROUND.ASP TO INTERPRET AND ADDRESS THE PRESENCE OF RARE COMMUNITIES.						
Owner/Manager:	UNKNOWN						



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Occurrence No.	81	Map Index:	11831	EO Index:	16242	Element Last Seen:	1983-XX-XX
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1983-XX-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	1998-07-15
Quad Summary:	Buffalo Creek (3812152)						
County Summary:	Sacramento						
Lat/Long:	38.56528 / -121.22130				Accuracy:	specific area	
UTM:	Zone-10 N4270037 E654964				Elevation (ft):	190	
PLSS:	T08N, R07E, Sec. 09 (M)				Acres:	515.9	
Location:	NORTH OF DOUGLAS ROAD, EAST OF SUNRISE BLVD, WEST OF NIMBUS ROAD, SE OF RANCHO CORDOVA.						
Detailed Location:	AREA OF DENSE VERNAL POOLS SEEN IN 1983 AERIAL PHOTOS.						
Ecological:	ON REDDING-CORNING ASSOCIATION SOILS. UNABLE TO CONVERT TO FLORISTIC CLASSIFICATION, LACKS SPP. INFO.						
General:	SEE WWW.DFG.CA.GOV/BIOGEODATA/VEGCAMP/NATURAL_COMM_BACKGROUND.ASP TO INTERPRET AND ADDRESS THE PRESENCE OF RARE COMMUNITIES.						
Owner/Manager:	UNKNOWN						

Occurrence No.	82	Map Index:	11801	EO Index:	16240	Element Last Seen:	1983-XX-XX
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1983-XX-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	1998-07-15
Quad Summary:	Buffalo Creek (3812152)						
County Summary:	Sacramento						
Lat/Long:	38.53657 / -121.22732				Accuracy:	specific area	
UTM:	Zone-10 N4266841 E654501				Elevation (ft):	100	
PLSS:	T08N, R07E, Sec. 20 (M)				Acres:	870.2	
Location:	EAST OF SUNRISE BLVD, NORTH OF KIEFER BLVD, EAST OF MATHER AIR FORCE BASE.						
Detailed Location:	DENSE VERNAL POOLS SEEN IN 1983 AERIAL PHOTOS.						
Ecological:	ON REDDING-CORNING ASSOCIATION SOILS. UNABLE TO CONVERT TO FLORISTIC CLASSIFICATION, LACKS SPP. INFO.						
General:	SEE WWW.DFG.CA.GOV/BIOGEODATA/VEGCAMP/NATURAL_COMM_BACKGROUND.ASP TO INTERPRET AND ADDRESS THE PRESENCE OF RARE COMMUNITIES.						
Owner/Manager:	UNKNOWN						

Occurrence No.	83	Map Index:	11793	EO Index:	16241	Element Last Seen:	1983-XX-XX
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1983-XX-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	1998-07-15
Quad Summary:	Sloughhouse (3812142), Buffalo Creek (3812152)						
County Summary:	Sacramento						
Lat/Long:	38.49760 / -121.23287				Accuracy:	specific area	
UTM:	Zone-10 N4262506 E654100				Elevation (ft):	110	
PLSS:	T07N, R07E, Sec. 05 (M)				Acres:	515.0	
Location:	NORTH OF GRANT LINE ROAD JUST EAST OF SUNRISE BLVD, ABOUT 2 MILES WEST OF SLOUGHHOUSE.						
Detailed Location:	TWO AREAS OF DENSE VERNAL POOLS CONNECTED BY AN AREA OF SPARSE POOLS.						
Ecological:	NORTH DENSE AREA ON REDDING-CORNING ASSOCIATION SOILS. SOUTH DENSE AREA ON SAN JOAQUIN ASSOCIATION SOILS. UNABLE TO CONVERT TO FLORISTIC CLASSIFICATION, LACKS SPP. INFO.						
General:	SEE WWW.DFG.CA.GOV/BIOGEODATA/VEGCAMP/NATURAL_COMM_BACKGROUND.ASP TO INTERPRET AND ADDRESS THE PRESENCE OF RARE COMMUNITIES.						
Owner/Manager:	UNKNOWN						



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Occurrence No.	85	Map Index:	11849	EO Index:	26874	Element Last Seen:	1983-XX-XX
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1983-XX-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	1998-07-15
Quad Summary:	Buffalo Creek (3812152)						
County Summary:	Sacramento						
Lat/Long:	38.53490 / -121.20800				Accuracy:	1 mile	
UTM:	Zone-10 N4266688 E656188				Elevation (ft):	160	
PLSS:	T08N, R07E, Sec. 21 (M)				Acres:	0.0	
Location:	NORTH OF BLODGETT RESERVOIR, EAST OF MATHER AIR FORCE BASE.						
Detailed Location:	PATCHY SPARSE DISTRIBUTION OF VERNAL POOLS IN PORTIONS OF SECTIONS 8,10,15,16,17,21,22,29.						
Ecological:	ON REDDING-CORNING AND SAN JOAQUIN ASSOCIATION SOILS. UNABLE TO CONVERT TO FLORISTIC CLASSIFICATION, LACKS SPP. INFO.						
General:	SEE WWW.DFG.CA.GOV/BIOGEODATA/VEGCAMP/NATURAL_COMM_BACKGROUND.ASP TO INTERPRET AND ADDRESS THE PRESENCE OF RARE COMMUNITIES.						
Owner/Manager:	UNKNOWN						

Occurrence No.	133	Map Index:	20270	EO Index:	30661	Element Last Seen:	1988-04-18
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1988-04-18
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	1998-07-15
Quad Summary:	Buffalo Creek (3812152)						
County Summary:	Sacramento						
Lat/Long:	38.61434 / -121.16239				Accuracy:	specific area	
UTM:	Zone-10 N4275582 E659988				Elevation (ft):	280	
PLSS:	T09N, R07E, Sec. 24 (M)				Acres:	375.6	
Location:	EXTENDING 1/2 MILE NORTH OF THE INTERSECTION OF WHITE ROCK AND PRAIRIE CITY ROADS AND WSW ABOUT 1 MILE.						
Detailed Location:	NUMEROUS VERNAL POOLS SCATTERED OVER THE AEROJET SACRAMENTO PROPERTY.						
Ecological:	SPECIES PRESENT INCLUDED GRATIOLA HETEROSEPALA, DOWNINGIA BICORNUTA, ELEOCHARIS PALUSTRIS, ERYNGIUM VASEYI VAR. VALLICOLA, GRATIOLA EBRACTEATA, LASTHENIA GLABERRIMA, PLAGIOBOTHRYIS STIPITATUS VAR. MICRANTHUS, PSILOCARPUS BREVISSIMUS.						
General:	MORE INFO IN WYM88R03. UNABLE TO CONVERT TO FLORISTIC CLASSIFICATION, LACKS SPP. INFO. SEE WWW.DFG.CA.GOV/BIOGEODATA/VEGCAMP/NATURAL_COMM_BACKGROUND.ASP TO INTERPRET AND ADDRESS THE PRESENCE OF RARE COMMUNITIES.						
Owner/Manager:	PVT-GENCORP AEROJET						

Northern Volcanic Mud Flow Vernal Pool

Element Code: CTT44132CA

Northern Volcanic Mud Flow Vernal Pool

Listing Status: **Federal:** None

CNDDDB Element Ranks: **Global:** G1

State: None

State: S1.1

Other:

Habitat: **General:** ☐

Micro: ☐



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Occurrence No.	1	Map Index:	11782	EO Index:	16218	Element Last Seen:	1982-XX-XX
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1982-XX-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	1998-07-16
Quad Summary:	Folsom (3812162), Citrus Heights (3812163), Rocklin (3812172), Roseville (3812173)						
County Summary:	Placer						
Lat/Long:	38.75189 / -121.25431				Accuracy:	specific area	
UTM:	Zone-10 N4290690 E651693				Elevation (ft):	240	
PLSS:	T10N, R07E, Sec. 06 (M)				Acres:	432.3	
Location:	BETWEEN DOUGLAS BLVD & MINERS RAVINE JUST EAST OF ROSEVILLE.						
Detailed Location:							
Ecological:	DIVERSITY OF POOL TAXA PRESENT INCLUDES DICHELOSTEMMA LACUNA-VERNALIS. MOST OF THIS LARGE AREA IS ON VOLCANIC SUBSTRATE. <50 ACRES IN THE NW PORTION OF THE BOUNDED AREA IS LOW TERRACE FORMATION W/HARDPAN VERNAL POOLS.						
General:	UNABLE TO CONVERT TO FLORISTIC CLASSIFICATION, LACKS SPP. INFO. SEE WWW.DFG.CA.GOV/BIOGEODATA/VEGCAMP/NATURAL_COMM_BACKGROUND.ASP TO INTERPRET AND ADDRESS THE PRESENCE OF RARE COMMUNITIES.						
Owner/Manager:	UNKNOWN						

Occurrence No.	2	Map Index:	11828	EO Index:	16215	Element Last Seen:	1986-04-14
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1986-04-14
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	1998-07-16
Quad Summary:	Rocklin (3812172)						
County Summary:	Placer						
Lat/Long:	38.76550 / -121.22509				Accuracy:	specific area	
UTM:	Zone-10 N4292250 E654204				Elevation (ft):	400	
PLSS:	T11N, R07E, Sec. 32 (M)				Acres:	346.4	
Location:	RIDGE BETWEEN MINERS RAVINE & SECRET RAVINE, VICINITY OF ROCKLIN-ROSEVILLE CORPORATE BOUNDARIES.						
Detailed Location:	WESCO SURVEYED 70 AC W/IN ROSEVILLE CITY LIMITS BUT TOTAL POOL AREA MUCH LARGER (ALONG SIERRA COLLEGE BLVD).						
Ecological:	POOLS ON VOLCANIC SUBSTRATE. MANY POOL TAXA PRESENT INCL DICHELOSTEMMA LACUNA-VERNALIS. UNABLE TO CONVERT TO FLORISTIC CLASSIFICATION, LACKS SPP. INFO.						
General:	SEE WWW.DFG.CA.GOV/BIOGEODATA/VEGCAMP/NATURAL_COMM_BACKGROUND.ASP TO INTERPRET AND ADDRESS THE PRESENCE OF RARE COMMUNITIES.						
Owner/Manager:	UNKNOWN						



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Occurrence No.	3	Map Index:	11798	EO Index:	13419	Element Last Seen:	1982-XX-XX
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1982-XX-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	1998-07-16
Quad Summary:	Rocklin (3812172)						
County Summary:	Placer						
Lat/Long:	38.76842 / -121.24127				Accuracy:	specific area	
UTM:	Zone-10 N4292547 E652791				Elevation (ft):	280	
PLSS:	T11N, R07E, Sec. 30 (M)				Acres:	141.8	
Location:	NORTH & WEST OF ROSEVILLE RESERVOIR, SE OF SECRET RAVINE, ROSEVILLE-ROCKLIN CORPORATE BOUNDARY.						
Detailed Location:	BOUNDARY INCL 2 POOL AREAS; ONE AREA HAS 48 ACRES OF POOLS (WESCO, 1982); THE OTHER AREA HAS 30 ACRES OF LOWER QUALITY POOLS.						
Ecological:	ON VOLCANIC SUBSTRATE. UNABLE TO CONVERT TO FLORISTIC CLASSIFICATION, LACKS SPP. INFO.						
General:	SEE WWW.DFG.CA.GOV/BIOGEODATA/VEGCAMP/NATURAL_COMM_BACKGROUND.ASP TO INTERPRET AND ADDRESS THE PRESENCE OF RARE COMMUNITIES.						
Owner/Manager:	UNKNOWN						

<i>Branchinecta lynchi</i>					Element Code: ICBRA03030		
vernal pool fairy shrimp							
Listing Status:	Federal:	Threatened		CNDDDB Element Ranks:	Global:	G3	
	State:	None			State:	S2S3	
	Other:	IUCN_VU-Vulnerable					
Habitat:	General:	ENDEMIC TO THE GRASSLANDS OF THE CENTRAL VALLEY, CENTRAL COAST MTNS, AND SOUTH COAST MTNS, IN ASTATIC RAIN-FILLED POOLS.					
	Micro:	INHABIT SMALL, CLEAR-WATER SANDSTONE-DEPRESSION POOLS AND GRASSED SWALE, EARTH SLUMP, OR BASALT-FLOW DEPRESSION POOLS.					

Occurrence No.	31	Map Index:	33262	EO Index:	2583	Element Last Seen:	2013-02-21
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2013-02-21
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2014-11-10
Quad Summary:	Buffalo Creek (3812152)						
County Summary:	Sacramento						
Lat/Long:	38.60820 / -121.13881				Accuracy:	specific area	
UTM:	Zone-10 N4274942 E662054				Elevation (ft):	350	
PLSS:	T09N, R08E, Sec. 30 (M)				Acres:	111.0	
Location:	1 MILE EAST OF THE INTERSECTION OF PRAIRIE CITY ROAD AND WHITE ROCK ROAD, SACRAMENTO COUNTY.						
Detailed Location:	MAPPED TO LOCATIONS GIVEN FOR OCCUPIED POOLS. NE-MOST POLYGON REPRESENTS 1995 DETECTION; WESTMOST POLYGONS REPRESENT 2007/2013 DETECTIONS.						
Ecological:	1995: NORTHERN HARDPAN AND NORTHERN VOLCANIC MUDFLOW VERNAL POOLS IN NON-NATIVE GRASSLAND; POOL WATER FAIRLY TURBID; DOMINANT PLANTS INCLUDED CALLITRICHE SP., RANUNCULUS SP., AND ERYNGIUM SP. 2007-2013: PROPOSED PRESERVATION AREA.						
General:	1 FEMALE COLLECTED FROM WETLAND NUMBER 24 ON 24 MARCH 1995; DEPOSITED AT CAS (CASIZ #103344). ABUNDANT IN 69 POOLS, 9 MAY 2007. DETECTED IN SAME 69 POOLS ON 21 FEB 2013.						
Owner/Manager:	PVT						



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Occurrence No.	33	Map Index:	32441	EO Index:	2104	Element Last Seen:	2005-01-21
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2005-01-21
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2014-08-28
Quad Summary:	Sloughhouse (3812142), Elk Grove (3812143), Buffalo Creek (3812152), Carmichael (3812153)						
County Summary:	Sacramento						
Lat/Long:	38.50562 / -121.25298				Accuracy:	nonspecific area	
UTM:	Zone-10 N4263363 E652329				Elevation (ft):	120	
PLSS:	T08N, R07E, Sec. 31 (M)				Acres:	445.0	
Location:	VICINITY OF THE INTERSECTION OF EAGLES NEST ROAD AND HIGHWAY 16 (JACKSON ROAD), SOUTH OF MATHER AIR FORCE BASE.						
Detailed Location:	1995 DETECTIONS IN POOLS JUST NW & SE OF CENTER, TRS SEC 31; GRECH PROPERTY. MAPPED TO TRS LOCATIONS GIVEN ON MUTH FIELD SURVEY FORMS FROM 1996, 1997 & 2000. 2005 DETECTIONS ON TRIANGLE ROCK GRECH PROPERTY; EXACT LOCATIONS NOT GIVEN.						
Ecological:	1995-2000: HARDPAN VERNAL POOLS, SCRAPES, SWALES, DEPRESSIONS, AND STOCK PONDS; SURROUNDED BY GRAZED NON-NATIVE GRASSLAND. 2005: NATURAL AND CONSTRUCTED POOLS ON 88-ACRE MITIGATION PROPERTY; SURROUNDING AREAS USED FOR GRAVEL MINING.						
General:	FOUND IN 9 POOLS, 1 FEB 1995; VOUCHERS SENT TO CAS. 10S-1000S FOUND IN 6 FEATURES, 1996. 10S-100S IN 3 FEATURES, 1997. OVER 10 FOUND IN MULTIPLE POOLS, 15 MAR 2000. FOUND IN 6 OF 12 REFERENCE POOLS AND 15 OF 19 CREATED POOLS, 21 JAN 2005.						
Owner/Manager:	PVT						
Occurrence No.	43	Map Index:	93608	EO Index:	30715	Element Last Seen:	1996-02-06
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1996-03-22
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2015-01-09
Quad Summary:	Buffalo Creek (3812152)						
County Summary:	Sacramento						
Lat/Long:	38.53841 / -121.23087				Accuracy:	specific area	
UTM:	Zone-10 N4267038 E654187				Elevation (ft):	160	
PLSS:	T08N, R07E, Sec. 20 (M)				Acres:	61.0	
Location:	FROM ABOUT 0.9 TO 1.5 MILES NE OF SUNRISE BLVD AT KIEFER BLVD, 1.1 TO 1.7 MILES SSW OF DOUGLAS RD AT JAEGER RD.						
Detailed Location:	SAMMIS DOUGLAS SUNRISE SITE. MAPPED TO OCCUPIED POOL LOCATIONS FROM 1995 & 1996 REPORTS. 1993: 56 NATURAL & 27 CREATED VERNAL POOLS SAMPLED IN TRS SEC 20. 1994/95: 386 BASINS SAMPLED IN SEC 8, 17 & 20. 1996: 33 BASINS SAMPLED IN SEC 20.						
Ecological:	HARDPAN VERNAL POOL IN ANNUAL GRASSLAND. ALSO, NATURAL SEASONAL WETLANDS AND MANMADE VERNAL POOLS.						
General:	FOUND IN 7 OF 83 POOLS, 1993. 10 TO 1000+ FOUND IN 28 OF 386 POOLS (21 MAPPED HERE), DEC 1994-MAY 1995; VOUCHERS COLLECTED (CASIZ #103110, 103134, 103135, 103137, 103138, 103139, 103140, 103154). OVER 50 FOUND IN 3 OF 33 POOLS SAMPLED 1996.						
Owner/Manager:	PVT-SARES REGIS GROUP						



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Occurrence No.	134	Map Index:	34807	EO Index:	1765	Element Last Seen:	1996-03-08
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	1996-03-08
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2014-09-24
Quad Summary:	Buffalo Creek (3812152)						
County Summary:	Sacramento						
Lat/Long:	38.59987 / -121.17173				Accuracy:	specific area	
UTM:	Zone-10 N4273960 E659206				Elevation (ft):	280	
PLSS:	T09N, R07E, Sec. 35 (M)				Acres:	423.6	
Location:	EAST OF THE INTERSECTION OF WHITE ROCK ROAD AND GRANT LINE ROAD, RANCHO CORDOVA.						
Detailed Location:	GENCORP AEROJET OFFSITE GET B SITE; POOL #71.						
Ecological:	OLD DREDGE PIT IN NON-NATIVE GRASSLAND. WATER DEPTH ABOUT 25 CM, TURBIDITY LIKE STRONG TEA. ADJACENT LAND USE: GRAZING PASTURELAND, STATE RECREATIONAL VEHICLE AREA.						
General:	OVER 50 OBSERVED BETWEEN 10 FEB AND 8 MAR 1996; 8 COLLECTED AND DEPOSITED IN CAS (CASIZ #105592 & 105597); LINDERIELLA OCCIDENTALIS ALSO PRESENT.						
Owner/Manager:	PVT-GENCORP AEROJET						

Occurrence No.	135	Map Index:	34808	EO Index:	12630	Element Last Seen:	1996-01-30
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	1996-01-30
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2014-09-24
Quad Summary:	Folsom (3812162)						
County Summary:	Sacramento						
Lat/Long:	38.63534 / -121.23497				Accuracy:	80 meters	
UTM:	Zone-10 N4277789 E653623				Elevation (ft):	100	
PLSS:	T09N, R07E, Sec. 17 (M)				Acres:	0.0	
Location:	JUST WEST OF ILLINOIS AVE, 0.1 MILE NORTH OF ITS SOUTHERN END, AMERICAN RIVER PARKWAY, N OF AMERICAN RIVER, FAIR OAKS.						
Detailed Location:	SOUTHEAST OF PARKING LOT AT FIRST FISHING ACCESS ROAD; ADJACENT LAND USE: PUBLIC PARKWAY, GRAVEL STORAGE AREA FOR COUNTY.						
Ecological:	VERNAL POOL IN DREDGE TAILINGS WITH GRAVEL AND COBBLED SOIL. SCATTERED LIVE OAKS AND COTTONWOOD TREES BORDERING RIPARIAN AREA.						
General:	MORE THAN 50 ADULTS OBSERVED IN 1 POOL. 5 COLLECTED AND DEPOSITED IN CAS (CASIZ #104524). LINDERIELLA OCCIDENTALIS ALSO PRESENT.						
Owner/Manager:	SAC COUNTY						



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Occurrence No.	168	Map Index:	33695	EO Index:	30607	Element Last Seen:	1993-03-25
Occ. Rank:	Unknown	Presence:	Presumed Extant	Site Last Seen:	1993-03-25	Record Last Updated:	1997-03-10
Occ. Type:	Natural/Native occurrence	Trend:	Unknown				
Quad Summary:	Clarksville (3812161)						
County Summary:	El Dorado, Sacramento						
Lat/Long:	38.69245 / -121.10569			Accuracy:	3/5 mile		
UTM:	Zone-10 N4284351 E664746			Elevation (ft):	400		
PLSS:	T10N, R08E, Sec. 28 (M)			Acres:	0.0		
Location:	EAST OF BLUE RAVINE, SOUTHEAST OF MORMON ISLAND DAM.						
Detailed Location:	VERNAL POOLS LOCATED SOMEWHERE IN SECTION 28.						
Ecological:	NATURAL VERNAL POOLS AND MANMADE VERNAL POOLS.						
General:	B. LYNCHI OBSERVED IN 1 NATURAL VERNAL POOL AND 2 MANMADE VERNAL POOLS. SUGNET RECORD NUMBERS 83 & 84. NO LEPIDURUS PACKARDI OBSERVED.						
Owner/Manager:	UNKNOWN						

Occurrence No.	192	Map Index:	37098	EO Index:	32095	Element Last Seen:	1994-05-11
Occ. Rank:	Unknown	Presence:	Presumed Extant	Site Last Seen:	1994-05-11	Record Last Updated:	1997-10-07
Occ. Type:	Natural/Native occurrence	Trend:	Unknown				
Quad Summary:	Buffalo Creek (3812152)						
County Summary:	Sacramento						
Lat/Long:	38.51464 / -121.21016			Accuracy:	nonspecific area		
UTM:	Zone-10 N4264436 E656044			Elevation (ft):	150		
PLSS:	T08N, R07E, Sec. 28 (M)			Acres:	159.9		
Location:	SOUTH OF BLODGETT RESERVOIR (LAGUNA CREEK), NE OF THE INTERSECTION OF HWY 16 AND GRANT LINE ROAD, SE OF SACRAMENTO.						
Detailed Location:							
Ecological:	HABITAT CONSISTS OF NORTHERN HARDPAN VERNAL POOLS.						
General:	"DUTRA" SITE. BRANCHINECTA LYNCHI, LEPIDURUS PACKARDI, LINDERIELLA OCCIDENTALIS, AND AN UNKNOWN BRANCHINECTA SPECIES WERE OBSERVED ON 11 MAY 1994.						
Owner/Manager:	UNKNOWN						



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Occurrence No.	199	Map Index:	40261	EO Index:	35263	Element Last Seen:	2013-02-06
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2013-02-06
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2014-12-18
Quad Summary:	Buffalo Creek (3812152)						
County Summary:	Sacramento						
Lat/Long:	38.52283 / -121.19452				Accuracy:	specific area	
UTM:	Zone-10 N4265372 E657389				Elevation (ft):	220	
PLSS:	T08N, R07E, Sec. 27 (M)				Acres:	107.0	
Location:	KIEFER LANDFILL WETLAND PRESERVE, E OF THE INTERSECTION OF GRANT LINE RD & KIEFER BLVD, AND N & W OF KIEFER LANDFILL.						
Detailed Location:	1998: INSIDE KIEFER LANDFILL EXPANSION FOOTPRINT REDUCTION AREA. 2007-2013: KIEFER LANDFILL WETLAND PRESERVE. MAPPED TO LOCATIONS GIVEN FOR POOLS OCCUPIED IN 1998, 2009, 2011 & 2013 (NO EXACT LOCATIONS FOR 2007 DETECTIONS).						
Ecological:	1998: HABITAT CONSISTS OF A NORTHERN HARDPAN VERNAL POOL. 2007-2013: 243-ACRE PRESERVE WITH LARGE VERNAL POOL/SWALE COMPLEX. LEPIDURUS PACKARDI AND LINDERIELLA OCCIDENTALIS ALSO FOUND.						
General:	FOUND IN UP TO 5 POOLS IN 1990-1992. FOUND IN 6 POOLS IN 1994. IN 13 POOLS, 2005. IN 0, 2006. IN 11-15 POOLS, 2007. IN 4, 2008. IN 6-7 POOLS, 2009. IN 15, 2010. IN 5 POOLS, 2011. FOUND IN 7 OF 20 POOLS SAMPLED, 6 FEB 2013.						
Owner/Manager:	SAC COUNTY						

Occurrence No.	205	Map Index:	41017	EO Index:	41017	Element Last Seen:	1999-02-16
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1999-02-16
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2001-08-20
Quad Summary:	Folsom SE (3812151)						
County Summary:	Sacramento						
Lat/Long:	38.50772 / -121.12511				Accuracy:	80 meters	
UTM:	Zone-10 N4263816 E663475				Elevation (ft):	180	
PLSS:	T08N, R08E, Sec. 32 (M)				Acres:	0.0	
Location:	0.65 MILE SOUTH OF LATROBE ROAD AND 1.25 MILES WEST OF SCOTT ROAD, WEST OF RANCHO MURRIETA.						
Detailed Location:	ONE VERNAL POOL (#24) OF 35 SURVEYED CONTAINED FAIRY SHRIMP.						
Ecological:	HABITAT CONSISTS OF VERNAL POOLS WITHIN NON-NATIVE GRASSLAND; SURROUNDED BY VINEYARDS.						
General:	100'S OBSERVED ON 28 JAN, 8 APR, AND 22 APR 1998, AND 10'S BY 20 MAY 1998; MANY FEMALES W/ EGG CASES. 21 DEC 1998, A FEW IMMATURES OBSERVED; DURING 1 FEB AND 16 FEB 1999 SURVEYS, 1000'S OF INDIVIDUALS OBSERVED, MOSTLY FEMALES W/ EGG CASES.						
Owner/Manager:	PVT						



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Occurrence No.	229	Map Index:	42058	EO Index:	42058	Element Last Seen:	1998-12-22
Occ. Rank:	None			Presence:	Extirpated	Site Last Seen:	1998-12-22
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2014-08-18
Quad Summary:	Rocklin (3812172)						
County Summary:	Placer						
Lat/Long:	38.76584 / -121.23825			Accuracy:	80 meters		
UTM:	Zone-10 N4292265 E653059			Elevation (ft):	320		
PLSS:	T11N, R07E, Sec. 31 (M)			Acres:	0.0		
Location:	0.2 MILE SW OF ROSEVILLE RES, 1.1 MILES S OF JCT TAYLOR RD & SUNSET BLVD, 2.2 MILES SW OF SIERRA COLLEGE, ROSEVILLE.						
Detailed Location:	OLYMPUS OAKS PROJECT SITE, AKT DEVELOPMENT.						
Ecological:	1998: VERNAL POOL COMMUNITY. 2009 AERIAL PHOTOS SHOW THAT THE SITE HAS BEEN COMPLETELY DEVELOPED.						
General:	4 COLLECTED ON 16 DEC 1998 (CASIZ #121244). HUNDREDS OBSERVED ON 22 DEC 1998.						
Owner/Manager:	PVT-AKT DEVELOPMENT						
Occurrence No.	230	Map Index:	42059	EO Index:	42059	Element Last Seen:	1998-12-22
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	1998-12-22
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	1999-12-22
Quad Summary:	Rocklin (3812172)						
County Summary:	Placer						
Lat/Long:	38.76264 / -121.24694			Accuracy:	80 meters		
UTM:	Zone-10 N4291896 E652311			Elevation (ft):	260		
PLSS:	T11N, R07E, Sec. 31 (M)			Acres:	0.0		
Location:	0.8 MILE SW OF ROSEVILLE RESERVOIR, 1.3 MI S OF JCT TAYLOR RD & SUNSET BLVD, 2.6 MILES SW OF SIERRA COLLEGE, ROSEVILLE.						
Detailed Location:	OLYMPUS OAKS PROJECT SITE, AKT DEVELOPMENT..						
Ecological:	VERNAL POOL COMMUNITY.						
General:	100'S OBSERVED IN 1998.						
Owner/Manager:	PVT-AKT DEVELOPMENT						



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Occurrence No.	321	Map Index:	48381	EO Index:	48381	Element Last Seen:	2002-01-12
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	2002-01-31
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2002-07-29
Quad Summary:	Buffalo Creek (3812152), Carmichael (3812153)						
County Summary:	Sacramento						
Lat/Long:	38.55732 / -121.25130				Accuracy:	specific area	
UTM:	Zone-10 N4269103 E652367				Elevation (ft):	135	
PLSS:	T08N, R07E, Sec. 07 (M)				Acres:	15.5	
Location:	MATHER LAKE REGIONAL PARK, NE SIDE OF MATHER LAKE, SOUTH OF DOUGLAS ROAD AND WEST OF SUNRISE BLVD.						
Detailed Location:	OBSERVED IN ALL OF THE SAMPLED WETLANDS (A, B, C, D, E, F AND G).						
Ecological:	HABITAT CONSISTS OF ANNUAL GRASSLAND DOMINATED BY NON-NATIVE PLANTS WITH NATURALLY OCCURRING & POSSIBLY ARTIFICIAL SEASONAL WETLANDS, INCLUDING VERNAL POOLS. PLANTS WITHIN WETLANDS: CARTER'S BUTTERCUP, WINGED WATER-STARWORT, POPCORN FLOWER.						
General:	INDIVIDUALS OBSERVED ON 12 JAN 2002. VOUCHER SPECIMENS TO BE COLLECTED ON 31 JAN 2002, HOWEVER NO INDIVIDULAS WERE OBSERVED.						
Owner/Manager:	SAC COUNTY-PARKS & REC						
Occurrence No.	744	Map Index:	32324	EO Index:	94745	Element Last Seen:	1981-12-01
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1981-12-01
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2014-08-26
Quad Summary:	Folsom (3812162)						
County Summary:	Sacramento						
Lat/Long:	38.65123 / -121.21958				Accuracy:	nonspecific area	
UTM:	Zone-10 N4279578 E654929				Elevation (ft):	270	
PLSS:	T09N, R07E, Sec. 09 (M)				Acres:	47.4	
Location:	PHOENIX PARK, EAST FAIR OAKS.						
Detailed Location:	MAPPED TO GIVEN LOCALITY, "PHOENIX FIELD PARK."						
Ecological:	SEASONALLY ASTATIC VERNAL POOL IN GRASSLAND.						
General:	5 COLLECTED ON 1 DEC 1981 (BELK #411, USNM #1156058).						
Owner/Manager:	CITY OF FAIR OAKS						



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Occurrence No.	745	Map Index:	93593	EO Index:	94746	Element Last Seen:	1996-03-11
Occ. Rank:	Unknown	Presence:	Presumed Extant	Site Last Seen:	1996-03-11	Record Last Updated:	2014-08-27
Occ. Type:	Natural/Native occurrence	Trend:	Unknown				
Quad Summary:	Buffalo Creek (3812152)						
County Summary:	Sacramento						
Lat/Long:	38.61027 / -121.15415	Accuracy:	2/5 mile				
UTM:	Zone-10 N4275145 E660714	Elevation (ft):	300				
PLSS:	T09N, R07E, Sec. 25 (M)	Acres:	0.0				
Location:	PRAIRIE CITY STATE VEHICLE RECREATION AREA, AT THE SW CORNER OF WHITE ROCK RD AND SCOTT RD, EAST OF RANCHO CORDOVA.						
Detailed Location:	1979 LOCALITY "WHITE ROCK RD, VERNAL POOL IN WILDLIFE PRESERVE." MAPPED TO LAT/LONG GIVEN FOR 1996 SPECIMENS W/ FIELD NUMBER "POOL 57" & LOCALITY "PRAIRIE CITY [SVRA], 10 MI SW FOLSOM AT CORNER OF WHITE ROCK & SCOTT ROADS, T9N R7E SEC. 25."						
Ecological:							
General:	3 COLLECTED 5 FEB 1979 (USNM #1156059). A TOTAL OF 45 COLLECTED ON 8 MAR, 9 MAR, AND 11 MAR 1996 (CASIZ #106758, 106759, 106760, AND 106761).						
Owner/Manager:	DPR-PRAIRIE CITY SVRA						

Occurrence No.	746	Map Index:	93612	EO Index:	94748	Element Last Seen:	1994-12-30
Occ. Rank:	Unknown	Presence:	Presumed Extant	Site Last Seen:	1994-12-30	Record Last Updated:	2014-08-27
Occ. Type:	Natural/Native occurrence	Trend:	Unknown				
Quad Summary:	Buffalo Creek (3812152)						
County Summary:	Sacramento						
Lat/Long:	38.52609 / -121.24139	Accuracy:	80 meters				
UTM:	Zone-10 N4265654 E653296	Elevation (ft):	150				
PLSS:	T08N, R07E, Sec. 20 (M)	Acres:	0.0				
Location:	JUST NORTHEAST OF THE INTERSECTION OF SUNRISE BLVD AND KIEFER BLVD, RANCHO CORDOVA.						
Detailed Location:	SAMMIS DOUGLAS SUNRISE SITE. MAPPED TO OCCUPIED POOL LOCATION FROM 1995 REPORT.						
Ecological:	HARDPAN VERNAL POOL IN ANNUAL GRASSLAND.						
General:	10 TO OVER 1000 FOUND IN 28 OF 386 POOLS (ONLY 1 OF THOSE MAPPED HERE) BETWEEN DEC 1994 AND MAY 1995. 2 COLLECTED ON 30 DEC 1994 (CASIZ #103155).						
Owner/Manager:	PVT-SARES REGIS GROUP						



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Occurrence No.	747	Map Index:	93614	EO Index:	94749	Element Last Seen:	1995-02-24
Occ. Rank:	None			Presence:	Extirpated	Site Last Seen:	1995-02-24
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2014-08-27
Quad Summary:	Buffalo Creek (3812152)						
County Summary:	Sacramento						
Lat/Long:	38.53079 / -121.22829				Accuracy:	80 meters	
UTM:	Zone-10 N4266198 E654428				Elevation (ft):	155	
PLSS:	T08N, R07E, Sec. 20 (M)				Acres:	0.0	
Location:	0.9 MILE ENE OF THE INTERSECTION OF SUNRISE BLVD AND KIEFER BLVD, RANCHO CORDOVA.						
Detailed Location:	SAMMIS DOUGLAS SUNRISE SITE. MAPPED TO OCCUPIED POOL LOCATION FROM 1995 REPORT.						
Ecological:	HARDPAN VERNAL POOL IN ANNUAL GRASSLAND.						
General:	10 TO OVER 1000 FOUND IN 28 OF 386 POOLS (ONLY 1 OF THOSE MAPPED HERE) BETWEEN DEC 1994 AND MAY 1995. 3 COLLECTED ON 24 FEB 1995 (CASIZ #103141).						
Owner/Manager:	PVT						
Occurrence No.	748	Map Index:	93618	EO Index:	94750	Element Last Seen:	1995-02-01
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1995-02-01
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2014-08-27
Quad Summary:	Buffalo Creek (3812152)						
County Summary:	Sacramento						
Lat/Long:	38.53123 / -121.21313				Accuracy:	nonspecific area	
UTM:	Zone-10 N4266272 E655749				Elevation (ft):	160	
PLSS:	T08N, R07E, Sec. 21 (M)				Acres:	115.0	
Location:	FROM ABOUT 0.7 MILE NNE TO 1 MILE ENE OF RANCHO CORDOVA BLVD AT KIEFER BLVD, WEST OF LAGUNA CREEK, SE OF RANCHO CORDOVA.						
Detailed Location:	MAPPED TO LOCALITIES GIVEN FOR MUSEUM SPECIMENS, "NW 1/4 OF SE 1/4 SECTION 21; T08N R07E..." "NE 1/4 OF SE 1/4 SECTION 21..." AND SE 1/4 OF NW 1/4 SECTION 21." EXACT COLLECTION LOCATIONS UNKNOWN.						
Ecological:	WETLANDS 20 TO 584 SQ METERS IN AREA AND 17 TO 25 CM DEEP.						
General:	19 COLLECTED FROM UP TO 5 BASINS ON 1 FEB 1995 (CASIZ #103145, 103148, 103149, 103150, & 103151).						
Owner/Manager:	UNKNOWN						



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Occurrence No.	749	Map Index:	93628	EO Index:	94760	Element Last Seen:	2011-02-11
Occ. Rank:	Excellent			Presence:	Presumed Extant	Site Last Seen:	2011-02-11
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2014-08-29
Quad Summary:	Buffalo Creek (3812152)						
County Summary:	Sacramento						
Lat/Long:	38.55315 / -121.23158				Accuracy:	specific area	
UTM:	Zone-10 N4268674 E654094				Elevation (ft):	170	
PLSS:	T08N, R07E, Sec. 17 (M)				Acres:	9.0	
Location:	MONTELENA OPEN SPACE PRESERVE, 0.8 AIR MILE SE OF INTERSECTION OF SUNRISE BLVD AND DOUGLAS ROAD, RANCHO CORDOVA.						
Detailed Location:	2010: FOUND IN POOL #25. 2011: FOUND IN POOL #22.						
Ecological:	VERNAL POOLS ON 50 ACRE PRESERVE MANAGED FOR CONSERVATION VALUES. SURROUNDINGS WERE GRADED FOR DEVELOPMENT PRIOR TO 2010 SURVEY.						
General:	NONE FOUND DURING SURVEYS IN 2008 AND 2009. OBSERVED IN LOW ABUNDANCE IN 1 POOL ON 25 FEB 2010. OBSERVED IN MEDIUM ABUNDANCE IN 1 POOL DURING SURVEYS BETWEEN 13 JAN AND 11 FEB 2011.						
Owner/Manager:	SACTO VALLEY CONSERVANCY						
Occurrence No.	887	Map Index:	94834	EO Index:	95952	Element Last Seen:	1995-05-XX
Occ. Rank:	None			Presence:	Extirpated	Site Last Seen:	1995-05-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2015-01-13
Quad Summary:	Buffalo Creek (3812152)						
County Summary:	Sacramento						
Lat/Long:	38.54205 / -121.23799				Accuracy:	80 meters	
UTM:	Zone-10 N4267431 E653558				Elevation (ft):	160	
PLSS:	T08N, R07E, Sec. 17 (M)				Acres:	0.0	
Location:	VICINITY OF SE CORNER OF SANIBEL WAY AND ANATOLIA DR.						
Detailed Location:	SAMMIS DOUGLAS SUNRISE SITE. MAPPED TO LOCATION OF OCCUPIED POOL GIVEN ON MAP IN 1995 REPORT.						
Ecological:	HABITAT DESCRIBED IN 1995 AS VERNAL POOLS, SEASONAL WETLANDS AND SWALES IN NON-NATIVE ANNUAL GRASSLAND. AERIAL PHOTOS TAKEN SINCE THE TIME OF SURVEY INDICATE THAT RESIDENTIAL DEVELOPMENT HAS ELIMINATED THIS POOL.						
General:	10 TO 1000+ FOUND IN 28 OF 386 POOLS SURVEYED DEC 1994-MAY 1995 (1 MAPPED HERE).						
Owner/Manager:	PVT						



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Occurrence No.	888	Map Index:	94835	EO Index:	95953	Element Last Seen:	1995-05-XX
Occ. Rank:	None			Presence:	Extirpated	Site Last Seen:	1995-05-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2015-01-13
Quad Summary:	Buffalo Creek (3812152)						
County Summary:	Sacramento						
Lat/Long:	38.54330 / -121.22900				Accuracy:	specific area	
UTM:	Zone-10 N4267584 E654340				Elevation (ft):	165	
PLSS:	T08N, R07E, Sec. 17 (M)				Acres:	7.0	
Location:	VICINITY OF QUIGLEY CT AND SOPHISTRY DRIVE.						
Detailed Location:	SAMMIS DOUGLAS SUNRISE SITE. MAPPED TO LOCATION OF OCCUPIED POOL GIVEN ON MAP IN 1995 REPORT.						
Ecological:	HABITAT DESCRIBED IN 1995 AS VERNAL POOLS, SEASONAL WETLANDS AND SWALES IN NON-NATIVE ANNUAL GRASSLAND. AERIAL PHOTOS TAKEN SINCE THE TIME OF SURVEY INDICATE THAT RESIDENTIAL DEVELOPMENT HAS ELIMINATED THIS POOL.						
General:	10 TO 1000+ FOUND IN 28 OF 386 POOLS SURVEYED DEC 1994-MAY 1995 (2 MAPPED HERE).						
Owner/Manager:	PVT						



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Branchinecta mesovallensis

Element Code: ICBRA03150

midvalley fairy shrimp

Listing Status: **Federal:** None

CNDDDB Element Ranks: **Global:** G2

State: None

State: S2

Other:

Habitat: **General:** VERNAL POOLS IN THE CENTRAL VALLEY.

Micro: ☐

Occurrence No. 44 **Map Index:** 48367 **EO Index:** 48367 **Element Last Seen:** XXXX-XX-XX
Occ. Rank: Unknown **Presence:** Presumed Extant **Site Last Seen:** XXXX-XX-XX
Occ. Type: Natural/Native occurrence **Trend:** Unknown **Record Last Updated:** 2002-07-25

Quad Summary: Buffalo Creek (3812152)

County Summary: Sacramento

Lat/Long: 38.55351 / -121.24642 **Accuracy:** 1/10 mile
UTM: Zone-10 N4268688 E652800 **Elevation (ft):** 160
PLSS: T08N, R07E, Sec. 18 (M) **Acres:** 0.0

Location: EAST OF MATHER REGIONAL PARK, 0.4 MILE SOUTH OF DOUGLAS BLVD AND 0.2 MILE WEST OF SUNRISE BLVD.

Detailed Location:

Ecological:

General: UNKNOWN NUMBER OF INDIVIDUALS OBSERVED/COLLECTED AT SITE #026 ON AN UNKNOWN DATE. LOCATION INFORMATION OBTAINED FROM VARIOUS SOURCES.

Owner/Manager: UNKNOWN

Occurrence No. 55 **Map Index:** 51354 **EO Index:** 51354 **Element Last Seen:** 2005-01-21
Occ. Rank: Fair **Presence:** Presumed Extant **Site Last Seen:** 2005-01-21
Occ. Type: Natural/Native occurrence **Trend:** Unknown **Record Last Updated:** 2014-12-15

Quad Summary: Sloughhouse (3812142), Elk Grove (3812143), Buffalo Creek (3812152), Carmichael (3812153)

County Summary: Sacramento

Lat/Long: 38.50163 / -121.24825 **Accuracy:** nonspecific area
UTM: Zone-10 N4262928 E652750 **Elevation (ft):** 110
PLSS: T08N, R07E, Sec. 31 (M) **Acres:** 176.5

Location: SW OF JACKSON ROAD AT FOLSOM SOUTH CANAL/SUNRISE BLVD, & E OF EAGLES NEST ROAD, ABOUT 4.5 MILES SE OF MATHER AIRPORT.

Detailed Location: TRIANGLE ROCK GRECH PROPERTY.

Ecological: HARDPAN VERNAL POOLS AND SEASONAL WETLANDS WITHIN NON-NATIVE ANNUAL GRASSLAND. FROM AERIALS, MINING BEGAN AT THE SITE AROUND 1998 AND EXPANDED BY 2005 AND AGAIN BY 2009, THOUGH IT APPEARS SOME POOLS PRESERVED NEAR LAGUNA CREEK.

General: SPECIES OBSERVED IN UNKNOWN NUMBER OF 80 SAMPLED POOLS DURING FEB - MAY 1995. DETECTED IN UP TO 21 OF 31 POOLS, 21 JAN 2005.

Owner/Manager: PVT

Lindieriella occidentalis

Element Code: ICBRA06010

California lindieriella

Listing Status: **Federal:** None

CNDDDB Element Ranks: **Global:** G2G3

State: None

State: S2S3

Other: IUCN_NT-Near Threatened

Habitat: **General:**



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SEASONAL POOLS IN UNPLOWED GRASSLANDS WITH OLD ALLUVIAL SOILS UNDERLAIN BY HARDPAN OR IN SANDSTONE DEPRESSIONS.							
Micro:		WATER IN THE POOLS HAS VERY LOW ALKALINITY, CONDUCTIVITY, AND TDS.					
Occurrence No.	63	Map Index:	32517	EO Index:	2093	Element Last Seen:	1996-03-20
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1996-06-10
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	1996-08-09
Quad Summary:	Folsom (3812162)						
County Summary:	Sacramento						
Lat/Long:	38.65480 / -121.21752			Accuracy:	nonspecific area		
UTM:	Zone-10 N4279978 E655100			Elevation (ft):	270		
PLSS:	T09N, R07E, Sec. 09 (M)			Acres:	17.2		
Location:	PHOENIX FIELD UNIT 4. 1.3 KM ENE OF SUNSET AVENUE X HAZEL AVENUE.						
Detailed Location:	1995-2 SEASONAL WETLANDS AND 1 VERNAL POOL WERE SURVEYED. LINDERIELLA OBSERVED IN 1 SEASONAL WETLAND AND 1 VERNAL POOL. 1996-SAME WETLANDS AND POOL SURVEYED AS 1995; LINDERIELLA OBSERVED ONLY IN VP-1.						
Ecological:	VERNAL POOL AND SEASONAL WETLAND HABITAT IN ANNUAL GRASSLAND. THE SURVEY AREA IS SITUATED ON A PORTION OF THE OLD PHOENIX FIELD AIRPORT AND A MAJORITY OF THE SURVEY AREA IS COVERED BY THE REMAINS OF THE ABANDONED TARMAC.						
General:	1995: POOL #SW-1: L. OCCIDENTALIS OBSERVED ON 1/27; POOL #VP-1: L. OCCIDENTALIS OBSERVED ON 1/13, 1/27, AND 2/9. 1996: POOL #VP1-L. OCCIDENTALIS OBSERVED ON 1/9, 1/24, 2/7, 2/21, 3/6 & 3/20; MAX DEPTH OF POOL #VP1 WAS 18 INCHES.						
Owner/Manager:	CITY OF FAIR OAKS						
Occurrence No.	65	Map Index:	32519	EO Index:	1750	Element Last Seen:	1990-03-17
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1990-03-17
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	1995-12-05
Quad Summary:	Buffalo Creek (3812152)						
County Summary:	Sacramento						
Lat/Long:	38.61300 / -121.15126			Accuracy:	nonspecific area		
UTM:	Zone-10 N4275453 E660960			Elevation (ft):	295		
PLSS:	T09N, R07E, Sec. 24 (M)			Acres:	2.2		
Location:	PRAIRIE CITY SVRA; 0.1 KM SSW OF PRAIRIE CITY ROAD X WHITE ROCK ROAD.						
Detailed Location:							
Ecological:	LARGE EPHEMERAL POND; VEGETATION THROUGHOUT AREA; CLEAR WATER ALONG EDGES, BUT MILKY IN CENTER; POND DRIED UP BY SUMMER.						
General:	POOL #D-L. OCCIDENTALIS OBSERVED IN EARLY SPRING, BUT FEW IN LATE SPRING; LEPIDURUS PACKARDI, LYNCEUS BRACHYURUS AND OTHER INVERTS WERE PRESENT. HYLIA REGILLA HEARD CALLING IN EARLY SPRING AND TADPOLES PRESENT IN LATE SPRING.						
Owner/Manager:	DPR-PRAIRIE CITY SVRA						



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Occurrence No.	66	Map Index:	32520	EO Index:	1748	Element Last Seen:	1990-03-17
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1990-03-17
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	1995-12-05
Quad Summary:	Buffalo Creek (3812152)						
County Summary:	Sacramento						
Lat/Long:	38.60255 / -121.13953				Accuracy:	80 meters	
UTM:	Zone-10 N4274314 E662005				Elevation (ft):	330	
PLSS:	T09N, R08E, Sec. 30 (M)				Acres:	0.0	
Location:	PRAIRIE CITY SVRA; 1.6 KM SE OF PRAIRIE CITY ROAD X WHITE ROCK ROAD.						
Detailed Location:							
Ecological:	VERNAL POOL; VEGETATION IN AREAS WITH LOW OHV USAGE, BUT NO VEGETATION WITH HIGH OHV USAGE; POOL DRY BY SUMMER.						
General:	POOL #D-MATURE AND ABUNDANT L. OCCIDENTALIS OBSERVED IN EARLY SPRING, BUT FEW IN LATE SPRING.						
Owner/Manager:	DPR-PRAIRIE CITY SVRA						

Occurrence No.	67	Map Index:	32521	EO Index:	1746	Element Last Seen:	1990-03-17
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1990-03-17
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	1995-12-05
Quad Summary:	Buffalo Creek (3812152)						
County Summary:	Sacramento						
Lat/Long:	38.59970 / -121.13843				Accuracy:	nonspecific area	
UTM:	Zone-10 N4274000 E662107				Elevation (ft):	325	
PLSS:	T09N, R08E, Sec. 30 (M)				Acres:	8.3	
Location:	PRAIRIE CITY SVRA; 2.0 KM SE OF PRAIRIE CITY ROAD X WHITE ROCK ROAD.						
Detailed Location:							
Ecological:	VERNAL POOL PRESERVE; GRASSLAND WITH SCATTERED OAKS AND DISTINCTIVE VERNAL POOL VEGETATION; POOLS DRY BY SUMMER.						
General:	POOLS #A & B-L. OCCIDENTALIS OBSERVED IN EARLY SPRING, BUT FEW IN LATE SPRING.						
Owner/Manager:	DPR-PRAIRIE CITY SVRA						



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Occurrence No.	68	Map Index:	32324	EO Index:	1710	Element Last Seen:	1994-03-27
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	1994-03-27
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	1996-06-26
Quad Summary:	Folsom (3812162)						
County Summary:	Sacramento						
Lat/Long:	38.65123 / -121.21958				Accuracy:	nonspecific area	
UTM:	Zone-10 N4279578 E654929				Elevation (ft):	260	
PLSS:	T09N, R07E, Sec. 09 (M)				Acres:	47.4	
Location:	PHOENIX PARK; PHOENIX FIELD VERNAL POOLS; 0.5 KM ESE OF SUNSET AVENUE X HAZEL AVENUE.						
Detailed Location:	VP1, VP11, VP12, VP12(A & B); ACCIDENTAL HERBICIDE SPRAYING IN VP1 ON 2/24/1992.						
Ecological:	PHOENIX FIELD VERNAL POOLS; PROTECTED AREA WITH PUBLIC ACCESS; ORCUTTIA VISCIDA PRESENT IN VP1, VP11, VP12, VP12A & VP12B, & IN FULL FLOWER ON 4/20/1994, NOT USUAL FLOWER TIME AT END OF MAY.						
General:	4/13/1979-ENG & BRODE COLLECT, ENG #391. 1993-3/31-2 MALES, 5 FEMALES OBS; 4/1-2 MALES, 8 FEMALES OBS; 4/6-2 FEMALES OBS; 3/27/94-MANY ADULTS OBS CLASPING-PROTECT FROM PREDATION BY DAMSELFLY & DIVING BEETLE; ALL FEMALES W/ BROOD PATCH.						
Owner/Manager:	CITY OF FAIR OAKS						

Occurrence No.	109	Map Index:	32730	EO Index:	1141	Element Last Seen:	1993-02-02
Occ. Rank:	Fair			Presence:	Presumed Extant	Site Last Seen:	1993-02-02
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	1996-01-05
Quad Summary:	Buffalo Creek (3812152), Carmichael (3812153)						
County Summary:	Sacramento						
Lat/Long:	38.55807 / -121.24877				Accuracy:	specific area	
UTM:	Zone-10 N4269191 E652586				Elevation (ft):	140	
PLSS:	T08N, R07E, Sec. 07 (M)				Acres:	20.2	
Location:	FORMER MATHER AIR FORCE BASE; WESTERN PORTION OF TRIANGLE FORMED BY DOUGLAS RD, SUNRISE BOULEVARD & FOLSOM SOUTH CANAL.						
Detailed Location:	LAND TO THE NORTH AND EAST IS PRIVATELY-OWNED FOR INDUSTRIAL/BUSINESS; EAST PARCEL IS UNDEVELOPED; THE FORMER MATHER AFB IS TO THE SOUTH AND WEST.						
Ecological:	GRASSLAND.						
General:	MANY INDIVIDUALS FROM BOTH SPECIES, LINDERIELLA OCCIDENTALIS AND LEPIDURUS PACKARDI, OBSERVED; UNKNOWN NUMBERS COLLECTED.						
Owner/Manager:	BLM						



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Occurrence No.	136	Map Index:	34807	EO Index:	29316	Element Last Seen:	1996-03-23
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1996-03-23
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	1996-09-09
Quad Summary:	Buffalo Creek (3812152)						
County Summary:	Sacramento						
Lat/Long:	38.59987 / -121.17173				Accuracy:	specific area	
UTM:	Zone-10 N4273960 E659206				Elevation (ft):	280	
PLSS:	T09N, R07E, Sec. 35 (M)				Acres:	423.6	
Location:	SOUTHEAST OF WHITE ROCK ROAD AT GRANT LINE ROAD, SOUTH OF FOLSOM.						
Detailed Location:	GENCORP-AEROJET OFFSITE GET B SITE; 120 POOLS SAMPLED DURING SURVEY CONDUCTED FROM 2/10-3/23/1996; ADJACENT LAND USE: GRAZING PASTURELAND, STATE RECREATIONAL VEHICLE AREA.						
Ecological:	HABITAT CONSISTS OF NON-NATIVE GRASSLAND, STOCKPONDS, SCRAPES, ARTIFICIAL PONDS, SWALES AND DREDGE PITS.						
General:	LINDERIELLA OBSERVED IN 48 POOLS, WITH 6 VOUCHER SPECIMENS SENT TO CAS, LEPIDURUS PACKARDI AND BRANCHINECTA LYNCHI (1 POOL) ALSO PRESENT.						
Owner/Manager:	PVT-GENCORP AEROJET						
Occurrence No.	137	Map Index:	34808	EO Index:	12665	Element Last Seen:	1996-01-30
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	1996-01-30
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	1996-07-09
Quad Summary:	Folsom (3812162)						
County Summary:	Sacramento						
Lat/Long:	38.63534 / -121.23497				Accuracy:	80 meters	
UTM:	Zone-10 N4277789 E653623				Elevation (ft):	105	
PLSS:	T09N, R07E, Sec. 17 (M)				Acres:	0.0	
Location:	EAST END OF SAILOR BAR, 100 METERS NORTH OF AMERICAN RIVER, 0.9 KM WEST OF HAZEL AVENUE BRIDGE, FAIR OAKS.						
Detailed Location:	SE OF PARKING LOT AT FIRST FISHING ACCESS ROAD; ADJACENT LAND USE: GRAVEL STORAGE AREA FOR COUNTY, PUBLIC PARKWAY.						
Ecological:	VERNAL POOL IN DREDGE TAILINGS; GRAVEL AND COBBLED SOIL, SCATTERED LIVE OAKS AND COTTONWOOD TREES BORDERING RIPARIAN AREA.						
General:	LINDERIELLA OBSERVED. BRANCHINECTA LYNCHI ALSO PRESENT.						
Owner/Manager:	SAC COUNTY						



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Occurrence No.	147	Map Index:	28976	EO Index:	30714	Element Last Seen:	1996-03-22
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1996-03-22
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	1996-09-09
Quad Summary:	Buffalo Creek (3812152)						
County Summary:	Sacramento						
Lat/Long:	38.54240 / -121.23355				Accuracy:	nonspecific area	
UTM:	Zone-10 N4267477 E653945				Elevation (ft):	160	
PLSS:	T08N, R07E, Sec. 17 (M)				Acres:	1492.9	
Location:	BETWEEN DOUGLAS BLVD AND KIEFER BLVD; BETWEEN SUNRISE BLVD AND JAEGER ROAD; EAST OF MATHER AFB.						
Detailed Location:	SAMMIS DOUGLAS SUNRISE PROJECT SITE. 1995: TOTAL OF 386 WATERBODIES SURVEYED OVER ENTIRE PROJECT SITE WITHIN T08N, R07E, SECTIONS 8, 17 & 20. 1996: 33 TOTAL WATERBODIES SURVEYED IN PILOT WETLANDS IN SEC 20 ONLY.						
Ecological:	HARDPAN VERNAL POOL IN ANNUAL GRASSLAND.						
General:	1995: DATA SEVERELY SUMMARIZED, ~80 POOLS HAD L. OCCIDENTALIS PRESENT, ABUNDANCES VARIED FROM <50 TO >50. 1996: >50 ADULTS OBSERVED IN 30 POOLS, 1 POOL (#SB19) OBSERVED <50 ADULTS ON 3/20/1996; ALL POOLS WITHIN SEC 20.						
Owner/Manager:	PVT-SARES REGIS GROUP						

Occurrence No.	148	Map Index:	34820	EO Index:	12442	Element Last Seen:	1997-02-14
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1997-02-14
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2011-04-29
Quad Summary:	Folsom (3812162)						
County Summary:	Placer						
Lat/Long:	38.73067 / -121.20815				Accuracy:	specific area	
UTM:	Zone-10 N4288413 E655751				Elevation (ft):	285	
PLSS:	T10N, R07E, Sec. 09 (M)				Acres:	3.3	
Location:	GENERAL AREA NW ELMHURST DR AT TWIN SCHOOLS RD (NOW RONALD L. FEIST PARK), ABOUT 2 MI W OF FOLSOM LAKE.						
Detailed Location:	SILVERWOOD/GRANITE BAY HIGH SCHOOL MITIGATION SITE. 1995: 9 TOTAL WETLANDS SAMPLED. 1996: 8 TOTAL WETLANDS SAMPLED. 1997: 9 TOTAL WETLANDS SAMPLED.						
Ecological:	CONSTRUCTED SEASONAL WETLANDS W/IN NON-NATIVE ANNUAL GRASSLAND. NO OTHER BRANCHIOPODS 1995-1997. PACIFIC CHOURS FROG OBSERVED IN 1996. AS OF 2009, AN URBAN PARK WITH TENNIS COURTS, BASEBALL FIELDS, AND PRESERVED WETLANDS IN UNK CONDITION.						
General:	>50 ADULTS OBSERVED IN POOL #6 ON 9 FEB 1995. >50 ADULTS OBSERVED IN 4 POOLS (HV2, VP3, VP4 & VP6) ON 31 JAN AND 4 MAR 1996. 10'S OBSERVED IN 4 POOLS (VP3, VP4, VP5 & VP6) ON 20 JAN AND 14 FEB 1997.						
Owner/Manager:	PVT-HOMEFED COMMUNITIES						



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Occurrence No.	154	Map Index:	37098	EO Index:	32097	Element Last Seen:	1994-05-11
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1994-05-11
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	1997-10-08
Quad Summary:	Buffalo Creek (3812152)						
County Summary:	Sacramento						
Lat/Long:	38.51464 / -121.21016				Accuracy:	nonspecific area	
UTM:	Zone-10 N4264436 E656044				Elevation (ft):	150	
PLSS:	T08N, R07E, Sec. 28 (M)				Acres:	159.9	
Location:	SOUTH OF BLODGETT RESERVOIR (LAGUNA CREEK), NE OF THE INTERSECTION OF HIGHWAY 16 AND GRANT LINE ROAD, SE OF SACRAMENTO.						
Detailed Location:							
Ecological:	HABITAT CONSISTS OF NORTHERN HARDPAN VERNAL POOLS.						
General:	"DUTRA" SITE. BRANCHINECTA LYNCHI, LEPIDURUS PACKARDI, LINDERIELLA OCCIDENTALIS, AND AN UNKNOWN BRANCHINECTA SPECIES WERE OBSERVED ON 11 MAY 1994.						
Owner/Manager:	UNKNOWN						

Occurrence No.	165	Map Index:	41024	EO Index:	41038	Element Last Seen:	1997-01-XX
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1997-01-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	1999-05-11
Quad Summary:	Buffalo Creek (3812152), Carmichael (3812153)						
County Summary:	Sacramento						
Lat/Long:	38.52698 / -121.25613				Accuracy:	specific area	
UTM:	Zone-10 N4265728 E652010				Elevation (ft):	125	
PLSS:	T08N, R07E, Sec. 19 (M)				Acres:	10.6	
Location:	0.1 MILE EAST OF JUNCTION OF KIEFER BLVD AND EAGLES NEST ROAD, MATHER REGIONAL PARK (6 FEATURES, ALONG KIEFER BLVD).						
Detailed Location:	MORRISON CREEK DRAINAGE AREA, IN THE OLD MATHER AIR FORCE BASE.						
Ecological:	6 FEATURES THAT ARE EITHER VERNAL POOLS, VERNAL SWALES, OR A BRANCH OF MORRISON CREEK.						
General:	OBSERVED IN 1993 AND 1996-97 IN 5 OF THE 6 FEATURES MAPPED. ALSO LEPIDURUS PACKARDI OBSERVED.						
Owner/Manager:	SAC COUNTY						



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Occurrence No.	166	Map Index:	41027	EO Index:	41039	Element Last Seen:	1997-01-XX
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1997-01-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	1999-05-11
Quad Summary:	Buffalo Creek (3812152)						
County Summary:	Sacramento						
Lat/Long:	38.52846 / -121.24758				Accuracy:	80 meters	
UTM:	Zone-10 N4265907 E652752				Elevation (ft):	150	
PLSS:	T08N, R07E, Sec. 19 (M)				Acres:	0.0	
Location:	0.8 MILE EAST OF JUNCTION OF KIEFER BLVD AND EAGLES NEST ROAD, MATHER REGIONAL PARK, SE OF SACRAMENTO.						
Detailed Location:	1 VERNAL POOL IN THIS PORTION OF THE COMPLEX, WITH CALIFORNIA LINDERIELLA. PART OF THE OLD MATHER AIR FORCE BASE.						
Ecological:	DISTURBED VERNAL POOL.						
General:	OBSERVED IN 1996-97. ALSO OBSERVED LEPIDURUS PACKARDI.						
Owner/Manager:	SAC COUNTY						

Occurrence No.	198	Map Index:	48381	EO Index:	48383	Element Last Seen:	2002-01-31
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	2002-01-31
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2002-07-29
Quad Summary:	Buffalo Creek (3812152), Carmichael (3812153)						
County Summary:	Sacramento						
Lat/Long:	38.55732 / -121.25130				Accuracy:	specific area	
UTM:	Zone-10 N4269103 E652367				Elevation (ft):	135	
PLSS:	T08N, R07E, Sec. 07 (M)				Acres:	15.5	
Location:	MATHER LAKE REGIONAL PARK, NE SIDE OF MATHER LAKE, SOUTH OF DOUGLAS ROAD AND WEST OF SUNRISE BLVD, SE OF SACRAMENTO.						
Detailed Location:	31 JAN 2002: OBSERVED IN 5 OF 7 SAMPLED WETLANDS (A, B, C, E, AND F). OBSERVED IN 6 OF 7 WETLANDS ON 12 JAN 2002.						
Ecological:	HABITAT CONSISTS OF ANNUAL GRASSLAND DOMINATED BY NON-NATIVE PLANTS WITH NATURALLY OCCURRING & POSSIBLY ARTIFICIAL SEASONAL WETLANDS, INCLUDING VERNAL POOLS. PLANTS WITHIN WETLANDS: CARTER'S BUTTERCUP, WINGED WATER-STARWORT, POPCORN FLOWER.						
General:	100'S OBSERVED IN WETLANDS A & B AND 1000'S OBSERVED IN WETLANDS C, E AND F ON 31 JAN 2002.						
Owner/Manager:	SAC COUNTY-PARKS & REC						



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Occurrence No.	263	Map Index:	64902	EO Index:	64981	Element Last Seen:	2005-04-07
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2005-04-07
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2011-06-27
Quad Summary:	Buffalo Creek (3812152), Carmichael (3812153)						
County Summary:	Sacramento						
Lat/Long:	38.54030 / -121.25074				Accuracy:	80 meters	
UTM:	Zone-10 N4267216 E652451				Elevation (ft):	160	
PLSS:	T08N, R07E, Sec. 18 (M)				Acres:	0.0	
Location:	1 MI NE OF JCT OF EAGLES NEST RD & KEIFER BLVD ND 0.4 MI W OF SUNRISE BLVD, S OF MATHER GOLF COURSE, SE OF SACRAMENTO.						
Detailed Location:	POOL AT THE NE END OF UNNAMED LOOP ROAD, JUST EAST OF MATHER VERNAL POOL PRESERVE. MAPPED TO PROVIDED MAP.						
Ecological:	VERNAL POOL IN CALIFORNIA GRASSLAND MATRIX.						
General:	"LOTS" OF INDIVIDUALS FOUND 24 FEB - 7 APR 2005, BUT SURVEY FORM REFERS TO THREE SEPARATELY MAPPED POOLS.						
Owner/Manager:	SAC COUNTY-PARKS & REC						

Occurrence No.	378	Map Index:	75254	EO Index:	76278	Element Last Seen:	2007-10-09
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	2007-10-09
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2009-05-27
Quad Summary:	Rocklin (3812172)						
County Summary:	Placer						
Lat/Long:	38.77344 / -121.21016				Accuracy:	80 meters	
UTM:	Zone-10 N4293157 E655483				Elevation (ft):	520	
PLSS:	T11N, R07E, Sec. 28 (M)				Acres:	0.0	
Location:	ALONG SIERRA COLLEGE BLVD; ABOUT 0.4 MI WSW OF SIERRA COLLEGE BLVD AT BOARDMAN CANAL, SE OF ROCKLIN.						
Detailed Location:	BASIN 16 MAPPED TO PROVIDED MARKING ON MAP.						
Ecological:							
General:	45 BASINS WERE IDENTIFIED AS POTENTIAL HABITAT AND SAMPLED BOTH DRY-SEASON AND WET-SEASON FOR BRANCHIPODS. 1 CYST WAS OBSERVED IN A SOIL SAMPLE COLLECTED DURING DRY-SEASON SAMPLING ON 9 OCT 2007 AT BASIN 16.						
Owner/Manager:	UNKNOWN						

Lepidurus packardii					Element Code: ICBRA10010		
vernal pool tadpole shrimp							
Listing Status:	Federal:	Endangered		CNDDDB Element Ranks:	Global:	G3	
	State:	None			State:	S2S3	
	Other:	IUCN_EN-Endangered					
Habitat:	General:	INHABITS VERNAL POOLS AND SWALES IN THE SACRAMENTO VALLEY CONTAINING CLEAR TO HIGHLY TURBID WATER.					
	Micro:	POOLS COMMONLY FOUND IN GRASS BOTTOMED SWALES OF UNPLOWED GRASSLANDS. SOME POOLS ARE MUD-BOTTOMED & HIGHLY TURBID.					



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Occurrence No.	12	Map Index:	82551	EO Index:	2105	Element Last Seen:	2005-01-21
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	2005-01-21
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2015-01-09
Quad Summary:	Sloughhouse (3812142), Buffalo Creek (3812152), Carmichael (3812153)						
County Summary:	Sacramento						
Lat/Long:	38.50257 / -121.24802				Accuracy:	nonspecific area	
UTM:	Zone-10 N4263033 E652768				Elevation (ft):	120	
PLSS:	T08N, R07E, Sec. 31 (M)				Acres:	196.0	
Location:	NORTHWEST OF THE JUNCTION OF FLORIN RD & SUNRISE BLVD, ON NORTH & SOUTH SIDES OF JACKSON RD (HWY 16).						
Detailed Location:	GRECH/TRIANGLE GRECH PROPERTY. 1995 DETECTIONS IN POOLS #42, 41, 44, 70B, 72, 83C, & 200. 1996 DETECTIONS IN E 1/2 OF SE 1/4 & NW 1/4 OF NE 1/4 SEC 31. 2005 DETECTION LOCATIONS UNKNOWN; SOMEWHERE WITHIN PROPERTY.						
Ecological:	HARDPAN VERNAL POOLS, SEASONAL WETLANDS, CUTOFF DRAINAGE CHANNEL, AND STOCKPOND IN NON-NATIVE GRASSLAND USED FOR GRAZING. AERIAL IMAGERY SINCE TIME OF ORIGINAL SURVEYS SHOWS HABITAT MODIFICATION FROM EXPANDED MINING OPERATIONS.						
General:	10S OBSERVED IN 7 POOLS, FEB 1995; 6 COLLECTED & DEPOSITED AT CAS (CATALOG # UNKNOWN). 10S TO 100 IN 5 FEATURES, "SPRING" 1996. BRANCHIOPODS INCLUDING L. PACKARDI FOUND IN 6 OF 12 REFERENCE POOLS & 15 OF 19 CREATED POOLS, 21 JAN 2005.						
Owner/Manager:	PVT						
Occurrence No.	23	Map Index:	28975	EO Index:	30716	Element Last Seen:	1995-02-22
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1995-02-22
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2015-01-16
Quad Summary:	Buffalo Creek (3812152)						
County Summary:	Sacramento						
Lat/Long:	38.56597 / -121.19386				Accuracy:	nonspecific area	
UTM:	Zone-10 N4270160 E657353				Elevation (ft):	160	
PLSS:	T08N, R07E, Sec. 10 (M)				Acres:	4532.0	
Location:	AREA EAST OF SUNRISE BLVD, NORTH OF KIEFER BLVD & SOUTH OF WHITE ROCK ROAD.						
Detailed Location:	EXACT DETECTION LOCATIONS NOT KNOWN; MAPPED TO GIVEN TRS SECTIONS T8N R7E SECTIONS 2, 3, 10, 15 & 21; AND T9N R7E SECTIONS 35 & 36. COLLECTIONS WERE FROM T8N R7E SEC 21.						
Ecological:	GRASSLAND WITH HARDPAN VERNAL POOLS, NATURAL SEASONAL WETLANDS, AND STOCK PONDS. BRANCHINECTA LYNCHI & LINDERIELLA OCCIDENTALIS ALSO OBSERVED IN AREA. PORTIONS OF THESE TRS SECTIONS HAVE BEEN DEVELOPED SINCE THE TIME OF SURVEY.						
General:	FOUND IN 118 FEATURES THROUGHOUT SITE DURING FEBRUARY SURVEY IN 1993. 6 COLLECTED IN FEB 1995 (CASIZ #103116, 103117, 103146, 103152, 103153).						
Owner/Manager:	PVT, UNKNOWN						



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Occurrence No.	31	Map Index:	32519	EO Index:	1749	Element Last Seen:	1990-03-17
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1990-03-17
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	1995-09-15
Quad Summary:	Buffalo Creek (3812152)						
County Summary:	Sacramento						
Lat/Long:	38.61300 / -121.15126				Accuracy:	nonspecific area	
UTM:	Zone-10 N4275453 E660960				Elevation (ft):	295	
PLSS:	T09N, R07E, Sec. 24 (M)				Acres:	2.2	
Location:	PRAIRIE CITY SVRA; 0.1 KM SSW OF PRAIRIE CITY ROAD AT WHITE ROCK ROAD.						
Detailed Location:							
Ecological:	LARGE, EPHEMERAL POND; VEGETATION THROUGHOUT; CLEAR WATER ALONG EDGES, BUT MILKY IN CENTER; POND DRY BY SUMMER.						
General:	POOL #D-L. PACKARDI OBSERVED IN EARLY AND LATE SPRING; L. OCCIDENTALIS, LYNCEUS BRACHYURUS AND OTHER INVERTS PRESENT; Hyla REGILLA HEARD CALLING AND TADPOLES OBSERVED IN LATE SPRING.						
Owner/Manager:	DPR-PRAIRIE CITY SVRA						

Occurrence No.	54	Map Index:	32730	EO Index:	1142	Element Last Seen:	1993-02-02
Occ. Rank:	Fair			Presence:	Presumed Extant	Site Last Seen:	1993-02-02
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	1996-01-05
Quad Summary:	Buffalo Creek (3812152), Carmichael (3812153)						
County Summary:	Sacramento						
Lat/Long:	38.55807 / -121.24877				Accuracy:	specific area	
UTM:	Zone-10 N4269191 E652586				Elevation (ft):	140	
PLSS:	T08N, R07E, Sec. 07 (M)				Acres:	20.2	
Location:	FORMER MATHER AIR FORCE BASE; WESTERN PORTION OF TRIANGLE FORMED BY DOUGLAS RD, SUNRISE BOULEVARD & FOLSOM SOUTH CANAL.						
Detailed Location:	LAND TO THE NORTH AND EAST IS PRIVATELY-OWNED FOR INDUSTRIAL/BUSINESS; THE FORMER MATHER AFB IS TO THE SOUTH AND WEST; EAST PARCEL IS UNDEVELOPED.						
Ecological:	GRASSLANDS.						
General:	MANY INDIVIDUALS OF BOTH SPECIES, LEPIDURUS PACKARDI AND LINDERIELLA OCCIDENTALIS, OBSERVED; COLLECTION MADE.						
Owner/Manager:	BLM						



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Occurrence No.	95	Map Index:	20270	EO Index:	30662	Element Last Seen:	1990-01-01
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1990-01-01
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	1997-03-18
Quad Summary:	Buffalo Creek (3812152)						
County Summary:	Sacramento						
Lat/Long:	38.61434 / -121.16239				Accuracy:	specific area	
UTM:	Zone-10 N4275582 E659988				Elevation (ft):	300	
PLSS:	T09N, R07E, Sec. 24 (M)				Acres:	375.6	
Location:	NORTHWEST OF THE INTERSECTION OF WHITE ROCK ROAD AND PRAIRIE CITY ROAD.						
Detailed Location:	A "NATURAL STOCK POND" SOMEWHERE IN SECTION 24.						
Ecological:	"NATURAL STOCK POND." NORTHERN HARDPAN VERNAL POOLS KNOWN FROM THIS SAME AREA. THIS OCCURRENCE WAS SNAPPED TO THE VERNAL POOL COMMUNITY OCCURRENCE.						
General:	LEPIDURUS PACKARDI OBSERVED IN A "NATURAL STOCKPOND." SUGNET RECORD #180.						
Owner/Manager:	PVT-GENCORP AEROJET						

Occurrence No.	116	Map Index:	37098	EO Index:	32096	Element Last Seen:	1994-05-11
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1994-05-11
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	1997-10-07
Quad Summary:	Buffalo Creek (3812152)						
County Summary:	Sacramento						
Lat/Long:	38.51464 / -121.21016				Accuracy:	nonspecific area	
UTM:	Zone-10 N4264436 E656044				Elevation (ft):	150	
PLSS:	T08N, R07E, Sec. 28 (M)				Acres:	159.9	
Location:	SOUTH OF BLODGETT RESERVOIR (LAGUNA CREEK), NE OF THE INTERSECTION OF HWY 16 AND GRANT LINE ROAD, SE OF SACRAMENTO.						
Detailed Location:							
Ecological:	HABITAT CONSISTS OF NORTHERN HARDPAN VERNAL POOLS.						
General:	"DUTRA" SITE. BRANCHINECTA LYNCHI, LEPIDURUS PACKARDI, LINDERIELLA OCCIDENTALIS, AND AN UNKNOWN BRANCHINECTA SPECIES WERE OBSERVED ON 11 MAY 1994.						
Owner/Manager:	UNKNOWN						



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Occurrence No.	124	Map Index:	82394	EO Index:	35372	Element Last Seen:	1994-04-XX
Occ. Rank:	None			Presence:	Possibly Extirpated	Site Last Seen:	1994-04-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2011-06-28
Quad Summary:	Buffalo Creek (3812152)						
County Summary:	Sacramento						
Lat/Long:	38.52108 / -121.18846				Accuracy:	nonspecific area	
UTM:	Zone-10 N4265187 E657922				Elevation (ft):	220	
PLSS:	T08N, R07E, Sec. 27 (M)				Acres:	12.0	
Location:	KIEFER LANDFILL, 0.7 MILE EAST OF INTERSECTION OF GRANT LINE RD & KIEFER BLVD, SLOUGHHOUSE ZC.						
Detailed Location:	INSIDE KIEFER LANDFILL EXPANSION FOOTPRINT REDUCTION AREA. MAPPED TO PROVIDED MAP.						
Ecological:	HABITAT CONSISTS OF A NORTHERN HARDPAN VERNAL POOL. BRANCHINECTA LYNCHI AND LINDERIELLA OCCIDENTALIS ALSO FOUND AT THIS SITE. 2008 AERIAL IMAGERY SHOWS THAT AREA HAS BEEN GRADED FOR LANDFILL EXPANSION.						
General:	LEPIDURUS PACKARDI FOUND IN 5 POOLS DURING APR 1994 SURVEYS.						
Owner/Manager:	SAC COUNTY						

Occurrence No.	125	Map Index:	82393	EO Index:	35373	Element Last Seen:	2013-02-06
Occ. Rank:	Excellent			Presence:	Presumed Extant	Site Last Seen:	2013-02-06
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2015-01-14
Quad Summary:	Buffalo Creek (3812152)						
County Summary:	Sacramento						
Lat/Long:	38.52411 / -121.19467				Accuracy:	nonspecific area	
UTM:	Zone-10 N4265514 E657373				Elevation (ft):	230	
PLSS:	T08N, R07E, Sec. 27 (M)				Acres:	228.0	
Location:	KIEFER LANDFILL, SOUTH OF KIEFER BLVD & NORTH OF GRANT LINE RD, E OF BLODGETT RESERVOIR, SLOUGHHOUSE, SACRAMENTO COUNTY.						
Detailed Location:	PART OF KIEFER LANDFILL WETLAND PRESERVE. BOUNDED BY GRANT LINE ROAD TO THE NW & KIEFER BLVD TO THE SW, WITH LANDFILL LOCATED TO THE EAST AND SOUTHEAST. 2007, 2009 & 2011: DATA FROM TWO DIFFERENT SOURCES, WITHAM (WM) & WILDLANDS, INC (WL).						
Ecological:	GENTLY ROLLING TOPOGRAPHY W/VERNAL POOLS OCCURRING IN A MATRIX OF CA ANNUAL GRASSLAND. SURROUNDING LAND USE: GRAZED, UNGRAZED PASTURES. 2007-08: BELOW AVERAGE RAINFALL, POOLS NOT FULLY PONDED. B. LYNCHI & L. OCCIDENTALIS ALSO OBS IN AREA.						
General:	FOUND IN 10 POOLS, 1990/91. IN 2 POOLS, 1994. IN 28 OF 30, 2005 & '06. IN 17 OF 30 (WM) & 8 POOLS (WL), '07. IN 16 OF 32, '08. IN 25 OF 32 (WM) & 15 POOLS (WL), '09. IN 31 OF 32, '10. IN 28 OF 32 (WM) & 16 POOLS (WL), '11. IN 18 OF 20, '13.						
Owner/Manager:	SAC COUNTY						



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Occurrence No.	126	Map Index:	40367	EO Index:	35374	Element Last Seen:	1994-04-XX
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1994-04-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	1998-12-11
Quad Summary:	Buffalo Creek (3812152)						
County Summary:	Sacramento						
Lat/Long:	38.52352 / -121.18354				Accuracy:	nonspecific area	
UTM:	Zone-10 N4265467 E658345				Elevation (ft):	160	
PLSS:	T08N, R07E, Sec. 26 (M)				Acres:	43.1	
Location:	KIEFER LANDFILL, 1.0 MILE EAST OF THE JUNCTION OF KIEFER BOULEVARD AND GRANT LINE ROAD.						
Detailed Location:	INSIDE KIEFER LANDFILL EXPANSION FOOTPRINT REDUCTION AREA.						
Ecological:	HABITAT CONSISTS OF A NORTHERN HARDPAN VERNAL POOL.						
General:	DURING APR 1994, LEPIDURUS PACKARDI WERE FOUND IN 7 VERNAL POOLS; 6 OF THE POOLS ARE IN A SEASONAL DRAINAGE AND 1 OF THE POOLS HAS BEEN DAMMED TO HOLD MORE WATER.						
Owner/Manager:	SAC COUNTY						

Occurrence No.	127	Map Index:	40369	EO Index:	35376	Element Last Seen:	1994-04-XX
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1994-04-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	1998-12-11
Quad Summary:	Buffalo Creek (3812152)						
County Summary:	Sacramento						
Lat/Long:	38.51927 / -121.18988				Accuracy:	80 meters	
UTM:	Zone-10 N4264984 E657802				Elevation (ft):	220	
PLSS:	T08N, R07E, Sec. 27 (M)				Acres:	0.0	
Location:	KIEFER LANDFILL, 0.6 MI ESE OF THE JUNCTION OF KIEFER BOULEVARD AND GRANT LINE ROAD.						
Detailed Location:	INSIDE KIEFER LANDFILL EXPANSION FOOTPRINT REDUCTION AREA.						
Ecological:	HABITAT CONSISTS OF A NORTHERN HARDPAN VERNAL POOL.						
General:	FOUND IN 3 POOLS ON THE WEST SIDE OF THE LANDFILL EXPANSION BOUNDARY DURING APR 1994.						
Owner/Manager:	SAC COUNTY						

Occurrence No.	133	Map Index:	41024	EO Index:	41024	Element Last Seen:	1997-01-XX
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1997-01-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	1999-05-11
Quad Summary:	Buffalo Creek (3812152), Carmichael (3812153)						
County Summary:	Sacramento						
Lat/Long:	38.52698 / -121.25613				Accuracy:	specific area	
UTM:	Zone-10 N4265728 E652010				Elevation (ft):	125	
PLSS:	T08N, R07E, Sec. 19 (M)				Acres:	10.6	
Location:	0.1 MILE EAST OF JUNCTION OF KIEFER BLVD AND EAGLES NEST ROAD, MATHER REGIONAL PARK (6 FEATURES, ALONG KIEFER BLVD).						
Detailed Location:	PART OF THE MORRISON CREEK DRAINAGE, IN THE OLD MATHER AIR FORCE BASE.						
Ecological:	6 FEATURES THAT ARE EITHER, VERNAL POOLS, VERNAL SWALES, OR A BRANCH OF MORRISON CREEK.						
General:	OBSERVED IN 1993 AND 1996-97 IN 5 OF THE 6 FEATURES MAPPED. LINDERIELLA OCCIDENTALIS ALSO OBSERVED.						
Owner/Manager:	SAC COUNTY						



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Occurrence No.	135	Map Index:	41026	EO Index:	41026	Element Last Seen:	2004-03-09
Occ. Rank:	Fair			Presence:	Presumed Extant	Site Last Seen:	2004-03-09
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2004-05-17
Quad Summary:	Buffalo Creek (3812152)						
County Summary:	Sacramento						
Lat/Long:	38.53421 / -121.24715				Accuracy:	specific area	
UTM:	Zone-10 N4266545 E652777				Elevation (ft):	150	
PLSS:	T08N, R07E, Sec. 19 (M)				Acres:	12.1	
Location:	0.9 MILE ENE OF JUNCTION OF KIEFER BLVD AND EAGLES NEST ROAD, MATHER REGIONAL PARK.						
Detailed Location:	ONE VERNAL POOL IN THIS PORTION OF THE COMPLEX, WITH VERNAL POOL TADPOLE SHRIMP; PART OF OLD MATHER AIR FORCE BASE.						
Ecological:	HABITAT CONSISTS A DISTURBED VERNAL POOL AND AN EPHEMERAL STREAM, TRIBUTARY TO MORRISON CREEK.						
General:	INDIVIDUALS OBSERVED IN 1996-97. 1 ADULT OBSERVED ON 9 MAR 2004.						
Owner/Manager:	SAC COUNTY						

Occurrence No.	136	Map Index:	41027	EO Index:	41027	Element Last Seen:	1997-01-XX
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1997-01-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	1999-05-06
Quad Summary:	Buffalo Creek (3812152)						
County Summary:	Sacramento						
Lat/Long:	38.52846 / -121.24758				Accuracy:	80 meters	
UTM:	Zone-10 N4265907 E652752				Elevation (ft):	150	
PLSS:	T08N, R07E, Sec. 19 (M)				Acres:	0.0	
Location:	0.8 MILE EAST OF JUNCTION OF KIEFER BLVD AND EAGLES NEST ROAD, MATHER REGIONAL PARK.						
Detailed Location:	1 VERNAL POOL IN THIS PORTION OF THE COMPLEX, WITH VERNAL POOL TADPOLE SHRIMP (VPTS). PART OF THE OLD MATHER AIR FORCE BASE.						
Ecological:	DISTURBED VERNAL POOL.						
General:	OBSERVED IN 1996-97. ALSO LINDERIELLA OCCIDENTALIS OBSERVED.						
Owner/Manager:	SAC COUNTY						



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Occurrence No.	240	Map Index:	64902	EO Index:	64438	Element Last Seen:	2006-05-05
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2006-05-05
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2011-06-27
Quad Summary:	Buffalo Creek (3812152), Carmichael (3812153)						
County Summary:	Sacramento						
Lat/Long:	38.54030 / -121.25074				Accuracy:	80 meters	
UTM:	Zone-10 N4267216 E652451				Elevation (ft):	158	
PLSS:	T08N, R07E, Sec. 18 (M)				Acres:	0.0	
Location:	1 MI NE OF JCT OF EAGLES NEST RD & KEIFER BLVD ND 0.4 MI W OF SUNRISE BLVD, S OF MATHER GOLF COURSE.						
Detailed Location:	POOL AT THE NE END OF UNNAMED LOOP ROAD, JUST EAST OF MATHER VERNAL POOL PRESERVE. MAPPED TO PROVIDED MAP.						
Ecological:	VERNAL POOLS IN CALIFORNIA GRASSLAND MATRIX, SURROUNDED BY UNGRAZED PASTURES. LIGHT RECREATION IN AREA.						
General:	FOUND IN LOW NUMBERS (NO-TO-FEW INDIVIDUALS PER DIP NET SWEEP) DURING SURVEYS BETWEEN 24 FEB AND 14 APR 2005. OBSERVED IN LOW ABUNDANCE IN POOL DURING SURVEYS CONDUCTED BETWEEN 28 FEB AND 5 MAY 2006.						
Owner/Manager:	SAC COUNTY						
Occurrence No.	274	Map Index:	81256	EO Index:	83286	Element Last Seen:	2011-02-11
Occ. Rank:	Excellent			Presence:	Presumed Extant	Site Last Seen:	2011-02-11
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2015-01-22
Quad Summary:	Buffalo Creek (3812152)						
County Summary:	Sacramento						
Lat/Long:	38.55331 / -121.22958				Accuracy:	nonspecific area	
UTM:	Zone-10 N4268695 E654267				Elevation (ft):	176	
PLSS:	T08N, R07E, Sec. 17 (M)				Acres:	55.0	
Location:	MONTELENA PRESERVE, ABOUT 0.8 MILES SOUTHEAST OF THE CORNER OF DOUGLAS RD AND SUNRISE BLVD, RANCHO CORDOVA.						
Detailed Location:	1993 DETECTIONS SOMEWHERE IN TRS SECTIONS 8 & 17. MAPPED TO PRESERVE BOUNDARY, PER PROVIDED MAPS.						
Ecological:	50-ACRE PRESERVE MANAGED FOR CONSERVATION VALUES. AREA AROUND PRESERVE HAS BEEN GRADED FOR DEVELOPMENT, WITH HOUSING DIRECTLY TO THE WEST & SOUTH. LINDERIELLA OCCIDENTALIS & BRANCHINECTA LYNCHI ALSO FOUND IN PRESERVE.						
General:	FOUND IN 2 FEATURES ON 29 JAN 1993. FOUND IN 16 OF 34 POOLS, FEB 2008. FOUND IN 11 OF 33 POOLS SURVEYED MAR 2009. FOUND IN 21 OF 33 POOLS SURVEYED FEB 2010. ADULTS AND/OR CARAPACES FOUND IN 22 OF 32 POOLS, JAN-FEB 2011.						
Owner/Manager:	PVT						



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Occurrence No.	275	Map Index:	82378	EO Index:	83388	Element Last Seen:	2008-03-04
Occ. Rank:	Excellent			Presence:	Presumed Extant	Site Last Seen:	2008-03-04
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2011-06-28
Quad Summary:	Buffalo Creek (3812152)						
County Summary:	Sacramento						
Lat/Long:	38.54629 / -121.21988				Accuracy:	80 meters	
UTM:	Zone-10 N4267932 E655128				Elevation (ft):	182	
PLSS:	T08N, R07E, Sec. 16 (M)				Acres:	0.0	
Location:	S BRANCH OF MORRISON CREEK, 0.9 MI SSE OF DOUGLAS RD & JAEGER RD JCT, 1.9 MI NNW OF BLODGETT DAM, RANCHO CORDOVA.						
Detailed Location:	ABOUT 0.5 MI SE OF MONTELENA PRESERVE. MAPPED TO PROVIDED MAP & WRITTEN LOCATION.						
Ecological:	INTERMITTENT STREAM SURROUNDED BY MODERATELY SLOPED ANNUAL GRASSLAND. UPLAND PLANTS ARE ALL COMMON CALIFORNIA GRASSLAND ALLIANCE SPECIES. SURROUNDING LAND USE: CATTLE GRAZING.						
General:	HEALTHY POPULATION IN THE 1000'S OBSERVED ON 4 MAR 2008. 8 SPECIMENS WERE COLLECTED AND DEPOSITED INTO BOHART MUSEUM, CATALOG #UCD 08001.						
Owner/Manager:	PVT						

Occurrence No.	276	Map Index:	82379	EO Index:	83389	Element Last Seen:	1995-02-27
Occ. Rank:	None			Presence:	Possibly Extirpated	Site Last Seen:	1995-05-24
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2015-01-27
Quad Summary:	Buffalo Creek (3812152)						
County Summary:	Sacramento						
Lat/Long:	38.53038 / -121.22855				Accuracy:	nonspecific area	
UTM:	Zone-10 N4266151 E654407				Elevation (ft):	162	
PLSS:	T08N, R07E, Sec. 20 (M)				Acres:	213.0	
Location:	NW THE CORNER OF KIEFER BLVD & JAEGER RD (RANCHO CORDOVA PKWY), ABOUT 0.7 MI NW OF BLODGETT DAM, RANCHO CORDOVA.						
Detailed Location:	PART OF THE SAMMIS SUNRISE-DOUGLAS PROPERTY. DETECTIONS IN THE SE CORNER OF T08N, R07E, SEC 20.						
Ecological:	1995: SITE DOMINATED BY NON-NATIVE ANNUAL GRASSLAND INTERSPERSED WITH VERNAL POOLS, SEASONAL WETLANDS, AND SWALES. AERIAL PHOTOS TAKEN SINCE THE TIME OF SURVEY SHOW GRADING AND CONSTRUCTION IN THE AREA; OCCURRENCE LIKELY EXTIRPATED.						
General:	FOUND IN 5 LOCATIONS IN SECTION 20 DURING 1993 SURVEYS. 3 COLLECTED DEC 1994 & 1 IN FEB 1995 (CASIZ #103159 & 103158). FOUND IN 21 LOCATIONS DURING 1995 WET-SEASON SURVEYS.						
Owner/Manager:	PVT						



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Occurrence No.	278	Map Index:	82383	EO Index:	83393	Element Last Seen:	2008-03-05
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2008-03-05
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2011-04-27
Quad Summary:	Buffalo Creek (3812152)						
County Summary:	Sacramento						
Lat/Long:	38.52817 / -121.20324				Accuracy:	nonspecific area	
UTM:	Zone-10 N4265949 E656618				Elevation (ft):	175	
PLSS:	T08N, R07E, Sec. 22 (M)				Acres:	14.0	
Location:	LAGUNA CREEK, 0.25 MILE ABOVE BLODGETT RESERVOIR AT KIEFER ROAD CROSSING, JUST NW OF KIEFER LANDFILL, RANCHO CORDOVA.						
Detailed Location:	MAPPED TO PROVIDED COORDINATES/MAP AND WRITTEN DIRECTIONS.						
Ecological:	MODERATELY SLOPED ANNUAL GRASSLAND, NO RIPARIAN FLORA PRESENT. CATTLE CRAZING IN SURROUNDING AREAS.						
General:	TWO INCIDENTAL OBSERVATIONS ON 5 MAR 2008 WITH NO DEFINITIVE POPULATION OBSERVED. FIRST L. PACKARDI OCCURRENCE IN FIVE YEARS OF SAMPLING AT THIS STREAM.						
Owner/Manager:	PVT						
Occurrence No.	279	Map Index:	82466	EO Index:	83478	Element Last Seen:	2008-02-25
Occ. Rank:	Excellent			Presence:	Presumed Extant	Site Last Seen:	2008-02-25
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2011-06-28
Quad Summary:	Buffalo Creek (3812152)						
County Summary:	Sacramento						
Lat/Long:	38.50724 / -121.22714				Accuracy:	1/10 mile	
UTM:	Zone-10 N4263586 E654579				Elevation (ft):	150	
PLSS:	T08N, R07E, Sec. 32 (M)				Acres:	0.0	
Location:	0.4 MI NNW OF JACKSON HWY (SR 16) AT GRANT LINE ROAD, 1.1 MI SW OF BLODGETT DAM, 2 MI WNW OF SLOUGHHOUSE, ELK GROVE.						
Detailed Location:	IN PASTURE EAST OF SUNRISE BLVD AND WEST OF GRANT LINE ROAD. MAPPED TO PROVIDED COORDINATES.						
Ecological:	VERNAL POOLS 8-16 INCHES IN DEPTH. PONDS WERE CLEAR TO SLIGHTLY TURBID WITH AND WITHOUT BOTTOM VEGETATION. SURROUNDING LAND USE: PASTURES AND CATTLE GRAZING. UNIDENTIFIED BRANCHINECTA SPECIES & CALIFORNIA LINDERIELLA ALSO OBSERVED IN AREA.						
General:	UNKNOWN NUMBER OBSERVED IN POOL ON 25 FEB 2008 DURING WESTERN SPADEFOOT TOAD SURVEYS; "MANY" WERE OBSERVED IN 12 POOLS THROUGHOUT THE AREA SURROUNDING (AND INCLUDING) THIS LOCATION.						
Owner/Manager:	PVT						



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Occurrence No.	283	Map Index:	82872	EO Index:	83873	Element Last Seen:	1995-02-27
Occ. Rank:	None			Presence:	Extirpated	Site Last Seen:	1995-05-24
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2015-01-09
Quad Summary:	Buffalo Creek (3812152)						
County Summary:	Sacramento						
Lat/Long:	38.54936 / -121.23556				Accuracy:	nonspecific area	
UTM:	Zone-10 N4268246 E653755				Elevation (ft):	160	
PLSS:	T08N, R07E, Sec. 17 (M)				Acres:	467.0	
Location:	SE OF SUNRISE BLVD AT DOUGLAS RD, 0.8 MI NORTH OF KEIFER BLVD, RANCHO CORDOVA.						
Detailed Location:	SAMMIS SUNRISE-DOUGLAS PROPERTY. 1993 DETECTIONS SOMEWHERE IN TRS SECTIONS 8, 17, & 20.						
Ecological:	1995: ANNUAL GRASSLAND WITH HARDPAN VERNAL POOLS, NATURAL SEASONAL WETLANDS, SWALES, & MANMADE VERNAL POOLS; VERNAL POOL & CALIFORNIA FAIRY SHRIMP ALSO FOUND. 2009 AERIAL IMAGERY SHOWS RESIDENTIAL DEVELOPMENT; OCCURRENCE EXTIRPATED.						
General:	FOUND IN 7 FEATURES DURING 1993 SURVEYS. 5 COLLECTED IN FEB 1995 (CASIZ #103156, 103157, 103160, 103161, 103163). FOUND IN ABOUT 24 FEATURES DURING SURVEYS DEC 1994-MAY 1995.						
Owner/Manager:	PVT, UNKNOWN						
Occurrence No.	284	Map Index:	82903	EO Index:	83912	Element Last Seen:	2009-04-07
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	2009-04-07
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2015-01-27
Quad Summary:	Buffalo Creek (3812152)						
County Summary:	Sacramento						
Lat/Long:	38.53561 / -121.23385				Accuracy:	nonspecific area	
UTM:	Zone-10 N4266723 E653933				Elevation (ft):	165	
PLSS:	T08N, R07E, Sec. 20 (M)				Acres:	482.0	
Location:	NE OF SUNRISE BLVD AT KIEFER BLVD, W OF JAEGER RD & 1.3 MI S OF DOUGLAS BLVD, 1 3/4 MI SE OF MATHER LAKE DAM.						
Detailed Location:	MAPPED TO EXTANT HABITAT BETWEEN DEVELOPED SECTIONS OF SAMMIS SUNRISE-DOUGLAS PROPERTY, USING PROVIDED MAPS AND AERIAL IMAGERY. 1993 DETECTIONS SOMEWHERE IN T8N R7E SEC 20. COLLECTION FROM SE 1/4 NW 1/4 SEC 20.						
Ecological:	1995: SITE DOMINATED BY NON-NATIVE ANNUAL GRASSLAND INTERSPERSED WITH VERNAL POOLS, SEASONAL WETLANDS, AND SWALES.						
General:	FOUND IN 5 FEATURES DURING 1993 SURVEYS. FOUND IN ABOUT 63 FEATURES DURING 1995 SURVEYS. 3 COLLECTED IN FEB 1995 (CASIZ #103162, 103164, 103165). FOUND IN 10 POOLS, FEB-MAR 1996. FOUND IN 13 POOLS DURING 10 FEB-7 APR 2009 SURVEYS.						
Owner/Manager:	PVT						



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Occurrence No.	285	Map Index:	82904	EO Index:	83918	Element Last Seen:	1995-02-XX
Occ. Rank:	Unknown	Presence:	Presumed Extant	Site Last Seen:	1995-02-XX	Record Last Updated:	2011-06-28
Occ. Type:	Natural/Native occurrence	Trend:	Unknown				
Quad Summary:	Buffalo Creek (3812152)						
County Summary:	Sacramento						
Lat/Long:	38.54742 / -121.24185			Accuracy:	80 meters		
UTM:	Zone-10 N4268020 E653211			Elevation (ft):	165		
PLSS:	T08N, R07E, Sec. 17 (M)			Acres:	0.0		
Location:	SAMMIS SUNRISE-DOUGLAS PROPERTY, JUST E OF SUNRISE BLVD 0.8 MI S OF DOUGLAS RD, 1 MI SE OF MATHER LAKE, RANCHO CORDOVA.						
Detailed Location:	IN LOT LOCATED SE OF THE CORNER OF SUNRISE BLVD & CHRYSANTHY BLVD. MAPPED TO LOCATION ON PROVIDED MAP.						
Ecological:	1995: SITE DOMINATED BY NON-NATIVE ANNUAL GRASSLAND INTERSPERSED WITH VERNAL POOLS, SEASONAL WETLANDS, AND SWALES. 2010 AERIAL IMAGERY SHOWS SITE SURROUNDED BY HOUSING DEVELOPMENT.						
General:	FOUND SOMETIME IN POOL DURING SURVEY OCCURRING BETWEEN DEC AND FEB 1995.						
Owner/Manager:	UNKNOWN						
Occurrence No.	286	Map Index:	82905	EO Index:	83923	Element Last Seen:	2008-02-25
Occ. Rank:	Excellent	Presence:	Presumed Extant	Site Last Seen:	2008-02-25	Record Last Updated:	2011-06-28
Occ. Type:	Natural/Native occurrence	Trend:	Unknown				
Quad Summary:	Buffalo Creek (3812152)						
County Summary:	Sacramento						
Lat/Long:	38.51565 / -121.24209			Accuracy:	1/10 mile		
UTM:	Zone-10 N4264494 E653258			Elevation (ft):	135		
PLSS:	T08N, R07E, Sec. 29 (M)			Acres:	0.0		
Location:	JUST E OF SUNRISE BLVD ABOUT 0.7 MI SOUTH OF INTERSECTION WITH KIEFER, 1.5 MI WSW OF BLODGETT RESERVOIR DAM, ELK GROVE.						
Detailed Location:	MAPPED TO COORDINATES PROVIDED.						
Ecological:	VERNAL POOLS 8-10 INCHES IN DEPTH. PONDS WERE CLEAR TO SLIGHTLY TURBID WITH AND WITHOUT BOTTOM VEGETATION. SURROUNDING LAND USE: PASTURES AND CATTLE GRAZING. UNIDENTIFIED BRANCHINECTA SPECIES & CALIFORNIA LINDERIELLA ALSO OBSERVED IN AREA.						
General:	OBSERVED IN POOL SOMEWHERE IN SECTION 29 ON 3 FEB 1993, SUGNET RECORD #166. UNKNOWN NUMBER OBSERVED IN POOL ON 25 FEB 2008 DURING WESTERN SPADEFOOT TOAD SURVEYS; "MANY" WERE OBSERVED IN 12 POOLS THROUGHOUT THE SURROUNDING AREA.						
Owner/Manager:	PVT						



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Occurrence No.	287	Map Index:	82906	EO Index:	83926	Element Last Seen:	2008-02-25
Occ. Rank:	Excellent			Presence:	Presumed Extant	Site Last Seen:	2008-02-25
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2011-06-28
Quad Summary:	Buffalo Creek (3812152)						
County Summary:	Sacramento						
Lat/Long:	38.51133 / -121.24187			Accuracy:	1/10 mile		
UTM:	Zone-10 N4264015 E653285			Elevation (ft):	125		
PLSS:	T08N, R07E, Sec. 29 (M)			Acres:	0.0		
Location:	JUST E OF SUNRISE BLVD AND 1/3 MI N OF INTERSECTION WITH JACKSON HWY, 1.6 MI WSW OF BLODGETT RESERVOIR DAM, ELK GROVE.						
Detailed Location:	MAPPED TO COORDINATES PROVIDED.						
Ecological:	VERNAL POOLS 8-10 INCHES IN DEPTH. PONDS WERE CLEAR TO SLIGHTLY TURBID WITH AND WITHOUT BOTTOM VEGETATION. SURROUNDING LAND USE: PASTURES AND CATTLE GRAZING. UNIDENTIFIED BRANCHINECTA SPECIES & CALIFORNIA LINDERIELLA ALSO OBSERVED IN AREA.						
General:	OBSERVED IN POOL SOMEWHERE IN SECTION 29 ON 3 FEB 1993. UNKNOWN NUMBER OBSERVED IN POOL ON 25 FEB 2008 DURING WESTERN SPADEFOOT TOAD SURVEYS; "MANY" WERE OBSERVED IN 12 POOLS THROUGHOUT THE SURROUNDING AREA.						
Owner/Manager:	PVT						
Occurrence No.	288	Map Index:	82907	EO Index:	83928	Element Last Seen:	2008-02-25
Occ. Rank:	Excellent			Presence:	Presumed Extant	Site Last Seen:	2008-02-25
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2011-06-29
Quad Summary:	Buffalo Creek (3812152)						
County Summary:	Sacramento						
Lat/Long:	38.51487 / -121.22742			Accuracy:	1/10 mile		
UTM:	Zone-10 N4264433 E654538			Elevation (ft):	145		
PLSS:	T08N, R07E, Sec. 29 (M)			Acres:	0.0		
Location:	0.9 MI NNW OF GRANT LINE ROAD AND JACKSON HWY INTERSECTION, 0.8 MI WSW OF BLODGETT RESERVOIR, ELK GROVE.						
Detailed Location:	MAPPED TO PROVIDED COORDINATES.						
Ecological:	VERNAL POOLS 8-10 INCHES IN DEPTH. PONDS WERE CLEAR TO SLIGHTLY TURBID WITH AND WITHOUT BOTTOM VEGETATION. SURROUNDING LAND USE: PASTURES AND CATTLE GRAZING. UNIDENTIFIED BRANCHINECTA SPECIES & CALIFORNIA LINDERIELLA ALSO OBSERVED IN AREA.						
General:	OBSERVED IN POOL SOMEWHERE IN SECTION 29 ON 3 FEB 1993. UNKNOWN NUMBER OBSERVED IN POOL ON 25 FEB 2008 DURING WESTERN SPADEFOOT TOAD SURVEYS; "MANY" WERE OBSERVED IN 12 POOLS THROUGHOUT THE SURROUNDING AREA.						
Owner/Manager:	PVT						



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Occurrence No.	289	Map Index:	82908	EO Index:	83930	Element Last Seen:	2008-02-25
Occ. Rank:	Excellent			Presence:	Presumed Extant	Site Last Seen:	2008-02-25
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2011-06-28
Quad Summary:	Buffalo Creek (3812152)						
County Summary:	Sacramento						
Lat/Long:	38.52138 / -121.21732				Accuracy:	nonspecific area	
UTM:	Zone-10 N4265172 E655405				Elevation (ft):	170	
PLSS:	T08N, R07E, Sec. 28 (M)				Acres:	104.0	
Location:	AREA JUST S & SE OF KIEFER BLVD AT JAEGER ROAD TO NORTH OF LAGUNA CREEK AND BLODGETT RESERVOIR, ELK GROVE.						
Detailed Location:	MAPPED TO PROVIDED COORDINATES.						
Ecological:	VERNAL POOLS 8-10 INCHES IN DEPTH. PONDS WERE CLEAR TO SLIGHTLY TURBID WITH AND WITHOUT BOTTOM VEGETATION. SURROUNDING LAND USE: PASTURES AND CATTLE GRAZING. UNIDENTIFIED BRANCHINECTA SPECIES & CALIFORNIA LINDERIELLA ALSO OBSERVED IN AREA.						
General:	OBSERVED AT 9 LOCATIONS ON 25 FEB 2008 DURING WESTERN SPADEFOOT TOAD SURVEYS; "MANY" WERE OBSERVED IN 12 POOLS THROUGHOUT THE SURROUNDING AREA.						
Owner/Manager:	PVT						

Occurrence No.	330	Map Index:	94814	EO Index:	95920	Element Last Seen:	2013-03-13
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2013-03-13
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2015-01-08
Quad Summary:	Buffalo Creek (3812152)						
County Summary:	Sacramento						
Lat/Long:	38.60746 / -121.13857				Accuracy:	specific area	
UTM:	Zone-10 N4274861 E662077				Elevation (ft):	330	
PLSS:	T09N, R08E, Sec. 30 (M)				Acres:	25.0	
Location:	FROM ABOUT 0.25 TO 0.5 MILES SE OF WHITE ROCK RD AND SCOTT RD, JUST NE OF PRAIRIE CITY SVRA.						
Detailed Location:	"WHITE ROCK ROAD PROPERTIES SCOTT ROAD PRESERVE" PROPERTY. MAPPED TO PROVIDED LOCATIONS FOR POOLS VP2, 6, 9, 10, 32, 66, & 101.						
Ecological:	VERNAL POOLS IN ANNUAL GRASSLAND ON SITE PROPOSED AS CONSERVATION BANK AS OF 2013. SITE MANAGED FOR GRAZING, SURROUNDED BY OPEN SPACE.						
General:	FOUND IN 3 POOLS ON 9 MAY 2007 (1 MAPPED HERE, SEE ALSO OCCURRENCE #331). FOUND IN 8 POOLS ON 21 FEB 2013 (6 MAPPED HERE, SEE ALSO OCC #331). 1 ADULT FOUND IN 1 POOL ON 13 MAR 2013.						
Owner/Manager:	PVT						



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Occurrence No.	331	Map Index:	94815	EO Index:	95921	Element Last Seen:	2013-02-21
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2013-02-21
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2015-01-08
Quad Summary:	Buffalo Creek (3812152)						
County Summary:	Sacramento						
Lat/Long:	38.60002 / -121.13576				Accuracy:	specific area	
UTM:	Zone-10 N4274040 E662339				Elevation (ft):	300	
PLSS:	T09N, R08E, Sec. 30 (M)				Acres:	10.0	
Location:	EAST SIDE OF SCOTT RD, ABOUT 1.25 MILES SE OF WHITE ROCK RD AND SCOTT RD, JUST NE OF PRAIRIE CITY SVRA.						
Detailed Location:	"WHITE ROCK ROAD PROPERTIES SCOTT ROAD PRESERVE" PROPERTY. MAPPED TO PROVIDED LOCATIONS FOR POOLS VP7 & 20.						
Ecological:	VERNAL POOLS IN ANNUAL GRASSLAND ON SITE PROPOSED AS CONSERVATION BANK AS OF 2013. SITE MANAGED FOR GRAZING, SURROUNDED BY OPEN SPACE.						
General:	FOUND IN 3 POOLS ON 9 MAY 2007 (2 MAPPED HERE, SEE ALSO OCCURRENCE #330). FOUND IN 8 POOLS ON 21 FEB 2013 (2 MAPPED HERE, SEE ALSO OCC #330).						
Owner/Manager:	PVT						

Dumontia oregonensis

Element Code: ICBRA23010

hairy water flea

Listing Status: **Federal:** None

CNDDDB Element Ranks: **Global:** G1G3

State: None

State: S1

Other:

Habitat: **General:** VERNAL POOLS. IN CALIFORNIA, KNOWN ONLY FROM MATHER FIELD.

Micro: ☐

Occurrence No.	1	Map Index:	59599	EO Index:	59635	Element Last Seen:	2004-04-XX
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	2004-04-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2005-01-26
Quad Summary:	Buffalo Creek (3812152), Carmichael (3812153)						
County Summary:	Sacramento						
Lat/Long:	38.55255 / -121.27941				Accuracy:	nonspecific area	
UTM:	Zone-10 N4268528 E649927				Elevation (ft):	130	
PLSS:	T08N, R06E, Sec. 13 (M)				Acres:	6011.4	
Location:	MATHER FIELD.						
Detailed Location:							
Ecological:							
General:	SPECIES KNOWN ONLY FROM ONE LOCALITY IN OREGON WHEN DESCRIBED. NO ADDITIONAL COLLECTING DATA GIVEN.						
Owner/Manager:	SAC COUNTY						

Desmocerus californicus dimorphus

Element Code: IICOL48011

valley elderberry longhorn beetle

Listing Status: **Federal:** Threatened

CNDDDB Element Ranks: **Global:** G3T2

State: None

State: S2

Other:

Habitat: **General:** OCCURS ONLY IN THE CENTRAL VALLEY OF CALIFORNIA, IN ASSOCIATION WITH BLUE ELDERBERRY (SAMBUCUS MEXICANA).



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Micro: PREFERS TO LAY EGGS IN ELDERBERRIES 2-8 INCHES IN DIAMETER; SOME PREFERENCE SHOWN FOR "STRESSED" ELDERBERRIES.							
Occurrence No.	1	Map Index:	11640	EO Index:	14459	Element Last Seen:	2008-04-18
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	2008-04-18
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2009-01-16
Quad Summary:	Carmichael (3812153), Folsom (3812162), Citrus Heights (3812163)						
County Summary:	Sacramento						
Lat/Long:	38.62353 / -121.28062			Accuracy:	nonspecific area		
UTM:	Zone-10 N4276403 E649674			Elevation (ft):	60		
PLSS:	T09N, R06E, Sec. 23 (M)			Acres:	1517.0		
Location:	ALONG THE AMERICAN RIVER, FROM NIMBUS FLAT AREA OF LAKE NATOMA SOUTH TO DOWNSTREAM END OF RIVER BEND PARK (GOETHE PARK).						
Detailed Location:	FOUND ALONG AMERICAN R PKWY TO LOWER SE SHORE OF LAKE NATOMA; INCLUDES CRITICAL & ESSENTIAL HABITAT AREAS. 2008: OBS AT MITIGATION SITE DEVELOPED NEAR RIVER BEND PARK. SHRUBS TRANSPLANTED FROM NEAR FOLSOM DAM, FOR FOLSOM BRIDGE CONSTRUCTION						
Ecological:	LARVAE ARE STEM AND ROOT BORERS OF ELDERBERRY; EXIT HOLES ARE ROUND. BUPRESTID LARVAE ALSO BORE INTO ELDERBERRY; EXIT HOLES ARE OVAL. ADULTS FEED ON FOLIAGE AND FLOWERS.						
General:	3 MAY 1982: 1-10 OBS AT ROSSMOOR BAR. 23 APR 1987: SURVEY OF NIMBUS FLATS FOUND BOTH OLD & NEW EXIT HOLES. 18 APR 2008: 2 FEMALES OBS ON SHRUB & FLYING TO THE GROUND AT RIVER BEND PARK.						
Owner/Manager:	SAC COUNTY, DPR						
Occurrence No.	57	Map Index:	24044	EO Index:	14209	Element Last Seen:	1992-01-14
Occ. Rank:	Fair			Presence:	Presumed Extant	Site Last Seen:	1992-01-14
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	1993-08-24
Quad Summary:	Folsom (3812162)						
County Summary:	Placer						
Lat/Long:	38.74345 / -121.20825			Accuracy:	80 meters		
UTM:	Zone-10 N4289831 E655714			Elevation (ft):	260		
PLSS:	T10N, R07E, Sec. 09 (M)			Acres:	0.0		
Location:	SOUTH OF DOUGLAS BLVD WHERE IT INTERSECTS WITH KINGSGATE, GRANITE BAY.						
Detailed Location:	SITE INCLUDES TWO GROUPS OF ELDERBERRY SHRUBS: ONE IS 100 FEET EAST OF KINGSGATE INTERSECTION & THE SECOND IS 200 FEET WEST OF THE KINGSGATE INTERSECTION.						
Ecological:	HABITAT CONSISTS OF TWO SMALL OUTCROPS OF ELDERBERRY SHRUBS; ONE GROUP OF 6 PLANTS WITH STEMS <1" AND THE OTHER GROUP OF 2 PLANTS WITH STEMS UP TO 4".						
General:	WEATHERED BOREHOLES FOUND IN BOTH PLANT GROUPINGS.						
Owner/Manager:	PVT						



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Occurrence No.	82	Map Index:	33014	EO Index:	3784	Element Last Seen:	1991-06-11
Occ. Rank:	Poor			Presence:	Presumed Extant	Site Last Seen:	1991-06-11
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	1998-08-11
Quad Summary:	Pilot Hill (3812171)						
County Summary:	El Dorado						
Lat/Long:	38.77641 / -121.09388				Accuracy:	80 meters	
UTM:	Zone-10 N4293690 E665579				Elevation (ft):	840	
PLSS:	T11N, R08E, Sec. 28 (M)				Acres:	0.0	
Location:	ANDERSON CREEK, TRIBUTARY TO NORTH FORK AMERICAN RIVER/FOLSOM LAKE, ALONG RATTLESNAKE BAR ROAD, SSW OF PILOT HILL.						
Detailed Location:	REPORT ON: TAXONOMY; DISTRIBUTION; LIFE HISTORY; HABITAT; FIELD TECHNIQUES & OBSERVATIONS; BEETLE RECOVERY.						
Ecological:	HABITAT CONSISTS OF ONE UNHEALTHY-LOOKING CLUMP (MORE DEAD THAN LIVE BRANCHES) OF ELDERBERRY, SURROUNDED BY OAK WOODLAND.						
General:	MANY EXIT HOLES OBSERVED; SOME POSSIBLY RECENT.						
Owner/Manager:	PVT						

Occurrence No.	83	Map Index:	33015	EO Index:	3783	Element Last Seen:	1991-06-11
Occ. Rank:	Fair			Presence:	Presumed Extant	Site Last Seen:	1991-06-11
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	1998-08-11
Quad Summary:	Pilot Hill (3812171)						
County Summary:	El Dorado						
Lat/Long:	38.77044 / -121.09753				Accuracy:	80 meters	
UTM:	Zone-10 N4293021 E665276				Elevation (ft):	760	
PLSS:	T11N, R08E, Sec. 28 (M)				Acres:	0.0	
Location:	NE SHORE OF FOLSOM LAKE, ALONG RATTLESNAKE BAR ROAD, JUST NORTH OF PENINSULA CAMPGROUND ENTRANCE, FOLSOM LAKE SRA.						
Detailed Location:	LOCATED WITHIN THE STATE PARK, BUT LOCATED JUST OUTSIDE THE ENTRANCE GATE. REPORT ON: TAXONOMY; DISTRIBUTION; LIFE HISTORY; HABITAT; FIELD TECHNIQUES & OBSERVATIONS; BEETLE RECOVERY.						
Ecological:	HABITAT CONSISTS OF 4 ELDERBERRY CLUMPS IN A WET DITCH ALONG THE ROADSIDE, SURROUNDED BY OAK WOODLAND.						
General:	4 ELDERBERRY CLUMPS CONTAINED MANY OLD AND NEW EXIT HOLES. PLANTS HAD BEEN SEVERELY TRIMMED AND PRUNED, WITH EVEN MAJOR TRUNKS CUT OUT, ALTHOUGH NOT RECENTLY.						
Owner/Manager:	DPR-FOLSOM LAKE SRA						



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Occurrence No.	84	Map Index:	33016	EO Index:	3788	Element Last Seen:	1991-04-25
Occ. Rank:	Poor			Presence:	Presumed Extant	Site Last Seen:	1991-04-25
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	1998-08-11
Quad Summary:	Rocklin (3812172)						
County Summary:	Placer						
Lat/Long:	38.79843 / -121.13298				Accuracy:	80 meters	
UTM:	Zone-10 N4296064 E662132				Elevation (ft):	480	
PLSS:	T11N, R08E, Sec. 18 (M)				Acres:	0.0	
Location:	MINERS RAVINE, BRIDGE AT FOLSOM-AUBURN ROAD (TRIB TO DRY CREEK), 0.50 MILE SOUTH OF TUDSBURY ROAD, GRANITE BAY.						
Detailed Location:	REPORT ON: TAXONOMY; DISTRIBUTION; LIFE HISTORY; HABITAT; FIELD TECHNIQUES & OBSERVATIONS; BEETLE RECOVERY.						
Ecological:	HABITAT CONSISTS OF 2 LARGE ROADSIDE ELDERBERRY CLUMPS.						
General:	2 RECENT EXIT HOLES OBSERVED ON 1 OF THE 2 CLUMPS.						
Owner/Manager:	UNKNOWN						

Occurrence No.	85	Map Index:	33017	EO Index:	3785	Element Last Seen:	1991-04-25
Occ. Rank:	Excellent			Presence:	Presumed Extant	Site Last Seen:	1991-04-25
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	1998-08-11
Quad Summary:	Rocklin (3812172)						
County Summary:	Placer						
Lat/Long:	38.77103 / -121.15473				Accuracy:	80 meters	
UTM:	Zone-10 N4292985 E660304				Elevation (ft):	410	
PLSS:	T11N, R07E, Sec. 25 (M)				Acres:	0.0	
Location:	MINERS RAVINE, TRIB TO DRY CREEK, WEST SIDE OF AUBURN-FOLSOM ROAD, 0.25 MILE NE OF CAVITT/STALLMAN ROAD, GRANITE BAY.						
Detailed Location:	REPORT ON: TAXONOMY; DISTRIBUTION; LIFE HISTORY; HABITAT; FIELD TECHNIQUES & OBSERVATIONS; BEETLE RECOVERY.						
Ecological:	HABITAT CONSISTS OF OAK WOODLAND, WITH SCATTERED ELDERBERRIES AND LOTS OF POISON OAK; HILLY AND ROCKY SUBSTRATE.						
General:	ELDERBERRIES WERE SCATTERED, BUT COMMON; ONLY 2 CLUMPS WERE FOUND WITH EXIT HOLES. MANY EXIT HOLES, 1 POSSIBLY RECENT. DEAD WOOD SAMPLE WITH A PROBABLE VELB TUNNEL COLLECTED.						
Owner/Manager:	PVT						



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Occurrence No.	86	Map Index:	33018	EO Index:	3787	Element Last Seen:	1991-04-10
Occ. Rank:	Excellent			Presence:	Presumed Extant	Site Last Seen:	1991-04-10
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	1998-08-11
Quad Summary:	Rocklin (3812172)						
County Summary:	Placer						
Lat/Long:	38.79410 / -121.21122				Accuracy:	80 meters	
UTM:	Zone-10 N4295448 E655347				Elevation (ft):	320	
PLSS:	T11N, R07E, Sec. 20 (M)				Acres:	0.0	
Location:	SECRET RAVINE, TRIBUTARY TO DRY CREEK, ALONG THE SIERRA COLLEGE NATURE TRAIL, ROCKLIN.						
Detailed Location:	REPORT ON: TAXONOMY; DISTRIBUTION; LIFE HISTORY; HABITAT; FIELD TECHNIQUES & OBSERVATIONS; BEETLE RECOVERY.						
Ecological:	HABITAT CONSISTS OF OAK WOODLAND, WITH SPARSE/SCATTERED ELDERBERRIES GROWING WITH OAKS, BUCKEYES, AND POISON OAK.						
General:	ALTHOUGH THE ELDERBERRIES WERE FEW AND WIDELY-SCATTERED, MOST HAD OLD, CLEAN-CUT EXIT HOLES.						
Owner/Manager:	LOS RIOS COMM COLLEGE DIST						
Occurrence No.	132	Map Index:	39257	EO Index:	34259	Element Last Seen:	1995-04-21
Occ. Rank:	Poor			Presence:	Presumed Extant	Site Last Seen:	1995-04-21
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	1998-07-29
Quad Summary:	Buffalo Creek (3812152)						
County Summary:	Sacramento						
Lat/Long:	38.62158 / -121.23644				Accuracy:	80 meters	
UTM:	Zone-10 N4276259 E653525				Elevation (ft):	130	
PLSS:	T09N, R07E, Sec. 20 (M)				Acres:	0.0	
Location:	BETWEEN FOLSOM BLVD AND HIGHWAY 50, 1.25 ROAD MILES SW OF HAZEL AVE AND FOLSOM BLVD, RANCHO CORDOVA.						
Detailed Location:	HIGHWAY FRONTAGE.						
Ecological:	INTRODUCED WEEDS (OAT & FOXTAIL), ELDERBERRY PLANT, BLACK WALNUT.						
General:	1 ADULT OBSERVED.						
Owner/Manager:	CALTRANS						



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Occurrence No.	137	Map Index:	39384	EO Index:	34386	Element Last Seen:	2002-05-XX
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	2002-05-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2003-01-03
Quad Summary:	Pilot Hill (3812171)						
County Summary:	Placer						
Lat/Long:	38.80228 / -121.11592				Accuracy:	1/5 mile	
UTM:	Zone-10 N4296522 E663605				Elevation (ft):	640	
PLSS:	T11N, R08E, Sec. 17 (M)				Acres:	0.0	
Location:	STERLING POINTE ESTATES, END OF LOMIDA LANE, ~0.8 MILE EAST OF ALBURN-FOLSOM ROAD, LOOMIS.						
Detailed Location:	LOT 1 IS A 1.84 ACRE ELDERBERRY MITIGATION AREA.						
Ecological:	ELDERBERRY WITH LIVE OAK. ELDERBERRY SEEDLINGS AND OTHER NATIVE TREE SEEDLINGS ARE TO BE PLANTED TO INSURE A SURVIVAL RATE OF 80% AT THE END OF 10 YEARS.						
General:	4 EMERGENCE HOLES OBSERVED 1993; 3 IN 1994; 2 IN 1995; 2 IN 1996; 1 IN 1997; 3 IN 1999; 2 ON SAME ELDERBERRY IN BOTH 2001 & 2002; NO OBSERVED ADULTS NOTED.						
Owner/Manager:	UNKNOWN						

Occurrence No.	169	Map Index:	39545	EO Index:	34547	Element Last Seen:	1999-06-29
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1999-06-29
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2000-05-03
Quad Summary:	Clarksville (3812161), Folsom (3812162)						
County Summary:	Sacramento						
Lat/Long:	38.67053 / -121.12783				Accuracy:	specific area	
UTM:	Zone-10 N4281879 E662870				Elevation (ft):	340	
PLSS:	T09N, R08E, Sec. 05 (M)				Acres:	13.9	
Location:	WILLOW CREEK, 0.1 MILE WEST OF PREWETT DRIVE, FOLSOM.						
Detailed Location:	FOUND IN AREA "E" AND JUST EAST OF AREA "H" IN THE LAKE NATOMA SHORES VELB MITIGATION MONITORING PROJECT AREA. ALSO THE LEXINGTON HILLS PRESERVE SITE.						
Ecological:	ELDERBERRY AND ASSOCIATED NATIVE HABITAT.						
General:	1 EXIT HOLE OBSERVED IN 1994, NO CHANGE 1995. 2 PLANTS WITH NEW EXIT HOLES JUST OUTSIDE MONITORING AREA, 1996. 16 PLANTS WITH NEW EXIT HOLES & 1 ADULT, 1999. SAME AREA, 1997. EXIT HOLES IN PRESERVE, 1999.						
Owner/Manager:	UNKNOWN						



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Occurrence No.	170	Map Index:	39550	EO Index:	34552	Element Last Seen:	1992-XX-XX
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1999-06-15
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2000-05-02
Quad Summary:	Folsom (3812162)						
County Summary:	Placer						
Lat/Long:	38.72227 / -121.19342				Accuracy:	specific area	
UTM:	Zone-10 N4287506 E657050				Elevation (ft):	300	
PLSS:	T10N, R07E, Sec. 15 (M)				Acres:	32.8	
Location:	LINDA CREEK, GRANITE BAY GOLF CLUB, SOUTH OF EAST ROSEVILLE PARKWAY AND EAST OF BARTON ROAD.						
Detailed Location:	SEVERAL PLANTS IN RIPARIAN CORRIDOR OF LINDA CREEK, OTHERS WERE MOVED TO ONSITE MITIGATION AREA ABOUT IN THE MIDDLE OF THE PROPERTY.						
Ecological:	RIPARIAN, OPEN OAK WOODLAND. SITE IS BEING DEVELOPED AS A GOLF COURSE. SOME AREAS WILL REMAIN IN OPEN SPACE AND A VELB COMPENSATION AREA IS BEING CREATED FOR MITIGATION. IN 1997 69 OF THE 86 PLANTED ELDERBERRIES HAD SURVIVED.						
General:	20 ELDERBERRIES, 8 WITH EXIT HOLES OBSERVED IN 1991 & 1992. SOME BUSHES TRANSPLANTED TO COMPENSATION AREA & ADDITIONAL SEEDLINGS PLANTED. YEARLY SURVEYS CONDUCTED 1993-1999 BUT NO ADULTS OR NEW EXIT HOLES OBSERVED.						
Owner/Manager:	PVT						
Occurrence No.	188	Map Index:	45079	EO Index:	45079	Element Last Seen:	2000-01-24
Occ. Rank:	Poor			Presence:	Presumed Extant	Site Last Seen:	2000-01-24
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2001-03-13
Quad Summary:	Buffalo Creek (3812152)						
County Summary:	Sacramento						
Lat/Long:	38.61857 / -121.24886				Accuracy:	80 meters	
UTM:	Zone-10 N4275904 E652450				Elevation (ft):	125	
PLSS:	T09N, R07E, Sec. 19 (M)				Acres:	0.0	
Location:	SOUTH SIDE OF BUFFALO CREEK DRAINAGE CANAL, ON THE NORTH SIDE OF HIGHWAY 50, EAST EDGE OF SACRAMENTO.						
Detailed Location:	FOUND ALONG THE WEST EDGE OF THE RIGHT-OF-WAY FENCE.						
Ecological:	HABITAT CONSISTS OF A RIPARIAN CORRIDOR ALONG BUFFALO CREEK. CREEK HAS A MUD SUBSTRATE, WITH EMERGENT VEGETATION AND SAND BAR WILLOW IN ISOLATED STANDS. SURROUNDING AREA HAS BEEN EXTENSIVELY MODIFIED BY HYDRAULIC MINING.						
General:	3 OF 12 ELDERBERRY BUSHES FOUND TO CONTAIN EXIT HOLES ON 24 JAN 2000.						
Owner/Manager:	PVT						



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Occurrence No.	191	Map Index:	48761	EO Index:	48761	Element Last Seen:	1996-XX-XX
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1996-XX-XX
Occ. Type:	Transplant Outside of Native Hab./Range			Trend:	Unknown	Record Last Updated:	2002-09-10
Quad Summary:	Folsom (3812162)						
County Summary:	Sacramento						
Lat/Long:	38.65684 / -121.15625				Accuracy:	nonspecific area	
UTM:	Zone-10 N4280309 E660428				Elevation (ft):	300	
PLSS:	T09N, R07E, Sec. 01 (M)				Acres:	321.7	
Location:	PRAIRIE OAKS; SOUTH OF WILLOW CREEK, EAST OF PRAIRIE CITY ROAD AND 0.6 MILE NORTH OF HWY 50.						
Detailed Location:	3 MITIGATION AREAS (VILLAGES 5B, 2 AND 3) WITHIN PROJECT SITE.						
Ecological:	HABITAT CONSISTS OF A PRESERVE (9.47 ACRES) WITH 27 TRANSPLANTED ELDERBERRY SHRUBS (SAMBUCUS MEXICANA), 1,155 ELDERBERRY SEEDLINGS AND 462 OTHER ASSOCIATED TREE AND SHRUB SPECIES (BOX ELDER, FREMONT COTTONWOOD, WILLOW SPECIES, ETC.).						
General:	27 OF 29 EXISITNG ELDERBERRY SHRUBS (10 WITH EVIDENCE OF VELB) TRANSPLANTED TO MITIGATION AREAS. TRANSPLANTS DONE BETWEEN FALL OF 1995 & SPRING OF 1996. OF 730 ADDITIONAL ELDERBERRY MITIGATION PLANTINGS 94 ARE >5 FT IN HEIGHT, 231 2-5 FT.						
Owner/Manager:	UNKNOWN						
Occurrence No.	223	Map Index:	94702	EO Index:	95816	Element Last Seen:	2000-08-XX
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	2000-08-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2014-12-15
Quad Summary:	Buffalo Creek (3812152), Carmichael (3812153)						
County Summary:	Sacramento						
Lat/Long:	38.57722 / -121.22624				Accuracy:	specific area	
UTM:	Zone-10 N4271354 E654507				Elevation (ft):	175	
PLSS:	T08N, R07E, Sec. 05 (M)				Acres:	3801.0	
Location:	GENERAL AREA BETWEEN WHITE ROCK RD & DOUGLAS RD, APPROXIMATELY 0.1-3.0 MILES E OF SUNRISE BLVD, E OF RANCHO CORDOVA.						
Detailed Location:	PROPERTY NAME WAS THE RIO DEL ORO PROPERTY. SPECIFIC LOCATION OF SHRUBS NOT PROVIDED, THEREFORE OCCURRENCE WAS MAPPED TO PROJECT AREA BOUNDARY BASED ON PROVIDED MAPS.						
Ecological:	SHRUBS SHOWING EVIDENCE OF VELB WERE ASSOCIATED WITH RIAPRIAN HABITAT. SHRUBS IMPACTED BY DEVELOPMENT WERE PROPOSED FOR ON-SITE TRANSPLANTATION OR AVOIDENCE AS PART OF MITIGATION EFFORT.						
General:	42 SHRUBS WITH EXIT HOLES OBSERVED DURING SURVEYS CONDUCTED BETWEEN JUL-AUG 2000; A TOTAL OF 329 SHRUBS WERE DETECTED DURING SURVEYS.						
Owner/Manager:	PVT						



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Hydrochara rickseckeri

Element Code: IICOL5V010

Ricksecker's water scavenger beetle

Listing Status: **Federal:** None

CNDDDB Element Ranks: **Global:** G2?

State: None

State: S2?

Other:

Habitat: **General:** AQUATIC.

Micro: ☐

Occurrence No.	5	Map Index:	60652	EO Index:	60688	Element Last Seen:	1997-XX-XX
Occ. Rank:	Unknown	Presence:	Presumed Extant	Site Last Seen:	1997-XX-XX		
Occ. Type:	Natural/Native occurrence	Trend:	Unknown	Record Last Updated:	2005-03-29		

Quad Summary: Buffalo Creek (3812152), Carmichael (3812153)

County Summary: Sacramento

Lat/Long:	38.54508 / -121.26159	Accuracy:	specific area
UTM:	Zone-10 N4267728 E651496	Elevation (ft):	140
PLSS:	T08N, R06E, Sec. 13 (M)	Acres:	1605.4

Location: MATHER FIELD REGIONAL PARK.

Detailed Location: NO OTHER LOCATION INFORMATION GIVEN.

Ecological:

General: ONE SPECIMEN COLLECTED.

Owner/Manager: SAC COUNTY

Occurrence No.	10	Map Index:	60722	EO Index:	60758	Element Last Seen:	XXXX-XX-XX
Occ. Rank:	Unknown	Presence:	Presumed Extant	Site Last Seen:	XXXX-XX-XX		
Occ. Type:	Natural/Native occurrence	Trend:	Unknown	Record Last Updated:	2005-03-29		

Quad Summary: Clarksville (3812161)

County Summary: Sacramento

Lat/Long:	38.69379 / -121.11502	Accuracy:	nonspecific area
UTM:	Zone-10 N4284483 E663931	Elevation (ft):	390
PLSS:	T10N, R08E, Sec. 29 (M)	Acres:	125.9

Location: BLUE RAVINE, SOUTH OF MORMON ISLAND DAM, FOLSOM LAKE.

Detailed Location:

Ecological:

General: NO OTHER COLLECTION INFORMATION GIVEN.

Owner/Manager: UNKNOWN



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Andrena blennospermatis

Element Code: IIHYM35030

Blennosperma vernal pool andrenid bee

Listing Status: **Federal:** None

CNDDDB Element Ranks: **Global:** G2

State: None

State: S2

Other:

Habitat: **General:** THIS BEE IS OLIGOLECTIC ON VERNAL POOL BLENNOSPERMA.

Micro: BEES NEST IN THE UPLANDS AROUND VERNAL POOLS.

Occurrence No. 6 **Map Index:** 22872 **EO Index:** 59395 **Element Last Seen:** 19XX-XX-XX
Occ. Rank: Unknown **Presence:** Presumed Extant **Site Last Seen:** 19XX-XX-XX
Occ. Type: Natural/Native occurrence **Trend:** Unknown **Record Last Updated:** 2005-01-14

Quad Summary: Clarksville (3812161)

County Summary: El Dorado

Lat/Long: 38.67978 / -121.02259 **Accuracy:** 2/5 mile
UTM: Zone-10 N4283097 E672004 **Elevation (ft):** 1235
PLSS: T10N, R09E, Sec. 31 (M) **Acres:** 0.0

Location: BASS LAKE, 6 MILES WSW RESCUE.

Detailed Location:

Ecological: THIS SPECIES IS OLIGOLECTIC ON VERNAL POOL FLOWERS, ESP. BLENNOSPERMA.

General: NO ADDITIONAL COLLECTING DATA GIVEN.

Owner/Manager: EL DORADO IRRIGATION DISTRICT

Cosumnoperla hypocrena

Element Code: IIPLE23020

Cosumnes stripetail

Listing Status: **Federal:** None

CNDDDB Element Ranks: **Global:** G2

State: None

State: S2

Other:

Habitat: **General:** FOUND IN INTERMITTENT STREAMS ON WESTERN SLOPE OF CENTRAL SIERRA NEVADA FOOTHILLS IN AMERICAN & COSUMNES RIVER BASINS.

Micro: ☐

Occurrence No. 3 **Map Index:** 87172 **EO Index:** 88137 **Element Last Seen:** 1988-03-06
Occ. Rank: Unknown **Presence:** Presumed Extant **Site Last Seen:** 1988-03-06
Occ. Type: Natural/Native occurrence **Trend:** Unknown **Record Last Updated:** 2012-11-06

Quad Summary: Pilot Hill (3812171)

County Summary: El Dorado

Lat/Long: 38.86838 / -121.02781 **Accuracy:** nonspecific area
UTM: Zone-10 N4304019 E671098 **Elevation (ft):** 1391
PLSS: T12N, R08E, Sec. 25 (M) **Acres:** 31.0

Location: UNNAMED TRIBUTARY TO KNICKERBOCKER CREEK, ABOUT 4 KM NW OF PILOT HILL, AUBURN STATE RECREATION AREA.

Detailed Location: COLLECTION FROM "UNNAMED TRIBUTARY TO KNICKERBOCKER CREEK (424 M), 4 KM NW OF PILOT HILL." MAPPED TO GENERAL AREA DESCRIBED.

Ecological:

General: 20 LARVAE COLLECTED 6-7 FEB AND 1 LARVA COLLECTED 6 MAR 1988. COLLECTION BY R.L. BOTTORFF.

Owner/Manager: DPR-AUBURN SRA



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Occurrence No.	5	Map Index:	87175	EO Index:	88139	Element Last Seen:	1989-02-26
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1989-02-26
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2012-11-06
Quad Summary:	Coloma (3812078), Pilot Hill (3812171)						
County Summary:	El Dorado						
Lat/Long:	38.83115 / -120.99816				Accuracy:	nonspecific area	
UTM:	Zone-10 N4299944 E673761				Elevation (ft):	984	
PLSS:	T11N, R09E, Sec. 05 (M)				Acres:	74.0	
Location:	BLUE TENT CREEK & UNNAMED TRIBUTARY ABOUT 1 KM SE OF PILOT HILL.						
Detailed Location:	COLLECTION AT "BLUE TENT CREEK AND UNNAMED TRIBUTARY (300 M), 1 KM SE OF PILOT HILL." MAPPED TO GENERAL AREA DESCRIBED.						
Ecological:							
General:	2 LARVAE COLLECTED 18 FEB & 5 LARVAE COLLECTED 26 FEB 1989 BY R.L. BOTORFF.						
Owner/Manager:	UNKNOWN						
Occurrence No.	10	Map Index:	87221	EO Index:	88187	Element Last Seen:	1988-04-02
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1988-04-02
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2012-11-08
Quad Summary:	Pilot Hill (3812171)						
County Summary:	El Dorado						
Lat/Long:	38.83388 / -121.04983				Accuracy:	nonspecific area	
UTM:	Zone-10 N4300149 E669269				Elevation (ft):	961	
PLSS:	T11N, R08E, Sec. 02 (M)				Acres:	37.0	
Location:	COOPER CANYON CREEK ABOUT 3 KM WEST OF PILOT HILL.						
Detailed Location:	COLLECTION AT "COOPER CANYON CREEK (293 M), 3 KM W OF PILOT HILL. MAPPED TO GENERAL AREA DESCRIBED.						
Ecological:							
General:	4 LARVAE COLLECTED 2 APR 1988 BY R.L. BOTORFF.						
Owner/Manager:	UNKNOWN						
Occurrence No.	11	Map Index:	87222	EO Index:	88188	Element Last Seen:	1998-03-29
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1998-03-29
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2012-11-08
Quad Summary:	Pilot Hill (3812171)						
County Summary:	El Dorado						
Lat/Long:	38.85841 / -121.04251				Accuracy:	nonspecific area	
UTM:	Zone-10 N4302885 E669846				Elevation (ft):	1352	
PLSS:	T12N, R08E, Sec. 25 (M)				Acres:	22.0	
Location:	UNNAMED TRIBUTARY TO NORTH FORK AMERICAN RIVER, ABOUT 4 KM NW OF PILOT HILL, AUBURN STATE RECREATION AREA.						
Detailed Location:	COLLECTION AT "UNNAMED TRIBUTARY TO NORTH FORK AMERICAN RIVER (412 M), 4 KM NW OF PILOT HILL." MAPPED TO GENERAL AREA DESCRIBED.						
Ecological:							
General:	1 LARVA COLLECTED 29 MAR 1998 BY R.L. BOTORFF.						
Owner/Manager:	BOR-AUBURN SRA						



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Banksia californica

Element Code: ILARA14020

Alabaster Cave harvestman

Listing Status: **Federal:** None

CNDDDB Element Ranks: **Global:** GH

State: None

State: SH

Other:

Habitat: **General:** KNOWN ONLY FROM THE TYPE LOCALITY, ALABASTER CAVE, EL DORADO COUNTY.

Micro: THE TYPE LOCALITY HAS BEEN PARTLY DESTROYED BY MINING AND THE SPECIES MAY BE EXTINCT.

Occurrence No. 1 **Map Index:** 58628 **EO Index:** 58664 **Element Last Seen:** XXXX-XX-XX
Occ. Rank: None **Presence:** Possibly Extirpated **Site Last Seen:** XXXX-XX-XX
Occ. Type: Natural/Native occurrence **Trend:** Unknown **Record Last Updated:** 2004-12-15

Quad Summary: Pilot Hill (3812171)

County Summary: El Dorado

Lat/Long: 38.81003 / -121.07538 **Accuracy:** 2/5 mile
UTM: Zone-10 N4297455 E667107 **Elevation (ft):** 650
PLSS: T11N, R08E, Sec. 15 (M) **Acres:** 0.0

Location: ALABASTER CAVE, 5.5 MILES WEST OF PILOT HILL ALONGSIDE RATTLESNAKE BAR RD.

Detailed Location:

Ecological: SPECIES WAS DESCRIBED BY BANKS IN 1900 & IS KNOWN ONLY FROM ALABASTER CAVE, WHICH HAS SINCE BEEN PARTIALLY DESTROYED BY MINING & VANDALISM; REMAINING PORTIONS HAVE BEEN SEALED OFF WITH CONCRETE, SO SPECIES MAY NOT EXIST HERE ANYMORE.

General: LECTOTYPE MALE AND PARALECTOTYPE FEMALE COLLECTED BY MARX AND DEPOSITED AT THE MUSEUM OF COMPARATIVE ZOOLOGY, HARVARD.

Owner/Manager: UNKNOWN

Eryngium pinnatisectum

Element Code: PDAPI0Z0P0

Tuolumne button-celery

Listing Status: **Federal:** None

CNDDDB Element Ranks: **Global:** G2

State: None

State: S2

Other: Rare Plant Rank - 1B.2

Habitat: **General:** VERNAL POOLS, CISMONTANE WOODLAND, LOWER MONTANE CONIFEROUS FOREST.

Micro: VOLCANIC SOILS; VERNAL POOLS AND MESIC SITES WITHIN OTHER NATURAL COMMUNITIES. 250-450M.

Occurrence No. 17 **Map Index:** 57565 **EO Index:** 57581 **Element Last Seen:** 1941-06-01
Occ. Rank: Unknown **Presence:** Presumed Extant **Site Last Seen:** 1941-06-01
Occ. Type: Natural/Native occurrence **Trend:** Unknown **Record Last Updated:** 2004-10-21

Quad Summary: Carbondale (3812141), Folsom SE (3812151)

County Summary: Amador, Sacramento

Lat/Long: 38.50001 / -121.04407 **Accuracy:** 1 mile
UTM: Zone-10 N4263107 E670559 **Elevation (ft):**
PLSS: T08N, R08E, Sec. 36 (M) **Acres:** 0.0

Location: MICHIGAN BAR JUST EAST OF SACRAMENTO.

Detailed Location: EXACT LOCATION UNKNOWN. MAPPED AS BEST GUESS BY CNDDDB IN VICINITY OF MICHIGAN BAR.

Ecological:

General: ONLY SOURCE OF INFORMATION FOR THIS OCCURRENCE IS A 1941 COLLECTION BY HOOVER. NEEDS FIELDWORK.

Owner/Manager: UNKNOWN



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Balsamorhiza macrolepis

Element Code: PDAST11061

big-scale balsamroot

Listing Status: **Federal:** None **CNDDB Element Ranks:** **Global:** G2
State: None **State:** S2
Other: Rare Plant Rank - 1B.2, BLM_S-Sensitive, USFS_S-Sensitive
Habitat: **General:** CHAPARRAL, VALLEY AND FOOTHILL GRASSLAND, CISMONTANE WOODLAND.
Micro: SOMETIMES ON SERPENTINE. 90-1555 M.

Occurrence No. 14 **Map Index:** 37777 **EO Index:** 32784 **Element Last Seen:** XXXX-XX-XX
Occ. Rank: None **Presence:** Possibly Extirpated **Site Last Seen:** XXXX-XX-XX
Occ. Type: Natural/Native occurrence **Trend:** Unknown **Record Last Updated:** 1997-12-29

Quad Summary: Pilot Hill (3812171)

County Summary: El Dorado, Placer

Lat/Long: 38.82507 / -121.09660 **Accuracy:** 1 mile
UTM: Zone-10 N4299085 E665230 **Elevation (ft):** 600
PLSS: T11N, R08E, Sec. 09 (M) **Acres:** 0.0

Location: RATTLESNAKE BEND, PLACER COUNTY.

Detailed Location: UNABLE TO LOCATE "RATTLESNAKE BEND". OCCURRENCE MAPPED AT SITE OF HISTORICAL RATTLESNAKE BAR ALONG THE NORTH FORK AMERICAN RIVER. THIS SITE WAS INUNDATED BY FOLSOM LAKE.

Ecological:

General: ONLY SOURCE OF INFORMATION FOR THIS SITE IN UNDATED COLLECTION BY A. KING. NEEDS FIELDWORK.

Owner/Manager: UNKNOWN

Packera layneae

Element Code: PDAST8H1V0

Layne's ragwort

Listing Status: **Federal:** Threatened **CNDDB Element Ranks:** **Global:** G2
State: Rare **State:** S2
Other: Rare Plant Rank - 1B.2, SB_RSABG-Rancho Santa Ana Botanic Garden
Habitat: **General:** CHAPARRAL, CISMONTANE WOODLAND.
Micro: ULTRAMAFIC SOIL; OCCASIONALLY ALONG STREAMS. 200-1000 M.



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Occurrence No.	1	Map Index:	12249	EO Index:	17312	Element Last Seen:	2007-07-26
Occ. Rank:	Excellent			Presence:	Presumed Extant	Site Last Seen:	2007-07-26
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2010-06-09
Quad Summary:	Shingle Springs (3812068)						
County Summary:	El Dorado						
Lat/Long:	38.71878 / -120.99042				Accuracy:	specific area	
UTM:	Zone-10 N4287487 E674707				Elevation (ft):	1800	
PLSS:	T10N, R09E, Sec. 16 (M)				Acres:	95.0	
Location:	PINE HILL, ABOUT 2 MILES WNW OF RESCUE, NORTHWEST OF SHINGLE SPRINGS.						
Detailed Location:	MAPPED BY CNDDB AS 10 POLYGONS TO ENCOMPASS INFO FROM A 1978 RAE MAP, 1984 ROYE MAP, 1986 WILSON MAP, 1998 NOSAL MAP, & 2009 GOGOL-PROKURAT DIG DATA. SEVERAL POPS MAPPED ALONG ACCESS RD UP THE HILL AND AROUND THE LOOKOUT AND RELAY STATIONS.						
Ecological:	GROWING ON RESCUE EXTREMELY STONY SANDY LOAM WITHIN NORTHERN MIXED CHAPARRAL. ASSOCIATES INCLUDE ADENOSTOMA FASCICULATUM, ARCTOSTAPYLOS VISCIDA, CEANOTHUS RODERICKII, FREMONTODENDRON DECUMBENS, WYETHIA RETICULATA, & SANICULA SP.						
General:	<1000 PLANTS SEEN IN 1978, <50 PLANTS SEEN IN 1984, UNKNOWN NUMBER IN 1986 & 1990, THOUSANDS OF PLANTS IN 1998, >200 IN 2007. COLLECTIONS FROM 1966, 1980, AND 1990 ALSO ATTRIBUTED HERE. INCLUDES FORMER OCCURRENCES 10 & 35.						
Owner/Manager:	DFG-PINE HILL ER, PVT						
Occurrence No.	2	Map Index:	12239	EO Index:	13943	Element Last Seen:	2008-06-24
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2008-06-24
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2013-02-12
Quad Summary:	Shingle Springs (3812068)						
County Summary:	El Dorado						
Lat/Long:	38.67382 / -120.96674				Accuracy:	specific area	
UTM:	Zone-10 N4282543 E676876				Elevation (ft):	1400	
PLSS:	T10N, R09E, Sec. 34 (M)				Acres:	327.0	
Location:	JUST E OF CAMERON AIRPORT TO ~2.5 AIR MI SE OF AIRPORT; E OF CAMERON PARK DR, W OF PONDEROSA RD, AND MOSTLY N OF HWY 50.						
Detailed Location:	MAPPED BY CNDDB AS 34 POLYGONS ACCORDING TO MAP INFORMATION FROM 1980S-2009. WITHIN W 1/2 SECTION 1, SECTION 2, N 1/2 SECTION 3, SW 1/4 SECTION 35, SECTION 34, AND SE 1/4 SECTION 28.						
Ecological:	GABBROIC MIXED CHAPARRAL. PACKERA IS IN BARREN AREAS AND ROAD CUTS. ASSOCIATED WITH ARCTOSTAPHYLOS VISCIDA, ADENOSTOMA FASCICULATUM, CEANOTHUS RODERICKII, HELIANTHEMUM SUFFRUTESCENS, WYETHIA RETICULATA, AND CHLOROGALUM GRANDIFLORUM, ETC.						
General:	POP NUMBERS FOR PORTIONS OF OCCURRENCE: UNK # <1981 & IN 1982, <150 IN '84, UNK # IN '85, 1000 IN '87, 500-1000 IN '90, 3 IN '92, UNK # IN '93, 107 IN '94, <25 IN 2005, 600 IN '06, 1000 IN '07, 9 IN '08. INCL FORMER OCCS 5-9, 23, 36, & 37.						
Owner/Manager:	PVT, EL DORADO IRR DIST, BLM						



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Occurrence No.	3	Map Index:	12257	EO Index:	16868	Element Last Seen:	1980-XX-XX
Occ. Rank:	Unknown	Presence:	Presumed Extant	Site Last Seen:	1980-XX-XX	Record Last Updated:	1989-08-11
Occ. Type:	Natural/Native occurrence	Trend:	Unknown				
Quad Summary:	Shingle Springs (3812068)						
County Summary:	El Dorado						
Lat/Long:	38.70156 / -120.98133			Accuracy:	1/5 mile		
UTM:	Zone-10 N4285593 E675540			Elevation (ft):	1400		
PLSS:	T10N, R09E, Sec. 22 (M)			Acres:	0.0		
Location:	W OF WHITE OAK FLATS ON S SIDE OF GREEN VALLEY RD.						
Detailed Location:							
Ecological:							
General:	ONLY SOURCE OF INFORMATION FOR THIS SITE IS A 1981 RAE MAP (BASED ON FIELD WORK FROM 1978-1980).						
Owner/Manager:	PVT						

Occurrence No.	4	Map Index:	12217	EO Index:	16871	Element Last Seen:	2006-07-08
Occ. Rank:	Fair	Presence:	Presumed Extant	Site Last Seen:	2006-07-08	Record Last Updated:	2007-07-23
Occ. Type:	Natural/Native occurrence	Trend:	Unknown				
Quad Summary:	Shingle Springs (3812068)						
County Summary:	El Dorado						
Lat/Long:	38.69761 / -120.96616			Accuracy:	1/10 mile		
UTM:	Zone-10 N4285184 E676868			Elevation (ft):	1400		
PLSS:	T10N, R09E, Sec. 27 (M)			Acres:	0.0		
Location:	SOUTH OF WHITE OAK FLAT.						
Detailed Location:	WEST OF OAK LANE. MAPPED IN NE1/4 OF NE1/4 SEC 27 AND ADJACENT SEC 26.						
Ecological:	CHAPARRAL ON GABBRO SOILS. ASSOCIATED WITH ADEONSTOMA FASCICULATUM, BACCHARIS PILULARIS, SALVIA SONOMENSIS. THE RARE WYETHIA RETICULATA AND GALIUM CALIFORNICUM SSP. SIERRAE ALSO OCCUR AT THIS SITE.						
General:	80 PLANTS OBSERVED IN 2006 BY WILLSON.						
Owner/Manager:	PVT						



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Occurrence No.	11	Map Index:	12376	EO Index:	11922	Element Last Seen:	2011-05-10
Occ. Rank:	Fair			Presence:	Presumed Extant	Site Last Seen:	2011-05-10
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2013-02-13
Quad Summary:	Shingle Springs (3812068)						
County Summary:	El Dorado						
Lat/Long:	38.65267 / -120.93538				Accuracy:	specific area	
UTM:	Zone-10 N4280257 E679657				Elevation (ft):	1450	
PLSS:	T09N, R09E, Sec. 12 (M)				Acres:	12.0	
Location:	NEAR JUNCTION OF RAILROAD TRACKS WITH S SHINGLE RD, APPROXIMATELY 0.8 MILE SOUTH OF US 50, SSW OF SHINGLE SPRINGS.						
Detailed Location:	MAPPED BY CNDDB AS 2 POLYGONS. WESTERN POLYGON BASED ON A 1981 RAE MAP. EASTERN POLYGON BASED ON 2011 BLACKBURN COORDINATES; PART OF POPULATION IS IN BACKYARD OF RESIDENCE ON MONARCH LANE.						
Ecological:	ASSOCIATED WITH PINUS SABINIANA, ARCTOSTAPHYLOS, CERCIS ORBICULATA, HETEROMELES ARBUTIFOLIA, CALOCHORTUS ALBUS, SALVIA SONOMENSIS, AND IRIS MACROSIPHON.						
General:	WESTERN POLYGON: BASED ON A 1981 RAE MAP (FROM 1978-1980 FIELD WORK), NO PLANTS OBSERVED IN A 2011 REVISIT. EASTERN POLYGON: 45 CLUMPS OBSERVED IN 2011 WITH "3 OTHER SMALL ISOLATED CLUMPS IDENTIFIED IN GENERAL AREA."						
Owner/Manager:	PVT						

Occurrence No.	12	Map Index:	12390	EO Index:	11920	Element Last Seen:	1980-XX-XX
Occ. Rank:	Poor			Presence:	Presumed Extant	Site Last Seen:	2011-04-29
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2013-02-19
Quad Summary:	Shingle Springs (3812068)						
County Summary:	El Dorado						
Lat/Long:	38.65802 / -120.93639				Accuracy:	80 meters	
UTM:	Zone-10 N4280848 E679556				Elevation (ft):	1480	
PLSS:	T09N, R09E, Sec. 01 (M)				Acres:	0.0	
Location:	0.5 MILE SOUTH OF HWY 50 ON SOUTH SHINGLE ROAD, SW OF SHINGLE SPRINGS.						
Detailed Location:							
Ecological:							
General:	ONLY SOURCE OF INFORMATION FOR THIS SITE IS A 1981 RAE MAP (BASED ON FIELD WORK FROM 1978-1980). NO PLANTS OBSERVED DURING A 2011 REVISIT. IS THIS SITE EXTIRPATED?						
Owner/Manager:	PVT						



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Occurrence No.	16	Map Index:	12131	EO Index:	16865	Element Last Seen:	1994-06-16
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	1994-06-16
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2007-07-10
Quad Summary:	Clarksville (3812161)						
County Summary:	El Dorado						
Lat/Long:	38.73977 / -121.03785				Accuracy:	specific area	
UTM:	Zone-10 N4289727 E670533				Elevation (ft):	880	
PLSS:	T10N, R09E, Sec. 07 (M)				Acres:	4.0	
Location:	ALONG THE SOUTH-FACING SLOPE BELOW THE SOUTH END OF A HIGH RIDGE NORTH OF CROCKER CREEK.						
Detailed Location:	A 1907 BRANDEGEE COLLECTION FROM "SWEETWATER CREEK" AND A 1939 CONSTANCE COLLECTION FROM "ABOVE SANDBAR IN FORKS OF SWEETWATER CREEK, 2 MILES ABOVE ITS MOUTH, SIERRA FOOTHILLS" ALSO ATTRIBUTED TO THIS SITE.						
Ecological:	ON RESCUE STONY LOAM SOILS, GROWING ON A STEEP SOUTH-FACING SLOPE IN OPENINGS OF A MODERATELY DENSE GABBROIC NORTHERN MIXED CHAPARRAL PLANT COMMUNITY. ASSOCIATES INCLUDE: ADENOSTOMA FASCICULATUM, ARCTOSTAPHYLOS VISCIDA SSP. VISCIDA, ETC.						
General:	50 PLANTS OBSERVED IN 1994.						
Owner/Manager:	PVT						

Occurrence No.	18	Map Index:	12197	EO Index:	7632	Element Last Seen:	2008-05-09
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2008-05-09
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2010-06-09
Quad Summary:	Shingle Springs (3812068), Clarksville (3812161)						
County Summary:	El Dorado						
Lat/Long:	38.68606 / -121.00365				Accuracy:	specific area	
UTM:	Zone-10 N4283831 E673635				Elevation (ft):	1340	
PLSS:	T10N, R09E, Sec. 29 (M)				Acres:	54.0	
Location:	JUST NE OF BASS LAKE, NEAR SHINGLE SPRINGS.						
Detailed Location:	MAPPED BY CNDDB AS 7 POLYGONS TO ENCOMPASS A 1982 TYLER MAP, A 1986 WILSON MAP, AND A 2007 & 2008 HUGHES MAP. IN 1985, TYLER MENTIONS THAT NUMBERS ARE INCREASING IN ERODED AREAS.						
Ecological:	ON RESCUE HEAVILY ERODED SOIL ASSOCIATED WITH ARCTOSTAPHYLOS PATULA, TOYON, AND SALVIA SONOMENSIS. WYETHIA RETICULATA ALSO AT THIS SITE. PACKERA LAYNEAE MORE DENSE IN CHAPARRAL OPENINGS. POPULATION BURNED IN FALL 1982 BUT RETURNED UNHARMED.						
General:	<50 PLANTS IN 1982, UNK # IN 1986. PORTION OF POLY AT JUNCTION OF SEC 28, 29, 32 & 33 WAS LIKELY EXTIRP BY RD IMPROV. ~3550 PLANTS IN 2007 IN W-MOST POLY, 1280 PLANTS IN 2008 IN OBLONG POLY IN E1/2 OF SEC 32. INCL FORMER OCC 19, 20, 21, 22.						
Owner/Manager:	PVT						



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Occurrence No.	27	Map Index:	12415	EO Index:	16854	Element Last Seen:	1984-03-XX
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1984-03-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2008-11-26
Quad Summary:	Shingle Springs (3812068), Coloma (3812078)						
County Summary:	El Dorado						
Lat/Long:	38.74737 / -120.93223				Accuracy:	1/5 mile	
UTM:	Zone-10 N4290773 E679694				Elevation (ft):	1000	
PLSS:	T10N, R09E, Sec. 01 (M)				Acres:	0.0	
Location:	EAST SIDE OF LOTUS RD NORTH OF BRIDGE, APPROX 2.0 AIRMI W OF FUNNY BUG MINE.						
Detailed Location:	GROWING IN CUTBANK ON THE E SIDE OF LOTUS RD; "CROSS BRIDGE GOING N AND LOOK TO RIGHT." MAPPED BY CNDDB AS BEST GUESS AT THE INTERSECTION OF LOTUS RD & CREEK IN THE SE1/4 OF SECTION 1.						
Ecological:	THIN SERPENTINE SOIL OVER SERPENTINE ROCK ON CUT ROAD BANK.						
General:	FEWER THAN 50 PLANTS SEEN IN 1984. NEEDS FIELDWORK.						
Owner/Manager:	PVT						
Occurrence No.	29	Map Index:	12208	EO Index:	8132	Element Last Seen:	1984-XX-XX
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1984-XX-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	1993-02-19
Quad Summary:	Pilot Hill (3812171)						
County Summary:	El Dorado						
Lat/Long:	38.75679 / -121.00610				Accuracy:	specific area	
UTM:	Zone-10 N4291675 E673252				Elevation (ft):	960	
PLSS:	T11N, R09E, Sec. 32 (M)				Acres:	8.4	
Location:	SOUTH OF THE SOUTH FORK AMERICAN RIVER, NORTH OF WILDCAT CANYON, 0.4 AIRMI NORTH OF 1482 FT ELEVATION MARKER ON HILL.						
Detailed Location:							
Ecological:	ASSOCIATED WITH WYETHIA RETICULATA, HELIANTHEMUM SUFFRUTESCENS.						
General:	SEEN 1981-1984. LARGE POPULATION.						
Owner/Manager:	BLM-FOLSOM RA						
Occurrence No.	30	Map Index:	12172	EO Index:	8130	Element Last Seen:	1993-05-16
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	1993-05-16
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2007-07-19
Quad Summary:	Pilot Hill (3812171)						
County Summary:	El Dorado						
Lat/Long:	38.76712 / -121.02217				Accuracy:	80 meters	
UTM:	Zone-10 N4292791 E671831				Elevation (ft):	1120	
PLSS:	T11N, R09E, Sec. 31 (M)				Acres:	0.0	
Location:	SOUTH OF SOUTH FORK AMERICAN RIVER NEAR TOP OF RIDGE EAST OF SALMON FALLS ROAD CROSSING.						
Detailed Location:							
Ecological:	CHAPARRAL DOMINATED BY ARCTOSTAPHYLOS VISCIDA AND ADENOSTOMA FASCICULATUM. ASSOCIATED WITH CALYSTEGIA STEBBINSII. RESCUE SOIL SERIES.						
General:	LARGE POPULATION SEEN 1981-1984. POPULATION SIGHTED AGAIN IN 1987 DURING SURVEY FOR CALYSTEGIA STEBBINSII. SIZE AND SPECIFICS OF POPULATION ARE UNKNOWN. COLLECTED IN THIS VICINITY BY AYRES IN 1993.						
Owner/Manager:	PVT						



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Occurrence No.	31	Map Index:	12142	EO Index:	8115	Element Last Seen:	1984-XX-XX
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1984-XX-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	1993-02-19
Quad Summary:	Pilot Hill (3812171)						
County Summary:	El Dorado						
Lat/Long:	38.75659 / -121.03253				Accuracy:	80 meters	
UTM:	Zone-10 N4291604 E670956				Elevation (ft):	1100	
PLSS:	T11N, R08E, Sec. 36 (M)				Acres:	0.0	
Location:	SOUTH OF SOUTH FORK AMERICAN RIVER, EAST OF SALMON FALLS RD.						
Detailed Location:	MAPPED 0.5 AIRMILE NE OF 1361 FT ELEVATION MARK ON HILL.						
Ecological:							
General:	SEEN 1981-1984.						
Owner/Manager:	PVT						

Occurrence No.	32	Map Index:	12119	EO Index:	8120	Element Last Seen:	1984-XX-XX
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1984-XX-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	1993-02-19
Quad Summary:	Pilot Hill (3812171)						
County Summary:	El Dorado						
Lat/Long:	38.76419 / -121.04430				Accuracy:	80 meters	
UTM:	Zone-10 N4292425 E669915				Elevation (ft):	680	
PLSS:	T11N, R08E, Sec. 35 (M)				Acres:	0.0	
Location:	JUST W OF SALMON FALLS RD, 0.75 MI S OF BRIDGE OVER SOUTH FORK AMERICAN RIVER.						
Detailed Location:	MAPPED ON KNOLL TO THE NORTH OF DIRT ROAD WEST OF SALMON FALLS ROAD.						
Ecological:	SEVERAL OTHER SENSITIVE PLANTS IN THE AREA INCLUDING CALYSTEGIA STEBBINSII AND CEANOTHUS RODERICKII.						
General:	SEEN 1981-1984.						
Owner/Manager:	PVT						

Occurrence No.	33	Map Index:	22726	EO Index:	13781	Element Last Seen:	1986-05-01
Occ. Rank:	None			Presence:	Possibly Extirpated	Site Last Seen:	1986-05-01
Occ. Type:	Natural/Native occurrence			Trend:	Decreasing	Record Last Updated:	1993-02-01
Quad Summary:	Shingle Springs (3812068)						
County Summary:	El Dorado						
Lat/Long:	38.73698 / -120.93299				Accuracy:	specific area	
UTM:	Zone-10 N4289618 E679655				Elevation (ft):	1000	
PLSS:	T10N, R09E, Sec. 12 (M)				Acres:	9.3	
Location:	3 KM (2 MI) NNE OF RESCUE, EAST OF ROAD TO LOTUS AND SOUTH OF WEBER CREEK.						
Detailed Location:	EAST AND ADJACENT TO LOTUS ROAD, FROM 300 TO 500 METERS SOUTH OF WEBER CREEK.						
Ecological:	GROWING WITHIN SPARSE QUERCUS KELLOGGII-PINUS PONDEROSA CANOPY WITH A DENSE SHRUB/HERB UNDRESTORY ON PROTECTED NW SLOPE. P. LAYNEAE GROWING ON SERPENTINE AND ADJACENT NON-SERPENTINE SOILS ALONG OLD ROADCUT AND ON UNDISTURBED UNGRAZED AREA.						
General:	APPROX. 200 PLANTS SEEN PROIR TO DISTURBANCE. SOME HABITAT STILL REMAINS AT THE SITE. NEEDS FIELDWORK.						
Owner/Manager:	UNKNOWN						



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Occurrence No.	34	Map Index:	22719	EO Index:	8072	Element Last Seen:	2007-07-03
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2007-07-03
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2010-06-09
Quad Summary:	Shingle Springs (3812068)						
County Summary:	El Dorado						
Lat/Long:	38.72150 / -120.95941				Accuracy:	specific area	
UTM:	Zone-10 N4287848 E677396				Elevation (ft):	1520	
PLSS:	T10N, R09E, Sec. 14 (M)				Acres:	6.0	
Location:	NNW OF RESCUE, ABOUT 0.8 AIR MI NNW OF DEER VALLEY ROAD/GREEN VALLEY ROAD JUNCTION.						
Detailed Location:	GROWING ALONG EDGE OF SMUD/PG&E MAINTENANCE ROAD OFF TIFFANY HILL DRIVE. 5 COLONIES MAPPED IN THE WEST HALF OF SECTION 14 ACCORDING TO 2009 GOGOL-PROKURAT DIGITAL DATA.						
Ecological:	OPEN AREAS ALONG ROAD, SANDY CLAY SOIL, 10 DEG SLOPE. ASSOC WITH ARCTOSTAPHYLOS VISCIDA, ADENOSTOMA FASCICULATUM, SALVIA SONOMENSIS, SANICULA BIPINNATIFIDA, RHAMNUS ILICIFOLIA, POLYGALA CORNUTA, LEPECHINIA CALYCINA, WYETHIA RETICULATA, ETC.						
General:	UNKNOWN NUMBER OF PLANTS OBSERVED IN 1989. 43 PLANTS OBSERVED IN 2007.						
Owner/Manager:	BLM, PVT						

Occurrence No.	38	Map Index:	22131	EO Index:	8138	Element Last Seen:	2007-07-03
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2007-07-03
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2010-07-29
Quad Summary:	Clarksville (3812161)						
County Summary:	El Dorado						
Lat/Long:	38.71971 / -121.02751				Accuracy:	specific area	
UTM:	Zone-10 N4287520 E671480				Elevation (ft):	1180	
PLSS:	T10N, R09E, Sec. 18 (M)				Acres:	45.0	
Location:	MARTEL CREEK DRAINAGE, MOSTLY ON HILL (EL. 1381) SOUTH OF MARTEL CREEK, 2.5 MI NORTH OF BASS LAKE, NNE OF CLARKSVILLE.						
Detailed Location:	SEVERAL COLONIES SCATTERED NORTH AND SOUTH (MOSTLY SOUTH) OF MARTEL CREEK FROM ABOUT 0.8 TO 1.5 MILES UPSTREAM FROM CONFLUENCE WITH SWEETWATER CREEK. MOSTLY WITHIN THE EAST HALF OF SECTION 18.						
Ecological:	NORTHERN GABBROIC MIXED CHAPARRAL. ASSOCIATES INCLUDE SALVIA SONOMENSIS, WYETHIA RETICULATA, W. BOLANDERI, STYRAX OFFICINALIS, POLYGALA CORNUTA, CEANOTHUS LEMMONII, SWERTIA ALBICAULIS, NAVARRETIA FILICAULIS, ERIODICTYON CALIFORNICUM, ETC.						
General:	UNKNOWN NUMBER OF PLANTS SEEN IN 1986. 564 PLANTS COUNTED IN A PARTIAL SURVEY BUT >2500 ESTIMATED TO OCCUR AT THIS SITE IN 1993. 80 PLANTS OBSERVED IN NORTHERN COLONY IN 2007.						
Owner/Manager:	BLM, PVT						



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Occurrence No.	39	Map Index:	22741	EO Index:	8306	Element Last Seen:	1986-XX-XX
Occ. Rank:	Unknown	Presence:	Presumed Extant	Site Last Seen:	1986-XX-XX	Record Last Updated:	1993-02-19
Occ. Type:	Natural/Native occurrence	Trend:	Unknown				
Quad Summary:	Coloma (3812078)						
County Summary:	El Dorado						
Lat/Long:	38.81997 / -120.88014			Accuracy:	80 meters		
UTM:	Zone-10 N4298933 E684035			Elevation (ft):	1760		
PLSS:	T11N, R10E, Sec. 08 (M)			Acres:	0.0		
Location:	2 KM (1.5 MI) NORTH OF COLOMA, 1.3 KM (0.8 MI) NORTH OF MURPHY MOUNTAIN SUMMIT, JUST WEST OF ROAD.						
Detailed Location:							
Ecological:							
General:	MAP DETAIL IS ONLY SOURCE OF INFORMATION FOR THIS SITE; UNKNOWN NUMBER OF PLANTS SEEN IN 1986. NEEDS FIELDWORK.						
Owner/Manager:	UNKNOWN						

Occurrence No.	41	Map Index:	22764	EO Index:	8066	Element Last Seen:	2007-07-30
Occ. Rank:	Good	Presence:	Presumed Extant	Site Last Seen:	2007-07-30	Record Last Updated:	2008-11-26
Occ. Type:	Natural/Native occurrence	Trend:	Unknown				
Quad Summary:	Shingle Springs (3812068)						
County Summary:	El Dorado						
Lat/Long:	38.67813 / -120.95561			Accuracy:	specific area		
UTM:	Zone-10 N4283042 E677834			Elevation (ft):	1450		
PLSS:	T10N, R09E, Sec. 35 (M)			Acres:	4.0		
Location:	ON BOTH SIDES OF MEDER RD BETWEEN CARLSON DR AND SIERRAMA DR, CAMERON PARK.						
Detailed Location:	MAPPED BY CNDDB AS 4 POLYGONS ACCORDING TO A 1992 BAAD MAP & A 2007 WILLSON MAP.						
Ecological:	CHAPARRAL PLANT COMMUNITY ON GABBRO SOILS. ASSOCIATED WITH CEANOTHUS CUNEATUS, QUERCUS WISLIZENI, ARCTOSTAPHYLOS VISCIDA, ADENOSTOMA FASCICULATUM, CEANOTHUS RODERICKII, CHLOROGALUM GRANDIFLORUM, & WYETHIA RETICULATA.						
General:	3 S POLYS: ~350 PLANTS SEEN IN 1992. N-MOST POLY: 100S OF PLANTS SEEN IN 2007.						
Owner/Manager:	PVT						



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Occurrence No.	42	Map Index:	30123	EO Index:	5981	Element Last Seen:	2009-06-24
Occ. Rank:	Fair			Presence:	Presumed Extant	Site Last Seen:	2009-06-24
Occ. Type:	Natural/Native occurrence			Trend:	Decreasing	Record Last Updated:	2013-02-21
Quad Summary:	Shingle Springs (3812068)						
County Summary:	El Dorado						
Lat/Long:	38.64871 / -120.94923				Accuracy:	specific area	
UTM:	Zone-10 N4279790 E678462				Elevation (ft):	1400	
PLSS:	T09N, R09E, Sec. 11 (M)				Acres:	13.0	
Location:	WEST SIDE OF LAKEVIEW DRIVE, SOUTH OF DUROCK ROAD AND NORTH OF RAILROAD TRACKS, SHINGLE SPRINGS.						
Detailed Location:	MAPPED BY CNDDDB AS 3 POLYGONS TO ENCOMPASS INFORMATION FROM A 1993 WILLSON MAP, A 2006 WILLSON MAP, A 2008 WALKER MAP, AND A 2009 BOWER MAP.						
Ecological:	CHAPARRAL ON RESCUE SERIES SOILS. ASSOCIATED WITH ARCTOSTAPHYLOS VISCIDA, CEANOTHUS LEMMONII, ADENOSTOMA VISCIDA, A. FASCICULATUM, CERCIS OCCIDENTALIS, SALVIA SONOMENSIS, CHLOROGALUM GRANDIFLORUM, CALYSTEGIA STEBBINSII, CORDYLANTHUS, ETC.						
General:	NORTHERNMOST POLYGON: 8 COLONIES OBSERVED WITH 1-5 PLANTS AT EACH COLONY IN 1993. MIDDLE POLYGON: 125 PLANTS IN 1994, 75 PLANTS IN 2006. SOUTHERNMOST POLYGON: 43 PLANTS SEEN IN 2008, 36 PLANTS IN 2009.						
Owner/Manager:	PVT						

Occurrence No.	43	Map Index:	31483	EO Index:	4183	Element Last Seen:	2007-XX-XX
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2007-XX-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2010-07-26
Quad Summary:	Shingle Springs (3812068)						
County Summary:	El Dorado						
Lat/Long:	38.73001 / -120.99394				Accuracy:	specific area	
UTM:	Zone-10 N4288727 E674373				Elevation (ft):	1600	
PLSS:	T10N, R09E, Sec. 09 (M)				Acres:	13.0	
Location:	NORTH OF PINE HILL, 0.8 AIR MILE NNW OF LOOKOUT, BETWEEN SWEETWATER CREEK & MORMON RAVINE, NORTHWEST OF SHINGLE SPRINGS.						
Detailed Location:	MAPPED BY CNDDDB AS 5 POLYGONS ACCORDING TO A 1989 BAAD MAP, A 2003 BAAD MAP, AND 2009 GOGOL-PROKURAT DIGITAL DATA.						
Ecological:	PINE HILL GABBRO COMPLEX; CHAPARRAL AND OAK WOODLAND ON RESCUE SERIES SOILS. PLANTS FOUND IN OPENINGS IN CHAPARRAL. CHLOROGALUM GRANDIFLORUM OCCURS NEARBY.						
General:	S COLONY HAD 10 PLANTS IN 1989; MORE OCCUR TO THE SOUTH ACCORDING TO BAAD (1989). 50 PLANTS IN PARCEL CONTAINING 2 NORTHERN COLONIES IN 2000. 25 PLANTS IN EASTERNMOST POLYGON IN 2003. FEWER THAN 800 PLANTS OBSERVED IN 3 NW COLONIES IN 2007.						
Owner/Manager:	PVT, BLM						



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Occurrence No.	44	Map Index:	30669	EO Index:	13802	Element Last Seen:	2007-05-24
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2007-05-24
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2010-06-10
Quad Summary:	Shingle Springs (3812068)						
County Summary:	El Dorado						
Lat/Long:	38.67088 / -120.99393				Accuracy:	specific area	
UTM:	Zone-10 N4282164 E674518				Elevation (ft):	1400	
PLSS:	T10N, R09E, Sec. 33 (M)				Acres:	17.0	
Location:	VICINITY OF THE INTERSECTION OF WOODLEIGH LANE AND SURRY LANE, CAMERON PARK.						
Detailed Location:	MAPPED BY CNDDDB AS 3 POLYGONS. WESTERN POLYGON MAPPED ACCORDING TO A 2007 HUGHES MAP. MIDDLE POLYGON MAPPED ACCORDING TO 2009 GOGOL-PROKURAT DIGITAL DATA. EASTERN POLYGON MAPPED ACCORDING TO A 2006 HUGHES MAP.						
Ecological:	GABBROIC MIXED CHAPARRAL IN ASSOCIATION WITH HELIANTHEMUM SUFFRUTESCENS AND POSSIBLY CHLOROGALUM GRANDIFLORUM. PHRYNOSOMA CORONATUM FRONTALIS ALSO OCCURS IN WESTERN POLYGON.						
General:	WESTERN POLYGON: 262 PLANTS SEEN IN 2007. MIDDLE POLYGON: 400 PLANTS SEEN IN 1994, MORE THAN 500 PLANTS IN 2007. EASTERN POLYGON: 308 PLANTS SEEN IN 2006.						
Owner/Manager:	PVT, EL DORADO IRR DIST						

Occurrence No.	47	Map Index:	44952	EO Index:	44952	Element Last Seen:	2000-09-28
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	2000-09-28
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2001-02-20
Quad Summary:	Coloma (3812078)						
County Summary:	El Dorado						
Lat/Long:	38.78723 / -120.98366				Accuracy:	specific area	
UTM:	Zone-10 N4295096 E675128				Elevation (ft):	780	
PLSS:	T11N, R09E, Sec. 21 (M)				Acres:	1.7	
Location:	WEST SIDE OF CANYON OF SOUTH FORK OF AMERICAN RIVER, 0.35 MILE SOUTH OF CONFLUENCE WITH NORTON RAVINE, WSW OF COLOMA.						
Detailed Location:	ON BOTH SIDES OF ROAD (NOT ON TOPO MAP) ALONG SOUTH FORK AMERICAN RIVER FROM EQUESTRIAN WAY NORTHWEST & NORTH (UPSTREAM) TO NORTON RAVINE, APPROX 0.5 MILE SOUTH OF WHERE ROAD REACHES NORTON RAVINE. MAPPED AT CENTER OF SW 1/4 OF SECTION 21.						
Ecological:	GROWING ON SURFACE & CUT SLOPE OF DIRT ROAD IN TRANSITION OF CHAPARRAL TO PONDEROSA PINE FOREST. ASSOCIATES: QUERCUS WISLIZENI, PINUS PONDEROSA, ARCTOSTAPHYLOS VISCIDA, LUPINUS ALBIFRONS, & ERIOPHYLLUM LANATUM. AUBURN ROCKY SILT LOAM.						
General:	APPROXIMATELY 120 PLANTS SEEN IN 2000, IN AN AREA OF LESS THAN 0.1 ACRE. SITE IS DISTURBED BUT PLANTS APPEAR TO BE DOING FINE. THIS LAND IS A RELATIVELY NEW ACQUISITION BY BLM; A PLANNING PROCESS FOR THE AREA IS CURRENTLY UNDERWAY.						
Owner/Manager:	BLM						



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Occurrence No.	48	Map Index:	44955	EO Index:	44955	Element Last Seen:	1962-05-30
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1962-05-30
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2001-02-20
Quad Summary:	Coloma (3812078)						
County Summary:	El Dorado						
Lat/Long:	38.76881 / -120.92544			Accuracy:	2/5 mile		
UTM:	Zone-10 N4293165 E680231			Elevation (ft):	1500		
PLSS:	T11N, R09E, Sec. 36 (M)			Acres:	0.0		
Location:	2.8 MILES WEST OF GOLD HILL.						
Detailed Location:	EXACT LOCATION UNKNOWN. MAPPED AS BEST GUESS BY CNDDDB AT 2.8 MILES WEST OF GOLD HILL ALONG GOLD HILL ROAD IN VICINITY OF FOUR CORNERS. ELEVATION ON HERB LABEL GIVEN AS 1500'.						
Ecological:	HABITAT IN SERPENTINE.						
General:	ONLY SOURCE OF INFORMATION FOR THIS SITE IS 1962 COLLECTION BY BACIGALUPI & HECKARD. NEEDS FIELDWORK.						
Owner/Manager:	UNKNOWN						
Occurrence No.	51	Map Index:	69613	EO Index:	70386	Element Last Seen:	2007-XX-XX
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2007-XX-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2010-07-26
Quad Summary:	Shingle Springs (3812068)						
County Summary:	El Dorado						
Lat/Long:	38.73258 / -120.98011			Accuracy:	specific area		
UTM:	Zone-10 N4289039 E675569			Elevation (ft):	1400		
PLSS:	T10N, R09E, Sec. 10 (M)			Acres:	5.0		
Location:	UPPER PINCHEM CREEK DRAINAGE, SOUTH OF DEAR VALLEY ROAD, NNE OF PINE HILL.						
Detailed Location:	8 SCATTERED SMALL CLUSTERS MAPPED BY CNDDDB AS 6 POLYGONS IN THE SW 1/4 OF SECTION 10.						
Ecological:	DISTURBED AREAS IN GABBRO CHAPARRAL AND WOODLAND. FAIRLY LEVEL AREAS IN CHAPARRAL AND EDGE OF OAK WOODLAND THAT HAS BEEN RECENTLY CLEARED; ALSO ALONG EPHEMERAL STREAM COURSES. THE RARE WYETHIA RETICULATA IS FOUND NEAR THIS SITE.						
General:	100 PLANTS TOTAL OBSERVED IN 5 NORTHERN POLYGONS IN 2006. FEWER THAN 200 PLANTS OBSERVED IN SOUTHERN POLYGON IN 2007.						
Owner/Manager:	PVT						



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Occurrence No.	52	Map Index:	69621	EO Index:	70393	Element Last Seen:	1994-06-16
Occ. Rank:	Excellent			Presence:	Presumed Extant	Site Last Seen:	1994-06-16
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2007-07-10
Quad Summary:	Clarksville (3812161)						
County Summary:	El Dorado						
Lat/Long:	38.74622 / -121.03790				Accuracy:	specific area	
UTM:	Zone-10 N4290442 E670514				Elevation (ft):	1150	
PLSS:	T10N, R09E, Sec. 06 (M)				Acres:	2.0	
Location:	ALONG THE TOP THIRD OF A GENTLY SLOPING NORTH-TO-SOUTH DRAINAGE FLOWING INTO CROCKER CREEK, SWEETWATER CREEK DRAINAGE.						
Detailed Location:	MAPPED WITHIN THE SW 1/4 OF THE SW 1/4 OF SECTION 6.						
Ecological:	ON RESCUE STONY LOAM SOILS, GROWING AN A VERY GENTLY SLOPING SEASONAL DRAINAGE PASSING THROUGH A DENSE AREA OF GABRROIC NORTHERN MIXED CHAPARRAL PLANT COMMUNITY. ASSOCIATES: ADENOSTOMA FASCICULATUM, ARCTOSTAPHYLOS VISCIDA SSP. VISCIDA.						
General:	200 PLANTS OBSERVED IN 1994.						
Owner/Manager:	PVT						
Occurrence No.	53	Map Index:	69622	EO Index:	70394	Element Last Seen:	1994-05-10
Occ. Rank:	Fair			Presence:	Presumed Extant	Site Last Seen:	1994-05-10
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2007-07-23
Quad Summary:	Clarksville (3812161)						
County Summary:	El Dorado						
Lat/Long:	38.74257 / -121.02156				Accuracy:	specific area	
UTM:	Zone-10 N4290068 E671942				Elevation (ft):	1050	
PLSS:	T10N, R09E, Sec. 07 (M)				Acres:	1.0	
Location:	SOUTH OF CROCKER CREEK AND ADJACENT TO THE SOUTHERN END OF KANAKA VALLEY, SOUTHEAST OF MORMON HILL.						
Detailed Location:	AT THE WESTERN BASE OF A WEST FACING SLOPE. MAPPED WITHIN THE NE 1/4 OF THE NE 1/4 OF SECTION 7.						
Ecological:	ON SPARSELY VEGETATED RESCUE STONY LOAM SOILS, GROWING AT THE BASE OF A STEEP WEST-FACING SLOPE AT THE INTERFACE BETWEEN A MODERATELY DENSE GABBROIC NORTHERN MIXED CHAPARRAL PLANT COMMUNITY.						
General:	3 PLANTS OBSEVED BY CRAIG AND FRASER IN 1994.						
Owner/Manager:	PVT						



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Occurrence No.	58	Map Index:	73020	EO Index:	73938	Element Last Seen:	2005-08-11
Occ. Rank:	Poor			Presence:	Presumed Extant	Site Last Seen:	2005-08-11
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2008-12-01
Quad Summary:	Shingle Springs (3812068)						
County Summary:	El Dorado						
Lat/Long:	38.66399 / -120.93739				Accuracy:	specific area	
UTM:	Zone-10 N4281508 E679454				Elevation (ft):	1520	
PLSS:	T09N, R09E, Sec. 01 (M)				Acres:	7.0	
Location:	JUST E OF THE INTERSECTION OF PONDEROSA RD & SHINGLE RD, SHINGLE SPRINGS.						
Detailed Location:	ALONG SHINGLE ROAD. MAPPED ACCORDING TO A 1981 RAE MAP AND A 2005 WILLSON MAP.						
Ecological:	FOUND IN AN OPENING IN CALIFORNIA ANNUAL GRASSLAND ON GABBRO SOIL (RESCUE VERY STONY SANDY LOAM) ON A S-FACING SLOPE. ASSOCIATED WITH YELLOW STAR THISTLE (CENTAUREA SOLSTITIALIS), BROMUS SP., & CYNOSURUS ECHINATUS.						
General:	UNKNOWN NUMBER OF PLANTS SEEN SOMETIME BETWEEN 1978 & 1980. 24 PLANTS SEEN IN 2005.						
Owner/Manager:	PVT						

Occurrence No.	59	Map Index:	73021	EO Index:	73939	Element Last Seen:	2007-06-28
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2007-06-28
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2008-12-01
Quad Summary:	Shingle Springs (3812068)						
County Summary:	El Dorado						
Lat/Long:	38.71398 / -120.95343				Accuracy:	specific area	
UTM:	Zone-10 N4287025 E677935				Elevation (ft):	1200	
PLSS:	T10N, R09E, Sec. 23 (M)				Acres:	7.0	
Location:	W SIDE OF DEER VALLEY RD, SW OF THE INTERSECTION OF PENNY LANE & DEER VALLEY RD, N OF RESCUE.						
Detailed Location:	ALONG ROADCUTS AND OPENINGS IN CHAPARRAL. MAPPED BY CNDDDB ACCORDING TO A 2007 DURHAM MAP.						
Ecological:	GABBROIC NORTHERN MIXED CHAPARRAL AND CISMONTANE WOODLAND. ASSOCIATES INCLUDE ARCTOSTAPHYLOS VISCIDA, ADENOSTOMA FASCICULATUM, CEANOTHUS LEMMONII, QUERCUS WISLIZENI, & GALIUM CALIFORNICUM SSP. SIERRAE.						
General:	100S OF PLANTS SEEN IN 2007.						
Owner/Manager:	PVT						



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Occurrence No.	60	Map Index:	73022	EO Index:	73940	Element Last Seen:	2007-05-16
Occ. Rank:	Fair			Presence:	Presumed Extant	Site Last Seen:	2007-05-16
Occ. Type:	Natural/Native occurrence			Trend:	Decreasing	Record Last Updated:	2008-12-03
Quad Summary:	Shingle Springs (3812068)						
County Summary:	El Dorado						
Lat/Long:	38.68826 / -120.96255				Accuracy:	specific area	
UTM:	Zone-10 N4284153 E677205				Elevation (ft):	1600	
PLSS:	T10N, R09E, Sec. 26 (M)				Acres:	4.0	
Location:	ALONG DOS VISTAS DR, ~0.3 RD MI S OF THE INTERSECTION OF DOS VISTAS DR WITH NOBLECREST LANE, S OF WHITE OAK FLAT.						
Detailed Location:	MAPPED BY CNDDB ACCORDING TO 2007 DURHAM GPS COORDINATES. PARCEL CLEARED PRIOR TO SURVEY.						
Ecological:	GABBROIC NORTHERN MIXED CHAPARRAL AND CISMONTANE WOODLAND. ASSOCIATES INCLUDE SALVIA SONOMENSIS, GRASSES, HYPOCHAERIS SP., GRINDELIA SP., RHAMNUS TOMENTELLA, CALYSTEGIA STEBBINSII, WYETHIA RETICULATA, & POSSIBLY CHLOROGALUM GRANDIFLORUM.						
General:	~12 PLANTS SEEN IN 2007.						
Owner/Manager:	PVT						
Occurrence No.	61	Map Index:	73023	EO Index:	73941	Element Last Seen:	2007-03-26
Occ. Rank:	Fair			Presence:	Presumed Extant	Site Last Seen:	2007-03-26
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2008-12-01
Quad Summary:	Coloma (3812078)						
County Summary:	El Dorado						
Lat/Long:	38.76025 / -120.93939				Accuracy:	80 meters	
UTM:	Zone-10 N4292188 E679040				Elevation (ft):	1115	
PLSS:	T11N, R09E, Sec. 35 (M)				Acres:	0.0	
Location:	E SIDE OF SPRINGVALE RD JUST N OF THE SPILLWAY, NNW OF SPRINGVALE SCHOOL.						
Detailed Location:	MAPPED BY CNDDB ACCORDING TO A 2007 WILLSON MAP IN THE NW1/4 OF THE SE1/4 SEC 35.						
Ecological:	CHAPARRAL WITHIN MIXED OAK WOODLAND. ASSOCIATED WITH CEANOTHUS CUNEATUS ON SERPENTINE SOIL, SW ASPECT. CHLOROGALUM GRANDIFLORUM ALSO OCCURS AT THIS SITE.						
General:	300 PLANTS SEEN IN 2007.						
Owner/Manager:	PVT						
Occurrence No.	62	Map Index:	79428	EO Index:	80405	Element Last Seen:	2007-XX-XX
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	2007-XX-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2010-07-20
Quad Summary:	Clarksville (3812161)						
County Summary:	El Dorado						
Lat/Long:	38.72420 / -121.00401				Accuracy:	specific area	
UTM:	Zone-10 N4288063 E673512				Elevation (ft):	1400	
PLSS:	T10N, R09E, Sec. 17 (M)				Acres:	1.0	
Location:	NEAR JUNCTION OF SEAN SHELLY LANE WITH STARBUCK ROAD, ABOUT 0.8 AIR MILE WNW OF PINE HILL LOOKOUT.						
Detailed Location:	MAPPED IN THE SE 1/4 OF THE NE 1/4 OF SECTION 17.						
Ecological:							
General:	FEWER THAN 10 PLANTS OBSERVED IN 2007.						
Owner/Manager:	PVT						



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Wyethia reticulata

Element Code: PDAST9X0D0

El Dorado County mule ears

Listing Status: **Federal:** None **CNDDB Element Ranks:** **Global:** G2
State: None **State:** S2
Other: Rare Plant Rank - 1B.2, BLM_S-Sensitive, SB_RSABG-Rancho Santa Ana Botanic Garden
Habitat: **General:** CHAPARRAL, CISMONTANE WOODLAND, LOWER MONTANE CONIFEROUS FOREST.
Micro: STONY RED CLAY AND GABBROIC SOILS; OFTEN IN OPENINGS IN GABBRO CHAPARRAL. 185-630 M.

Occurrence No. 1 **Map Index:** 43031 **EO Index:** 4181 **Element Last Seen:** 2011-06-08
Occ. Rank: Good **Presence:** Presumed Extant **Site Last Seen:** 2011-06-08
Occ. Type: Natural/Native occurrence **Trend:** Unknown **Record Last Updated:** 2013-09-12

Quad Summary: Shingle Springs (3812068)

County Summary: El Dorado

Lat/Long: 38.67141 / -120.96729 **Accuracy:** specific area
UTM: Zone-10 N4282274 E676834 **Elevation (ft):** 1400
PLSS: T10N, R09E, Sec. 34 (M) **Acres:** 442.0

Location: BETWEEN SHINGLE SPRINGS AND CAMERON PARK ALONG BOTH SIDES OF HIGHWAY 50.

Detailed Location: MAPPED BY CNDDB AS 27 POLYGONS BASED ON MAP INFO FROM 1982-2009. LARGE POLYGON LIKELY CONTAINS MANY SMALL SCATTERED POPULATIONS.

Ecological: ON PINE HILL FORMATION GABBRO WITHIN OPENINGS IN CHAPARRAL. ASSOCIATED WITH ARCTOSTAPHYLOS VISCIDA, CEANOETHUS LEMONNII, C. RODERICKII, CERCIS, TOXICODENDRON, ADENOSTOMA, SALVIA SONOMENSIS, SENECIO LAYNEAE, CALYSTEGIA STEBBINSII, ETC.

General: POP #S ARE FOR PARTS OF EO, NO COMPLETE CENSUS PERFORMED: <100 PLANTS IN '82, SEEN IN '84-'87, 1000-1500 IN '92, 100S IN '98, 400+ IN '94, 20 IN '04, 1000S IN '05, >9000 IN '06, 100S IN '07, 900 IN '11. INCL FRMR EO #S 11, 12, 25, 30, & 31.

Owner/Manager: PVT, BLM

Occurrence No. 2 **Map Index:** 17012 **EO Index:** 16716 **Element Last Seen:** 2006-06-28
Occ. Rank: Fair **Presence:** Presumed Extant **Site Last Seen:** 2006-06-28
Occ. Type: Natural/Native occurrence **Trend:** Unknown **Record Last Updated:** 2007-07-26

Quad Summary: Shingle Springs (3812068)

County Summary: El Dorado

Lat/Long: 38.67194 / -120.98967 **Accuracy:** specific area
UTM: Zone-10 N4282290 E674886 **Elevation (ft):** 1200
PLSS: T10N, R09E, Sec. 33 (M) **Acres:** 9.0

Location: NEAR THE NORTHERN END OF CAMERON PARK COUNTRY CLUB, SHINGLE SPRINGS.

Detailed Location: TWO COLONIES IN THE SOUTH HALF OF THE SE 1/4 OF SECTION 33.

Ecological: GABBROIC NORTHERN MIXED CHAPARRAL.

General: EAST COLONY OBSERVED IN 1986. APPROXIMATELY 10,200 PLANTS OBSERVED IN WEST COLONY IN 2006. 1974 COLLECTION BY MCCASKILL AND TUCKER FROM "ROADCUT ON E SIDE OF COUNTRY CLUB ROAD, 0.9 MI N OF US HWY 50" ALSO ATTRIBUTED TO THIS OCCURRENCE.

Owner/Manager: UNKNOWN



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Occurrence No.	3	Map Index:	12256	EO Index:	16715	Element Last Seen:	2007-07-26
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2007-07-26
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2010-06-01
Quad Summary:	Shingle Springs (3812068)						
County Summary:	El Dorado						
Lat/Long:	38.73137 / -120.98102				Accuracy:	specific area	
UTM:	Zone-10 N4288902 E675493				Elevation (ft):	1500	
PLSS:	T10N, R09E, Sec. 10 (M)				Acres:	33.0	
Location:	RIDGE JUST NORTH OF SWEETWATER AND JAYHAWK CREEKS, ABOUT 1 MILE NORTH OF PINE HILL.						
Detailed Location:	MAPPED BY CNDDB AS 13 POLYGONS ACCORDING TO MAP INFORMATION FROM 1983, 1984, 1986, 2003, 2006, AND 2009. WITHIN THE SW 1/4 OF SEC 10 AND THE SE 1/4 OF SEC 9.						
Ecological:	IN YELLOW PINE FOREST, OAK WOODLAND, & MIXED CHAPARRAL ON PINE HILL GABBRO. IN OPEN DISTURBED AREAS SUCH AS FUEL BREAKS & ROAD CUTS. ALSO IN PARTIAL SHADE OF OAK WOODLAND. ASSOC INCL QUERCUS KELLOGGII, Q. WISLIZENI, PINUS PONDEROSA, ETC.						
General:	POPULATION NUMBERS ARE FOR VARIOUS PORTIONS OF THIS OCCURRENCE: ~20 PLANTS SEEN IN 1983, <50 IN 1984, UNKNOWN NUMBER IN 1986, 2460 PLANTS SEEN ON DIFILIPPO PROPERTY IN 2003, 5000 SHOOTS SEEN IN 2006. >2200 PLANTS SEEN IN 2007.						
Owner/Manager:	BLM, PVT						

Occurrence No.	4	Map Index:	44046	EO Index:	12225	Element Last Seen:	2007-07-26
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2007-07-26
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2010-06-01
Quad Summary:	Shingle Springs (3812068), Clarksville (3812161)						
County Summary:	El Dorado						
Lat/Long:	38.71926 / -120.99283				Accuracy:	specific area	
UTM:	Zone-10 N4287535 E674496				Elevation (ft):	2059	
PLSS:	T10N, R09E, Sec. 16 (M)				Acres:	134.0	
Location:	PINE HILL, ALONG ACCESS ROAD AND SCATTERED ON ALL SLOPES NEAR SUMMIT AND ON BURNED AREA.						
Detailed Location:	7 POLYGONS MAPPED WITHIN THE SOUTH HALF OF THE NE 1/4 OF SECTION 16, THE SOUTH HALF OF SECTION 16, AND THE NW 1/4 OF THE SW 1/4 OF SECTION 15.						
Ecological:	IN CHAPARRAL ON RESCUE SOILS WITH ADENOSTOMA, CEANOTHUS RODERICKII, AND FREMONTODENDRON DECUMBENS. WEST RIDGE BURNED IN 1983 AS PART OF RARE PLANT REGENERATION STUDY; FIRE STIMULATED SEED PRODUCTION AND INCREASED NUMBER OF SEEDLINGS.						
General:	OVER 1000 PLANTS SEEN IN 1985. UNKNOWN NUMBER SEEN IN 1986 AND 1997. THOUSANDS OF PLANTS SEEN IN 1998. UNKNOWN NUMBER SEEN IN 2005. 2007: 100S OF STEMS SEEN IN THE W-MOST POLY, 100S IN LARGE CENTRAL POLY.						
Owner/Manager:	BLM, DFG, PVT						



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Occurrence No.	5	Map Index:	12272	EO Index:	15207	Element Last Seen:	2007-05-16
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2007-05-16
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2008-11-17
Quad Summary:	Shingle Springs (3812068)						
County Summary:	El Dorado						
Lat/Long:	38.69769 / -120.96524				Accuracy:	specific area	
UTM:	Zone-10 N4285194 E676948				Elevation (ft):	1400	
PLSS:	T10N, R09E, Sec. 26 (M)				Acres:	174.0	
Location:	SOUTHWESTERN EDGE OF WHITE OAK FLAT.						
Detailed Location:	3 COLONIES. NW COLONY IS ALONG GREEN VALLEY ROAD. CENTER COLONY IS ALONG VALLEY VIEW ROAD. SE COLONY IS ALONG DOS VISTAS DRIVE / NOBLECREST LANE. MAPPED IN THE S1/2 OF SEC 22 AND THE W1/2 SEC 26.						
Ecological:	ON RESCUE SOILS IN CHAPARRAL WITH ARCTOSTAPHYLOS VISCIDA, ADENOSTOMA FASCICULATUM, SALVIA SONOMENSIS, QUERCUS WISLIZENI, & RHAMNUS SPP. ALSO ASSOCIATED WITH CALYSTEGIA STEBBINSII, PACKERA LAYNEAE, & PROBABLE CHLOROGALUM GRANDIFLORUM.						
General:	>10,000 PLANTS OBSERVED IN THE CENTER AND SE COLONIES IN 1984. NW-MOST COLONY SEEN IN 1983. 1000S OF PLANTS AT THE N END OF THE SE COLONY IN 2006. 100S OF STEMS AT THE S-MOST PART OF THE SE COLONY IN 2007. INCLUDES FORMER OCCURRENCE #6.						
Owner/Manager:	PVT						

Occurrence No.	7	Map Index:	12336	EO Index:	16717	Element Last Seen:	2007-08-06
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2007-08-06
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2010-06-01
Quad Summary:	Shingle Springs (3812068)						
County Summary:	El Dorado						
Lat/Long:	38.71810 / -120.95517				Accuracy:	specific area	
UTM:	Zone-10 N4287479 E677773				Elevation (ft):	1200	
PLSS:	T10N, R09E, Sec. 14 (M)				Acres:	51.0	
Location:	BOTH SIDES OF INTERSECTION OF GREEN VALLEY ROAD AND DEER VALLEY ROAD, TO ABOUT 1 AIR MILE NORTH AND NW OF INTERSECTION.						
Detailed Location:	MAPPED BY CNDDB AS 11 POLYGONS ACCORDING TO MAP INFORMATION FROM 1986, 2007, AND 2009. WITHIN THE NE 1/4 OF SEC 23 AND MOSTLY S1/2 OF SEC 14.						
Ecological:	GABBROIC NORTHERN MIXED CHAPARRAL AND CISMONTANE WOODLAND. ASSOCIATES INCLUDE QUERCUS WISLIZENI, ADENOSTOMA FASCICULATUM, ARCTOSTAPHYLOS VISCIDA, CERCIS OCCIDENTALIS, CEANOTHUS LEMMONII, LEPECHINIA CALYCINA, PACKERA LAYNEAE, ETC.						
General:	UNKNOWN NUMBER OF PLANTS SEEN IN 1986. UNKNOWN # IN THE NW1/4 OF THE SE1/4 OF SEC 14 IN 1989. UNKNOWN # IN 2005. 2007: >1000 STEMS SEEN IN 2ND SOUTHERNMOST COLONY, >3000 STEMS IN NORTHWEST COLONIES. INCLUDES FORMER EO #8, 9, & 23.						
Owner/Manager:	PVT, BLM						



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Occurrence No.	10	Map Index:	12305	EO Index:	16713	Element Last Seen:	1986-XX-XX
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1986-XX-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2013-09-12
Quad Summary:	Shingle Springs (3812068)						
County Summary:	El Dorado						
Lat/Long:	38.71002 / -120.96181				Accuracy:	80 meters	
UTM:	Zone-10 N4286570 E677216				Elevation (ft):	1320	
PLSS:	T10N, R09E, Sec. 23 (M)				Acres:	0.0	
Location:	WHITE OAK FLAT, NORTH SIDE OF GREEN VALLEY ROAD AND WHITE OAK CREEK, ABOUT 0. 5 AIR MILE WEST OF RESCUE.						
Detailed Location:	MAPPED NEAR THE CENTER OF THE NW 1/4 OF SECTION 23.						
Ecological:							
General:	UNKNOWN NUMBER OF PLANTS OBSERVED IN 1986. NEEDS FIELDWORK.						
Owner/Manager:	UNKNOWN						

Occurrence No.	13	Map Index:	12153	EO Index:	16710	Element Last Seen:	2006-06-24
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	2006-06-24
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2007-07-26
Quad Summary:	Clarksville (3812161)						
County Summary:	El Dorado						
Lat/Long:	38.71816 / -121.02400				Accuracy:	specific area	
UTM:	Zone-10 N4287355 E671789				Elevation (ft):	1100	
PLSS:	T10N, R09E, Sec. 18 (M)				Acres:	12.0	
Location:	1.9 AIR MILES WEST OF PINE HILL, BETWEEN MARTEL AND SWEETWATER CREEKS.						
Detailed Location:	FOUR COLONIES IN THE EASTERN HALF OF SECTION 18 AND THE NE 1/4 OF THE NE 1/4 OF SECTION 19.						
Ecological:	ON RESCUE STONY SANDY LOAM IN CHAPARRAL, MOIST AREAS NEAR CREEK. COMMON IN CLEARINGS WHERE THE CHAPARRAL HAD BEEN BULLDOZED.						
General:	UNKNOWN NUMBER OF PLANTS OBSERVED. THE THREE NORTHERN COLONIES WERE OBSERVED IN 1986. THE SOUTHERNMOST COLONY WAS OBSERVED IN 2006.						
Owner/Manager:	PVT						



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Occurrence No.	14	Map Index:	51653	EO Index:	51653	Element Last Seen:	2007-05-03
Occ. Rank:	Excellent			Presence:	Presumed Extant	Site Last Seen:	2007-05-03
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2013-09-12
Quad Summary:	Clarksville (3812161)						
County Summary:	El Dorado						
Lat/Long:	38.71185 / -121.01717				Accuracy:	80 meters	
UTM:	Zone-10 N4286667 E672398				Elevation (ft):	1200	
PLSS:	T10N, R09E, Sec. 20 (M)				Acres:	0.0	
Location:	SOUTHEAST SIDE OF SWEETWATER CREEK, APPROXIMATELY 1.5 AIR MILES WSW OF SUMMIT OF PINE HILL.						
Detailed Location:	MAPPED BY CNDDB ACCORDING TO MAP DETAIL PROVIDED BY HUGHES & FORBES IN 2007. A 1986 WILSON MAP PLACES THE PLANTS ~0.1 MI NE OF THE CURRENTLY MAPPED AREA; HOWEVER, HUGHES & FORBES DID NOT FIND ANY PLANTS THERE.						
Ecological:	MIXED OAK WOODLAND. NORTHERN ASPECT. COLONY IS UNDER OAK CANOPY BUT IN AREA WITH LITTLE SHRUB COVER.						
General:	UNKNOWN NUMBER OF PLANTS OBSERVED IN 1986. APPROXIMATELY 1426 PLANTS OBSERVED IN 2007.						
Owner/Manager:	PVT						
Occurrence No.	15	Map Index:	12126	EO Index:	7487	Element Last Seen:	1986-XX-XX
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1986-XX-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2007-07-26
Quad Summary:	Pilot Hill (3812171)						
County Summary:	El Dorado						
Lat/Long:	38.76701 / -121.04187				Accuracy:	specific area	
UTM:	Zone-10 N4292743 E670119				Elevation (ft):	680	
PLSS:	T11N, R08E, Sec. 36 (M)				Acres:	42.0	
Location:	SOUTH OF SOUTH FORK AMERICAN RIVER, WEST OF SALMON FALLS, ALONG SALMON FALLS ROAD AND 4WD ROAD.						
Detailed Location:	ABOUT 0.5 MILE SOUTH OF NATOMAS DIVERSION DAM. TWO COLONIES MAPPED MOSTLY WITHIN THE NW 1/4 OF SECTION 36 AND THE NE 1/4 OF SECTION 35.						
Ecological:							
General:	UNKNOWN NUMBER OF PLANTS SEEN BY WILSON IN 1986. INCLUDES FORMER OCCURRENCE #21.						
Owner/Manager:	UNKNOWN						



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Occurrence No.	16	Map Index:	12186	EO Index:	7479	Element Last Seen:	2007-XX-XX
Occ. Rank:	Excellent			Presence:	Presumed Extant	Site Last Seen:	2007-XX-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2010-07-19
Quad Summary:	Coloma (3812078), Pilot Hill (3812171)						
County Summary:	El Dorado						
Lat/Long:	38.76297 / -121.01916				Accuracy:	specific area	
UTM:	Zone-10 N4292337 E672101				Elevation (ft):	1000	
PLSS:	T11N, R09E, Sec. 31 (M)				Acres:	176.0	
Location:	BOTH SIDES OF SOUTH FORK AMERICAN RIVER, NEAR THE MOUTH OF WEBER CREEK.						
Detailed Location:	MAPPED BY CNDDB AS 25 POLYGONS IN SECTION 30, SECTION 31, W 1/2 OF SECTION 32, E 1/2 OF SECTION 36, N 1/2 OF SECTION 5, AND NW 1/4 OF SECTION 6.						
Ecological:	ON RESCUE SOILS IN CHAPARRAL. WITH ADENOSTOMA FASCICULATUM, ARCTOSTAPHYLOS VISCIDA, CEANOTHUS RODERICKII, ERIODICTYON CALIFORNICUM, HETEROMELES ARBUTIFOLIA, QUERCUS DURATA, SALVIA SONOMENSIS, CALYSTEGIA STEBBINSII, LOTUS SCOPARIUS, ETC.						
General:	SCATTERED INDIVIDUALS IN 1984. UNK NUMBER OF PLANTS SEEN IN 1986, 1987, 1989, 1990, 1992, & 1993. 100,000+ PLANTS IN 1994. >2500 IN NE COLONY IN 2006, 1000S IN 2007. INCL FORMER EO #17, 18, 19, 20, 26 & 35. ENTIRE AREA SHOULD BE PRESERVED.						
Owner/Manager:	PVT, DFG, BLM						

Occurrence No.	22	Map Index:	12118	EO Index:	7484	Element Last Seen:	2006-07-28
Occ. Rank:	Fair			Presence:	Presumed Extant	Site Last Seen:	2006-07-28
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2007-07-26
Quad Summary:	Pilot Hill (3812171)						
County Summary:	El Dorado						
Lat/Long:	38.75881 / -121.04498				Accuracy:	specific area	
UTM:	Zone-10 N4291827 E669868				Elevation (ft):	400	
PLSS:	T11N, R08E, Sec. 35 (M)				Acres:	22.0	
Location:	SOUTH OF SOUTH FORK AMERICAN RIVER, ON BOTH SIDES OF SALMON FALLS ROAD, 0.6 AIR MILE EAST OF CEMETERY.						
Detailed Location:	THREE COLONIES.						
Ecological:	GABBROIC NORTHERN MIXED CHAPARRAL.						
General:	UNKNOWN NUMBERS OF PLANTS OBSERVED ON THE EAST SIDE OF THE ROAD SOMETIME BETWEEN 1981 AND 1984, AS WELL AS IN 1986. APPROXIMATELY 780 PLANTS OBSERVED ON THE WEST SIDE OF THE ROAD IN 2006.						
Owner/Manager:	PVT						



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Occurrence No.	24	Map Index:	22727	EO Index:	20611	Element Last Seen:	1993-06-13
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1993-06-13
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2008-11-18
Quad Summary:	Shingle Springs (3812068)						
County Summary:	El Dorado						
Lat/Long:	38.69441 / -120.94870				Accuracy:	nonspecific area	
UTM:	Zone-10 N4284863 E678394				Elevation (ft):	1350	
PLSS:	T10N, R09E, Sec. 26 (M)				Acres:	28.0	
Location:	I KM (0.7 MILE) SOUTH OF RESCUE.						
Detailed Location:	2701 CARLSON DRIVE, SHINGLE SPRINGS. LOCATED IN THE EAST 1/2 OF THE NE 1/4 OF SECTION 26. MAPPED BY CNNDDB AROUND PROPERTY BOUNDARY; UNKNOWN WHERE PLANTS OCCUR WITHIN THIS AREA BUT MOST WERE FOUND ON THE SOUTH HALF OF THE PROPERTY.						
Ecological:	GROWING IN RESCUE VERY STONY SANDY LOAM SOILS ALONG AN ECOTONE BETWEEN OAK WOODLAND AND CHAPARRAL. OTHER RARE PLANTS AT THIS SITE INCLUDE GALIUM CALIFORNICUM SSP. SIERRAE, AND CEANOTHUS RODERICKII.						
General:	UNKNOWN NUMBER OF PLANTS SEEN IN 1992. MENTIONED AS COMMON IN UNDERSTORY AND DISTURBED AREAS ABOUT QUERCUS WISLIZENI WOODLAND IN 1993. RARE FLORA MAY BE PROTECTED ON SITE BY AGREEMENTS WITH PROPERTY OWNERS REGARDING LAND USE.						
Owner/Manager:	PVT						
Occurrence No.	27	Map Index:	72882	EO Index:	73778	Element Last Seen:	2007-XX-XX
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2007-XX-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2010-07-21
Quad Summary:	Shingle Springs (3812068), Clarksville (3812161)						
County Summary:	El Dorado						
Lat/Long:	38.73067 / -120.99562				Accuracy:	specific area	
UTM:	Zone-10 N4288796 E674226				Elevation (ft):	1600	
PLSS:	T10N, R09E, Sec. 09 (M)				Acres:	19.0	
Location:	ON EITHER SIDE OF FARVIEW DR ~0.2-0.6 RD MI FROM ITS INTERSECTION WITH STARBUCK RD, N OF SWEETWATER CREEK.						
Detailed Location:	SEVERAL COLONIES MAPPED BY CNDDDB AS 3 POLYGONS ON BOTH SIDES OF FARVIEW DR IN THE S 1/2 OF THE SW 1/4 OF SECTION 9.						
Ecological:	OAK WOODLAND OVERSTORY (DOMINATED BY QUERCUS KELLOGGII) W/ A THICK UNDERSTORY OF CHAPARRAL SHRUBS (DOMINATED BY WHITELEAF MANZANITA). GALIUM CALIFORNICUM SSP. SIERRAE, PACKERA LAYNEAE, CHLOROGALUM GRAND. ARE ALSO AT THIS SITE.						
General:	200+ INDIVIDUALS SEEN JUST N OF FARVIEW DR IN 1989. PLANTS OVER 1 ACRE IN THE N PART OF E POLYGON IN 2000. DOZENS OF PLANTS SEEN JUST S OF FARVIEW DR IN 2005. MORE THAN 2000 PLANTS OBSERVED IN 2007.						
Owner/Manager:	PVT, BLM						



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Occurrence No.	28	Map Index:	30664	EO Index:	12557	Element Last Seen:	2006-07-28
Occ. Rank:	Fair			Presence:	Presumed Extant	Site Last Seen:	2006-07-28
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2007-07-27
Quad Summary:	Shingle Springs (3812068)						
County Summary:	El Dorado						
Lat/Long:	38.65085 / -120.94917				Accuracy:	specific area	
UTM:	Zone-10 N4280028 E678462				Elevation (ft):	1400	
PLSS:	T09N, R09E, Sec. 11 (M)				Acres:	0.0	
Location:	JUST NE OF THE INTERSECTION OF DIVIDEND DRIVE AND BUSINESS DRIVE, SHINGLE SPRINGS.						
Detailed Location:	ABOUT 130 METERS NE OF THE INTERSECTION, JUST SOUTH OF DRAINAGE. IN THE SE 1/4 OF THE NE 1/4 OF SECTION 11.						
Ecological:	CHAPARRAL RECOVERING FROM GRADING SEVERAL YEARS PRIOR. ASSOCIATED WITH ARCTOSTAPHYLOS VISCIDA, SALVIA SONOMENSIS, HETEROMELES, CEANOTHUS LEMMONII, CERCIS, PINUS SABINIANA, CALYSTEGIA STEBBINSII, SENECIO LAYNEAE, & CHLOROGALUM GRANDIFLORUM.						
General:	200 PLANTS OBSERVED IN 1994. 5400 SQUARE FEET OF PLANTS OBSERVED IN 2006.						
Owner/Manager:	PVT						
Occurrence No.	29	Map Index:	30662	EO Index:	17066	Element Last Seen:	2008-06-24
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2008-06-24
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2009-01-26
Quad Summary:	Shingle Springs (3812068)						
County Summary:	El Dorado						
Lat/Long:	38.66683 / -120.94491				Accuracy:	specific area	
UTM:	Zone-10 N4281810 E678793				Elevation (ft):	1500	
PLSS:	T09N, R09E, Sec. 01 (M)				Acres:	6.0	
Location:	NORTHEAST OF TRAILER PARK ALONG WHISPERING PINES LANE, SHINGLE SPRINGS.						
Detailed Location:	S POLY MAPPED AROUND PROPERTY BOUNDARY ACCORDING TO A 1992 WILLSON MAP; UNSURE WHERE PLANTS OCCUR WITHIN THIS BOUNDARY. N POLY MAPPED ACCORDING TO A 1993 WILLSON MAP.						
Ecological:	CHAPARRAL AND OAK WOODLAND COMMUNITIES DOMINATED BY ARCTOSTAPHYLOS VISCIDA AND QUERCUS DOUGLASII WITH Q. WISLIZENI. ASSOCIATED WITH ERIODICTYON, CERCIS, SALVIA SONOMENSIS, RHAMNUS, ADENOSTOMA, ETC. SOILS ARE RESCUE SERIES, GABBRO ORIGIN.						
General:	3 COLONIES OBSERVED IN S POLY IN 1992. 3 COLONIES OBSERVED IN N POLY IN 1993, 8 IN 2008.						
Owner/Manager:	PVT						



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Occurrence No.	32	Map Index:	51648	EO Index:	51648	Element Last Seen:	2011-06-29
Occ. Rank:	Fair			Presence:	Presumed Extant	Site Last Seen:	2011-06-29
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2013-09-12
Quad Summary:	Shingle Springs (3812068)						
County Summary:	El Dorado						
Lat/Long:	38.65183 / -120.93782				Accuracy:	80 meters	
UTM:	Zone-10 N4280158 E679448				Elevation (ft):	1440	
PLSS:	T09N, R09E, Sec. 12 (M)				Acres:	0.0	
Location:	BETWEEN RAILROAD TRACKS AND MONARCH LANE, JUST EAST OF MONARCH LANE INTERSECTION WITH SHINGLE ROAD, SHINGLE SPRINGS.						
Detailed Location:	2 SITES REPRESENTED BY A SINGLE SET OF COORDINATES. WR1: ALONG PUBLIC WALKING TRAIL BETWEEN ABANDONED RR TRACKS AND MONARCH LANE. WR2: ALONG NORTH ROAD EDGE AT 4240 AND 4270 MONARCH LANE. MAPPED IN THE SW 1/4 OF THE NE 1/4 OF SECTION 12.						
Ecological:	BORDER BETWEEN CHAPARRAL AND CISMONTANE WOODLAND. ASSOCIATED WITH PINUS SABINIANA, ARCTOSTAPHYLOS SP., CERCIS ORBICULATA, HETEROMELES ARBUTIFOLIA, CALOCHORTUS ALBUS, SALVIA SONOMENSIS, IRIS MACROSIPHON, AND THE RARE PACKERA LAYNEAE.						
General:	UNKNOWN NUMBER OF PLANTS OBSERVED IN 1986. 800 STEMS OBSERVED IN 2011.						
Owner/Manager:	PVT, UNKNOWN						

Occurrence No.	33	Map Index:	51649	EO Index:	51649	Element Last Seen:	1986-XX-XX
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1986-XX-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2013-09-12
Quad Summary:	Shingle Springs (3812068)						
County Summary:	El Dorado						
Lat/Long:	38.70900 / -120.99740				Accuracy:	80 meters	
UTM:	Zone-10 N4286388 E674123				Elevation (ft):	1390	
PLSS:	T10N, R09E, Sec. 21 (M)				Acres:	0.0	
Location:	ABOUT 0.85 AIR MILE SSW OF PINE HILL LOOKOUT ALONG AN INTERMITTENT STREAM, NORTH OF SKINNERS AND SHINGLE SPRINGS.						
Detailed Location:	MAPPED IN THE SE 1/4 OF THE NW 1/4 OF SECTION 21.						
Ecological:							
General:	UNKNOWN NUMBER OF PLANTS OBSERVED IN 1986.						
Owner/Manager:	UNKNOWN						



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Occurrence No.	34	Map Index:	51651	EO Index:	51651	Element Last Seen:	1998-06-18
Occ. Rank:	Fair			Presence:	Presumed Extant	Site Last Seen:	1998-06-18
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2003-06-27
Quad Summary:	Clarksville (3812161)						
County Summary:	El Dorado						
Lat/Long:	38.70540 / -121.00257				Accuracy:	nonspecific area	
UTM:	Zone-10 N4285979 E673683				Elevation (ft):	1400	
PLSS:	T10N, R09E, Sec. 21 (M)				Acres:	9.0	
Location:	NORTHEAST CORNER OF INTERSECTION OF WINCHESTER DRIVE & STARBUCK ROAD, SOUTHWEST OF PINE HILL RESERVE, NE OF CLARKSVILLE.						
Detailed Location:	MAPPED ON THE EAST SIDE OF STARBUCK ROAD IN THE GENERAL VICINITY OF WINCHESTER DRIVE (NOT ON TOPO MAP). MAPPED WITHIN THE NW 1/4 OF THE SW 1/4 SECTION 21.						
Ecological:	FOOTHILL WOODLAND DOMINATED BY MIXED OAKS, GRASS UNDERSTORY. RESCUE VERY STONY SANDY LOAM SOIL. WESTERLY EXPOSURE, 5% SLOPE.						
General:	16 INDIVIDUAL PLANTS PLUS A 20 BY 30 FOOT PATCH OF PLANTS OBSERVED BY WILLSON IN 1999. ABUNDANT ANNUAL GRASSES MAKE THIS A LESS THAN IDEAL HABITAT FOR RARE PLANT PROLIFERATION.						
Owner/Manager:	PVT						
Occurrence No.	36	Map Index:	51655	EO Index:	51655	Element Last Seen:	1986-XX-XX
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1986-XX-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2003-06-27
Quad Summary:	Pilot Hill (3812171)						
County Summary:	El Dorado						
Lat/Long:	38.75150 / -121.04512				Accuracy:	80 meters	
UTM:	Zone-10 N4291015 E669873				Elevation (ft):	620	
PLSS:	T10N, R08E, Sec. 01 (M)				Acres:	0.0	
Location:	SOUTHEAST OF SALMON FALLS ROAD AT 90 DEGREE CURVE, SOUTH OF THE SOUTH FORK AMERICAN RIVER AND PILOT HILL.						
Detailed Location:	ON EAST SIDE OF ROAD ABOUT 0.1-0.2 MILE SOUTH OF TURNOFF TO SWEETWATER CREEK BRANCH OF FOLSOM LAKE. MAPPED NEAR THE CENTER OF THE NE 1/4 OF SECTION 1.						
Ecological:	ON GABBRO SOILS.						
General:	UNKNOWN NUMBER OF PLANTS OBSERVED IN 1986.						
Owner/Manager:	UNKNOWN						



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Occurrence No.	37	Map Index:	69696	EO Index:	70482	Element Last Seen:	2007-06-04
Occ. Rank:	Poor			Presence:	Presumed Extant	Site Last Seen:	2007-06-04
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2007-07-27
Quad Summary:	Shingle Springs (3812068)						
County Summary:	El Dorado						
Lat/Long:	38.69520 / -120.99480				Accuracy:	80 meters	
UTM:	Zone-10 N4284862 E674383				Elevation (ft):	1350	
PLSS:	T10N, R09E, Sec. 28 (M)				Acres:	0.0	
Location:	AT THE INTERSECTION OF CAMERON PARK DRIVE AND LA CANADA DRIVE IN CAMERON PARK.						
Detailed Location:	WITHIN A 15 TO 20 FOOT STRIP OF CHAPARRAL BETWEEN ROADWAY AND RESIDENTIAL FENCELINE AT TOP OF BANK OF ROADSIDE DITCH.						
Ecological:	SOILS MAPPED AS RESCUE VERY STONY SANDY LOAM SOILS. ASSOCIATED WITH CEANOTHUS LEMMONII, ERIODICTYON CALIFORNICUM, LOTUS PURSHIANUS, ADENOSTOMA FASCICULATUM, LEPECHINIA CALYCINA, AEGILOPS TRIUNCIALIS, AND PHALARIS AQUATICA.						
General:	70-75 PLANTS OBSERVED IN 2007.						
Owner/Manager:	ELD COUNTY						

Occurrence No.	38	Map Index:	72880	EO Index:	73758	Element Last Seen:	2007-05-25
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	2007-05-25
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2008-11-18
Quad Summary:	Clarksville (3812161)						
County Summary:	El Dorado						
Lat/Long:	38.74638 / -121.04582				Accuracy:	80 meters	
UTM:	Zone-10 N4290446 E669824				Elevation (ft):	530	
PLSS:	T10N, R08E, Sec. 01 (M)				Acres:	0.0	
Location:	ALONG DIRT ROAD ON E SIDE OF SWEETWATER CREEK, 0.6 KM S OF SALMON FALLS RD, W OF MORMON HILL.						
Detailed Location:	MAPPED ACCORDING TO COORDINATE INFORMATION FROM A 2007 JANEWAY & CASTRO HERBARIUM LABEL.						
Ecological:	ALONG BENCH ALONG THE CREEK; TRANSITION FROM CREEK INFLUENCE (INCLUDING QUERCUS WISLIZENI, PONDEROSA PINE) TO CHAPARRAL (CHAMISE-DOMINATED WITH Q. DUMOSA, CEANOTHUS, ARCTOSTAPHYLOS, SCATTERED GRAY PINE; SALVIA SONOMENSIS COMMON).						
General:	THIS PLANT OCCASIONALLY ABUNDANT WELL INTO THE CHAPARRAL HERE IN 2007.						
Owner/Manager:	UNKNOWN						



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Occurrence No.	39	Map Index:	72881	EO Index:	73759	Element Last Seen:	2007-04-19
Occ. Rank:	Excellent			Presence:	Presumed Extant	Site Last Seen:	2007-04-19
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2008-11-18
Quad Summary:	Clarksville (3812161)						
County Summary:	El Dorado						
Lat/Long:	38.69135 / -121.01229				Accuracy:	1/10 mile	
UTM:	Zone-10 N4284402 E672871				Elevation (ft):	1330	
PLSS:	T10N, R09E, Sec. 29 (M)				Acres:	0.0	
Location:	APPROXIMATELY 0.5 AIR MI SSW OF THE INTERSECTION OF GREEN VALLEY RD AND ALEXANDRITE DR, W OF SKINNERS.						
Detailed Location:	MAPPED ACCORDING TO A 2007 HUGHES MAP.						
Ecological:	GABBROIC NORTHERN MIXED CHAPARRAL. PACKERA LAYNEAE ALSO OCCURS AT THIS SITE.						
General:	~584 PLANTS SEEN IN 2007.						
Owner/Manager:	PVT						

Occurrence No.	40	Map Index:	78984	EO Index:	79942	Element Last Seen:	2007-08-06
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2007-08-06
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2010-06-01
Quad Summary:	Clarksville (3812161)						
County Summary:	El Dorado						
Lat/Long:	38.72327 / -121.03635				Accuracy:	specific area	
UTM:	Zone-10 N4287899 E670702				Elevation (ft):	867	
PLSS:	T10N, R09E, Sec. 18 (M)				Acres:	1.0	
Location:	BETWEEN SWEETWATER CREEK AND MARTEL CREEK, ABOUT 2.5 AIR MILES SOUTHEAST OF IRON MOUNTAIN.						
Detailed Location:	MAPPED IN THE SW 1/4 OF THE NW 1/4 OF SECTION 18 ACCORDING TO 2009 GOGOL-PROKURAT DIGITAL DATA.						
Ecological:	ABOVE DRY CREEKBED DOMINATED BY OAKS. SOIL IS GABBROIC CLAY LOAM. ASSOCIATED WITH QUERCUS WISLIZENI, Q. DURATA, ADENOSTOMA FASCICULATUM, STYRAX OFFICINALIS, ARCTOSTAPHYLOS VISCIDA, HETEROMELES ARBUTIFOLIA, LEPECHINIA CALYCINA, ETC.						
General:	500 STALKS OBSERVED IN 2007.						
Owner/Manager:	BLM						

Occurrence No.	42	Map Index:	90299	EO Index:	91338	Element Last Seen:	2011-04-19
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2011-04-19
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2013-09-12
Quad Summary:	Clarksville (3812161)						
County Summary:	El Dorado						
Lat/Long:	38.71444 / -121.00471				Accuracy:	80 meters	
UTM:	Zone-10 N4286978 E673475				Elevation (ft):	1380	
PLSS:	T10N, R09E, Sec. 20 (M)				Acres:	0.0	
Location:	EAST OF STARBUCK ROAD BETWEEN SANFORD DRIVE AND N FREMONT'S LOOP, ~0.8 AIR MILE WSW OF SUMMIT OF PINE HILL.						
Detailed Location:	MAPPED IN THE NE 1/4 OF THE NE 1/4 OF SECTION 20.						
Ecological:	LIVE OAK WOODLAND DOMINATED BY QUERCUS WISLIZENI. ASSOCIATED WITH TOXICODENDRON DIVERSILOBUM AND HETEROMELES ARBUTIFOLIA ON GABBRO SOILS WITHIN A SOUTHWESTERLY FACING DRAINAGE WITH A 20% SLOPE.						
General:	500 PLANTS OBSERVED IN 2011. A 25-FOOT CONSERVATION EASEMENT AROUND THE PLANTS IS PROPOSED.						
Owner/Manager:	PVT						



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Downingia pusilla

Element Code: PDCAM060C0

dwarf downingia

Listing Status: **Federal:** None **CNDDDB Element Ranks:** **Global:** GU
State: None **State:** S2
Other: Rare Plant Rank - 2B.2
Habitat: **General:** VALLEY AND FOOTHILL GRASSLAND (MESIC SITES), VERNAL POOLS.
Micro: VERNAL LAKE AND POOL MARGINS WITH A VARIETY OF ASSOCIATES. IN SEVERAL TYPES OF VERNAL POOLS. 1-445 M.

Occurrence No. 129 **Map Index:** 32324 **EO Index:** 84714 **Element Last Seen:** 1976-05-XX
Occ. Rank: Unknown **Presence:** Presumed Extant **Site Last Seen:** 1976-05-XX
Occ. Type: Natural/Native occurrence **Trend:** Unknown **Record Last Updated:** 2013-08-22

Quad Summary: Folsom (3812162)

County Summary: Sacramento

Lat/Long: 38.65123 / -121.21958 **Accuracy:** nonspecific area
UTM: Zone-10 N4279578 E654929 **Elevation (ft):** 270
PLSS: T09N, R07E, Sec. 09 (M) **Acres:** 47.4

Location: PHOENIX PARK, EAST OF FAIR OAKS.

Detailed Location: EXACT LOCATION UNKNOWN, MAPPED BY CNDDDB NON-SPECIFICALLY TO ENCOMPASS ALL OF PHOENIX PARK.

Ecological:

General: ONLY SOURCE OF INFORMATION FOR THIS OCCURRENCE IS A 1976 COLLECTION BY WHITLOW. NEEDS FIELDWORK.

Owner/Manager: CITY OF FAIR OAKS-PARKS & REC

Legenere limosa

Element Code: PDCAM0C010

legenere

Listing Status: **Federal:** None **CNDDDB Element Ranks:** **Global:** G2
State: None **State:** S2
Other: Rare Plant Rank - 1B.1, BLM_S-Sensitive
Habitat: **General:** VERNAL POOLS.
Micro: IN BEDS OF VERNAL POOLS. 1-880 M.

Occurrence No. 12 **Map Index:** 11838 **EO Index:** 30958 **Element Last Seen:** 1983-05-31
Occ. Rank: Unknown **Presence:** Presumed Extant **Site Last Seen:** 1983-05-31
Occ. Type: Natural/Native occurrence **Trend:** Unknown **Record Last Updated:** 1997-04-14

Quad Summary: Buffalo Creek (3812152)

County Summary: Sacramento

Lat/Long: 38.56860 / -121.21580 **Accuracy:** 80 meters
UTM: Zone-10 N4270414 E655436 **Elevation (ft):** 200
PLSS: T08N, R07E, Sec. 09 (M) **Acres:** 0.0

Location: APPROX. 0.8 MI NW OF JCT DOUGLAS ROAD AND NIMBUS ROAD, 1.6 MI NE OF JCT DOUGLAS RD AND SUNRISE BLVD.

Detailed Location: NORTH SIDE OF CREEK.

Ecological: VERNAL POOL. CORNING SOILS WITH ALAMO CLAY.

General: MORE THAN 1000 PLANTS IN LARGE VERNAL POOL (1-2 ACRES) IN 1983.

Owner/Manager: PVT



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Occurrence No.	13	Map Index:	11827	EO Index:	30957	Element Last Seen:	1983-05-31
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1983-05-31
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	1997-04-14
Quad Summary:	Buffalo Creek (3812152)						
County Summary:	Sacramento						
Lat/Long:	38.56544 / -121.22241				Accuracy:	80 meters	
UTM:	Zone-10 N4270053 E654867				Elevation (ft):	190	
PLSS:	T08N, R07E, Sec. 09 (M)				Acres:	0.0	
Location:	1.2 MI NE OF JCT DOUGLAS ROAD AND SUNRISE BLVD, IMMEDIATELY N OF MAN-MADE KNOLL.						
Detailed Location:	NORTH SIDE OF CREEK.						
Ecological:	VERNAL POOL ON CORNING SOILS WITH ALAMO CLAY.						
General:	ABOUT 100 PLANTS IN 1983 IN 1000 SQUARE FOOT VERNAL POOL.						
Owner/Manager:	PVT						

Occurrence No.	47	Map Index:	41016	EO Index:	41016	Element Last Seen:	1993-XX-XX
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	1997-XX-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	1999-05-04
Quad Summary:	Buffalo Creek (3812152), Carmichael (3812153)						
County Summary:	Sacramento						
Lat/Long:	38.52618 / -121.25141				Accuracy:	specific area	
UTM:	Zone-10 N4265647 E652423				Elevation (ft):	145	
PLSS:	T08N, R07E, Sec. 19 (M)				Acres:	2.5	
Location:	MATHER FIELD, ABOUT 0.6 MILE EAST OF EAGLES NEST ROAD ALONG NORTH SIDE OF KIEFER BLVD, RANCHO CORDOVA.						
Detailed Location:	MAPPED IN 1 POOL IMMEDIATELY NORTH OF KIEFER BLVD. JSA POOL #1390.						
Ecological:	GROWING WITHIN AN INTERCONNECTED VERNAL POOL AND SWALE SYSTEM. ASSOCIATED WITH ELEOCHARIS MACROSTACHYA, LASTHENIA GLABERRIMA, ERYNGIUM, GRATIOLA EBRACTEATA, DOWNINGIA SPP., ISOETES, AND PILULARIA AMERICANA.						
General:	ABOUT 500 PLANTS OBSERVED IN 1993. AREA SEARCHED BUT NO PLANTS OBSERVED IN 1997.						
Owner/Manager:	SAC COUNTY						



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Occurrence No.	73	Map Index:	78753	EO Index:	79695	Element Last Seen:	2008-04-22
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2008-04-22
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2010-04-29
Quad Summary:	Buffalo Creek (3812152)						
County Summary:	Sacramento						
Lat/Long:	38.55053 / -121.18243			Accuracy:	80 meters		
UTM:	Zone-10 N4268466 E658383			Elevation (ft):	250		
PLSS:	T08N, R07E, Sec. 14 (M)			Acres:	0.0		
Location:	ABOUT 0.35 AIR MILE SOUTHEAST OF THE INTERSECTION OF GRANT LINE RD AND GLORY LANE, 3.75 AIR MI EAST OF MATHER LAKE.						
Detailed Location:	MAPPED IN THE CENTER OF THE NW 1/4 OF SECTION 14 ACCORDING TO GPS INFORMATION PROVIDED BY ECORP.						
Ecological:	ANNUAL GRASSLAND WITH VERNAL POOL COMPLEXES; SEEN ON THE PERIPHERY OF THE POOL. ASSOCIATED WITH ELEOCHARIS MACROSTACHYA, LASTHENIA GLABERRIMA, AND PLAGIOBOTHRYIS STIPITATUS.						
General:	SEVERAL HUNDRED PLANTS OBSERVED IN 2008.						
Owner/Manager:	PVT						
Occurrence No.	74	Map Index:	78754	EO Index:	79696	Element Last Seen:	2008-04-22
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2008-04-22
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2010-04-29
Quad Summary:	Buffalo Creek (3812152)						
County Summary:	Sacramento						
Lat/Long:	38.54139 / -121.17496			Accuracy:	80 meters		
UTM:	Zone-10 N4267464 E659053			Elevation (ft):	250		
PLSS:	T08N, R07E, Sec. 14 (M)			Acres:	0.0		
Location:	ABOUT 1.1 AIR MILES SOUTHEAST OF THE INTERSECTION OF GRANT LINE RD AND GLORY LANE, 2 AIR MILES NE OF BLODGETT RESERVOIR.						
Detailed Location:	MAPPED IN THE SW 1/4 OF THE SE 1/4 OF SECTION 14 ACCORDING TO GPS INFORMATION PROVIDED BY ECORP.						
Ecological:	ANNUAL GRASSLAND WITH VERNAL POOL COMPLEXES; SEEN ON THE PERIPHERY OF THE POOL. ASSOCIATED WITH ELEOCHARIS MACROSTACHYA, LASTHENIA GLABERRIMA, AND PLAGIOBOTHRYIS STIPITATUS.						
General:	SEVERAL HUNDRED PLANTS OBSERVED IN 2008.						
Owner/Manager:	PVT						



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Occurrence No.	75	Map Index:	78756	EO Index:	79697	Element Last Seen:	2006-05-15
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2006-05-15
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2011-07-14
Quad Summary:	Buffalo Creek (3812152)						
County Summary:	Sacramento						
Lat/Long:	38.51128 / -121.24166				Accuracy:	80 meters	
UTM:	Zone-10 N4264010 E653304				Elevation (ft):	120	
PLSS:	T08N, R07E, Sec. 29 (M)				Acres:	0.0	
Location:	WAGELL "MULL" RANCH. EAST OF SUNRISE BLVD, ABOUT 3.8 AIR MILES NORTH OF ITS INTERSECTION WITH JACKSON ROAD.						
Detailed Location:	POPULATION IS 5 METERS LONG AND 3 METERS WIDE, LOCATED IN THE SOUTHEASTERN ARM OF THE DEEPEST VERNAL POOL IN THE AREA. MAPPED IN THE EXTREME SW 1/4 OF SECTION 29.						
Ecological:	DEEP VERNAL POOL. ASSOCIATED WITH ELEOCHARIS MACROSTACHYA, DOWNINGIA BICORNUTA, LASTHENIA GLABERRIMA, GLYCERIA DECLINATA, AND ERYNGIUM CASTRENSE.						
General:	454 PLANTS OBSERVED IN 2006. POOL HYDROLOGY APPEARS TO HAVE BEEN AUGMENTED BY CONSTRUCTION OF SUNRISE BOULEVARD AND LEVELING OF FIELD TO THE SOUTH.						
Owner/Manager:	PVT						

Occurrence No.	80	Map Index:	81256	EO Index:	84422	Element Last Seen:	2010-02-XX
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	2010-02-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2011-07-15
Quad Summary:	Buffalo Creek (3812152)						
County Summary:	Sacramento						
Lat/Long:	38.55331 / -121.22958				Accuracy:	nonspecific area	
UTM:	Zone-10 N4268695 E654267				Elevation (ft):	160	
PLSS:	T08N, R07E, Sec. 17 (M)				Acres:	55.0	
Location:	MONTELENA WETLAND PRESERVE IN THE SUNRISE DOUGLAS AREA OF RANCHO CORDOVA, ABOUT 1 MILE EAST OF MATHER LAKE.						
Detailed Location:	EXACT LOCATION WITHIN PRESERVE UNKNOWN; MAPPED BY CNDDDB TO ENCOMPASS ENTIRE PRESERVE.						
Ecological:	VERNAL POOLS IN A NEWLY ESTABLISHED 50 ACRE PRESERVE.						
General:	UNKNOWN NUMBER OF PLANTS OBSERVED IN 2010. NEEDS POPULATION INFORMATION.						
Owner/Manager:	PVT						

Crocanthemum suffrutescens

Element Code: PDCIS020F0

Bisbee Peak rush-rose

Listing Status: **Federal:** None

CNDDDB Element Ranks: **Global:** G2Q

State: None

State: S2

Other: Rare Plant Rank - 3.2

Habitat: **General:** CHAPARRAL.

Micro: OFTEN ON SERPENTINE, GABBROIC, OR IONE FORMATION SOILS; IN OPENINGS IN CHAPARRAL. 45-840 M.



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Occurrence No.	16	Map Index:	23333	EO Index:	17314	Element Last Seen:	1998-06-18
Occ. Rank:	Excellent			Presence:	Presumed Extant	Site Last Seen:	1998-06-18
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2014-05-02
Quad Summary:	Shingle Springs (3812068)						
County Summary:	El Dorado						
Lat/Long:	38.71775 / -120.99159				Accuracy:	specific area	
UTM:	Zone-10 N4287370 E674608				Elevation (ft):	1800	
PLSS:	T10N, R09E, Sec. 16 (M)				Acres:	20.5	
Location:	TOP OF PINE HILL NEAR LOOKOUT, ABOUT 1.2 MILES SSW OF DEER VALLEY SCHOOL, NORTHWEST OF SHINGLE SPRINGS.						
Detailed Location:	2 COLONIES, BOTH MAPPED WITHIN THE SOUTH HALF OF SECTION 16.						
Ecological:	MATURE CHAPARRAL W/ ADENOSTOMA FASCICULATUM, ARCTOSTAPHYLOS VISCIDA, PINUS SABINIANA. RECOVERING (FROM 1983 BURN) CHAPARRAL W/ CEANOTHUS RODERICKII, C. LEMMONII, SALVIA SONOMENSIS. ALSO W/ RHAMNUS CROCEA, R. CALIFORNIA, QUERCUS DURATA, ETC.						
General:	HUNDREDS OF PLANTS OBSERVED IN 1998. ID NEEDS CHECKING; A 1966 DEMPSTER COLLECTION FROM "PINE HILL, E LOOKOUT, NEAR TOP ON S-FACING SLOPE" HAS BEEN RE-IDENTIFIED AS CROCANTHEMUM SCOPARIUM. SITE MAY BE A MIS-ID.						
Owner/Manager:	CDF, DFG						

Occurrence No.	18	Map Index:	12208	EO Index:	8133	Element Last Seen:	1984-XX-XX
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1984-XX-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	1993-02-19
Quad Summary:	Pilot Hill (3812171)						
County Summary:	El Dorado						
Lat/Long:	38.75679 / -121.00610				Accuracy:	specific area	
UTM:	Zone-10 N4291675 E673252				Elevation (ft):	960	
PLSS:	T11N, R09E, Sec. 32 (M)				Acres:	8.4	
Location:	SOUTH OF SOUTH FORK AMERICAN RIVER, NORTH OF WILDCAT CANYON, 0.4 AIR MILES NORTH OF 1482 FOOT ELEVATION HILL.						
Detailed Location:							
Ecological:	ASSOCIATED WITH SENECIO LAYNEAE AND WYETHIA RETICULATA, BOTH RARE PLANTS.						
General:	SEEN 1981-1984.						
Owner/Manager:	BLM-FOLSOM RA						



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Occurrence No.	19	Map Index:	12181	EO Index:	8135	Element Last Seen:	1984-XX-XX
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	1984-XX-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	1993-02-19
Quad Summary:	Pilot Hill (3812171)						
County Summary:	El Dorado						
Lat/Long:	38.77819 / -121.01750				Accuracy:	specific area	
UTM:	Zone-10 N4294029 E672210				Elevation (ft):	950	
PLSS:	T11N, R09E, Sec. 30 (M)				Acres:	21.7	
Location:	NORTH OF SOUTH FORK AMERICAN RIVER APPROXIMATELY ONE AIR MILE ENE OF SALMON FALLS ROAD CROSSING.						
Detailed Location:							
Ecological:	ASSOCIATED WITH OTHER RARE PLANTS: CALYSTEGIA STEBBINSII AND WYETHIA RETICULATA.						
General:	SEEN 1981-1984.						
Owner/Manager:	BLM-FOLSOM RA						
Occurrence No.	20	Map Index:	12156	EO Index:	7482	Element Last Seen:	2011-05-14
Occ. Rank:	Excellent			Presence:	Presumed Extant	Site Last Seen:	2011-05-14
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2013-08-28
Quad Summary:	Clarksville (3812161), Pilot Hill (3812171)						
County Summary:	El Dorado						
Lat/Long:	38.76331 / -121.02948				Accuracy:	nonspecific area	
UTM:	Zone-10 N4292355 E671205				Elevation (ft):	1000	
PLSS:	T11N, R08E, Sec. 36 (M)				Acres:	334.2	
Location:	SOUTH OF S FORK AMERICAN RIVER, ABOUT 0.4 MILE EAST OF SALMON FALLS RD EXTENDING EAST ABOUT 1.5 MI, WEST OF FOLSOM LAKE.						
Detailed Location:	HILLS SOUTH OF S FORK AMERICAN BETWEEN SALMON FALLS RD AND KANAKA VALLEY. WITHIN SE 1/4 SE 1/4 SECTION 25, SW 1/4 OF SW 1/4 SECTION 30, EAST HALF OF SECTION 36, NORTH HALF OF SECTION 31, WEST HALF OF SECTION 6, AND NW 1/4 SECTION 7.						
Ecological:	CHAPARRAL DOMINATED BY ARCTOSTAPHYLOS VISCIDA AND ADENOSTOMA FASCICULATUM. ASSOCIATED WITH ERIODICTYON CALIFORNICUM, BACCHARIS PILULARIS SPP. CONSANGUINEA, SALVIA SONOMENSIS, CALYSTEGIA STEBBINSII, CEANOTHUS RODERICKII, ET AL.						
General:	SEEN 1981-1984, 1987. 682 PLANTS SEEN AT SCATTERED SITES IN 1994. 15 PLANTS SEEN IN PORTION OF EO IN 2011. RARE ASSOCIATES: CALYSTEGIA STEBBINSII, CEANOTHUS RODERICKII, SENECIO LAYNEAE, AND WYETHIA RETICULATA. INCLUDES FORMER EO #17.						
Owner/Manager:	DFG-PINE HILL ER, BLM, UNK						



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Occurrence No.	21	Map Index:	22720	EO Index:	17235	Element Last Seen:	1989-XX-XX
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1989-XX-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	1993-02-04
Quad Summary:	Shingle Springs (3812068)						
County Summary:	El Dorado						
Lat/Long:	38.72068 / -120.95903				Accuracy:	1/5 mile	
UTM:	Zone-10 N4287758 E677432				Elevation (ft):	1520	
PLSS:	T10N, R09E, Sec. 14 (M)				Acres:	0.0	
Location:	NNW OF RESCUE, 1.2 KM (0.75 MI) FROM DEER VALLEY ROAD / GREEN VALLEY ROAD JUNCTION.						
Detailed Location:	MAPPED ON HILLTOP UNDER TRANSMISSION LINE.						
Ecological:	GROWING WITH CHLOROGALUM GRANDIFLORUM, WYETHIA RETICULATA, AND SENECIO LAYNEAE.						
General:	SITE OWNED BY BLM, FOLSOM RESOURCE AREA.						
Owner/Manager:	BLM-FOLSOM RA						

Occurrence No.	22	Map Index:	16822	EO Index:	18822	Element Last Seen:	2006-08-14
Occ. Rank:	Fair			Presence:	Presumed Extant	Site Last Seen:	2006-08-14
Occ. Type:	Natural/Native occurrence			Trend:	Decreasing	Record Last Updated:	2008-12-08
Quad Summary:	Shingle Springs (3812068)						
County Summary:	El Dorado						
Lat/Long:	38.68219 / -120.98028				Accuracy:	specific area	
UTM:	Zone-10 N4283446 E675678				Elevation (ft):	1300	
PLSS:	T10N, R09E, Sec. 34 (M)				Acres:	54.0	
Location:	NORTHEAST OF JUNCTION OF MEDER ROAD AND CAMERON PARK DRIVE NEAR AIRPORT, ABOUT 1.75 MILE NORTH OF HIGHWAY, CAMERON PARK.						
Detailed Location:	JUST SOUTHEAST OF AIRPORT, BETWEEN MEDER ROAD AND MIRA LOMA ROAD. MAPPED WITH THE NORTH HALF OF THE NW 1/4 OF SECTION 34. PORTION OF POPULATION IS GROWING ALONG THE ROADCUT.						
Ecological:	GROWING IN GABBROIC NORTHERN MIXED CHAPARRAL W/ ARCTOSTAPHYLOS VISCIDA, ADENOSTOMA FASCICULATUM, ETC. OTHER RARE PLANTS INCLUDE CEANOTHUS RODERICKII, PACKERA LAYNEAE, WYETHIA RETICULATA, CHLOROGALUM GRANDIFLORUM, CALYSTEGIA STEBBINSII, ETC.						
General:	UNKNOWN NUMBER OF PLANTS SEEN IN 1987. MANY PLANTS SEEN IN 1989. 9 PLANTS SEEN IN 2006.						
Owner/Manager:	PVT, ELD COUNTY						



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Occurrence No.	23	Map Index:	12301	EO Index:	8186	Element Last Seen:	2005-06-14
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2005-06-14
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2010-07-22
Quad Summary:	Shingle Springs (3812068)						
County Summary:	El Dorado						
Lat/Long:	38.66474 / -120.96327				Accuracy:	specific area	
UTM:	Zone-10 N4281542 E677200				Elevation (ft):	1500	
PLSS:	T09N, R09E, Sec. 02 (M)				Acres:	198.0	
Location:	EAST SIDE OF CAMERON PARK, MOSTLY NORTH OF HWY 50.						
Detailed Location:	NE-MOST POLY MAPPED ACC TO TRS ON A 1987 SHOWERS & BAINBRIDGE FORM FOR CALYSTEGIA STEBBINSII WHICH MENTIONS THAT H. SUFFRUTESCENS WAS SEEN IN THE SE1/4 OF SW1/4 OF SEC 35 & THE NE1/4 OF NW1/4 OF SEC 2; EXACT LOCATION OF PLANTS UNK.						
Ecological:	GROWING IN CHAPARAL COMMUNITY ON RESCUE SOIL SERIES. ASSOC INCL ARCTOSTAPHYLOS VISCIDA, ADENOSTOMA FASCICULATUM, CERCIS OCCIDENTALIS, SALVIA SONOMENSIS, CEANOTHUS RODERICKII, SENECIO LAYNEAE, CALYSTEGIA STEBBINSII, & WYETHIA RETICULATA.						
General:	NE-MOST POLY IS NON-SPECIFIC BUT PLANTS SEEN IN AREA IN 1987. 100+ PLANTS SEEN ON BOTH SIDES OF HWY 50 IN 1987. 100-200 PLANTS SEEN IN A SMALL PORTION OF MIDDLE POLY IN 1998. HUNDREDS OF PLANTS SEEN IN MIDDLE POLY IN 2005. INCL EO'S 32, 33.						
Owner/Manager:	PVT, BLM						

Occurrence No.	24	Map Index:	17323	EO Index:	7225	Element Last Seen:	1989-XX-XX
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1989-XX-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2003-03-07
Quad Summary:	Pilot Hill (3812171)						
County Summary:	El Dorado						
Lat/Long:	38.77070 / -121.00928				Accuracy:	nonspecific area	
UTM:	Zone-10 N4293213 E672942				Elevation (ft):	1100	
PLSS:	T11N, R09E, Sec. 30 (M)				Acres:	45.2	
Location:	0.8 KM (0.5 MI) NORTH OF MOUTH OF WEBER CREEK, NORTH OF AMERICAN RIVER.						
Detailed Location:	MAPPED ON KNOLL IN SE 1/4 OF SE 1/4 OF SECTION 30 AS DESCRIBED BY SOURCE.						
Ecological:	GROWING WITHIN GABBRO CHAPARRAL PLANT ASSOCIATION WITH CALYSTEGIA STEBBINSII, WYETHIA RETICULATA, CHLOROGALUM GRANDIFLORUM, AND CEANOTHUS RODERICKII.						
General:	SITE IS WITHIN THE BLM FOLSOM RESOURCE AREA.						
Owner/Manager:	BLM-FOLSOM RA						



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Occurrence No.	29	Map Index:	42833	EO Index:	42833	Element Last Seen:	1997-05-25
Occ. Rank:	Fair			Presence:	Presumed Extant	Site Last Seen:	1997-05-25
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2000-04-26
Quad Summary:	Shingle Springs (3812068), Clarksville (3812161)						
County Summary:	El Dorado						
Lat/Long:	38.72047 / -121.00059				Accuracy:	80 meters	
UTM:	Zone-10 N4287655 E673819				Elevation (ft):	1400	
PLSS:	T10N, R09E, Sec. 16 (M)				Acres:	0.0	
Location:	IMMEDIATELY WEST OF PINE HILL, ABOUT 0.5 MILE WEST OF PINE HILL SUMMIT, NORTHWEST OF SHINGLE SPRINGS.						
Detailed Location:	AT BASE OF WEST SLOPE OF PINE HILL. FROM DEVELOPED AREA OF CHAPEL AND RETREAT, TAKE ROAD TO OCCUPIED MOBILE HOME. ONE PLANT ON THE SOUTH SIDE OF ROAD, ONE PLANT BEHIND MOBILE HOME. MAPPED WITHIN THE NW 1/4 OF THE SW 1/4 OF SECTION 16.						
Ecological:	GROWING IN CHAPARRAL WITH ARCTOSTAPHYLOS SPP., ADENOSTOMA FASCICULATUM, AND CEANOTHUS SPP. ON GABRRO SOILS; SOUTHEAST EXPOSURE. SEVERAL LARGE POPULATIONS OF WYETHIA RETICULATA ALSO ON PROPERTY.						
General:	2 PLANTS OBSERVED IN 1997. THE RARE WYETHIA RETICULATA IS ALSO ON THIS PROPERTY.						
Owner/Manager:	PVT						
Occurrence No.	30	Map Index:	30660	EO Index:	42834	Element Last Seen:	1994-06-07
Occ. Rank:	Fair			Presence:	Presumed Extant	Site Last Seen:	1994-06-07
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2000-04-26
Quad Summary:	Shingle Springs (3812068)						
County Summary:	El Dorado						
Lat/Long:	38.67446 / -120.97813				Accuracy:	80 meters	
UTM:	Zone-10 N4282592 E675885				Elevation (ft):	1450	
PLSS:	T10N, R09E, Sec. 34 (M)				Acres:	0.0	
Location:	EL DORADO IRRIGATION DISTRICT (EID) RESERVOIR SOUTH OF VERANO WAY, ABOUT 1 MILE NORTH OF HIGHWAY 50, CAMERON PARK.						
Detailed Location:	MAPPED SOUTHEAST OF THE AIRPORT ABOUT 1 MILE NORTH OF HIGHWAY 50. WITHIN THE NE 1/4 OF THE SW 1/4 OF SECTION 34.						
Ecological:	GABBROIC MIXED CHAPARRAL. PLANT IS FOUND IN DISTURBED AREA AROUND RESERVOIR.						
General:	1 PLANT OBSERVED IN 1994. PLANT IS AN EXREMELY DECADENT INDIVIDUAL WITH ONE LIVE STEM. THE RARE SENECIO LAYNEAE, CEANOTHUS RODERICKII, WYETHIA RETICULATA, AND POSSIBLY CHLOROGALUM GRANDIFLORUM ALSO EXIST AT THIS SITE.						
Owner/Manager:	EL DORADO IRRIGATION DISTRICT						



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Occurrence No.	31	Map Index:	30659	EO Index:	42835	Element Last Seen:	2007-05-24
Occ. Rank:	Fair			Presence:	Presumed Extant	Site Last Seen:	2007-05-24
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2008-12-03
Quad Summary:	Shingle Springs (3812068)						
County Summary:	El Dorado						
Lat/Long:	38.67083 / -120.99352				Accuracy:	specific area	
UTM:	Zone-10 N4282159 E674554				Elevation (ft):	1400	
PLSS:	T09N, R09E, Sec. 04 (M)				Acres:	34.0	
Location:	ON BOTH SIDES OF WOODLEIGH LANE, NEAR ITS INTERSECTION WITH SURRY LANE, CAMERON PARK.						
Detailed Location:	THREE COLONIES. MAPPED IN S1/4 SEC 33 AND N1/4 SEC 4.						
Ecological:	GABBROIC MIXED CHAPARRAL. PLANT IS IN DISTURBED AREA AROUND RESERVOIR.						
General:	W COLONY: 62 PLANTS SEEN IN 2006, UNKNOWN NUMBER OF PLANTS SEEN IN 2007. CENTER COLONY: 8 PLANTS SEEN IN 1994. E COLONY: 8 PLANTS SEEN IN 2006.						
Owner/Manager:	PVT, EL DORADO IRR DIST						
Occurrence No.	34	Map Index:	42838	EO Index:	42838	Element Last Seen:	1987-06-26
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	1987-06-26
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2000-04-28
Quad Summary:	Pilot Hill (3812171)						
County Summary:	El Dorado						
Lat/Long:	38.76427 / -121.04338				Accuracy:	specific area	
UTM:	Zone-10 N4292436 E669995				Elevation (ft):	750	
PLSS:	T11N, R08E, Sec. 36 (M)				Acres:	7.4	
Location:	SALMON FALLS ROAD, ABOUT 0.7 MILE SOUTH OF SALMON FALLS CROSSING, SOUTH OF SOUTH FORK OF THE AMERICAN RIVER.						
Detailed Location:	TWO COLONIES: WEST COLONY ON BOTH SIDES OF THE ROAD. EASTERN COLONY ON SLOPE OF SMALL HILL TO THE EAST. MAPPED WITHIN THE SW 1/4 NW 1/4 OF SECTION 36 AND THE SE 1/4 NE 1/4 OF SECTION 35.						
Ecological:	CHAPARRAL DOMINATED BY ARCTOSTAPHYLOS VISCIDA & ADENOSTOMA FASCICULATUM. RESCUE SOILS SERIES. ASSOCIATES: SALVIA SONOMENSIS, LEPECHINIA CALYCINA, RHAMNUS CALIFORNICUM, HETEROMELES ARBUTIFOLIA, CALYSTEGIA STEBBINSII, & CEANOTHUS RODERICKII.						
General:	UNKNOWN NUMBER OF PLANTS OBSERVED IN 1987. SITE IS STAGING AREA FOR ORV USE NEAR HIGHWAY. RARE ASSOCIATES: CALYSTEGIA STEBBINSII AND CEANOTHUS RODERICKII.						
Owner/Manager:	PVT						



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Occurrence No.	35	Map Index:	50450	EO Index:	50450	Element Last Seen:	1994-06-16
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	1994-06-16
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2003-03-07
Quad Summary:	Clarksville (3812161)						
County Summary:	El Dorado						
Lat/Long:	38.73278 / -121.03557				Accuracy:	specific area	
UTM:	Zone-10 N4288955 E670748				Elevation (ft):	900	
PLSS:	T10N, R09E, Sec. 07 (M)				Acres:	1.3	
Location:	WEST-FACING SLOPE ABOVE THE CONFLUENCE OF SWEETWATER AND MARTEL CREEKS, NNE OF CLARKSVILLE, EAST OF FOLSOM LAKE.						
Detailed Location:	HALFWAY UP THE SLOPE. MAPPED WITHIN THE SW 1/4 OF THE SW 1/4 OF SECTION 7.						
Ecological:	ON RESCUE STONY LOAM OILS, GROWING AMONGST ROCKS AND BOULDERS IN A MODERATELY OPEN AREA OF A GABBROIC NORTHERN MIXED CHAPARRAL PLANT COMMUNITY. ASSOCIATES INCLUDE ADENOSTOMA FASCICULATUM, ARCTOSTAPHYLOS VISCIDA SSP. VISCIDA, ET AL.						
General:	3 PLANTS OBSERVED IN 1994. SITE QUALITY IS EXCELLENT, BUT POPULATION IS VERY SMALL. SITE SHOULD BE PROTECTED AS OPEN SPACE.						
Owner/Manager:	PVT-KANAKA VALLEY RANCH						

Occurrence No.	36	Map Index:	69700	EO Index:	70486	Element Last Seen:	2006-07-28
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	2006-07-28
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2007-07-31
Quad Summary:	Pilot Hill (3812171)						
County Summary:	El Dorado						
Lat/Long:	38.75896 / -121.04568				Accuracy:	specific area	
UTM:	Zone-10 N4291842 E669807				Elevation (ft):	600	
PLSS:	T11N, R08E, Sec. 35 (M)				Acres:	13.0	
Location:	WEST SIDE OF SALMON FALLS ROAD, NEAR THE INTERSECTION WITH HIDDEN BRIDGE ROAD, SOUTH OF SOUTH FORK AMERICAN RIVER.						
Detailed Location:							
Ecological:	GABBROIC NORTHERN MIXED CHAPARRAL.						
General:	APPROXIMATELY 600 PLANTS OBSERVED IN 2006.						
Owner/Manager:	PVT						



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Occurrence No.	39	Map Index:	73059	EO Index:	73988	Element Last Seen:	2007-07-01
Occ. Rank:	Poor			Presence:	Presumed Extant	Site Last Seen:	2007-07-01
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2008-12-03
Quad Summary:	Shingle Springs (3812068)						
County Summary:	El Dorado						
Lat/Long:	38.71360 / -120.95318			Accuracy:	specific area		
UTM:	Zone-10 N4286984 E677957			Elevation (ft):	1200		
PLSS:	T10N, R09E, Sec. 23 (M)			Acres:	1.0		
Location:	W SIDE OF DEER VALLEY RD, ~0.16 MI N OF THE JUNCTION OF DEER VALLEY RD AND GREEN VALLEY RD, N OF RESCUE.						
Detailed Location:	MAPPED BY CNDDDB ACCORDING TO A 2007 DURHAM MAP IN NW1/4 OF NE1/4 SEC 23.						
Ecological:	GABBROIC NORTHERN MIXED CHAPARRAL AND CISMONTANE WOODLAND. ASSOCIATES INCLUDE ARCTOSTAPHYLOS VISCIDA, ADENOSTOMA FASCICULATUM, GALIUM CALIFORNICUM SSP. SIERRAE, WYETHIA RETICULATA, & PACKERA LAYNEAE.						
General:	2 PLANTS SEEN IN 2007.						
Owner/Manager:	PVT						
Occurrence No.	40	Map Index:	73060	EO Index:	73989	Element Last Seen:	2008-05-09
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2008-05-09
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2008-12-03
Quad Summary:	Clarksville (3812161)						
County Summary:	El Dorado						
Lat/Long:	38.67912 / -121.00482			Accuracy:	specific area		
UTM:	Zone-10 N4283058 E673551			Elevation (ft):	1300		
PLSS:	T10N, R09E, Sec. 32 (M)			Acres:	10.0		
Location:	APPROXIMATELY 0.25 AIR MI NW OF THE INTERSECTION OF WOODLEIGH LANE AND RANCHO TIERRA COURT, E OF BASS LAKE.						
Detailed Location:	MAPPED BY CNDDDB ACCORDING TO A 2008 HUGHES MAP.						
Ecological:	GABBROIC NORTHERN MIXED CHAPARRAL. PACKERA LAYNEAE ALSO OCCURS AT THIS SITE.						
General:	~400 PLANTS SEEN IN 2008.						
Owner/Manager:	PVT						
<i>Calystegia stebbinsii</i>						Element Code: PDCON040H0	
Stebbins' morning-glory							
Listing Status:	Federal:	Endangered			CNDDDB Element Ranks:	Global:	G1
	State:	Endangered				State:	S1
	Other:	Rare Plant Rank - 1B.1, SB_RSABG-Rancho Santa Ana Botanic Garden					
Habitat:	General:	CHAPARRAL, CISMONTANE WOODLAND.					
	Micro:	ON RED CLAY SOILS OF THE PINE HILL FORMATION; GABBRO OR SERPENTINE; OPEN AREAS. 180-725 M.					



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Occurrence No.	1	Map Index:	12323	EO Index:	8146	Element Last Seen:	2007-06-18
Occ. Rank:	Good	Presence:	Presumed Extant	Site Last Seen:	2007-06-18		
Occ. Type:	Natural/Native occurrence	Trend:	Unknown	Record Last Updated:	2010-05-20		
Quad Summary:	Shingle Springs (3812068)						
County Summary:	El Dorado						
Lat/Long:	38.66310 / -120.96149			Accuracy:	specific area		
UTM:	Zone-10 N4281363 E677360			Elevation (ft):	1400		
PLSS:	T09N, R09E, Sec. 02 (M)			Acres:	188.0		
Location:	ON BOTH SIDES OF HIGHWAY 50 BETWEEN CAMERON PARK DRIVE AND MEDER ROAD, EAST OF SHINGLE SPRINGS.						
Detailed Location:	SEVERAL COLONIES MAPPED BY CNDDB AS 15 POLYGONS IN SECTION 2, THE SW 1/4 OF SECTION 35, AND THE NE 1/4 OF SECTION 3.						
Ecological:	IN CHAPARRAL IN DISTURBED AREA NEAR ROADCUT. ON RED CLAY GABBROIC SOIL. ASSOCIATED W/ ARCTOSTAPHYLOS VISCIDA, SALVIA SONOMENSIS, CERCIS OCCIDENTALIS, CHLOROGALUM GRANDIFLORUM, PACKERA LAYNEAE, WYETHIA RETICULATA, CEANOTHUS RODERICKII, ETC.						
General:	<200 PLANTS SEEN IN 1982, <1100 IN 1984, UNK # IN 1986, 160+ ON BOTH SIDES OF HWY 50 IN 1987, UNK # IN 1990 S OF HWY 50, 250 IN 1994, 100S IN 1998, 2700 IN 2005, 100 IN 2006 S OF HWY 50, 1000+ THROUGHOUT IN 2007. INCLUDES FORMER OCC #3 & 8.						
Owner/Manager:	PVT, BLM, CALTRANS						

Occurrence No.	2	Map Index:	54107	EO Index:	4344	Element Last Seen:	2007-08-30
Occ. Rank:	Excellent	Presence:	Presumed Extant	Site Last Seen:	2007-08-30		
Occ. Type:	Natural/Native occurrence	Trend:	Unknown	Record Last Updated:	2010-05-20		
Quad Summary:	Coloma (3812078), Pilot Hill (3812171)						
County Summary:	El Dorado						
Lat/Long:	38.76415 / -121.02601			Accuracy:	specific area		
UTM:	Zone-10 N4292455 E671504			Elevation (ft):	1000		
PLSS:	T11N, R08E, Sec. 36 (M)			Acres:	376.0		
Location:	SOUTH FORK AMERICAN RIVER, FROM SALMON FALLS ROAD EAST TO WEBER CREEK, NORTH OF MORMON HILL.						
Detailed Location:	SEVERAL COLONIES MAPPED BY CNDDB AS 22 POLYGONS MOSTLY IN SECTIONS 30, 31, 36, WEST HALF OF SECTION 32, AND NW 1/4 OF SECTION 6.						
Ecological:	IN GABBRO, ASSOCIATED WITH ADENOSTOMA FASCICULATUM, ARCTOSTAPHYLOS VISCIDA, SALVIA SONOMENSIS, LEPECHINIA CALYCINA, RHAMNUS CALIFORNICA, CEANOTHUS RODERICKII, WYETHIA RETICULATA, CHLOROGALUM GRANDIFLORUM, HELIANTHEMUM SUFFRUTESCENS, ETC.						
General:	<2000 PLANTS OBSERVED IN 1984, 300+ IN 1986, 1300+ IN 1987, UNKNOWN # IN 1989, 20-35 IN 1990, >>1000 IN 1992, <1.5 MILL IN 1993, ~600 IN 1994, UNKNOWN # IN 2005, >15,000 IN 2007. INCLUDES FORMER OCCURRENCES 9-12, 14-17, & 23.						
Owner/Manager:	BLM, DFG, USBOR, PVT						



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Occurrence No.	4	Map Index:	12404	EO Index:	8206	Element Last Seen:	1997-05-05
Occ. Rank:	None			Presence:	Extirpated	Site Last Seen:	2004-06-15
Occ. Type:	Natural/Native occurrence			Trend:	Decreasing	Record Last Updated:	2007-07-03
Quad Summary:	Shingle Springs (3812068)						
County Summary:	El Dorado						
Lat/Long:	38.66606 / -120.93543				Accuracy:	specific area	
UTM:	Zone-10 N4281742 E679620				Elevation (ft):	1400	
PLSS:	T09N, R09E, Sec. 01 (M)				Acres:	16.6	
Location:	NORTH SIDE OF HIGHWAY 50 NORTHEAST OF COLOMA OFF-RAMP, ABOUT 0.5 MILE WEST OF SHINGLE SPRINGS, WEST OF PLACERVILLE.						
Detailed Location:	3 COLONIES, NORTH OF FRONTAGE ROAD. 2 WESTERN COLONIES WITHIN THE SW1/4 NE1/4 SECTION 1; EASTERN COLONY WITHIN THE SE1/4 NE1/4 SECTION 1; BORDERED BY A COMMERCIAL LOT TO THE WEST, RESIDENTIAL LOT TO THE NORTH, AND A CHURCH TO THE SOUTH.						
Ecological:	IN CHAPARRAL WITH ARCTOSTAPHYLOS VISCIDA, BACCHARIS PILULARIS, CERCIS OCCIDENTALIS, SALVIA SONOMENSIS, HETEROMELES ARBUTIFOLIA, QUERCUS DOUGLASII, TOXICODENDRON DIVERSILOBUM, ADENOSTOMA FASCICULATUM, ET AL. ON GABBROIC SOILS.						
General:	UNKNOWN NUMBER OF PLANTS SEEN IN 1972. NONE SEEN AT WESTERN COLONIES IN 1987; 1 PLANT OBSERVED IN 1997 AT EASTERN COLONY. ORIGINAL SITE DESCRIPTION NOT PRECISE; SHOWERS STATES THAT MOST SURROUNDING LAND HAS BEEN ALTERED. NOT SEEN IN 2004.						
Owner/Manager:	PVT						
Occurrence No.	6	Map Index:	12252	EO Index:	18820	Element Last Seen:	2007-06-19
Occ. Rank:	Fair			Presence:	Presumed Extant	Site Last Seen:	2007-06-19
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2010-05-20
Quad Summary:	Shingle Springs (3812068)						
County Summary:	El Dorado						
Lat/Long:	38.67619 / -120.97344				Accuracy:	specific area	
UTM:	Zone-10 N4282793 E676287				Elevation (ft):	1500	
PLSS:	T10N, R09E, Sec. 34 (M)				Acres:	15.0	
Location:	EAST OF CAMERON PARK DRIVE NEAR AIRPORT, NW SIDE OF MEDER ROAD TO 0.7 AIR MILE SW OF MEDER ROAD.						
Detailed Location:	PORTION OF POPULATION GROWING ALONG ROADCUT OF MEDER ROAD. 9 POLYGONS MAPPED BY CNDDDB IN THE SOUTH HALF AND THE NW 1/4 OF SECTION 34.						
Ecological:	GROWING IN CHAPARRAL WITH PATTERNS OF GABBRO NORTHERN MIXED CHAPARRAL. ASSOCIATED WITH ARCTOSTAPHYLOS VISCIDA, ADENOSTOMA FASCICULATUM, QUERCUS WISLIZENI, CERCIS OCCIDENTALIS, PINUS SABINIANA, QUERCUS DURATA, RHAMNUS TOMENTELLA, ETC.						
General:	EASTERN POLY: 2 CLUMPS IN 1981, LATER ELIMINATED BY COURTHOUSE. NORTHERN POLY: 100 PLANTS IN 1987, ~100 IN 1989, 200+ IN 2007. UNKNOWN # IN LARGE CENTRAL POLYGON IN 2005. AT LEAST 150 PLANTS TOTAL OBSERVED IN REMAINING POLYGONS IN 2007.						
Owner/Manager:	PVT, BLM						



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Occurrence No.	7	Map Index:	12382	EO Index:	11918	Element Last Seen:	197X-XX-XX
Occ. Rank:	None			Presence:	Possibly Extirpated	Site Last Seen:	1987-06-18
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	1996-01-11
Quad Summary:	Shingle Springs (3812068)						
County Summary:	El Dorado						
Lat/Long:	38.65817 / -120.93845				Accuracy:	specific area	
UTM:	Zone-10 N4280860 E679377				Elevation (ft):	1400	
PLSS:	T09N, R09E, Sec. 01 (M)				Acres:	8.7	
Location:	ABOUT 0.75 AIRMI WSW OF SHINGLE SPRINGS, SOUTH OF HWY 50 AND WEST OF ROAD TO LATROBE.						
Detailed Location:							
Ecological:	HABITAT IS MANZANITA CHAPARRAL. ASSOCIATES INCLUDE ARCTOSTAPHYLOS VISCIDA, ADENOSTOMA FASCICULATUM, SALVIA SONOMENSIS, CERCIS OCCIDENTALIS, HETEROMELES ARBUTIFOLIA, AND INTRODUCED WEEDY GRASSES AND ANNUALS.						
General:	NO PLANTS SEEN IN 1987 SURVEY. SHOWERS BELIEVES C. STEBBINSII HAS BEEN EXTIRPATED FROM THIS SITE DUE TO LOSS OF HABITAT.						
Owner/Manager:	UNKNOWN						

Occurrence No.	13	Map Index:	14121	EO Index:	18533	Element Last Seen:	2007-05-16
Occ. Rank:	Fair			Presence:	Presumed Extant	Site Last Seen:	2007-05-16
Occ. Type:	Natural/Native occurrence			Trend:	Decreasing	Record Last Updated:	2008-12-09
Quad Summary:	Shingle Springs (3812068)						
County Summary:	El Dorado						
Lat/Long:	38.68811 / -120.96245				Accuracy:	specific area	
UTM:	Zone-10 N4284137 E677214				Elevation (ft):	1500	
PLSS:	T10N, R09E, Sec. 26 (M)				Acres:	2.0	
Location:	BETWEEN DOS VISTAS DR & CARLSON DR, S OF GREEN VALLEY RD, S OF WHITE OAK FLAT, NORTHWEST OF SHINGLE SPRINGS.						
Detailed Location:	MAPPED BY CNDDB AS 2 POLYGONS IN THE SW1/4 OF SECTION 26. NE POLY: PLANTS ARE IN A BULLDOZED AREA ON ROAD IN OAK WOODLAND. SW POLY: PLANTS ALONG ROAD THAT BISECTS PROPERTY; PARCEL WAS CLEARED PRIOR TO SURVEY.						
Ecological:	GABBROIC NORTHERN MIXED CHAPARRAL, RESCUE SERIES SOILS. ASSOC INCL TOXICODENDRON DIVERSILOBUM, PRUNUS ILICIFOLIA, BERBERIS DICTYOTA, WYETHIA ANGUSTIFOLIA, W. RETICULATA, SENECIO ARONICOIDES, S. LAYNEAE, GALIUM SPP, SAVIA SONOMENSIS, ETC.						
General:	NE POLY: FEWER THAN 50 PLANTS SEEN IN 1984. SW POLY: UNKNOWN NUMBER OF PLANTS SEEN IN 2007.						
Owner/Manager:	PVT						



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Occurrence No.	24	Map Index:	30116	EO Index:	17067	Element Last Seen:	2006-07-28
Occ. Rank:	Fair			Presence:	Presumed Extant	Site Last Seen:	2006-07-28
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2007-08-03
Quad Summary:	Shingle Springs (3812068)						
County Summary:	El Dorado						
Lat/Long:	38.65330 / -120.94750				Accuracy:	specific area	
UTM:	Zone-10 N4280303 E678601				Elevation (ft):	1400	
PLSS:	T09N, R09E, Sec. 12 (M)				Acres:	1.0	
Location:	WEST SIDE OF LAKEVIEW DRIVE ABOUT 0.5 MILE SOUTH OF HIGHWAY 50, SHINGLE SPRINGS.						
Detailed Location:	WITHIN THE SW 1/4 OF THE NW 1/4 OF SECTION 12 AND THE SE 1/4 OF THE NE 1/4 OF SECTION 11.						
Ecological:	CHAPARRAL ON RESCUE SERIES SOILS. ASSOCIATED WITH ARCTOSTAPHYLOS VISCIDA, CEANOTHUS LEMMONII, ADENOSTOMA FASCICULATUM, CERCIS OCCIDENTALIS, SALVIA SONOMENSIS, CHLOROGALUM GRANDIFLORUM, SENECEO LAYNEAE, ETC.						
General:	SOUTHWESTERN TWO POLYGONS: 25 PLANTS OBSERVED IN 1994 AND 60 OBSERVED IN 2006. NORTHEASTERN PORTION OF OCCURRENCE: 7 TINY COLONIES, EACH WITH 1-10 PLANTS EACH, OBSERVED IN 1993, MAPPED HERE AS TWO SMALL POLYGONS.						
Owner/Manager:	PVT						

Occurrence No.	26	Map Index:	42027	EO Index:	42027	Element Last Seen:	1997-04-20
Occ. Rank:	Fair			Presence:	Presumed Extant	Site Last Seen:	1997-04-20
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2008-12-09
Quad Summary:	Shingle Springs (3812068)						
County Summary:	El Dorado						
Lat/Long:	38.68609 / -120.95344				Accuracy:	nonspecific area	
UTM:	Zone-10 N4283930 E678003				Elevation (ft):	1460	
PLSS:	T10N, R09E, Sec. 26 (M)				Acres:	5.0	
Location:	CARLSON LANE, ABOUT 3.2 AIRMILES SOUTHEAST OF PINE HILL, NORTHWEST OF SHINGLE SPRINGS.						
Detailed Location:	"E SIDE OF CARLSON LN BETWEEN ENTRANCE & EXIT DRIVEWAYS OF 3111 CARLSON LN." FROM HWY 50 TAKE PONDEROSA RD N, GO LEFT ON MEDER RD FOR 0.8 MI, RIGHT ON CARLSON LN FOR 0.5-0.6 MI. MAPPED AROUND PROPERTY; UNK WHERE PLANTS ARE WITHIN PROPERTY.						
Ecological:	ADENOSTOMA FASCICULATUM AND SALVIA SPP. CHAPARRAL WITH SPARSE GROUND VEGETATION. ON HEAVY RED CLAY SOILS. GRANITE ROCKS WITH SCATTERING OF SERPENTINE GRAVEL WHICH MAY OR MAY NOT BE FROM OLD ROAD SURFACING.						
General:	ABOUT 15 PLANTS OBSERVED IN 1997.						
Owner/Manager:	PVT						

Clarkia biloba ssp. brandegeae					Element Code: PDONA05053		
Brandeggee's clarkia							
Listing Status:	Federal:	None		CNDDDB Element Ranks:	Global:	G4G5T4	
	State:	None			State:	S4	
	Other:	Rare Plant Rank - 4.2, BLM_S-Sensitive					
Habitat:	General:	CHAPARRAL, CISMONTANE WOODLAND, LOWER MONTANE CONIFEROUS FOREST.					
	Micro:	OFTEN IN ROADCUTS. 75-915 M.					



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Occurrence No.	1	Map Index:	43396	EO Index:	43396	Element Last Seen:	2009-05-19
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2009-05-19
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2010-05-25
Quad Summary:	Garden Valley (3812077), Coloma (3812078)						
County Summary:	El Dorado						
Lat/Long:	38.78349 / -120.87686			Accuracy:	80 meters		
UTM:	Zone-10 N4294892 E684414			Elevation (ft):	1150		
PLSS:	T11N, R10E, Sec. 21 (M)			Acres:	0.0		
Location:	ABOUT 1 MILE SOUTH OF COLOMA ALONG WEST SIDE OF HIGHWAY 49.						
Detailed Location:	PLANTS ARE ON AN EAST-FACING CUT-BANK OF THE ROAD IN THE SW 1/4 OF THE SW 1/4 OF SECTION 21.						
Ecological:	GROWING ON E-FACING ROAD CUT UNDER GRAY PINE, CALIFORNIA BUCKEYE, YERBA SANTA, AND TOYON.						
General:	MORE THAN 1000 PLANTS OBSERVED IN 2009. 1947 COLLECTION BY LEWIS AND LEWIS FROM "1.7 MILES SOUTH OF COLOMA POST OFFICE" ALSO ATTRIBUTED HERE.						
Owner/Manager:	UNKNOWN						
Occurrence No.	2	Map Index:	43397	EO Index:	43397	Element Last Seen:	2009-05-19
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2009-05-19
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2010-05-25
Quad Summary:	Coloma (3812078)						
County Summary:	El Dorado						
Lat/Long:	38.82852 / -120.97653			Accuracy:	80 meters		
UTM:	Zone-10 N4299692 E675644			Elevation (ft):	800		
PLSS:	T11N, R09E, Sec. 04 (M)			Acres:	0.0		
Location:	ALONG HIGHWAY 49 ABOUT 2 MILES EAST OF PILOT HILL.						
Detailed Location:	PLANTS ARE ON N-FACING CUT-BANK OF THE ROAD IN THE SW 1/4 OF THE SE 1/4 OF SECTION 4.						
Ecological:	GROWING ON A STEEP N-FACING ROAD CUT WITH ANNUAL GRASSES UNDER PONDEROSA PINE.						
General:	MORE THAN 1000 PLANTS OBSERVED IN 2009. 1947 COLLECTION BY LEWIS AND LEWIS FROM "2.3 MILES SOUTH OF PILOT HILL ALONG HWY 49" ALSO ATTRIBUTED HERE.						
Owner/Manager:	UNKNOWN						
Occurrence No.	3	Map Index:	43398	EO Index:	43398	Element Last Seen:	XXXX-XX-XX
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	XXXX-XX-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2010-05-25
Quad Summary:	Coloma (3812078)						
County Summary:	El Dorado						
Lat/Long:	38.82748 / -120.95932			Accuracy:	nonspecific area		
UTM:	Zone-10 N4299611 E677142			Elevation (ft):	900		
PLSS:	T11N, R09E, Sec. 03 (M)			Acres:	30.0		
Location:	3.1 MILES SOUTH OF PILOT HILL ALONG HIGHWAY 49.						
Detailed Location:	EXACT LOCATION UNKNOWN. MAPPED AS BEST GUESS BY CNDDDB ALONG HIGHWAY 49 AROUND 3.1 MILES EAST OF PILOT HILL.						
Ecological:							
General:	ONLY SOURCE OF INFORMATION FOR THIS SITE IS AN UNDATED ANONYMOUS COLLECTION CITED BY LEWIS AND LEWIS IN "THE GENUS CLARKIA"; NEEDS FIELDWORK.						
Owner/Manager:	UNKNOWN						



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Occurrence No.	4	Map Index:	43399	EO Index:	43399	Element Last Seen:	2009-05-19
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2009-05-19
Occ. Type:	Natural/Native occurrence			Trend:	Increasing	Record Last Updated:	2010-06-14
Quad Summary:	Clarksville (3812161), Pilot Hill (3812171)						
County Summary:	El Dorado						
Lat/Long:	38.75175 / -121.05054				Accuracy:	specific area	
UTM:	Zone-10 N4291033 E669402				Elevation (ft):	560	
PLSS:	T10N, R08E, Sec. 01 (M)				Acres:	12.0	
Location:	FROM SWEETWATER OVERCROSSING WEST FOR ABOUT 0.25 MILE, ALONG SOUTH SIDE OF SALMON FALLS ROAD, EAST OF FOLSOM LAKE.						
Detailed Location:	NW POLY MAPPED ACCORDING TO A 2002 BURMESTER MAP. SE POLY MAPPED ACCORDING TO A 2007 JANEWAY & CASTRO COLLECTION FROM "125 METERS S OF SALMON FALLS RD ALONG LITTLE USED DIRT ROAD ON E SIDE OF SWEETWATER CREEK."						
Ecological:	NW POLY FOUND IN WEED INFESTED ROADFILL WITH CHONDRILLA JUNCEA, LACTUCA SERRIOLA, AND TORILIS NODOSA ADJACENT TO RIPARIAN AREA WITH AESCULUS CALIFORNICA, QUERCUS WISLIZENI, AND ALSO ON ROADCUT WITH LITTLE VEGETATION ADJACENT TO CHAPARRAL.						
General:	NW POLY: 500 EST IN 2002, >1000 IN '09. SE POLY: "COMMON" IN '07. 1947 COLL BY LEWIS FROM "PILOT HILLS-SALMON FALLS RD" & 3 1907-1908 BRANDEGEE COLLECTIONS FROM "SIMPSON'S RANCH, SWEETWATER RVR" ATTRIB HERE; UNABLE TO FIND SIMPSON'S RANCH.						
Owner/Manager:	UNKNOWN						

Occurrence No.	25	Map Index:	56254	EO Index:	56270	Element Last Seen:	2003-05-19
Occ. Rank:	Fair			Presence:	Presumed Extant	Site Last Seen:	2003-05-19
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-07-05
Quad Summary:	Clarksville (3812161)						
County Summary:	El Dorado						
Lat/Long:	38.71002 / -121.08387				Accuracy:	nonspecific area	
UTM:	Zone-10 N4286340 E666602				Elevation (ft):	655	
PLSS:	T10N, R08E, Sec. 22 (M)				Acres:	11.0	
Location:	NORTHEAST OF THE INTERSECTION OF GREEN VALLEY ROAD AND FRANCISCO ROAD, SOUTH OF VILLAGE CENTER DRIVE IN EL DORADO HILLS.						
Detailed Location:	LOCATED NEAR THE SOUTH END OF THE PROPERTY, ON TOP OF A RISE ADJACENT TO GREEN VALLEY ROAD. MAPPED WITHIN THE NE 1/4 OF SECTION 22.						
Ecological:	HIGHLY DISTURBED NON-NATIVE ANNUAL GRASSLAND. MAJOR COMPONENTS ARE BROMUS DIANDRUS, TRIFOLIUM HIRTUM, TAENIATHERUM CAPUT-MEDUSAE, AND LOTUS PURSHIANUS. SITE ALSO SUPPORTS A SMALL QUERCUS DOUGLASII WOODLAND.						
General:	500 PLANTS SEEN IN 2003.						
Owner/Manager:	PVT						



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Occurrence No.	26	Map Index:	56255	EO Index:	56271	Element Last Seen:	2002-06-19
Occ. Rank:	Excellent			Presence:	Presumed Extant	Site Last Seen:	2002-06-19
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2004-07-29
Quad Summary:	Pilot Hill (3812171)						
County Summary:	El Dorado						
Lat/Long:	38.76136 / -121.00794				Accuracy:	80 meters	
UTM:	Zone-10 N4292179 E673081				Elevation (ft):	740	
PLSS:	T11N, R09E, Sec. 31 (M)				Acres:	0.0	
Location:	SOUTH FORK AMERICAN RIVER, JUST DOWNSTREAM FROM CONFLUENCE OF WEBER CREEK, EAST OF PINE HILL PRESERVE.						
Detailed Location:	MOSTLY ON ROAD CUT ABOVE DIRT ROAD ON THE WAY TO WEBER CREEK.						
Ecological:	FOOTHILL PINE SERIES, WITH PINUS SABINIANA, QUERCUS KELLOGII, Q. WISLIZENI, AESCULUS CALIFORNICA, AND TOXICODENDRON. GROWING IN OPENING ON CUT SLOPE ABOVE DIRT ROAD.						
General:	200 PLANTS SEEN IN 2002.						
Owner/Manager:	BLM						

Occurrence No.	62	Map Index:	65061	EO Index:	65140	Element Last Seen:	1933-05-06
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1933-05-06
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-07-11
Quad Summary:	Rocklin (3812172), Gold Hill (3812182)						
County Summary:	Placer						
Lat/Long:	38.87639 / -121.14465				Accuracy:	nonspecific area	
UTM:	Zone-10 N4304695 E660943				Elevation (ft):	600	
PLSS:	T12N, R07E, Sec. 24 (M)				Acres:	634.6	
Location:	NEAR NEWCASTLE.						
Detailed Location:	EXACT LOCATION UNKNOWN. MAPPED AS BEST GUESS BY CNDDDB WITHIN T12N R7E SECTION 24. COLLECTOR PROBABLY LISTED R8E INCORRECTLY.						
Ecological:							
General:	A 1933 CLAR COLLECTION IS THE ONLY SOURCE FOR THIS SITE. NEEDS FIELDWORK.						
Owner/Manager:	UNKNOWN						

Occurrence No.	71	Map Index:	69830	EO Index:	70648	Element Last Seen:	2005-06-27
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2005-06-27
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2007-09-07
Quad Summary:	Latrobe (3812058)						
County Summary:	El Dorado						
Lat/Long:	38.62240 / -120.99022				Accuracy:	1/10 mile	
UTM:	Zone-10 N4276791 E674959				Elevation (ft):	1076	
PLSS:	T09N, R09E, Sec. 21 (M)				Acres:	0.0	
Location:	0.4 AIR MILE ENE OF JUNCTION OF MARBLE CREEK AND DEER CREEK, NW OF BULLARD.						
Detailed Location:	MAPPED ACCORDING TO COORDINATES GIVEN IN SOURCE IN THE SW 1/4 OF THE NE 1/4 OF SECTION 21.						
Ecological:	EAST-FACING SLOPES ABOVE OAK RIPARIAN WOODLAND. THE RARE ERIOGONUM LUTEOLUM AND ODONTOSTOMUM HARTWEGII OCCUR FARTHER UP CANYON AT EDGE OF CHAPARRAL/STREAMSIDE MEADOW.						
General:	FEWER THAN 200 PLANTS OBSERVED IN 2005.						
Owner/Manager:	EL DORADO IRRIGATION DISTRICT						



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Occurrence No.	72	Map Index:	70885	EO Index:	71862	Element Last Seen:	1990-05-23
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1990-05-23
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2008-02-27
Quad Summary:	Folsom (3812162)						
County Summary:	Sacramento						
Lat/Long:	38.64606 / -121.19959				Accuracy:	1 mile	
UTM:	Zone-10 N4279038 E656679				Elevation (ft):	270	
PLSS:	T09N, R07E, Sec. 10 (M)				Acres:	0.0	
Location:	NATOMA UNIT-FOLSOM LAKE STATE RECREATION AREA. SLOPES AT SW END OF AMERICAN RIVER BLUFFS, WHERE CREEK ENTERS LAKE.						
Detailed Location:	EXACT LOCATION UNKNOWN. MAPPED BY CNDDDB AS A BEST GUESS.						
Ecological:	SMALL COLONIES IN OPEN GRASSY SPOTS AMONG QUERCUS WISLIZENI AND QUERCUS DOUGLASII.						
General:	ONLY SOURCES OF INFORMATION FOR THIS OCCURRENCE ARE TWO 1990 COLLECTIONS BY HRUSA. BETTER LOCATION INFORMATION IS NEEDED.						
Owner/Manager:	DPR-FOLSOM LAKE SRA						

Occurrence No.	76	Map Index:	73124	EO Index:	74055	Element Last Seen:	2008-05-22
Occ. Rank:	Fair			Presence:	Presumed Extant	Site Last Seen:	2008-05-22
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2008-12-15
Quad Summary:	Coloma (3812078)						
County Summary:	El Dorado						
Lat/Long:	38.82083 / -120.94636				Accuracy:	80 meters	
UTM:	Zone-10 N4298897 E678284				Elevation (ft):	660	
PLSS:	T11N, R09E, Sec. 11 (M)				Acres:	0.0	
Location:	BETWEEN CLARK MOUNTAIN RD & THE SOUTH FORK AMERICAN RIVER, NE OF CLARK MTN.						
Detailed Location:	MAPPED BY CNNDDB IN THE NW1/4 OF SECTION 11 ACCORDING TO A 2008 WILLSON MAP.						
Ecological:	VALLEY-FOOTHILL RIPARIAN PLANT COMMUNITY ON PLACER DIGGINGS SOIL (RIVER RUBBLE). PLANTS WERE ON E SIDE OF SHADING SALIX EXIGUA OR BENEATH QUERCUS LOBATA.						
General:	4 PLANTS SEEN BETWEEN THIS SITE AND EO #77 IN 2008.						
Owner/Manager:	PVT						

Occurrence No.	77	Map Index:	73125	EO Index:	74056	Element Last Seen:	2008-05-22
Occ. Rank:	Fair			Presence:	Presumed Extant	Site Last Seen:	2008-05-22
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2008-12-15
Quad Summary:	Coloma (3812078)						
County Summary:	El Dorado						
Lat/Long:	38.82486 / -120.94222				Accuracy:	80 meters	
UTM:	Zone-10 N4299353 E678632				Elevation (ft):	660	
PLSS:	T11N, R09E, Sec. 11 (M)				Acres:	0.0	
Location:	NE SIDE OF PETERSON LANE ALONG THE S SIDE OF THE SOUTH FORK AMERICAN RIVER, NE OF CLARK MTN.						
Detailed Location:	MAPPED BY CNNDDB IN THE NW1/4 OF SECTION 11 ACCORDING TO A 2008 WILLSON MAP.						
Ecological:	VALLEY-FOOTHILL RIPARIAN PLANT COMMUNITY ON PLACER DIGGINGS SOIL (RIVER RUBBLE). PLANTS WERE ON E SIDE OF SHADING SALIX EXIGUA OR BENEATH QUERCUS LOBATA.						
General:	4 PLANTS SEEN BETWEEN THIS SITE AND EO #76 IN 2008.						
Owner/Manager:	PVT						



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Occurrence No.	82	Map Index:	78901	EO Index:	79882	Element Last Seen:	2009-05-19
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2009-05-19
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2010-05-25
Quad Summary:	Coloma (3812078)						
County Summary:	El Dorado						
Lat/Long:	38.79368 / -120.88437				Accuracy:	80 meters	
UTM:	Zone-10 N4296007 E683735				Elevation (ft):	1000	
PLSS:	T11N, R10E, Sec. 20 (M)				Acres:	0.0	
Location:	ABOUT 0.5 MILE SOUTH OF COLOMA ALONG BOTH SIDES OF HIGHWAY 49.						
Detailed Location:	PLANTS ARE ON CUT-BANKS OF THE ROAD IN THE W 1/2 OF THE NE 1/4 OF SECTION 20.						
Ecological:	GROWING ON ROAD CUT WITH MELICA AND ANNUAL GRASSES UNDER BLACK OAK, INTERIOR LIVE OAK, AND TOYON.						
General:	MORE THAN 1000 PLANTS OBSERVED IN 2009.						
Owner/Manager:	UNKNOWN						

Occurrence No.	83	Map Index:	79021	EO Index:	79885	Element Last Seen:	2009-05-25
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2009-05-25
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2010-06-09
Quad Summary:	Pilot Hill (3812171)						
County Summary:	Placer						
Lat/Long:	38.83398 / -121.09160				Accuracy:	80 meters	
UTM:	Zone-10 N4300084 E665643				Elevation (ft):	471	
PLSS:	T11N, R08E, Sec. 04 (M)				Acres:	0.0	
Location:	ALONG WEST SIDE OF ACCESS ROAD TO NEWCASTLE POWERHOUSE ADJACENT TO FOLSOM LAKE, ~1.5 AIR MILES SSE OF SCOTTS CORNER.						
Detailed Location:	MAPPED IN THE SE 1/4 OF THE NW 1/4 OF SECTION 4 ACCORDING TO 2009 KENT UTM COORDINATES.						
Ecological:	FOOTHILL WOODLAND. WEST SIDE OF ACCESS ROAD BANK ON DECOMPOSED GRANITE ON E-FACING 80 DEG SLOPE. ASSOC W/ PINUS SABINIANA, QUERCUS WISLIZENI, Q. KELLOGGII, HETEROMELES ARBUTIFOLIA, AESCULUS CALIFORNICA, TOXICODENDRON DIVERSILOBUM, ETC.						
General:	MORE THAN 5000 PLANTS OBSERVED IN 2009.						
Owner/Manager:	USBOR						

Occurrence No.	84	Map Index:	78905	EO Index:	79887	Element Last Seen:	2009-06-15
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2009-06-15
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2010-05-25
Quad Summary:	Pilot Hill (3812171)						
County Summary:	El Dorado						
Lat/Long:	38.83948 / -121.03854				Accuracy:	specific area	
UTM:	Zone-10 N4300792 E670235				Elevation (ft):	1050	
PLSS:	T11N, R08E, Sec. 01 (M)				Acres:	28.0	
Location:	ABOUT 1 MILE WEST OF COMMUNITY OF PILOT HILL ALONG RATTLESNAKE BAR ROAD.						
Detailed Location:	PLANTS ARE MOSTLY ON THE SOUTH SIDE OF THE ROAD, BUT SOME ARE ON THE NORTH SIDE AS WELL. ALL PLANTS ARE ON THE ROAD BANKS. MAPPED IN THE N 1/2 OF THE NW 1/4 OF SECTION 1.						
Ecological:	GROWING ON ROAD BANK WITH SPARSE COVER OF GRASSES AND FORBS UNDER BLUE OAK AND GRAY PINE.						
General:	MORE THAN 1000 PLANTS OBSERVED IN 2009.						
Owner/Manager:	UNKNOWN						



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Occurrence No.	85	Map Index:	78908	EO Index:	79888	Element Last Seen:	2009-06-15
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2009-06-15
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2010-05-26
Quad Summary:	Pilot Hill (3812171)						
County Summary:	El Dorado						
Lat/Long:	38.81245 / -121.06816				Accuracy:	specific area	
UTM:	Zone-10 N4297737 E667728				Elevation (ft):	925	
PLSS:	T11N, R08E, Sec. 10 (M)				Acres:	11.0	
Location:	ALONG RATTLESNAKE BAR ROAD, ABOUT 3.3 AIR MILES SOUTHWEST OF COMMUNITY OF PILOT HILL.						
Detailed Location:	PLANTS ARE MOSTLY ON THE CUT-BANKS OF THE SOUTH SIDE OF THE ROAD. MAPPED IN THE SW 1/4 OF THE SE 1/4 OF SECTION 10.						
Ecological:	GROWING ON ROAD BANK WITH SPARSE COVER OF GRASSES AND FORBS UNDER BLUE OAK AND GRAY PINE.						
General:	MORE THAN 1000 PLANTS OBSERVED IN 2009.						
Owner/Manager:	UNKNOWN						

Occurrence No.	86	Map Index:	78909	EO Index:	79889	Element Last Seen:	2009-06-15
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2009-06-15
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2010-05-26
Quad Summary:	Pilot Hill (3812171)						
County Summary:	El Dorado						
Lat/Long:	38.77706 / -121.03496				Accuracy:	80 meters	
UTM:	Zone-10 N4293871 E670695				Elevation (ft):	650	
PLSS:	T11N, R08E, Sec. 25 (M)				Acres:	0.0	
Location:	SKUNK CANYON; JUST NORTH OF THE AMERICAN RIVER ALONG SALMON FALLS ROAD, ABOUT 2.6 AIR MILES NORTHWEST OF MORMON HILL.						
Detailed Location:	PLANTS ARE ON A VERY STEEP ROCKY EAST-FACING CUT-BANK OF THE ROAD. MAPPED IN THE SW 1/4 OF THE NE 1/4 OF SECTION 25, VERY CLOSE TO CENTER OF SEC 25.						
Ecological:	GROWING ON STEEP ROCKY CUT-BANK OF ROAD WITH SPARSE COVER OF GRASSES, FORBS, SCATTERED BUSH MONKEY FLOWER AND POISON OAK UNDER INTERIOR LIVE OAK AND GRAY PINE.						
General:	MORE THAN 1000 PLANTS OBSERVED IN 2009.						
Owner/Manager:	UNKNOWN						



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Navarretia myersii ssp. myersii

Element Code: PDPLM0C0X1

pincushion navarretia

Listing Status: **Federal:** None
State: None
Other: Rare Plant Rank - 1B.1

CNDDDB Element Ranks: **Global:** G1T1
State: S1

Habitat: **General:** VERNAL POOLS.
Micro: CLAY SOILS WITHIN NONNATIVE GRASSLAND. 20-330 M.

Occurrence No. 3 **Map Index:** 11841 **EO Index:** 19342 **Element Last Seen:** 1994-04-19
Occ. Rank: Good **Presence:** Presumed Extant **Site Last Seen:** 1994-04-19
Occ. Type: Natural/Native occurrence **Trend:** Unknown **Record Last Updated:** 2011-10-06

Quad Summary: Folsom (3812162)

County Summary: Sacramento

Lat/Long: 38.65475 / -121.21546 **Accuracy:** 80 meters
UTM: Zone-10 N4279976 E655279 **Elevation (ft):** 270
PLSS: T09N, R07E, Sec. 09 (M) **Acres:** 0.0

Location: DFG PHOENIX FIELD ECOLOGICAL RESERVE, ABOUT 0.5 MILE EAST OF HAZEL AVE & NORTH OF SUNSET AVE, FAIR OAKS.

Detailed Location: FOUND IN TWO POOLS IN THE SOUTH HALF OF THE PRESERVE; GROWING ON OR CLOSE TO SIDE SLOPE OF POOLS. WITHIN THE NW 1/4 OF THE NE 1/4 OF SECTION 9.

Ecological: SHALLOW, DRY POOLS. ASSOCIATED WITH LASTHENIA FREMONTII, POGONYNE ZIZYPHOIDES, PSILOCARPHUS SP., ERODIUM BOTRYS, JUNCUS CAPITATUS, BRODIAEA MINOR, ERYNGIUM VASEYI, DESCHAMPSIA DANTHONIOIDES AND THE RARE ORCUTTIA VISCIDA.

General: ABOUT 1000 PLANTS OBSERVED IN 1994. 1937 COLLECTION BY CARTER ET AL. FROM "1 MILE SE OF ORANGEVALE", 1981 HOLLAND COLLECTION, 1988 DAY COLLECTION, AND AN UNDATED WHITLOW COLLECTION ATTRIBUTED TO THIS OCCURRENCE.

Owner/Manager: DFG-PHOENIX FIELD ER

Ceanothus roderickii

Element Code: PDRHA04190

Pine Hill ceanothus

Listing Status: **Federal:** Endangered
State: Rare
Other: Rare Plant Rank - 1B.2, SB_RSABG-Rancho Santa Ana Botanic Garden

CNDDDB Element Ranks: **Global:** G1
State: S1

Habitat: **General:** CHAPARRAL, CISMONTANE WOODLAND.
Micro: GABBROIC SOILS; OFTEN IN "HISTORICALLY DISTURBED" AREAS WITH AN ENSEMBLE OF OTHER RARE PLANTS. 260-630 M.



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Occurrence No.	1	Map Index:	12327	EO Index:	4182	Element Last Seen:	2011-06-08
Occ. Rank:	Good	Presence:	Presumed Extant	Site Last Seen:	2011-06-08		
Occ. Type:	Natural/Native occurrence	Trend:	Decreasing	Record Last Updated:	2013-03-06		
Quad Summary:	Shingle Springs (3812068)						
County Summary:	El Dorado						
Lat/Long:	38.66809 / -120.96940			Accuracy:	specific area		
UTM:	Zone-10 N4281901 E676659			Elevation (ft):	1450		
PLSS:	T09N, R09E, Sec. 03 (M)			Acres:	564.0		
Location:	ALONG BOTH SIDES OF HIGHWAY 50, BETWEEN SHINGLE SPRINGS AND CAMERON PARK.						
Detailed Location:	MANY OF THESE POLYGONS ARE FOR MULTIPLE RARE PLANTS AND C. RODERICKII MAY NOT BE PRESENT THROUGHOUT EACH POLYGON. SEVERAL POLYGONS MAPPED THROUGHOUT SECTIONS 1, 2, 3, 34, AND 35. VAGUE COLLECTIONS FROM NEAR SHINGLE SPRINGS ATTRIBUTED HERE.						
Ecological:	OPENINGS IN CHAPARRAL; GABBROIC SOILS, RESCUE SERIES. ASSOCIATED WITH CALYSTEGIA STEBBINSII, WYETHIA RETICULATA, SENECIO LAYNEAE, CHLOROGALUM GRANDIFLORUM, HELIANTHEMUM SUFFRUTESCENS, ADENOSTOMA FASCICULATUM, ARCTOSTAPHYLOS VISCIDA, ETC.						
General:	POP #S ARE FOR PARTS OF EO. 1050 IN '84, 50 IN '85, 200 IN '87, 200 IN '92, 300 IN '94, 100S IN '98, 1 IN '03, 3 IN '04, 1000S IN '05, 4000 IN '06, 100 IN '07, 100S IN '08, 700+ IN '09, 2300+ IN '11. INCL FRMR EOS 2, 6, 9, 11, 21 & 22.						
Owner/Manager:	PVT, CALTRANS, BLM						

Occurrence No.	4	Map Index:	12229	EO Index:	12224	Element Last Seen:	2011-03-14
Occ. Rank:	Good	Presence:	Presumed Extant	Site Last Seen:	2011-03-14		
Occ. Type:	Natural/Native occurrence	Trend:	Unknown	Record Last Updated:	2013-03-04		
Quad Summary:	Shingle Springs (3812068), Clarksville (3812161)						
County Summary:	El Dorado						
Lat/Long:	38.71923 / -120.99124			Accuracy:	specific area		
UTM:	Zone-10 N4287535 E674634			Elevation (ft):	2059		
PLSS:	T10N, R09E, Sec. 16 (M)			Acres:	112.0		
Location:	PINE HILL SUMMIT, ALONG ROAD BELOW PINE HILL LOOKOUT AND ~0.2 AIR MI E OF INTERSECTION OF STARBUCK RD & MERCY WAY.						
Detailed Location:	AREA BURNED IN 1983 AS PART OF RARE PLANT REGENERATION STUDY; GOOD REGENERATION AFTER BURN. MAJORITY OF PLANTS FOUND ON PINE HILL SUMMIT, PLANTS ALSO FOUND ON SURROUNDING SLOPES IN S 1/2 OF SEC 16. VAGUE OBS FROM PINE HILL ATTRIBUTED HERE.						
Ecological:	ROCKY LOAM OVER GABBRO; ASSOCIATED WITH FREMONTODENDRON DECUMBENS AND WYETHIA RETICULATA. OTHER ASSOCIATES INCLUDE SALVIA SONOMENSIS, CEANOTHUS LEMMONII, ADENOSTOMA, RHAMNUS CROCEA, R. CALIFORNICA, QUERCUS DURATA, ETC.						
General:	<10 PLANTS IN 1978, <50 IN 1982 & 1984, SCATTERED AROUND SUMMIT IN 1983, <1000 IN 1985, ~2000 IN 1986, 1000S OF PLANTS IN 1998, UNK # IN 2005, ~1000 IN 2007, 200+ IN 2009, UNK # IN 2010 & 2011. INCLUDES FORMER EO #S 3, 16, 17, & 18.						
Owner/Manager:	DFG-PINE HILL ER, CDF						



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Occurrence No.	5	Map Index:	12162	EO Index:	4345	Element Last Seen:	2011-05-14
Occ. Rank:	Excellent			Presence:	Presumed Extant	Site Last Seen:	2011-05-14
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2013-03-06
Quad Summary:	Pilot Hill (3812171)						
County Summary:	El Dorado						
Lat/Long:	38.76355 / -121.02545				Accuracy:	specific area	
UTM:	Zone-10 N4292389 E671554				Elevation (ft):	950	
PLSS:	T11N, R09E, Sec. 31 (M)				Acres:	464.0	
Location:	N & S OF SOUTH FORK AMERICAN RIVER, MOSTLY BETWEEN SALMON FALLS ROAD & WEBER CREEK, EAST OF FOLSOM LAKE.						
Detailed Location:	SOME INFORMATION USED FOR MAPPING WAS FOR MULTIPLE RARE PLANTS AND C. RODERICKII MAY NOT BE PRESENT THROUGHOUT EACH POLYGON.						
Ecological:	ON RESCUE GABBROIC SOILS IN CHAPARRAL. ASSOCIATED WITH WYETHIA RETICULATA, CALYSTEGIA STEBBINSII, CHLOROGALUM GRANDIFLORUM AND HELIANTHEMUM SUFFRUTESCENS. OTHER ASSOCIATES INCLUDE ARCTOSTAPHYLOS VISCIDA, ADENOSTOMA FASCICULATUM, ETC.						
General:	POP #S FOR PARTS OF EO: <2000 PLANTS IN 1984; 500+ IN 1986; UNKNOWN # IN 1987, 1989, 1990; >1000 IN 1993; 12,000 IN 1994; UNK # IN 2005; SEVERAL 1000S IN 2007; 600+ IN 2009; 200+ IN 2010, 7 IN 2011. INCLUDES FORMER EO#S 7, 8, 12, 13, & 15.						
Owner/Manager:	BLM, DFG, PVT						
Occurrence No.	10	Map Index:	12313	EO Index:	18657	Element Last Seen:	2009-04-24
Occ. Rank:	Fair			Presence:	Presumed Extant	Site Last Seen:	2009-04-24
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2010-05-24
Quad Summary:	Shingle Springs (3812068)						
County Summary:	El Dorado						
Lat/Long:	38.68810 / -120.96047				Accuracy:	specific area	
UTM:	Zone-10 N4284139 E677386				Elevation (ft):	1440	
PLSS:	T10N, R09E, Sec. 26 (M)				Acres:	10.0	
Location:	SOUTH OF WHITE OAK FLAT, ABOUT 2.4 AIR MILES NORTHWEST OF SHINGLE SPRINGS.						
Detailed Location:	NORTH COLONY: AT END OF DEAD-END ROAD (CARLSON CT) OFF OF N-S TENDING ROAD IN NE 1/4 OF SW 1/4 OF SEC 26. SOUTH COLONY: SMALL POPULATION FOUND ON A STRIP OF INTACT HABITAT NEAR A PUBLIC URBAN ROAD IN THE SE 1/4 OF SW 1/4 OF SEC 26.						
Ecological:	BULLDOZED AREA IN OAK WOODLAND. ASSOCIATED WITH BERBERIS SP., WYETHIA RETICULATA, CALYSTEGIA STEBBINSII, ARCTOSTAPHYLOS VISCIDA, ADENOSTOMA FASCICULATUM, FRANGULA SP., CERCIS OCCIDENTALIS, CEANOTHUS LEMMONII, SALVIA SONOMENSIS, ETC.						
General:	1-5 PLANTS OBSERVED IN NORTHERN COLONY IN 1984. ~10 PLANTS OBSERVED IN SOUTHERN COLONY IN 2009.						
Owner/Manager:	UNKNOWN						



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Occurrence No.	14	Map Index:	22727	EO Index:	27224	Element Last Seen:	1992-05-20
Occ. Rank:	Unknown	Presence:	Presumed Extant	Site Last Seen:	1992-05-20	Record Last Updated:	2008-11-18
Occ. Type:	Natural/Native occurrence	Trend:	Unknown				
Quad Summary:	Shingle Springs (3812068)						
County Summary:	El Dorado						
Lat/Long:	38.69441 / -120.94870			Accuracy:	nonspecific area		
UTM:	Zone-10 N4284863 E678394			Elevation (ft):	1350		
PLSS:	T10N, R09E, Sec. 26 (M)			Acres:	28.0		
Location:	1 KM (0.7 MI) SOUTH OF RESCUE.						
Detailed Location:	2701 CARLSON DRIVE, SHINGLE SPRINGS. LOCATED IN THE EAST 1/2 OF THE NE 1/4 OF SECTION 26. MAPPED BY CNNDDB AROUND PROPERTY BOUNDARY; UNKNOWN WHERE PLANTS OCCUR WITHIN THIS AREA BUT MOST WERE FOUND ON THE SOUTH HALF OF THE PROPERTY.						
Ecological:	GROWING IN RESCUE VERY STONY SANDY LOAM SOILS ALONG AN ECOTONE BETWEEN OAK WOODLAND AND CHAPARRAL. OTHER RARE PLANTS AT SITE INCLUDE GALIUM CALIFORNICUM SSP. SIERRAE AND WYETHIA RETICULATA.						
General:	UNKNOWN NUMBER OF PLANTS SEEN IN 1992. RARE FLORA MAY BE PROTECTED ON SITE BY AGREEMENTS WITH PROPERTY OWNERS REGARDING LAND USE.						
Owner/Manager:	PVT						

Occurrence No.	19	Map Index:	22723	EO Index:	20651	Element Last Seen:	2009-04-08
Occ. Rank:	Good	Presence:	Presumed Extant	Site Last Seen:	2009-04-08	Record Last Updated:	2013-03-04
Occ. Type:	Natural/Native occurrence	Trend:	Unknown				
Quad Summary:	Shingle Springs (3812068)						
County Summary:	El Dorado						
Lat/Long:	38.71091 / -120.99044			Accuracy:	specific area		
UTM:	Zone-10 N4286613 E674724			Elevation (ft):	1500		
PLSS:	T10N, R09E, Sec. 21 (M)			Acres:	10.0		
Location:	SOUTH OF PINE HILL, ABOUT 0.8 AIR MILE NORTH OF SKINNERS.						
Detailed Location:	2 COLONIES MAPPED UNDER TRANSMISSION LINES NEAR DIRT ROAD IN THE NORTH 1/2 OF SECTION 21.						
Ecological:	CHAPARRAL WITH ROCKY SOIL DERIVED FROM GABBRO PARENT MATERIAL. ASSOCIATED WITH PINUS SABINIANA, ADENOSTOMA FASCICULATUM, ARCTOSTAPHYLOS VISCIDA, RHAMNUS ILICIFOLIA, SALVIA SONOMENSIS, CERCIS OCCIDENTALIS, QUERCUS WISLIZENI, ETC.						
General:	EASTERN COLONY: "ABUNDANT" IN 2007, GREATER THAN 500 PLANTS OBSERVED IN 2009. 1986 MAP DETAIL IS THE ONLY SOURCE OF INFORMATION FOR THE WESTERN COLONY.						
Owner/Manager:	UNKNOWN						



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Occurrence No.	20	Map Index:	22145	EO Index:	16646	Element Last Seen:	1986-XX-XX
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1986-XX-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	1993-01-25
Quad Summary:	Clarksville (3812161)						
County Summary:	El Dorado						
Lat/Long:	38.73531 / -121.05130				Accuracy:	80 meters	
UTM:	Zone-10 N4289207 E669375				Elevation (ft):	860	
PLSS:	T10N, R08E, Sec. 12 (M)				Acres:	0.0	
Location:	WEST OF SWEETWATER CREEK, 0.5 KM (0.25 MI) NW OF LANDING STRIP AND 2.5 KM (1.5 MI) NNE OF LIVE OAK SCHOOL.						
Detailed Location:	LOCATED IN THE NE 1/4 OF THE SW 1/4 OF SECTION 12.						
Ecological:							
General:	MAP DETAIL IS ONLY SOURCE OF INFORMATION FOR THIS SITE.						
Owner/Manager:	UNKNOWN						

Occurrence No.	23	Map Index:	72765	EO Index:	73600	Element Last Seen:	1993-04-10
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1993-04-10
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2008-10-31
Quad Summary:	Clarksville (3812161)						
County Summary:	El Dorado						
Lat/Long:	38.72974 / -121.00500				Accuracy:	1/5 mile	
UTM:	Zone-10 N4288675 E673412				Elevation (ft):	1380	
PLSS:	T10N, R09E, Sec. 08 (M)				Acres:	0.0	
Location:	PRAYER MTN, 0.2 MILES FROM THE INTERSECTION OF STARBUCK OFF OF DEER VALLEY RD, CAMERON PARK.						
Detailed Location:	EXACT LOCATION UNKNOWN. MAPPED BY CNDDDB AS BEST GUESS 0.2 ROAD MI S OF THE INTERSECTION OF STARBUCK RD & DEER VALLEY RD.						
Ecological:	GROWING IN A SMALL OPEN AREA IN A CHAPARRAL COMMUNITY. SOIL WITH SOME SMALL ROCKS AND PEBBLES. NEARBY ASSOCIATES INCLUDE: ARCTOSTAPHYLOS SP., ADENOSTOMA FASCICULATUM, CEANOTHUS CUNEATUS, AND PINUS SP.						
General:	ONLY SOURCE OF INFORMATION FOR THIS SITE IS A 1993 SCHNEIDER & WAAYERS COLLECTION. NEEDS FIELDWORK.						
Owner/Manager:	UNKNOWN						

<i>Galium californicum ssp. sierrae</i>						Element Code: PDRUB0N0E7	
El Dorado bedstraw							
Listing Status:	Federal:	Endangered			CNDDDB Element Ranks:	Global:	G5T1
	State:	Rare				State:	S1
	Other:	Rare Plant Rank - 1B.2, SB_RSABG-Rancho Santa Ana Botanic Garden					
Habitat:	General:	CISMONTANE WOODLAND, CHAPARRAL, LOWER MONTANE CONIFEROUS FOREST.					
	Micro:	MORE OFTEN IN PINE-OAK WOODLAND THAN IN CHAPARRAL; RESTRICTED TO GABBROIC SOILS. 100-585 M.					



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Occurrence No.	1	Map Index:	12104	EO Index:	17316	Element Last Seen:	XXXX-XX-XX
Occ. Rank:	Unknown	Presence:	Presumed Extant	Site Last Seen:	XXXX-XX-XX		
Occ. Type:	Natural/Native occurrence	Trend:	Unknown	Record Last Updated:	2007-04-25		
Quad Summary:	Pilot Hill (3812171)						
County Summary:	El Dorado						
Lat/Long:	38.75434 / -121.05799			Accuracy:	1/5 mile		
UTM:	Zone-10 N4291306 E668748			Elevation (ft):	440		
PLSS:	T10N, R08E, Sec. 01 (M)			Acres:	0.0		
Location:	NEAR CONFLUENCE OF SWEETWATER CREEK SOUTH FORK AMERICAN RIVER AT FOLSOM LAKE.						
Detailed Location:							
Ecological:							
General:	ONLY SOURCE OF INFORMATION FOR THIS SITE IS A 1980 CNPS MAP; UNKNOWN WHEN PLANTS WERE SEEN. NEEDS FIELDWORK.						
Owner/Manager:	UNKNOWN						

Occurrence No.	2	Map Index:	12237	EO Index:	22465	Element Last Seen:	2005-07-05
Occ. Rank:	Unknown	Presence:	Presumed Extant	Site Last Seen:	2005-07-05		
Occ. Type:	Natural/Native occurrence	Trend:	Unknown	Record Last Updated:	2010-07-19		
Quad Summary:	Shingle Springs (3812068)						
County Summary:	El Dorado						
Lat/Long:	38.72144 / -120.98790			Accuracy:	specific area		
UTM:	Zone-10 N4287787 E674919			Elevation (ft):	1920		
PLSS:	T10N, R09E, Sec. 16 (M)			Acres:	42.0		
Location:	PINE HILL AREA AROUND SUMMIT LOOKOUT; WEST RIDGE, NORTHEAST RIDGE, AND ALONG ULENKAMP ROAD.						
Detailed Location:	SEVERAL COLONIES MAPPED BY CNDDDB AS 3 POLYGONS IN THE N 1/2 OF THE SE 1/4 OF SECTION 16 AND THE NW 1/4 OF THE SW 1/4 OF SECTION 15.						
Ecological:	IN CHAPARRAL AND FOOTHILL WOODLAND. ELEVATION RANGE: 1800-2059 FEET. ASSOCIATED WITH FREMONTODENDRON DECUMBENS, HETEROMELES ARBUTIFOLIA, QUERCUS KELLOGGII, ARCTOSTAPHYLOS VISCIDA, ADENOSTOMA FASCICULATUM, TOXICODENDRON DIVERSILOBUM, ETC.						
General:	FEWER THAN 1000 PLANTS SEEN IN 1978. 11-50 PLANTS SEEN IN 1982 IN >1 HECTARE AREA. 1% AND 0.2% COVER OF THIS PLANT IN TWO SEPARATE LOCATIONS IN MIDDLE POLY IN 2005. 1966 STEBBINS COLLECTION FROM PINE HILL ALSO ATTRIBUTED TO THIS OCCURRENCE.						
Owner/Manager:	CDF, DFG						



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Occurrence No.	3	Map Index:	12264	EO Index:	18661	Element Last Seen:	2006-05-24
Occ. Rank:	Excellent			Presence:	Presumed Extant	Site Last Seen:	2006-05-24
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2007-04-25
Quad Summary:	Shingle Springs (3812068)						
County Summary:	El Dorado						
Lat/Long:	38.72832 / -120.97528				Accuracy:	specific area	
UTM:	Zone-10 N4288575 E676000				Elevation (ft):	1600	
PLSS:	T10N, R09E, Sec. 15 (M)				Acres:	6.0	
Location:	FIRST RIDGE TO NE OF PINE HILL ABOUT 1 MILE NORTHEAST OF PINE HILL LOOKOUT.						
Detailed Location:	MAPPED AS TWO COLONIES; ONE IN NE1/4 OF NW1/4 SEC 15 AND THE OTHER IN SE1/4 OF SW1/4 SEC 10.						
Ecological:	ASSOCIATED WITH FREMONTODENDRON DECUMBENS. WELL DEVELOPED OAK WOODLAND ON NORTH FACING SLOPE NEAR TOP OF RIDGE.						
General:	200-300 PLANTS OBSERVED IN 2006 BY BAAD. LARGE POPULATION OF PLANTS SCATTERED THROUGH FOREST.						
Owner/Manager:	UNKNOWN						

Occurrence No.	4	Map Index:	12130	EO Index:	17311	Element Last Seen:	1958-05-29
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1958-05-29
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2008-12-05
Quad Summary:	Pilot Hill (3812171)						
County Summary:	El Dorado						
Lat/Long:	38.76794 / -121.03883				Accuracy:	1/5 mile	
UTM:	Zone-10 N4292851 E670381				Elevation (ft):	800	
PLSS:	T11N, R08E, Sec. 36 (M)				Acres:	0.0	
Location:	APPROX 0.5 MILE SOUTH OF NEW SALMON FALLS BRIDGE, SOUTH FORK AMERICAN RIVER, ABOUT 10 MILES NORTHEAST OF FOLSOM.						
Detailed Location:							
Ecological:							
General:	SITE BASED ON AN UNDATED CRAMPTON COLLECTION & A 1958 SMITH OBSERVATION. NEEDS FIELDWORK.						
Owner/Manager:	PVT						



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Occurrence No.	5	Map Index:	16272	EO Index:	8129	Element Last Seen:	1994-06-15
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	1994-06-15
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2002-10-23
Quad Summary:	Pilot Hill (3812171)						
County Summary:	El Dorado						
Lat/Long:	38.76259 / -121.01869				Accuracy:	specific area	
UTM:	Zone-10 N4292295 E672144				Elevation (ft):	900	
PLSS:	T11N, R09E, Sec. 31 (M)				Acres:	33.4	
Location:	RAVINE OPENING INTO SOUTH FORK AMERICAN RIVER, 2 MILES EAST OF SALMON FALLS BRIDGE, EAST OF FOLSOM LAKE.						
Detailed Location:	3 COLONIES MAPPED BY CNDDB. EASTERN COLONY ALONG NORTH-FACING SLOPE WITHIN THE PROPOSED PLANT PRESERVE AREA. FOUND IN SOMEWHAT SHELTERED AREAS SOUTH OF THE DRAINAGE UP TO THE MIDDLE OF THE SLOPE.						
Ecological:	WESTERN COLONIES ON STEEP NORTH-FACING SLOPE, IN SMALL GROVE OF PINUS PONDEROSA. RESCUE SOILS. SOME SCOTCH BROOM PRESENT. E COLONY ON RESCUE STONY LOAM SOILS, IN A MODERATELY DENSE STAND OF GABBROIC NORTHERN MIXED CHAPARRAL.						
General:	TWO WESTERN COLONIES BASED ON 1976 COLLECTIONS BY STEBBINS. 1000 PLANTS SEEN AT EASTERN COLONY BY FRASER AND CRAIG IN 1994. INCLUDES FORMER OCCURRENCE #6.						
Owner/Manager:	PVT						
Occurrence No.	7	Map Index:	12230	EO Index:	18660	Element Last Seen:	2000-05-25
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2000-05-25
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2008-12-05
Quad Summary:	Shingle Springs (3812068)						
County Summary:	El Dorado						
Lat/Long:	38.73194 / -120.98886				Accuracy:	specific area	
UTM:	Zone-10 N4288950 E674811				Elevation (ft):	1600	
PLSS:	T10N, R09E, Sec. 09 (M)				Acres:	12.9	
Location:	1 MILE NORTH TO NNW OF PINE HILL LOOKOUT, NORTH OF SWEETWATER CREEK, NORTHWEST OF SHINGLE SPRINGS.						
Detailed Location:	TWO COLONIES: WESTERN COLONY ON THE NORTH SIDE OF FARVIEW COURT, MAPPED WITHIN THE SE 1/4 OF THE SW 1/4 OF SECTION 9. EASTERN COLONY MAPPED WITHIN THE SE 1/4 OF SE 1/4 OF SECTION 9.						
Ecological:	EASTERN COLONY ON OLIVINE SCHIST IN OPEN FOREST OF PINUS PONDEROSA AND QUERCUS KELLOGGII. WESTERN COLONY IS WITHIN THE PINE HILL GABBRO COMPLEX, IN CHAPARRAL AND OAK WOODLAND.						
General:	EAST COLONY IS TYPE LOCALITY, UNKNOWN NUMBER OF PLANTS SEEN BY STEBBINS IN 1966 & WILSON IN 1986. UNKNOWN NUMBER OF PLANTS SEEN BY HORENSTEIN IN 1991 AT WEST COLONY WEST OF POWERLINE. 20,000 PLANTS SEEN BY WILLSON IN 2000 AT WEST COLONY.						
Owner/Manager:	PVT						



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Occurrence No.	8	Map Index:	22732	EO Index:	28744	Element Last Seen:	1990-08-07
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	1990-08-07
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	1993-02-04
Quad Summary:	Shingle Springs (3812068)						
County Summary:	El Dorado						
Lat/Long:	38.67887 / -120.97065				Accuracy:	specific area	
UTM:	Zone-10 N4283095 E676524				Elevation (ft):	1500	
PLSS:	T10N, R09E, Sec. 34 (M)				Acres:	10.8	
Location:	SOUTHEAST OF CAMERON PARK AIRPORT, 2.1 KM (1.3 MI) DUE NORTH OF HWY 50 AT CAMERON PARK DRIVE.						
Detailed Location:	1/4 MILE SOUTH OF MEDER DRIVE, 1/2 MILE EAST OF CAMERON PARK DRIVE. WEST EDGE IS A FEW FEET SOUTH OF A FENCELINE. TRAIL ALONG FENCELINE STARTS FROM A TURNOUT ON SOUTH SIDE OF MEDER DRIVE. EAST EDGE IS NEAR TOP OF EAST BANK OF DRAINAGE.						
Ecological:	GROWING IN WOODLAND DOMINATED BY QUERCUS KELLOGGII WITH PINUS SABINIANA AND CHAPARRAL SHRUBS. UNDERSTORY IS MOSTLY OPEN.						
General:	APPROXIMATELY 50 PLANTS SEEN IN 1990. AREA COULD BE INCORPORATED INTO A PRESERVE. ADJACENT PARCEL CONTAINS SEVERAL RARE GABBRO ENDEMICS INCLUDING CALYSTEGIA STEBBINSII.						
Owner/Manager:	PVT						

Occurrence No.	9	Map Index:	22727	EO Index:	27228	Element Last Seen:	1992-05-20
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1992-05-20
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2008-11-18
Quad Summary:	Shingle Springs (3812068)						
County Summary:	El Dorado						
Lat/Long:	38.69441 / -120.94870				Accuracy:	nonspecific area	
UTM:	Zone-10 N4284863 E678394				Elevation (ft):	1350	
PLSS:	T10N, R09E, Sec. 26 (M)				Acres:	28.0	
Location:	1 KM (0.7 MI) SOUTH OF RESCUE.						
Detailed Location:	2701 CARLSON DRIVE, SHINGLE SPRINGS. LOCATED IN THE EAST 1/2 OF THE NE 1/4 OF SECTION 26. MAPPED BY CNND B AROUND PROPERTY BOUNDARY; UNKNOWN WHERE PLANTS OCCUR WITHIN THIS AREA BUT MOST WERE FOUND ON THE SOUTH HALF OF THE PROPERTY.						
Ecological:	GROWING IN RESCUE VERY STONY SANDY LOAM SOILS ALONG AN ECOTONE BETWEEN AN OAK WOODLAND AND CHAPARRAL. OTHER RARE PLANTS AT THIS SITE INCLUDE CEANOTHUS RODERICKII AND WYETHIA RETICULATA.						
General:	UNKNOWN NUMBER OF PLANTS SEEN IN 1992. RARE FLORA MAY BE PROTECTED ON SITE BY AGREEMENTS WITH PROPERTY OWNERS REGARDING LAND USE.						
Owner/Manager:	PVT						



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Occurrence No.	10	Map Index:	30663	EO Index:	15603	Element Last Seen:	2008-06-24
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2008-06-24
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2010-04-26
Quad Summary:	Shingle Springs (3812068)						
County Summary:	El Dorado						
Lat/Long:	38.66776 / -120.94362				Accuracy:	specific area	
UTM:	Zone-10 N4281915 E678903				Elevation (ft):	1500	
PLSS:	T09N, R09E, Sec. 01 (M)				Acres:	1.0	
Location:	NORTHEAST OF TRAILER PARK AT THE END OF WHISPERING PINES DRIVE, SHINGLE SPRINGS.						
Detailed Location:	MAPPED NEAR THE CENTER OF THE NW 1/4 OF SECTION 1.						
Ecological:	CHAPARRAL AND OAK WOODLAND DOMINATED BY QUERCUS WISLIZENI, ARCTOSTAPHYLOS VISCIDA, AND ADENOSTOMA FASCICULATUM ON GABBRO SOILS. OTHER ASSOCIATES INCLUDE SENECIO LAYNEAE, WYETHIA RETICULATA, CERCIS, SALVIA SONOMENSIS, ANNUAL GRASSES, ETC.						
General:	THREE COLONIES OBSERVED IN 1993. 81 PLANTS SEEN IN 2008.						
Owner/Manager:	PVT						
Occurrence No.	11	Map Index:	49113	EO Index:	49113	Element Last Seen:	2003-04-15
Occ. Rank:	Poor			Presence:	Presumed Extant	Site Last Seen:	2010-06-25
Occ. Type:	Natural/Native occurrence			Trend:	Decreasing	Record Last Updated:	2010-07-20
Quad Summary:	Shingle Springs (3812068)						
County Summary:	El Dorado						
Lat/Long:	38.66335 / -120.97256				Accuracy:	specific area	
UTM:	Zone-10 N4281370 E676395				Elevation (ft):	1350	
PLSS:	T09N, R09E, Sec. 03 (M)				Acres:	1.0	
Location:	BETWEEN CAMERON PARK DRIVE AND SABANA DRIVE IN CAMERON PARK, NORTH OF HIGHWAY 50, WEST OF SHINGLE SPRINGS.						
Detailed Location:	PLANTS ON THE NORTH SIDE OF OAK TREES AND SOUTH OF INTERMITTENT CREEK. MAPPED WITHIN THE NW 1/4 OF THE SE 1/4 OF SECTION 3.						
Ecological:	IN OAK WOODLAND COMMUNITY WITH CHAPARRAL/GRASS UNDERSTORY. ON GABBRO SOIL (RESCUE SANDY LOAM). SOUTHWESTERLY EXPOSURE. THE RARE CEANOETHUS RODERICKII AND CALYSTEGIA STEBBINSII ALSO OCCUR AT THIS SITE.						
General:	50 SQUARE FEET OF PLANTS OBSERVED IN 1997 BY WILLSON. 6 PLANTS OBSERVED IN 2003, NONE FOUND IN 2010. RARE TAXA ARE DISAPPEARING AT THIS SITE.						
Owner/Manager:	PVT						



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Occurrence No.	12	Map Index:	49114	EO Index:	49114	Element Last Seen:	1994-06-16
Occ. Rank:	Excellent			Presence:	Presumed Extant	Site Last Seen:	1994-06-16
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2002-10-23
Quad Summary:	Clarksville (3812161), Pilot Hill (3812171)						
County Summary:	El Dorado						
Lat/Long:	38.74609 / -121.03649				Accuracy:	specific area	
UTM:	Zone-10 N4290431 E670636				Elevation (ft):	1050	
PLSS:	T10N, R09E, Sec. 06 (M)				Acres:	12.8	
Location:	RIDGE BETWEEN SWEETWATER & CRACKER CREEKS, NORTH OF CLARKSVILLE, EAST OF FOLSOM LAKE.						
Detailed Location:	5 COLONIES MAPPED AS 4 POLYGONS FROM TOP OF 1361' PEAK & ALONG THE E EDGE OF RIDGE, EXTENDING DOWN A SEASONAL DRAINAGE FOR 1000 FT TO ABOUT 100 FT ABOVE CRACKER CRK. MAPPED WITHIN THE W 1/2 OF SEC 6 & THE NE 1/4 OF THE NW 1/4 OF SEC 7.						
Ecological:	ON OPEN RESCUE STONY LOAM SOILS, GROWING AMONGST ROCKS AND BOULDERS IN THE GABBROIC NORTHERN MIXED CHAPARRAL PLANT COMMUNITY. ASSOCIATES INCLUDE ADENOSTOMA FASCICULATUM, ARCTOSTAPHYLOS VISCIDA SSP. VISCIDA, ERIODICTYON CALIFORNICUM, ET AL.						
General:	5 COLONIES OBSERVED BY WOOD AND FRASER IN 1994. FROM NORTH TO SOUTH, NUMBER OF PLANTS AT EACH COLONY: 100, 1, 3, 30, AND 1. SITE SHOULD BE PRESERVED AS OPEN SPACE.						
Owner/Manager:	PVT-KANAKA VALLEY RANCH						

Occurrence No.	13	Map Index:	69070	EO Index:	69840	Element Last Seen:	2006-07-08
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	2006-07-08
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2007-05-08
Quad Summary:	Shingle Springs (3812068)						
County Summary:	El Dorado						
Lat/Long:	38.69734 / -120.96486				Accuracy:	nonspecific area	
UTM:	Zone-10 N4285157 E676982				Elevation (ft):	1400	
PLSS:	T10N, R09E, Sec. 26 (M)				Acres:	4.0	
Location:	SOUTH OF WHITE OAK FLAT.						
Detailed Location:	PROJECT AREA OCCURS WITHIN THE NW 1/4 OF SECTION 26.						
Ecological:	OAK WOODLAND ON GABBRO SOILS, ASSOCIATED WITH QUERCUS SP.						
General:	HUNDREDS OF PLANTS OBSERVED IN 2006. THE RARE PACKERA LAYNEAE AND WYETHIA RETICULATA ALSO OCCUR AT THIS SITE.OAK PRESERVATION STATUES IN EL DORADO COUNTY WILL PROBABLY AID THE SURVIVAL OF THE SPECIES, WHICH IS FOUND BENEATH THE OAK CANOPY.						
Owner/Manager:	PVT						



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Occurrence No.	14	Map Index:	73095	EO Index:	74026	Element Last Seen:	2005-06-14
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2005-06-14
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2008-12-09
Quad Summary:	Shingle Springs (3812068)						
County Summary:	El Dorado						
Lat/Long:	38.67334 / -120.95041				Accuracy:	specific area	
UTM:	Zone-10 N4282521 E678299				Elevation (ft):	1480	
PLSS:	T10N, R09E, Sec. 35 (M)				Acres:	27.0	
Location:	BETWEEN MEDER RD AND MINE SHAFT LANE, E OF HILTON WAY, NW OF SHINGLE SPRINGS.						
Detailed Location:	MAPPED BY CNDDB ACCORDING TO TWO 2005 HUGHES MAPS.						
Ecological:	W POLY: NORTHERN GABBROIC MIXED CHAPARRAL ON RESCUE SERIES SOILS; CEANOTHUS RODERICKII ALSO OCCURS AT THIS SITE. E POLY: OAK WOODLAND ON LARGE RESIDENTIAL PARCEL.						
General:	W POLY HAD 2,000 PLANTS IN 2005. E POLY HAD 221 PLANTS IN 2005.						
Owner/Manager:	PVT						

Occurrence No.	15	Map Index:	73096	EO Index:	74027	Element Last Seen:	2007-08-06
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2007-08-06
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2008-12-05
Quad Summary:	Shingle Springs (3812068)						
County Summary:	El Dorado						
Lat/Long:	38.67766 / -120.96216				Accuracy:	specific area	
UTM:	Zone-10 N4282978 E677265				Elevation (ft):	1600	
PLSS:	T10N, R09E, Sec. 35 (M)				Acres:	3.0	
Location:	ALONG ROSEBUD DRIVE BETWEEN ITS INTERSECTION WITH MEDER RD & SKY LANE, NW OF SHINGLE SPRINGS.						
Detailed Location:	MAPPED BY CNDDB ACCORDING TO A 2007 WILLSON MAP. N1/2 OF SW1/4 SEC 35.						
Ecological:	OAK WOODLAND ON NORTH SLOPE, GABBRO SOILS ASSOCIATED WITH QUERCUS KELLOGGII, TOXICODENDRON DIVERSILOBUM, HETEROMELES ARBUTIFOLIA. CEANOTHUS RODERICKII AND WYETHIA RETICULATA ARE ALSO AT THIS SITE.						
General:	~134 PLANTS SEEN IN 2007.						
Owner/Manager:	PVT						



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Occurrence No.	16	Map Index:	73097	EO Index:	74028	Element Last Seen:	2007-07-01
Occ. Rank:	Excellent			Presence:	Presumed Extant	Site Last Seen:	2007-07-01
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2008-12-05
Quad Summary:	Shingle Springs (3812068)						
County Summary:	El Dorado						
Lat/Long:	38.71388 / -120.95419				Accuracy:	specific area	
UTM:	Zone-10 N4287013 E677869				Elevation (ft):	1200	
PLSS:	T10N, R09E, Sec. 23 (M)				Acres:	3.0	
Location:	JUST SW OF THE INTERSECTION OF PENNY LANE AND DEER VALLEY RD, N OF RESCUE.						
Detailed Location:	MAPPED BY CNDDB ACCORDING TO A 2007 DURHAM MAP.						
Ecological:	GABBROIC NORTHERN MIXED CHAPARRAL AND CISMONTANE WOODLAND. ASSOCIATES INCLUDE ARCTOSTAPHYLOS VISCIDA, ADENOSTOMA FASCICULATUM, CERCIS OCCIDENTALIS, CEANOTHUS LEMMONII, WYETHIA RETICULATA, PACKERA LAYNEAE, & HELIANTHEMUM SUFFRUTESCENS.						
General:	~50 PLANTS SEEN IN 2007.						
Owner/Manager:	PVT						

Occurrence No.	17	Map Index:	79424	EO Index:	80400	Element Last Seen:	2005-07-06
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	2005-07-06
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2010-07-19
Quad Summary:	Shingle Springs (3812068)						
County Summary:	El Dorado						
Lat/Long:	38.72087 / -120.96111				Accuracy:	80 meters	
UTM:	Zone-10 N4287776 E677250				Elevation (ft):	1470	
PLSS:	T10N, R09E, Sec. 14 (M)				Acres:	0.0	
Location:	ABOUT 0.8 AIR MILE NORTHWEST OF RESCUE, WEST OF DEER VALLEY ROAD AND EAST OF PINE HILL.						
Detailed Location:	IN SHALLOW DRAINAGE LEADING NORTH FROM UNNAMED RIDGE ROAD. MAPPED IN THE N 1/2 OF THE SW 1/4 OF SECTION 14. BLM PINE HILL PRESERVE, PENNY LANE UNIT.						
Ecological:	QUERCUS WISLIZENI WOODLAND, QUERCUS IS MULTI-TRUNKED WITH SMALL DBH. SHURB AND HERB UNDERSTORY IS DENSE. SOIL IS MEDIUM TO FINE SANDY LOAM. ASSOC W/ TOXICODENDRON DIVERSILOBUM, Q. KELLOGGII, HETEROMELES ARBUTIFOLIA, WYETHIA RETICULATA, ETC.						
General:	0.2% COVER OF THIS PLANT IN 2005.						
Owner/Manager:	BLM						

Gratiola heterosepala

Element Code: PDSCR0R060

Boggs Lake hedge-hyssop

Listing Status: **Federal:** None

CNDDB Element Ranks: **Global:** G2

State: Endangered

State: S2

Other: Rare Plant Rank - 1B.2, BLM_S-Sensitive

Habitat: **General:** MARSHES AND SWAMPS (FRESHWATER), VERNAL POOLS.

Micro: CLAY SOILS; USUALLY IN VERNAL POOLS, SOMETIMES ON LAKE MARGINS. 10-2375 M.



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Occurrence No.	15	Map Index:	11792	EO Index:	17776	Element Last Seen:	1987-04-17
Occ. Rank:	Fair			Presence:	Presumed Extant	Site Last Seen:	1987-04-17
Occ. Type:	Natural/Native occurrence			Trend:	Decreasing	Record Last Updated:	2009-04-15
Quad Summary:	Rocklin (3812172)						
County Summary:	Placer						
Lat/Long:	38.76123 / -121.24390				Accuracy:	specific area	
UTM:	Zone-10 N4291744 E652578				Elevation (ft):	290	
PLSS:	T11N, R07E, Sec. 31 (M)				Acres:	1.4	
Location:	JOHNSON RANCH, APPROXIMATELY 0.75 MILE SOUTH OF HWY 80 BETWEEN ROCKLIN & ROSEVILLE.						
Detailed Location:	MAPPED AS 2 POLYGONS IN SW1/4 OF NW1/4 SEC 31.						
Ecological:	NORTHERN MUDFLOW VERNAL POOL IN OPEN ANNUAL GRASSLAND NEAR EDGE OF OAK WOODLAND. GRATIOLA EBRACTEATA ALSO FOUND IN DEEPER VERNAL POOLS IN THE AREA.						
General:	MORE THAN 500 PLANTS IN 1986. SOUTHERN POLYGON IS PROBABLY EXTIRPATED ACCORDING TO WITHAM'S AERIAL PHOTO INTERPRETATION; A HOUSING DEVELOPMENT NOW EXISTS THERE.						
Owner/Manager:	PVT						

Occurrence No.	18	Map Index:	12991	EO Index:	30956	Element Last Seen:	2005-07-29
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2005-07-29
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2009-04-10
Quad Summary:	Buffalo Creek (3812152)						
County Summary:	Sacramento						
Lat/Long:	38.52331 / -121.19422				Accuracy:	specific area	
UTM:	Zone-10 N4265425 E657414				Elevation (ft):	220	
PLSS:	T08N, R07E, Sec. 27 (M)				Acres:	20.0	
Location:	NEAR KIEFER LANDFILL, ABOUT 0.2-0.8 MILE ENE OF KIEFER BLVD AT GRANT LINE ROAD, SOUTHEAST OF RANCHO CORDOVA.						
Detailed Location:	PLANTS OBSERVED IN NINE POOLS. MAPPED BY CNDDDB AS SEVEN POLYGONS ACCORDING TO MAP DETAIL AND COORDINATES PROVIDED.						
Ecological:	VERNAL POOLS SURROUNDED BY ANNUAL GRASSLAND. ASSOCIATED VEGETATION INCLUDES PLAGIOBOTHRYIS STIPITATUS, ERYNGIUM VASEYI, PSILOCARPHUS BREVISSIMUS, DOWNINGIA BICORNUTA, NAVARRETIA LEUCOCEPHALA SSP. LEUCOCEPHALA, ISOETES ORCUTTII, ET AL.						
General:	10,000+ PLANTS OBSERVED IN ONE POOL IN 1988. UNKNOWN NUMBER OBSERVED IN 6 ADDITIONAL POOLS IN 1990-1991 BY JONES & STOKES ASSOC. UNKNOWN NUMBER OF PLANTS OBSERVED IN 2005 BY VERNAL POOL TEAM. INCLUDES FORMER OCCURRENCE #82.						
Owner/Manager:	SAC COUNTY						



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Occurrence No.	48	Map Index:	24906	EO Index:	6407	Element Last Seen:	1989-06-02
Occ. Rank:	Excellent			Presence:	Presumed Extant	Site Last Seen:	1989-06-02
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	1995-12-13
Quad Summary:	Buffalo Creek (3812152)						
County Summary:	Sacramento						
Lat/Long:	38.62046 / -121.15306				Accuracy:	specific area	
UTM:	Zone-10 N4276278 E660786				Elevation (ft):	290	
PLSS:	T09N, R07E, Sec. 24 (M)				Acres:	3.4	
Location:	NW OF INTERSECTION OF PRAIRIE CITY ROAD AND WHITE ROCK ROAD. AEROJET PROPERTY.						
Detailed Location:							
Ecological:	IN PONDS WITH DOWNINGIA BICORNUTA, ELEOCHARIS PALUSTRIS, GRATIOLA EBRACTEATA, LASTHENIA GLABERRIMA, PLAGIOBOTHRYIS STIPITATA MICRANTHA, AND PSILOCARPHUS BREVISSIMUS.						
General:	PLANTS NOT COUNTED IN 1988 OR 1989. MAPPED AS 3 SMALL POLYGONS.						
Owner/Manager:	PVT-GENCORP AEROJET						
Occurrence No.	57	Map Index:	81256	EO Index:	30713	Element Last Seen:	2010-02-XX
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	2010-02-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2011-01-04
Quad Summary:	Buffalo Creek (3812152)						
County Summary:	Sacramento						
Lat/Long:	38.55331 / -121.22958				Accuracy:	nonspecific area	
UTM:	Zone-10 N4268695 E654267				Elevation (ft):	160	
PLSS:	T08N, R07E, Sec. 17 (M)				Acres:	55.0	
Location:	MONTELENA WETLAND PRESERVE IN THE SUNRISE DOUGLAS AREA OF RANCHO CORDOVA, ABOUT 1 MILE EAST OF MATHER LAKE.						
Detailed Location:	EXACT LOCATION WITHIN PRESERVE UNKNOWN, MAPPED AS BEST GUESS BY CNDDDB AROUND THE PRESERVE. 1993 TAYLOR OCCURRENCE LIST GIVES SECS 8, 17, & 20; UNKNOWN IF THESE SECTIONS WERE A GENERAL GUESS OR IF THE OCCURRENCE EXTENDS DOWN THRU SEC 20.						
Ecological:	VERNAL POOLS IN A NEWLY ESTABLISHED 50 ACRE PRESERVE.						
General:	UNKNOWN NUMBER OF PLANTS OBSERVED IN 2010. NEEDS POPULATION INFORMATION.						
Owner/Manager:	PVT						



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Occurrence No.	95	Map Index:	74367	EO Index:	75371	Element Last Seen:	2006-05-10
Occ. Rank:	Good	Presence:	Presumed Extant	Site Last Seen:		2006-05-10	
Occ. Type:	Natural/Native occurrence	Trend:	Unknown	Record Last Updated:		2009-04-06	
Quad Summary:	Buffalo Creek (3812152)						
County Summary:	Sacramento						
Lat/Long:	38.50961 / -121.20846				Accuracy:	80 meters	
UTM:	Zone-10 N4263881 E656203				Elevation (ft):	190	
PLSS:	T08N, R07E, Sec. 33 (M)				Acres:	0.0	
Location:	APPROX. 1 MILE WEST OF KIEFER LANDFILL, SACRAMENTO COUNTY.						
Detailed Location:	MAPPED IN THE NE 1/4 OF THE NE 1/4 OF SECTION 33 ACCORDING TO UTM COORDINATES PROVIDED BY WITHAM.						
Ecological:	VERNAL POOL. ASSOCIATED WITH ISOETES ORCUTTII, DOWNINGIA BICORNUTA PICTA, GRATIOLA EBRACTEATA AND PSILOCARPHUS BREVISSIMUS.						
General:	APPROX. 200 PLANTS OBSERVED IN 2006.						
Owner/Manager:	SAC COUNTY						

Fremontodendron decumbens

Element Code: PDSTE03030

Pine Hill flannelbush

Listing Status:	Federal:	Endangered	CNDDDB Element Ranks:	Global:	G1
	State:	Rare		State:	S1
	Other:	Rare Plant Rank - 1B.2, SB_RSABG-Rancho Santa Ana Botanic Garden, SB_UCBBG-UC Berkeley Botanical Garden			
Habitat:	General:	CHAPARRAL, CISMONTANE WOODLAND.			
	Micro:	ROCKY RIDGES; GABBRO OR SERPENTINE ENDEMIC; OFTEN AMONG ROCKS AND BOULDERS. 425-760 M.			

Occurrence No.	1	Map Index:	12226	EO Index:	14146	Element Last Seen:	2007-XX-XX
Occ. Rank:	Excellent	Presence:	Presumed Extant	Site Last Seen:	2007-XX-XX		
Occ. Type:	Natural/Native occurrence	Trend:	Stable	Record Last Updated:	2010-07-29		
Quad Summary:	Shingle Springs (3812068), Clarksville (3812161)						
County Summary:	El Dorado						
Lat/Long:	38.71922 / -120.98970			Accuracy:	specific area		
UTM:	Zone-10 N4287537 E674769			Elevation (ft):	2000		
PLSS:	T10N, R09E, Sec. 16 (M)			Acres:	147.0		
Location:	PINE HILL, ABOUT 2 MILES WNW OF RESCUE.						
Detailed Location:	COLONIES LOCATED AT LOOKOUT, ON THE RIDGE TO THE WEST, THE KNOLL TO THE NORTHEAST, AND ALONG THE ROAD TO THE LOOKOUT. MAPPED IN MOST OF S 1/2 OF SECTION 16, THE SW 1/4 OF SECTION 15, AND THE NW 1/4 NW 1/4 OF SECTION 22.						
Ecological:	ON RED-BROWN CLAY & GABBRO WITH GRANITE BOULDERS IN CHAPARRAL. ASSOCIATED WITH ADENOSTOMA, CEANOTHUS LEMMONII, SALVIA SONOMENSIS, RHAMNUS CROCEA, LEPECHINIA CALYCINA, & THE RARE CEANOTHUS RODERICKII, WYETHIA RETICULATA, & PACKERA LAYNEAE.						
General:	W SUMMIT RIDGE BURNED 1983, MANY NEW SEEDLINGS/RESPROUTS PRESENT. <100 PLANTS IN 1978, UNK # IN 1979, 4-5 NEAR SUMMIT IN 1982, SEEN IN 1983, <50 IN 1984, SEEN IN 1985 & 1990, ~50 IN 1998, UNK # IN 2005, <200 IN 2007. INCLUDES FORMER OCC #3.						
Owner/Manager:	CDF, DFG, PVT						



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Occurrence No.	2	Map Index:	12270	EO Index:	3917	Element Last Seen:	2007-07-26
Occ. Rank:	Fair			Presence:	Presumed Extant	Site Last Seen:	2007-07-26
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2010-07-22
Quad Summary:	Shingle Springs (3812068)						
County Summary:	El Dorado						
Lat/Long:	38.72967 / -120.98327				Accuracy:	specific area	
UTM:	Zone-10 N4288709 E675302				Elevation (ft):	1600	
PLSS:	T10N, R09E, Sec. 10 (M)				Acres:	29.0	
Location:	RIDGELINE ABOUT 1 MILE NORTHEAST OF PINE HILL LOOKOUT, NORTHWEST OF RESCUE.						
Detailed Location:	IN CREVICES OF GABBRO BOULDERS AT TOP OF RIDGE. WITHIN RESERVE OFF LAZY KNOLL ROAD. 3 COLONIES MAPPED IN THE SE 1/4 SE 1/4 OF SECTION 9, THE S 1/2 SW 1/4 OF SECTION 10, AND THE N 1/2 NW 1/4 OF SECTION 15.						
Ecological:	ALONG RIDGETOP AND TO SOUTH MOSTLY AMONG ROCKS IN YELLOW PINE FOREST/OAK WOODLAND/CHAPARRAL ECOTONE ON GABBROIC SOILS. ASSOCIATED WITH ARCTOSTAPHYLOS VISCIDA, QUERCUS KELLOGGII, HETEROMELES, PINUS PONDEROSA, AND ADENOSTOMA FASCICULATUM.						
General:	E-MOST POLY: UNK # OF PLANTS SEEN IN 1979 & 1981; 35 PLANTS SEEN IN 1984; UNK # OF PLANTS SEEN IN 1986; 40-50 SEEN IN 2006 IN A WELL-DEVELOPED BUT HIGHLY LOCALIZED POPULATION; 31 SEEN IN 2007. TWO W-MOST POLYGONS: 5 PLANTS SEEN IN 2003.						
Owner/Manager:	PVT, BLM						

Occurrence No.	4	Map Index:	17145	EO Index:	3918	Element Last Seen:	2007-XX-XX
Occ. Rank:	Fair			Presence:	Presumed Extant	Site Last Seen:	2007-XX-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2010-07-29
Quad Summary:	Shingle Springs (3812068)						
County Summary:	El Dorado						
Lat/Long:	38.72965 / -120.99647				Accuracy:	specific area	
UTM:	Zone-10 N4288681 E674154				Elevation (ft):	1600	
PLSS:	T10N, R09E, Sec. 09 (M)				Acres:	26.0	
Location:	ALONG FAIRVIEW DRIVE, APPROXIMATELY 0.8 AIR MILE NNW OF PINE HILL LOOKOUT.						
Detailed Location:	MAPPED BY CNDDB IN THE SW 1/4 OF SECTION 9 INTO THE NW 1/4 OF SECTION 16 BASED ON MAP INFO FROM 1983, 1986, 1989, 2005, AND 2007.						
Ecological:	ON ROCKY OUTCROP ON TOP OF RIDGE IN GABBRO SOIL. ASSOC WITH QUERCUS, ARCTOSTAPHYLOS VISCIDA, ADENOSTOMA FASCICULATUM, STYRAX OFFICINALIS, LEPECHINIA CALYCINA, & SALVIA SONOMENSIS. WYETHIA RETICULATA & CHLOROGALUM GRANDIFLORUM ALSO AT SITE.						
General:	2 PLANTS SEEN IN 1983, UNKNOWN NUMBER SEEN IN 1986, ONE PLANT SEEN IN 1989, 4 PLANTS SEEN IN 2005, FEWER THAN 10 PLANTS SEEN IN 2007.						
Owner/Manager:	PVT						



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Occurrence No.	5	Map Index:	12203	EO Index:	3845	Element Last Seen:	1986-XX-XX
Occ. Rank:	Unknown	Presence:	Presumed Extant	Site Last Seen:	1986-XX-XX	Record Last Updated:	2008-12-11
Occ. Type:	Natural/Native occurrence	Trend:	Unknown				
Quad Summary:	Clarksville (3812161)						
County Summary:	El Dorado						
Lat/Long:	38.72885 / -121.00682			Accuracy:	80 meters		
UTM:	Zone-10 N4288573 E673257			Elevation (ft):	1500		
PLSS:	T10N, R09E, Sec. 17 (M)			Acres:	0.0		
Location:	SOUTHEAST OF DEER VALLEY ROAD AND WEST OF STARBUCK ROAD, WEST OF PINE HILL.						
Detailed Location:	MAPPED ABOUT 200 M SOUTH OF DEER VALLY ROAD AND 200 M WEST OF STARBUCK ROAD. WITHIN THE NE 1/4 OF THE NE 1/4 OF SECTION 17.						
Ecological:	IN GABBRO SOIL ON A ROCKY OUTCROP ON THE CREST OF A SMALL RIDGE. GROWING IN CHAPARRAL WITH ARCTOSTAPHYLOS AND ADENOSTOMA.						
General:	54 PLANTS SEEN IN 1983. UNKNOWN NUMBER SEEN IN 1986.						
Owner/Manager:	PVT						

Occurrence No.	6	Map Index:	12207	EO Index:	3844	Element Last Seen:	1986-XX-XX
Occ. Rank:	Unknown	Presence:	Presumed Extant	Site Last Seen:	1986-XX-XX	Record Last Updated:	2008-12-11
Occ. Type:	Natural/Native occurrence	Trend:	Unknown				
Quad Summary:	Clarksville (3812161)						
County Summary:	El Dorado						
Lat/Long:	38.72341 / -121.00556			Accuracy:	specific area		
UTM:	Zone-10 N4287972 E673379			Elevation (ft):	1410		
PLSS:	T10N, R09E, Sec. 17 (M)			Acres:	8.3		
Location:	EAST OF DEER VALLEY ROAD AND WEST OF STARBUCK ROAD, WEST OF PINE HILL.						
Detailed Location:	TWO COLONIES MAPPED; 12 PLANTS AT THE 1476' SUMMIT OF HILL, 1 PLANT EAST OF SUMMIT ALONG STARBUCK ROAD. WITHIN THE SE 1/4 OF THE NE 1/4 OF SECTION 17.						
Ecological:	IN GABBRO SOIL ON A ROCKY OUTCROP ON THE CREST OF A SMALL RIDGE. GROWING IN CHAPARRAL WITH ARCTOSTAPHYLOS AND ADENOSTOMA.						
General:	13 PLANTS SEEN IN 2 COLONIES IN 1983. UNKNOWN NUMBER SEEN IN 1986.						
Owner/Manager:	PVT						



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Occurrence No.	11	Map Index:	12281	EO Index:	3919	Element Last Seen:	1986-XX-XX
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1986-XX-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2008-12-11
Quad Summary:	Shingle Springs (3812068)						
County Summary:	El Dorado						
Lat/Long:	38.73516 / -120.97406				Accuracy:	80 meters	
UTM:	Zone-10 N4289336 E676089				Elevation (ft):	1400	
PLSS:	T10N, R09E, Sec. 10 (M)				Acres:	0.0	
Location:	ABOUT 0.6 AIR MILE NORTHWEST OF JAYHAWK CEMETERY, ON NORTH SIDE OF HILL NEAR SUMMIT, NORTHEAST OF PINE HILL.						
Detailed Location:	NW1/4 OF SE1/4 SEC 10.						
Ecological:							
General:	MAP DETAIL IS THE ONLY SOURCE OF INFORMATION FOR THIS SITE. UNKNOWN NUMBER OF PLANTS SEEN IN 1979 & 1986. NEEDS FIELDWORK.						
Owner/Manager:	UNKNOWN						
Occurrence No.	12	Map Index:	32042	EO Index:	3953	Element Last Seen:	1986-XX-XX
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1986-XX-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	1995-01-26
Quad Summary:	Shingle Springs (3812068)						
County Summary:	El Dorado						
Lat/Long:	38.70830 / -120.99583				Accuracy:	80 meters	
UTM:	Zone-10 N4286313 E674263				Elevation (ft):	1420	
PLSS:	T10N, R09E, Sec. 21 (M)				Acres:	0.0	
Location:	ABOUT 0.8 AIR MILE SSW OF PINE HILL LOOKOUT ALONG AN INTERMITTENT STREAM.						
Detailed Location:	MAPPED IN THE SE 1/4 OF THE NW 1/4 OF SECTION 21.						
Ecological:							
General:	A1986 REPORT BY WILSON IS THE ONLY SOURCE OF INFORMATION FOR THIS SITE.						
Owner/Manager:	UNKNOWN						



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Sagittaria sanfordii

Element Code: PMALI040Q0

Sanford's arrowhead

Listing Status:	Federal: None	CNDDDB Element Ranks:	Global: G3
	State: None		State: S3
	Other: Rare Plant Rank - 1B.2, BLM_S-Sensitive		
Habitat:	General: MARSHES AND SWAMPS.		
	Micro: IN STANDING OR SLOW-MOVING FRESHWATER PONDS, MARSHES, AND DITCHES. 0-650 M.		

Occurrence No.	64	Map Index:	70039	EO Index:	70894	Element Last Seen:	2005-05-19
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2005-05-19
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2007-09-28

Quad Summary: Folsom SE (3812151), Clarksville (3812161)

County Summary: El Dorado, Sacramento

Lat/Long:	38.61254 / -121.08590	Accuracy:	nonspecific area
UTM:	Zone-10 N4275518 E666652	Elevation (ft):	427
PLSS:	T09N, R08E, Sec. 22 (M)	Acres:	1280.0

Location: TRIBUTARIES TO CARSON CREEK, SOUTH OF WHITE ROCK AND EAST OF MALBY CROSSING, 2 TO 4 AIR MILES SW OF CLARKSVILLE.

Detailed Location: 3 SEPARATE POPULATIONS EXIST IN SECTIONS 22 AND 27.

Ecological: WETLAND SWALE OR EPHEMERAL STREAM CHANNEL HABITATS ON LARGE DEGRADED GRASSLANDS WITH VERNAL POOL COMPLEXES CONVEYING WATERS INTO CARSON CREEK. SOIL SERIES INCLUDE WHITEROCK LOAM AND HICKSVILLE SANDY CLAY LOAM.

General: FEWER THAN 100 PLANTS OBSERVED IN 2005. NEED MAP DETAIL.

Owner/Manager: PVT

Occurrence No.	65	Map Index:	70041	EO Index:	70895	Element Last Seen:	2005-06-11
Occ. Rank:	Excellent			Presence:	Presumed Extant	Site Last Seen:	2005-06-11
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2007-09-26

Quad Summary: Folsom SE (3812151)

County Summary: Sacramento

Lat/Long:	38.53596 / -121.09902	Accuracy:	80 meters
UTM:	Zone-10 N4266996 E665685	Elevation (ft):	235
PLSS:	T08N, R08E, Sec. 21 (M)	Acres:	0.0

Location: SMALL POND IN CORRAL FIELD, 0.26 AIR MI E OF SCOTT RD AND 1.07 AIR MI NORTH OF LATROBE ROAD, DEAR CREEK HILLS PRESERVE.

Detailed Location:

Ecological: OLD STOCK POND WITH FRESHWATER MARSH WITH TYPHA, ALISMA PLANTAGO-AQUATICA, LYTHRUM PORTULA.

General: 30? PLANTS OBSERVED IN 2005, BUT PLANTS WERE JUST STARTING TO EMERGE, SO POPULATION MIGHT HAVE BEEN LARGER.

Owner/Manager: UNKNOWN



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Juncus leiospermus var. ahartii

Element Code: PMJUN011L1

Ahart's dwarf rush

Listing Status: **Federal:** None

CNDDDB Element Ranks: **Global:** G2T1

State: None

State: S1

Other: Rare Plant Rank - 1B.2

Habitat: **General:** VERNAL POOLS, VALLEY AND FOOTHILL GRASSLAND.

Micro: RESTRICTED TO THE EDGES OF VERNAL POOLS. 30-229 M.

Occurrence No.	7	Map Index:	43632	EO Index:	43632	Element Last Seen:	XXXX-XX-XX
Occ. Rank:	None	Presence:	Possibly Extirpated	Site Last Seen:		XXXX-XX-XX	
Occ. Type:	Natural/Native occurrence	Trend:	Unknown	Record Last Updated:		2000-08-25	

Quad Summary: Buffalo Creek (3812152)

County Summary: Sacramento

Lat/Long:	38.52384 / -121.24060	Accuracy:	1/5 mile
UTM:	Zone-10 N4265406 E653370	Elevation (ft):	150
PLSS:	T08N, R07E, Sec. 29 (M)	Acres:	0.0

Location: SOUTHEAST CORNER OF KIEFER BOULEVARD AND SUNRISE BOULEVARD, WEST OF BLODGETT RESERVOIR, SOUTHEAST OF RANCHO CORDOVA.

Detailed Location: PROPOSED SHALAKO GOLF COURSE.

Ecological:

General: 4 PLANTS OBSERVED. NEEDS FIELDWORK.

Owner/Manager: UNKNOWN



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Allium jepsonii

Element Code: PMLIL022V0

Jepson's onion

Listing Status: **Federal:** None **CNDDB Element Ranks:** **Global:** G1
State: None **State:** S1
Other: Rare Plant Rank - 1B.2, BLM_S-Sensitive, USFS_S-Sensitive
Habitat: **General:** CISMONTANE WOODLAND, LOWER MONTANE CONIFEROUS FOREST.
Micro: ON SERPENTINE SOILS IN SIERRA FOOTHILLS, VOLCANIC SOIL ON TABLE MTN. ON SLOPES AND FLATS; USU IN AN OPEN AREA. 450-1130M

Occurrence No. 17 **Map Index:** 61013 **EO Index:** 61049 **Element Last Seen:** 2003-XX-XX
Occ. Rank: Unknown **Presence:** Presumed Extant **Site Last Seen:** 2003-XX-XX
Occ. Type: Natural/Native occurrence **Trend:** Unknown **Record Last Updated:** 2005-04-19

Quad Summary: Shingle Springs (3812068)

County Summary: El Dorado

Lat/Long: 38.72385 / -120.92371 **Accuracy:** 80 meters
UTM: Zone-10 N4288179 E680495 **Elevation (ft):** 1175
PLSS: T10N, R10E, Sec. 18 (M) **Acres:** 0.0

Location: BETWEEN SMUD TRANSMISSION LINE TOWERS, ABOUT 1 MI ESE OF PYRAMID MINE; 1.7 AIR MI NE OF RESCUE, NORTH OF DRY CREEK.

Detailed Location: SE 1/4 OF NW 1/4 OF SECTION 18.

Ecological: SERPENTINE OUTCROP IN A BLUE OAK WOODED GRASSLAND COMMUNITY.

General: OVER 1000 INDIVIDUALS OBSERVED IN 2003.

Owner/Manager: UNKNOWN

Occurrence No. 25 **Map Index:** 70684 **EO Index:** 71593 **Element Last Seen:** 2007-05-23
Occ. Rank: Excellent **Presence:** Presumed Extant **Site Last Seen:** 2007-05-23
Occ. Type: Natural/Native occurrence **Trend:** Unknown **Record Last Updated:** 2008-01-10

Quad Summary: Shingle Springs (3812068)

County Summary: El Dorado

Lat/Long: 38.71410 / -120.91643 **Accuracy:** specific area
UTM: Zone-10 N4287111 E681151 **Elevation (ft):** 1200
PLSS: T10N, R10E, Sec. 19 (M) **Acres:** 6.0

Location: S OF GREEN VALLEY RD, 1.1 ROAD MI FROM JUNCTION WITH N SHINGLE (SPRINGS) RD, 1.8 AIR MI NE OF RESCUE.

Detailed Location:

Ecological: ON ROCK OUTCROPS IN SERPENTINE FOOTHILL PINE CHAPARRAL WOODLAND.

General: 2,107 PLANTS ESTIMATED IN 2007.

Owner/Manager: PVT

Chlorogalum grandiflorum

Element Code: PMLIL0G020

Red Hills soaproot

Listing Status: **Federal:** None **CNDDB Element Ranks:** **Global:** G3
State: None **State:** S3
Other: Rare Plant Rank - 1B.2, BLM_S-Sensitive
Habitat: **General:** CISMONTANE WOODLAND, CHAPARRAL, LOWER MONTANE CONIFEROUS FOREST.
Micro: OCCURS FREQUENTLY ON SERPENTINE OR GABBRO, BUT ALSO ON NON-ULTRAMAFIC SUBSTRATES; OFTEN ON "HISTORICALLY DISTURBED" SITES. 240-760M.



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Occurrence No.	19	Map Index:	12337	EO Index:	18127	Element Last Seen:	2011-06-08
Occ. Rank:	Fair	Presence:	Presumed Extant	Site Last Seen:	2011-06-08	Record Last Updated:	2015-01-22
Occ. Type:	Natural/Native occurrence	Trend:	Unknown				
Quad Summary:	Shingle Springs (3812068)						
County Summary:	El Dorado						
Lat/Long:	38.66547 / -120.96527			Accuracy:	specific area		
UTM:	Zone-10 N4281619 E677024			Elevation (ft):	1480		
PLSS:	T09N, R09E, Sec. 02 (M)			Acres:	242.0		
Location:	BETWEEN SHINGLE SPRINGS AND CAMERON PARK ALONG BOTH SIDES OF HIGHWAY 50.						
Detailed Location:	MUCH OF THE INFORMATION USED TO MAP THIS EO IS FOR MULTIPLE RARE PLANTS AND C. GRANDIFLORUM MAY NOT BE PRESENT THROUGHOUT ENTIRE MAPPED AREA. MAPPED IN THE N 1/2 OF SEC 11, S 1/2 OF SEC 2, NE 1/4 OF SEC 3, AND THE SE 1/4 OF SEC 34.						
Ecological:	IN OPENINGS AND DISTURBED AREAS OF CHAPARRAL ON MESOZOIC BASIC INTRUSIVE (GABBRO) DERIVED SOIL, WITH ARCOSTAPHYLOS VISCIDA, CEANOTHUS LEMMONII, WYETHIA RETICULATA, CALYSTEGIA STEBBINSII, ADENOSTOMA FASCICULATUM, SALVIA SONOMENSIS, ETC..						
General:	POP #S ARE FOR PORTIONS OF EO (NOT COMPLETE SURVEYS OF THE WHOLE AREA). <1000 PLANTS SEEN IN 1984, 500 IN 1987, & 1100 IN 1994. THOUSANDS OF PLANTS SEEN IN LARGE PORTION IN 2005 AND 2011. UNKNOWN # IN 2007 & 2009. INCLUDES FORMER EO #41.						
Owner/Manager:	PVT, BLM						
Occurrence No.	20	Map Index:	16633	EO Index:	17313	Element Last Seen:	2013-04-02
Occ. Rank:	Good	Presence:	Presumed Extant	Site Last Seen:	2013-04-02	Record Last Updated:	2015-01-21
Occ. Type:	Natural/Native occurrence	Trend:	Unknown				
Quad Summary:	Shingle Springs (3812068), Clarksville (3812161)						
County Summary:	El Dorado						
Lat/Long:	38.71778 / -120.99151			Accuracy:	specific area		
UTM:	Zone-10 N4287373 E674614			Elevation (ft):	1800		
PLSS:	T10N, R09E, Sec. 16 (M)			Acres:	49.0		
Location:	PINE HILL, ABOUT 2 MILES WNW OF RESCUE, NORTHWEST OF SHINGLE SPRINGS.						
Detailed Location:	MAPPED AS 11 POLYGONS IN THE S 1/2 OF SECTION 16, AND THE NE 1/4 NW 1/4 AND THE SW 1/4 NE 1/4 OF SECTION 21. PART OF SITE EXPERIMENTALLY BURNED IN 1983.						
Ecological:	GABBRO CHAPARRAL WITH ADENOSTOMA FASCICULATUM, ARCTOSTAPHYLOS VISCIDA, PINUS SABINIANA, SALVIA SONOMENSIS, RHAMNUS CROCEA, WYETHIA BOLANDERI, CEANOTHUS RODERICKII, C. LEMMONII, ETC. ON EXTREMELY STONY SANDY LOAM SOIL.						
General:	<1000 PLANTS SEEN IN 1982 & 1984. 1000S IN 1998. 2005: 0.2% COVER IN 2ND E-MOST COLONY. ~15 IN 3 NW-MOST POLYGONS IN 2007. UNKNOWN # IN 2008. "COMMON" NEAR SUMMIT IN 2011. 2000 IN S-MOST POLYGON IN 2013. INCLUDES FORMER EO #21.						
Owner/Manager:	DFG, CDF, PVT						



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Occurrence No.	22	Map Index:	12168	EO Index:	7486	Element Last Seen:	2014-04-09
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2014-04-09
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2015-01-21
Quad Summary:	Pilot Hill (3812171)						
County Summary:	El Dorado						
Lat/Long:	38.76471 / -121.02047				Accuracy:	specific area	
UTM:	Zone-10 N4292527 E671983				Elevation (ft):	1000	
PLSS:	T11N, R09E, Sec. 31 (M)				Acres:	153.0	
Location:	ON BOTH SIDES OF SOUTH FORK AMERICAN RIVER, BETWEEN THE MOUTH OF WEBER CREEK AND SALMON FALLS RD.						
Detailed Location:	SEVERAL COLONIES MAPPED BY CNDDB AS 10 POLYGONS. MOSTLY WITHIN SECTION 36, THE N 1/2 OF SECTION 31, THE S 1/2 OF SECTION 30, AND THE SE 1/4 OF THE SE 1/4 OF SECTION 25.						
Ecological:	OPEN AREAS IN CHAPARRAL, WHERE SHRUBS ARE LOW AND SCATTERED. OFTEN ON BANKS OF SMALL EVANESCENT STREAMLETS. ON ROCKY GABBRO SOILS WITH WYETHIA BOLANDERI, CEANOTHUS RODERICKII, CEANOTHUS LEMMONII, AND ADENOSTOMA FASCICULATUM.						
General:	FEWER THAN 100 PLANTS OBSERVED IN 1984. ~100 PLANTS IN THE S PORTION OF FAR NE COLONY IN 1993. 500 IN LARGER CENTRAL COLONY IN 1994. FEWER THAN 50 IN PORTION OF SE 1/4 SEC 36 IN 2012. UNKNOWN # IN 2005 & 2014. INCL FORMER OCCS #23-27 & 31.						
Owner/Manager:	PVT, DFG, BLM, USBOR						

Occurrence No.	30	Map Index:	22720	EO Index:	17238	Element Last Seen:	1989-XX-XX
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1989-XX-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	1993-02-04
Quad Summary:	Shingle Springs (3812068)						
County Summary:	El Dorado						
Lat/Long:	38.72068 / -120.95903				Accuracy:	1/5 mile	
UTM:	Zone-10 N4287758 E677432				Elevation (ft):	1560	
PLSS:	T10N, R09E, Sec. 14 (M)				Acres:	0.0	
Location:	1.2 KM (0.75 MI) FROM DEER VALLEY ROAD / GREEN VALLEY ROAD JUNCTION, NNW OF RESCUE.						
Detailed Location:	MAPPED ON HILLTOP UNDER TRANSMISSION LINE.						
Ecological:	GROWING WITH SENECIO LAYNEAE, WYETHIA RETICULATA, AND HELIANTHEMUM SUFFRUTESCENS.						
General:	SITE OWNED BY BLM, FOLSOM RESOURCE AREA.						
Owner/Manager:	BLM-FOLSOM RA						



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Occurrence No.	32	Map Index:	69630	EO Index:	17056	Element Last Seen:	2006-07-28
Occ. Rank:	Fair			Presence:	Presumed Extant	Site Last Seen:	2006-07-28
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2010-06-14
Quad Summary:	Shingle Springs (3812068)						
County Summary:	El Dorado						
Lat/Long:	38.65334 / -120.94771				Accuracy:	specific area	
UTM:	Zone-10 N4280306 E678583				Elevation (ft):	1400	
PLSS:	T09N, R09E, Sec. 12 (M)				Acres:	3.0	
Location:	BETWEEN PRODUCT DRIVE AND LAKEVIEW DRIVE, ABOUT 1/2 AIR MILE SOUTH OF HIGHWAY 50, SHINGLE SPRINGS.						
Detailed Location:	THREE SMALL COLONIES MAPPED BY CNDDB AS TWO POLYGONS ON BOTH SIDES OF THE SECTION LINE BETWEEN SECTIONS 11 AND 12, NORTH OF THE RAILROAD.						
Ecological:	CHAPARRAL ON RESCUE SERIES SOILS. ASSOCIATED WITH ARCTOSTAPHYLOS VISCIDA, CEANOTHUS LEMMONII, ADENOSTOMA FASCICULATUM, CERCIS OCCIDENTALIS, SALVIA SONOMENSIS, SENECIO LAYNEAE, CALYSTEGIA STEBBINSII, ET AL.						
General:	IN 1993 IN THE TWO NE COLONIES PLANT DENSITY RANGED FROM 3 TO 14 PLANTS PER SQUARE METER. 500 PLANTS WERE OBSERVED IN SW COLONY IN 1994 AND 30 WERE FOUND IN 2006.						
Owner/Manager:	PVT						

Occurrence No.	33	Map Index:	69715	EO Index:	22076	Element Last Seen:	2007-06-11
Occ. Rank:	Fair			Presence:	Presumed Extant	Site Last Seen:	2007-06-11
Occ. Type:	Natural/Native occurrence			Trend:	Decreasing	Record Last Updated:	2010-06-22
Quad Summary:	Shingle Springs (3812068)						
County Summary:	El Dorado						
Lat/Long:	38.68226 / -120.98003				Accuracy:	specific area	
UTM:	Zone-10 N4283454 E675699				Elevation (ft):	1400	
PLSS:	T10N, R09E, Sec. 34 (M)				Acres:	57.0	
Location:	NORTHEAST OF THE JUNCTION OF MEDER ROAD AND CAMERON PARK DRIVE, EAST OF CAMERON PARK AIRPORT.						
Detailed Location:	MAPPED IN THE NW 1/4 OF SECTION 33.						
Ecological:	OPEN PATCHES IN GABBRO CHAPARRAL. ASSOC W/ ARCTOSTAPHYLOS VISCIDA, QUERCUS BERBERIDIFOLIA, HETEROMELES, RHAMNUS CALIFORNICUS, RHAMNUS CROCEA, PINUS SABINIANA, ADENOSTOMA FASCICULATUM, HELIANthemum SUFFRUTESCENS, CEANOTHUS RODERICKII, ETC.						
General:	UNKNOWN NUMBER OF PLANTS OBSERVED IN NE SIDE OF OCCURRENCE IN 1986 AND 1989. UNKNOWN # IN 2005. ~2000 PLANTS OBSERVED IN SW PORTION OF OCCURRENCE IN 2006. UNKNOWN # IN 2007. 2005 AERIAL PHOTO SHOWS PART OF THE NE PORTION IS NOW HOUSING.						
Owner/Manager:	ELD COUNTY, PVT, BLM						



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Occurrence No.	34	Map Index:	30658	EO Index:	22077	Element Last Seen:	2005-07-20
Occ. Rank:	Excellent			Presence:	Presumed Extant	Site Last Seen:	2005-07-20
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2008-10-31
Quad Summary:	Shingle Springs (3812068)						
County Summary:	El Dorado						
Lat/Long:	38.72950 / -120.99280				Accuracy:	specific area	
UTM:	Zone-10 N4288672 E674473				Elevation (ft):	1580	
PLSS:	T10N, R09E, Sec. 09 (M)				Acres:	16.0	
Location:	NORTH OF PINE HILL, ABOUT 0.8 MILE FROM LOOKOUT.						
Detailed Location:	2 COLONIES HERE. ONE ABOUT 300+ FEET FROM WHERE POWER LINE CROSSES THE ROAD AND MAPPED WITHIN THE SE 1/4 OF THE SW 1/4 OF SECTION 9. SECOND MAPPED IN SW1/4 OF SE1/4 SECTION 9.						
Ecological:	GROWING AMONG ROCK OUTCROPS IN FULL SUN. SENEIO LAYNEAE OCCURS NEARBY. WYETHIA RETICULATA & FREMONTODENDRON DECUMBENS OCCUR AT SAME SITE. SOMETIMES UNDER SHADE OF CHAMISE AND WHITE LEAF MANZANITA.						
General:	W COLONY: SCATTERED INDIVIDUALS IN 1989, DOZENS OF PLANTS SEEN IN 2005. E COLONY: ~1000 PLANTS SEEN IN EASTERN COLONY IN 2003.						
Owner/Manager:	PVT						

Occurrence No.	35	Map Index:	30914	EO Index:	3843	Element Last Seen:	1986-XX-XX
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1986-XX-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	1995-03-03
Quad Summary:	Clarksville (3812161)						
County Summary:	El Dorado						
Lat/Long:	38.71931 / -121.02787				Accuracy:	80 meters	
UTM:	Zone-10 N4287475 E671450				Elevation (ft):	1260	
PLSS:	T10N, R09E, Sec. 18 (M)				Acres:	0.0	
Location:	0.5 MILE WEST OF DEER VALLEY ROAD AND 0.2 MILE SOUTH OF MARTEL CREEK, NORTH OF BASS LAKE.						
Detailed Location:	MAPPED JUST TO THE WEST OF 1381' ELEVATION MARKER IN THE NW 1/4 OF THE SE 1/4 OF SECTION 18.						
Ecological:							
General:	ONLY SOURCE OF INFORMATION FOR THIS SITE IS MAP DETAIL PROVIDED BY WILSON.						
Owner/Manager:	UNKNOWN						



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Occurrence No.	57	Map Index:	55844	EO Index:	55860	Element Last Seen:	2003-05-01
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2003-05-01
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2004-06-18
Quad Summary:	Shingle Springs (3812068)						
County Summary:	El Dorado						
Lat/Long:	38.67782 / -120.88674			Accuracy:	80 meters		
UTM:	Zone-10 N4283144 E683826			Elevation (ft):	1500		
PLSS:	T10N, R10E, Sec. 33 (M)			Acres:	0.0		
Location:	GREENSTONE CUTOFF, EL DORADO HILLS, JUST NORTH OF THE JUNCTION OF GREENSTONE ROAD AND MOTHERLODE DRIVE.						
Detailed Location:	NE 1/4 OF SW 1/4 SEC 33. SOAPROOT LOCATED IN NW PORTION OF PROJECT SITE.						
Ecological:	ECOTONE BETWEEN SAVANNAH AND OAK WOODLAND. SERPENTINE SOIL (GABBRO?). NW EXPOSURE.						
General:	10,000 PLANTS REPORTED IN 2003.						
Owner/Manager:	PVT						
Occurrence No.	64	Map Index:	70866	EO Index:	71844	Element Last Seen:	2007-07-30
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2007-07-30
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2008-12-08
Quad Summary:	Shingle Springs (3812068)						
County Summary:	El Dorado						
Lat/Long:	38.68011 / -120.95684			Accuracy:	specific area		
UTM:	Zone-10 N4283260 E677722			Elevation (ft):	1500		
PLSS:	T10N, R09E, Sec. 35 (M)			Acres:	1.0		
Location:	NORTHERN END OF PARCEL AT 3611 MEDER ROAD, SHINGLE SPRINGS.						
Detailed Location:	IN THE SW 1/4 OF THE NE 1/4 OF SECTION 35.						
Ecological:	GABBRO CHAPARRAL WITH CEANOTHUS CUNEATUS, QUERCUS WISLIZENI, AND ARCTOSTAPHYLOS VISCIDA. EAST-FACING SLOPE.						
General:	THOUSANDS OF PLANTS OBSERVED IN 2007, WITH DENSITIES OF 2 TO 12 PLANTS PER SQUARE METER.						
Owner/Manager:	PVT						
Occurrence No.	72	Map Index:	73023	EO Index:	73610	Element Last Seen:	2007-03-26
Occ. Rank:	Fair			Presence:	Presumed Extant	Site Last Seen:	2007-03-26
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2008-12-01
Quad Summary:	Coloma (3812078)						
County Summary:	El Dorado						
Lat/Long:	38.76025 / -120.93939			Accuracy:	80 meters		
UTM:	Zone-10 N4292188 E679040			Elevation (ft):	1115		
PLSS:	T11N, R09E, Sec. 35 (M)			Acres:	0.0		
Location:	E SIDE OF SPRINGVALE RD BETWEEN ROSSLER RD AND LAKEVIEW DR, SW OF FOUR CORNERS.						
Detailed Location:	MAPPED BY CNDDB ACCORDING TO A 2007 WILSON MAP.						
Ecological:	CHAPARRAL WITHIN MIXED OAK WOODLAND. ASSOCIATED WITH CEANOTHUS CUNEATUS ON SERPENTINE SOIL, SW ASPECT. PACKERA LAYNEAE ALSO AT THIS SITE.						
General:	200 PLANTS SEEN IN 2007.						
Owner/Manager:	PVT						



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Orcuttia tenuis

Element Code: PMPOA4G050

slender Orcutt grass

Listing Status: **Federal:** Threatened

CNDDB Element Ranks: **Global:** G2

State: Endangered

State: S2

Other: Rare Plant Rank - 1B.1, SB_UCBBG-UC Berkeley Botanical Garden

Habitat: **General:** VERNAL POOLS.

Micro: OFTEN IN GRAVELLY POOLS. 35-1760 M.

Occurrence No. 71 **Map Index:** 34526 **EO Index:** 272 **Element Last Seen:** 2012-10-09
Occ. Rank: Good **Presence:** Presumed Extant **Site Last Seen:** 2012-10-09
Occ. Type: Natural/Native occurrence **Trend:** Unknown **Record Last Updated:** 2013-04-17

Quad Summary: Buffalo Creek (3812152)

County Summary: Sacramento

Lat/Long: 38.55401 / -121.22835 **Accuracy:** specific area
UTM: Zone-10 N4268774 E654373 **Elevation (ft):** 175
PLSS: T08N, R07E, Sec. 17 (M) **Acres:** 1.0

Location: EAST OF MATHER AIR FORCE BASE, 0.8 AIR MILE SE OF THE INTERSECTION OF SUNRISE BLVD AND DOUGLAS ROAD, RANCHO CORDOVA.

Detailed Location: MONTELENA WETLAND PRESERVE. IN THE NE 1/4 OF THE NE 1/4 OF SECTION 17.

Ecological: ASSOCIATED WITH ELEOCHARIS MACROSTACHYA, ERYNGIUM VASEYI, AND NAVARRETIA LEUCOCEPHALA.

General: 500 PLANTS ESTIMATED IN 1993, 8500 IN 2006, 12,000 IN 2008, 100 IN 2009, 1800 IN 2010, 1100 IN 2011, 300 IN 2012.

Owner/Manager: PVT

Orcuttia viscida

Element Code: PMPOA4G070

Sacramento Orcutt grass

Listing Status: **Federal:** Endangered

CNDDB Element Ranks: **Global:** G1

State: Endangered

State: S1

Other: Rare Plant Rank - 1B.1

Habitat: **General:** VERNAL POOLS.

Micro: 30-100 M.



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Occurrence No.	1	Map Index:	40832	EO Index:	40832	Element Last Seen:	2012-10-12
Occ. Rank:	Excellent			Presence:	Presumed Extant	Site Last Seen:	2012-10-12
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2013-04-26
Quad Summary:	Buffalo Creek (3812152)						
County Summary:	Sacramento						
Lat/Long:	38.53114 / -121.18847				Accuracy:	specific area	
UTM:	Zone-10 N4266305 E657899				Elevation (ft):	220	
PLSS:	T08N, R07E, Sec. 22 (M)				Acres:	5.0	
Location:	GRANT LINE ROAD, ABOUT 2.9 MILES NORTH OF JACKSON HIGHWAY (HWY 16), NORTH OF SLOUGHHOUSE.						
Detailed Location:	MAPPED IN LARGE POOL ALONG EAST SIDE OF ROAD, ABOUT 1 MILE NORTHEAST OF KIEFER ROAD AND JUST SW OF THE BEND IN GRANT LINE ROAD ACCORDING TO 2013 DIGITAL DATA FROM WITHAM. KIEFER POOL #208.						
Ecological:	DEEP VERNAL POOL WITH ISOETES HOWELLII, ERYNGIUM VASEYI, PSILOCARPHUS BREVISSIMUS, LILAEA SCILLOIDES, PLAGIOBOTHRYIS STIPITATUS MICRANTHUS, ELEOCHARIS MACROSTACHYA, CRASSULA AQUATICA, DOWNINGIA ORNATISSIMA, EPILOBIUM CLEISTOGAMUM, ETC.						
General:	TYPE LOCALITY. ABUNDANT IN 1986 & 1987, ~400,000 IN 1995, 138,000 IN 1998, >1.5 MIL IN 2005, 525,000 IN 2006, 641,000 IN 2007, 1.2 MIL IN 2008, 643,000 IN 2009, 957,000 IN 2010, 1.2 MIL IN 2011, ~3,000 IN 2012 (ODD RAINFALL YEAR).						
Owner/Manager:	SAC COUNTY						

Occurrence No.	4	Map Index:	11886	EO Index:	22369	Element Last Seen:	1958-07-07
Occ. Rank:	None			Presence:	Extirpated	Site Last Seen:	1993-12-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2013-04-26
Quad Summary:	Folsom (3812162)						
County Summary:	Sacramento						
Lat/Long:	38.67823 / -121.19606				Accuracy:	1/5 mile	
UTM:	Zone-10 N4282614 E656917				Elevation (ft):	240	
PLSS:	T10N, R07E, Sec. 34 (M)				Acres:	0.0	
Location:	0.4 MI EAST OF THE JUNCTION OF MAIN AVE & GREENBACK LN, ABOUT 2 MILES EAST OF ORANGEVALE, 2.1 MILES NW OF FOLSOM.						
Detailed Location:	MAPPED AS BEST GUESS BY CNDDDB BASED ON A 1958 CRAMPTON LOCATION DESCRIPTION.						
Ecological:	NEARLY BARREN AREA IN THE MIDDLE OF LARGE VERNAL POOL WITH ERYNGIUM. OPEN ROLLING PLAINS WITH BLUE OAKS.						
General:	ONLY SOURCE OF INFORMATION FOR THIS OCCURRENCE IS A 1958 CRAMPTON COLLECTION. SITE VISITED IN 1981, 1986, AND 1993; AREA DEVELOPED, NO INDICATION OF REMAINING VERNAL POOL HABITAT.						
Owner/Manager:	PVT						



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Occurrence No.	5	Map Index:	71464	EO Index:	18718	Element Last Seen:	2013-05-28
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2013-05-28
Occ. Type:	Natural/Native occurrence			Trend:	Fluctuating	Record Last Updated:	2013-05-29
Quad Summary:	Folsom (3812162)						
County Summary:	Sacramento						
Lat/Long:	38.65557 / -121.21525				Accuracy:	specific area	
UTM:	Zone-10 N4280067 E655296				Elevation (ft):	270	
PLSS:	T09N, R07E, Sec. 09 (M)				Acres:	4.0	
Location:	PHOENIX VERNAL POOLS, NORTH OF SUNSET BLVD, JUST EAST OF PHOENIX FIELD AIRPORT, FAIR OAKS.						
Detailed Location:	MAPPED ACCORDING TO A 1996 MOREY MAP AND 2013 WITHAM DIGITAL DATA. POOLS WITH A LOT OF ERYNGIUM DO NOT HAVE O. VISCIDA ACCORDING TO COCHRANE (1982). POOL ACQUIRED & FENCED BY CDFG AS ECOLOGICAL RESERVE.						
Ecological:	IN SILICA-IRON HARDPAN IN VERNAL POOLS IN BLUE OAK WOODLAND W/ ERYNGIUM VASEYI, PSILOCARPHUS BREVISSIMUS, BRODIAEA MINOR, SIDALCEA CALYCOSA. NAVARRETIA MYERSII ALSO AT THIS SITE.						
General:	59,160 IN 1980, 29,835 IN '81, 154,048 IN '82, 57,248 IN '83, 146,160 IN '84, 46,446 IN '85, 215,853 IN '86, ABUNDANT IN '87, 1000S IN '91, >100,000 IN '94-'96, 9,457 IN '97, 100,000 IN '07, ~5,300 IN '10, 9,500 IN '13. INCL FRMR EO#2.						
Owner/Manager:	DFG-PHOENIX FIELD ER						

Occurrence No.	6	Map Index:	11881	EO Index:	14411	Element Last Seen:	2012-10-17
Occ. Rank:	Excellent			Presence:	Presumed Extant	Site Last Seen:	2012-10-17
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2013-05-08
Quad Summary:	Buffalo Creek (3812152)						
County Summary:	Sacramento						
Lat/Long:	38.52197 / -121.19452				Accuracy:	specific area	
UTM:	Zone-10 N4265276 E657391				Elevation (ft):	220	
PLSS:	T08N, R07E, Sec. 27 (M)				Acres:	31.0	
Location:	NEAR KIEFER LANDFILL, EAST SIDE OF GRANT LINE RD, NORTH AND SOUTH OF KIEFER BLVD, SOUTHEAST OF RANCHO CORDOVA.						
Detailed Location:	MAPPED ACCORDING TO OLD MAPS & 2013 DIGITAL DATA. SEARCHED FOR BUT NOT FOUND S OF KIEFER FOR MANY YEARS (SINCE 1974?); MAY BE EXTIRPATED FROM THERE DUE TO AG & USE AS PERMANENT LIVESTOCK PONDS. INCLUDES FORMER EO#S 3, 7, 9, 10, 12, & 14.						
Ecological:	VERNAL POOLS SURROUNDED BY ANNUAL GRASSLAND. REDDING GRAVELLY LOAM SOIL. ASSOCIATED WITH ELEOCHARIS MACROSTACHYA, ERYNGIUM VASEYI, ALLOCARYA STIPITATA, PSILOCARPHUS BREVISSIMUS, LILAEA SCILLOIDES, MARSILEA VESTITA, & DOWNINGIA BICORNUTA.						
General:	POP #S ARE FOR VARYING #S OF POOLS: 1000S OF PLANTS IN 1990, >1 MIL IN '95, 129,000 IN '98, 243,000 IN 2005, 335,000 IN '06, 525,000 IN '07, 497,000 IN '08, 32,000 IN '09, 133,000 IN '10, 184,000 IN '11, ~1000 IN '12 (ODD RAIN YEAR).						
Owner/Manager:	SAC COUNTY						



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Occurrence No.	15	Map Index:	11839	EO Index:	30943	Element Last Seen:	2010-09-08
Occ. Rank:	Fair			Presence:	Presumed Extant	Site Last Seen:	2010-09-08
Occ. Type:	Introduced Back into Native Hab./Range			Trend:	Unknown	Record Last Updated:	2013-05-08
Quad Summary:	Folsom (3812162)						
County Summary:	Sacramento						
Lat/Long:	38.65173 / -121.21820				Accuracy:	specific area	
UTM:	Zone-10 N4279636 E655048				Elevation (ft):	270	
PLSS:	T09N, R07E, Sec. 09 (M)				Acres:	1.0	
Location:	PHOENIX PARK, SOUTH OF SUNSET AVE, 0.5 MILE EAST OF HAZEL AVE, FAIR OAKS.						
Detailed Location:	EO #5 AND 15 ARE WITHIN A QUARTER MILE OF EACH OTHER BUT WERE KEPT AS SEPARATE OCCURRENCES BECAUSE EO #5 IS NATIVE/NATURAL AND EO #15 IS INTRODUCED. THIS SITE IS COMPLETELY SURROUNDED BY DEVELOPMENT W/ NO BUFFER ZONE.						
Ecological:	ON REDDING SERIES SOILS. ASSOCIATES INCLUDE ELEOCHARIS MACROSTACHYA, PLAGIOBOTHRYS STIPITATA, DOWNINGIA BICORNUTA, TRICHOSTEMA LANCEOLATUM, PSILOCARPHUS BREVISSIMUS, ERYNGIUM VASEYI, LILAEA SCILLOIDES, AND BRODIAEA MINOR.						
General:	THIS EO ESTABLISHED FROM SEED COLLECTED FROM NEARBY NATIVE EO #5 IN 1978. 1000+ PLANTS IN 1985, 10,000+ IN 1986, 1000+ IN 1991, ABOUT 100,000 IN 1995, 35 IN 1996, 1000 IN 1997, UNK # SEEN IN 2002, 1000S IN 2007, 1500 IN 2010.						
Owner/Manager:	CITY OF FAIR OAKS-PARKS & REC						
Occurrence No.	17	Map Index:	11785	EO Index:	21912	Element Last Seen:	2010-08-18
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2010-08-18
Occ. Type:	Natural/Native occurrence			Trend:	Decreasing	Record Last Updated:	2013-05-15
Quad Summary:	Buffalo Creek (3812152)						
County Summary:	Sacramento						
Lat/Long:	38.52865 / -121.24226				Accuracy:	specific area	
UTM:	Zone-10 N4265937 E653215				Elevation (ft):	150	
PLSS:	T08N, R07E, Sec. 20 (M)				Acres:	1.0	
Location:	ANATOLIA PRESERVE; EAST SIDE OF SUNRISE BLVD, APPROXIMATELY 0.2 MI NORTH OF INTERSECTION WITH KIEFER BLVD.						
Detailed Location:	MAPPED ON THE WESTERN BORDER OF THE SW 1/4 OF SECTION 20 ACCORDING TO 2013 WITHAM DIGITAL DATA. SITE OF PROPOSED INDUSTRIAL PARK DEVELOPMENT; POPULATION TO BE WITHIN PRESERVE/MITIGATION AREA.						
Ecological:	Y-SHAPED VERNAL POOL SURROUNDED BY ANNUAL GRASSLAND. ASSOCIATED WITH ERYNGIUM VASEYI, ELEOCHARIS MACROSTACHYA, ALLOCARYA STIPITATA, PSILOCARPHUS, GRATIOLA EBRACTEATA AND NAVARRETIA LEUCOCEPHALA.						
General:	MORE THAN 10,000 PLANTS SEEN IN 1987 AND 1995. 1000S OF PLANTS SEEN IN 2007. 1200 PLANTS SEEN IN 2010. ANNUAL DURATION OF INUNDATION HAS BEEN ARTIFICIALLY INCREASED BY ELEVATED GRADE OF SUNRISE BLVD.						
Owner/Manager:	PVT						



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Occurrence No.	18	Map Index:	11806	EO Index:	22363	Element Last Seen:	2010-08-18
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2010-08-18
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2013-05-20
Quad Summary:	Buffalo Creek (3812152)						
County Summary:	Sacramento						
Lat/Long:	38.53520 / -121.23006				Accuracy:	specific area	
UTM:	Zone-10 N4266684 E654265				Elevation (ft):	165	
PLSS:	T08N, R07E, Sec. 20 (M)				Acres:	1.0	
Location:	ANATOLIA PRESERVE; APPROXIMATELY 0.9 MILE NORTHEAST OF INTERSECTION OF KIEFER BLVD AND SUNRISE BLVD.						
Detailed Location:	BENEATH TRANSMISSION LINES. MAPPED IN THE SW 1/4 OF THE NE 1/4 OF SECTION 20 ACCORDING TO 2013 WITHAM DIGITAL DATA. ONLY IN CENTER DEEPEST PART OF POOL IN 2007.						
Ecological:	VERNAL POOL SURROUNDED BY ANNUAL GRASSLAND. ASSOCIATED WITH ELEOCHARIS MACROSTACHYA, ERYNGIUM VASEYI, PSILOCARPHUS BREVISSIMUS, ALLOCARYA STIPITATA, NAVARRETIA LEUCOCEPHALA, DOWNINGIA BICORNUTA, ETC.						
General:	1000 PLANTS SEEN IN 1987, 1000S OF PLANTS SEEN IN 2007, 400 PLANTS SEEN IN 2010.						
Owner/Manager:	PVT						

Occurrence No.	19	Map Index:	26036	EO Index:	5231	Element Last Seen:	2010-08-30
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2010-08-30
Occ. Type:	Natural/Native occurrence			Trend:	Decreasing	Record Last Updated:	2013-05-20
Quad Summary:	Buffalo Creek (3812152)						
County Summary:	Sacramento						
Lat/Long:	38.55269 / -121.17345				Accuracy:	specific area	
UTM:	Zone-10 N4268721 E659160				Elevation (ft):	250	
PLSS:	T08N, R07E, Sec. 14 (M)				Acres:	3.0	
Location:	SOUTH OF GLORY LANE, APPROXIMATELY 0.75 MI E OF THE INTERSECTION OF GRANT LINE RD AND GLORY LANE, ENE OF MATHER AFB.						
Detailed Location:	4 SITES MAPPED BY CNDDB AS 2 POLYGONS ACCORDING TO 2013 WITHAM DIGITAL DATA.						
Ecological:	POOLS WITHIN GRASSLAND IN RED BLUFF/REDDING SOILS. ASSOCIATED WITH ERYNGIUM VASEYI, NAVARRETIA LEUCOCEPHALA, AND DOWNINGIA BICORNUTA.						
General:	100S OF PLANTS SEEN IN BOTH POLYGONS IN 1994. N POLY: >400,000 PLANTS SEEN IN 1995, SEVERAL THOUSAND IN 2007, 275 IN 2010. S POLY: ~190,000 PLANTS SEEN IN 1995, SEVERAL THOUSAND IN 2007, ~5,000 IN 2010.						
Owner/Manager:	PVT						



Multiple Occurrences per Page
California Department of Fish and Wildlife
California Natural Diversity Database



Occurrence No.	21	Map Index:	71466	EO Index:	72362	Element Last Seen:	2007-08-17
Occ. Rank:	Excellent			Presence:	Presumed Extant	Site Last Seen:	2007-08-17
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2008-06-09
Quad Summary:	Buffalo Creek (3812152)						
County Summary:	Sacramento						
Lat/Long:	38.56068 / -121.16536				Accuracy:	specific area	
UTM:	Zone-10 N4269622 E659848				Elevation (ft):	200	
PLSS:	T08N, R07E, Sec. 12 (M)				Acres:	0.0	
Location:	APPROXIMATELY 0.55 AIR MI NNW OF THE INTERSECTION OF GLORY LANE AND PLEASANT HILL LANE, RANCHO CORDOVA.						
Detailed Location:	ORCUTTIA WAS FOUND IN THE DEEPEST PORTION OF THIS 0.15 ACRE POOL WHERE ERYNGIUM IS SPARSEST.						
Ecological:	ASSOCIATES INCLUDE ALOPECURUS SACCATUS, PSILOCARPHUS BREVISSIMUS, ERYNGIUM CASTRENSE, DOWNINGIA SP., LASTHENIA GLABERRIMA, NAVARRETIA LEUCOCEPHALA, AND PLAGIOBOTHRYS STIPITATUS.						
General:	~5000 PLANTS OBSERVED IN 2007. THIS POPULATION WAS OBSERVED INCIDENTALLY DURING THE COURSE OF A WETLAND DELINEATION.						
Owner/Manager:	PVT						

Occurrence No.	22	Map Index:	89191	EO Index:	90194	Element Last Seen:	2008-07-XX
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	2008-07-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2013-05-09
Quad Summary:	Buffalo Creek (3812152)						
County Summary:	Sacramento						
Lat/Long:	38.58013 / -121.19663				Accuracy:	80 meters	
UTM:	Zone-10 N4271727 E657080				Elevation (ft):	240	
PLSS:	T08N, R07E, Sec. 03 (M)				Acres:	0.0	
Location:	APPROXIMATELY 1.44 AIR MILES NORTH OF DOUGLAS BLVD AND 0.5 AIR MILE WEST OF GRANT LINE ROAD, RANCHO CORDOVA.						
Detailed Location:	IN LARGE POOL ON A BLUFF SOUTH OF WHITE ROCK ROAD.						
Ecological:	VERNAL POOL WITH ABUNDANT MICROHABITAT (CATTLE FOOTPRINTS AND STRUCTURAL DIVERSITY). IN NON-NATIVE GRASSLAND. POOL DOMINATED BY ORCUTTIA VISCIDA, ELEOCHARIS MACROSTACHYA, POLYPOGON MONSPELIENSIS, AND PSILOCARPHUS BREVISSIMUS.						
General:	>30 PLANTS OBSERVED IN 2006. WITHAM ESTIMATES 1000S OF PLANTS BASED ON PHOTOS TAKEN AT SITE IN 2008, THOUGH SHE HAS NOT BEEN ABLE TO PERSONALLY VISIT THE SITE.						
Owner/Manager:	PVT						

U.S. Fish & Wildlife Service
Sacramento Fish & Wildlife Office
Federal Endangered and Threatened Species that Occur in
or may be Affected by Projects in the
CLARKSVILLE (511A)
U.S.G.S. 7 1/2 Minute Quad

Report Date: February 11, 2015

Listed Species

Invertebrates

Branchinecta lynchi
vernal pool fairy shrimp (T)

Desmocerus californicus dimorphus
valley elderberry longhorn beetle (T)

Lepidurus packardii
vernal pool tadpole shrimp (E)

Fish

Hypomesus transpacificus
delta smelt (T)

Oncorhynchus mykiss
Central Valley steelhead (T) (NMFS)

Oncorhynchus tshawytscha
Central Valley spring-run chinook salmon (T) (NMFS)
winter-run chinook salmon, Sacramento River (E) (NMFS)

Amphibians

Ambystoma californiense
California tiger salamander, central population (T)

Rana draytonii
California red-legged frog (T)

Reptiles

Thamnophis gigas
giant garter snake (T)

Plants

Calystegia stebbinsii

Stebbins's morning-glory (E)

Ceanothus roderickii
Pine Hill ceanothus (E)

Fremontodendron californicum ssp. decumbens
Pine Hill flannelbush (E)

Galium californicum ssp. sierrae
El Dorado bedstraw (E)

Senecio layneae
Layne's butterweed (=ragwort) (T)

Key:

- (E) Endangered - Listed as being in danger of extinction.
- (T) Threatened - Listed as likely to become endangered within the foreseeable future.
- (P) Proposed - Officially proposed in the Federal Register for listing as endangered or threatened.
- (NMFS) Species under the Jurisdiction of the [National Oceanic & Atmospheric Administration Fisheries Service](#). Consult with them directly about these species.
- Critical Habitat - Area essential to the conservation of a species.
- (PX) Proposed Critical Habitat - The species is already listed. Critical habitat is being proposed for it.
- (C) Candidate - Candidate to become a proposed species.
- (V) Vacated by a court order. Not currently in effect. Being reviewed by the Service.
- (X) Critical Habitat designated for this species

Appendix B

Cultural Resources Letter Report





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February 27, 2015

George Carpenter
Winn Communities
BL Road, LLC
3001 I Street, Suite 300
Sacramento, CA 95816

**Subject: Bass Lake Hills - Condition of Approval Amendments CEQA Compliance and Permitting,
El Dorado County**

Mr. Carpenter:

This letter provides the results of our study and analysis of cultural resources for the Bass Lake Hills Condition of Approval Amendments, California Environmental Quality Act (CEQA) Compliance and Permitting, El Dorado County.

Introduction

BL Road, LLC, is seeking approval of a range of amendments to the prior-approved conditions of approval for three tentative maps within the Bass Lake Hills Specific Plan area of El Dorado County. The amended conditions of approval (COA), if approved, would refine the sequence and timing of required infrastructure improvements, and would add several interim infrastructure improvements that would facilitate incremental development of the tentative maps. Pursuant to CEQA, El Dorado County is the lead agency and responsible for approval or certification of the adequacy of any CEQA document.

BL Road requested assistance from Environmental Science Associates (ESA) to prepare CEQA documents to support the County's consideration of the proposed amendments, as well as to coordinate and support regulatory permitting for the relevant infrastructure.

As part of this process, BL Road requested that ESA prepare a review of "off-site" improvements for the project and do the follow cultural resource study tasks:

- Review existing cultural resources documentation (1992 Program EIR and supporting technical reports);
- Conduct an updated record search at the North Central Information Center (NCIC);
- Submit a query to the Native American Heritage Commission (NAHC);
- Conduct written outreach to Native American contacts identified by the NAHC;
- Conduct a cultural resources inventory (field survey) of portions of the site subject to footprint changes as a result of the proposed COA Amendments; and
- Prepare a letter report summarizing the results of the cultural resources investigation.

ESA prepared this report to summarize the results of these tasks and fulfill the final task. The cultural resources study for this project was undertaken at two levels. The project is composed of a number of individual project



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components, mostly linear, each with varying widths. For the purposes of the records search a half mile buffer was created around each of the individual components. This is referred to here after as the Study Area.

Project Location

The project is in El Dorado County between the communities of El Dorado Hills and Cameron Park. Specifically the project is located on the Clarksville, CA U.S.G.S. 7.5' map in T9N/R8E: Section 1; T9N/R9E: Sections 5 and 6; and T10N/R9E: Sections 31 and 32.

Native American Consultation

Native American consultation has occurred with the Native American Heritage Commission (NAHC) and pertinent parties over the years as various projects within the Bass Lake Road Study Area progressed. For this current study, on January 29, 2015, ESA sent a letter to the NAHC requesting a review of their sacred lands files and a list of potentially interested Native American parties. On February 20, 2015 ESA received a response from the NAHC. They had no specific concerns, but did provide a list of 12 potential contacts. On February 23, 2015 ESA sent contact letters to each party listed by the NAHC in their letter. On February 27, 2015 Marcos Guerrero, Cultural Resource Manager with the United Auburn Indian Community of the Auburn Rancheria, contacted ESA regarding the project. Mr. Guerrero was provided further details concerning the project and potential impacts to prehistoric archaeological resources.

Record Search

On January 26, 2015, ESA conducted a records search at the North Central Information Center (NCIC) at CSU, Sacramento. The record search area encompassed all project components as well as the larger Study Area, incorporating a half-mile buffer around each component (**Figures 1 and 2**).

A total of 55 previous cultural resources studies fell within this Study Area. At least 12 of these previous studies overlap (at least partially) one or more of the footprints of the project components. Roughly 90% of the project components have been previously inventoried for cultural resources.

There are 109 previously recorded cultural resources within the Study Area. Several of the previously recorded cultural resources have overlapping boundaries, making differentiation between these sites problematic. It appears that 10 of these resources at least partially overlap, or intersect with, one or more of the project components.

Table 1 summarizes these findings. The table notes the NCIC designations, gives a short description, identifies which part of the project the resource coincides with, and lists the report author(s). Table 1 also notes the current status of each resource with regard to its potential eligibility for the National Register of Historic Places (NRHP) or California Register of Historical Resources (CRHR). In several instances, the resource has not yet been evaluated. Note that resources recommended as eligible for the NRHP are also considered eligible for the CRHR.



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Documentation Review

The Bass Lake Hills development has been the subject of a series of cultural and general environmental studies over the last three decades. In addition, adjacent properties, with which the current study area overlaps, have been the subject of similar studies. **Table 1** provides a summary of the various studies reviewed in preparation of this report. These are arranged in chronological order.

Table 1.
Documents reviewed in preparation of this report.

Date	Author(s)	Title	Directly Related to Bass Lake Hills Study Area¹	General Environmental Study (EIR/EIS)	Cultural Resources Study
1985	Peak & Associates	Cultural Resource Assessment of the Proposed Bar-J Ranch Project, El Dorado County, California. Prepared by Peak & Associates for Reynen, Bardis & Winn.	✓		✓
1987	Peak & Associates	Cultural Resource Assessment of the Matz Property, Clarkville, El Dorado County, California. Prepared by Peak & Associates, Inc. for Reiners and Hayes			✓
1988	Peak & Associates	Cultural Resource Assessment of the Cambridge Oaks Project, El Dorado County, California. Prepared by Peak & Associates, Inc. for Citadel Equities Group.			✓
1990b	Foster, John W. and Daniel G. Foster	An Archaeological Reconnaissance of the Bass Lake Road Properties, El Dorado County, California. Prepared by Foothill Archaeological Services for R.C. Fuller Associates.	✓		✓
1991a	Foster, Daniel G. and John W. Foster.	An Archaeological Survey of Parcels Added to the Bass Lake Road Project, El Dorado County, California	✓		✓
1992c	Foster, Daniel G. and John W. Foster.	An Archaeological Reconnaissance of the Bass Lake Development Area Sewer Trunk Alternatives, El Dorado, California. Prepared by Foothill Archaeological Resources for R. C. Fuller Associates.	✓		✓
1992	R.C. Fuller	Bass Lake Road Study Area Final Program Environmental Impact Report. Prepared by R.C. Fuller for El Dorado County.	✓	✓	
1995a	Chafin, Randy	Bass Lake Hills Specific Plan. Prepared by Randy Chafin for Planning Department County of El Dorado	✓	✓	
1995b	Chafin, Randy M.	Draft Program EIR Addendum for the Bass Lake Hills Specific Plan. Prepared by Randy M. Chafin for Planning Department, County of El Dorado.	✓	✓	
1995c	Chafin, Randy M.	Addendum to the Bass Lake Road Study Area Program EIR. Prepared by Randy	✓	✓	



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Table 1.
Documents reviewed in preparation of this report.

Date	Author(s)	Title	Directly Related to Bass Lake Hills Study Area¹	General Environmental Study (EIR/EIS)	Cultural Resources Study
		M. Chafin for Planning Department, El Dorado County.			
1997	Supernowicz, Dana E.	Archaeological Survey Report of Bass Lake Village Unit No. 6 and 7, A.P.N. 103:010:41, El Dorado County, California. Prepared by Dana E. Supernowicz for Gene Thorne and Associates, Inc.	✓		✓
1998	Fernandez, Trish	Positive Archaeological Survey and Historic Evaluation Report for the Bass Lake Grade Truck Climbing Lane Project on State Route 50, El Dorado County, CA. Prepared by Jones & Stokes for URS Greiner and Caltrans.			✓
2000	Jones & Stokes	Archaeological Data Recovery at Serrano El Dorado Hills, El Dorado County. Prepared by Jones & Stokes for the U.S. Army Corps of Engineers and Serrano Associates, LLC.			✓
2001	Peak & Associates	Cultural Resource Assessment of the Proposed Bass Lake Hills Water Storage Project, El Dorado County, California. Prepared by Peak & Associates, Inc. for Quad Knopf.			✓ ²
2004	Historic Resource Associates	Cultural Resources Study of the Proposed Hawk View Development Bass Lake. Prepared by Historic Resource Associates.	✓		✓
2005a	El Dorado County	Initial Study and Mitigated Negative Declaration for the Hawk View Project, El Dorado County, California.	✓	✓	
2005b	El Dorado County	Initial Study and Mitigated Negative Declaration for the Bell Woods Project, El Dorado County, California.	✓	✓	
2006	El Dorado County	Draft Initial Study/Mitigated Negative Declaration for the Bass Lake Road Reconstruction and Surface Improvements Project.	✓	✓	
2006	Jensen, Sean Michael	Archaeological Inventory Survey, Bell Ranch Development Project, c. 112-acres, El Dorado County, California. Prepared by Sean Michael Jensen for Foothills Associates, Inc.	✓		✓
2011a	Windmiller, Ric	Silva Valley Parkway Interchange, Cultural Resources Inventory and Evaluation, El Dorado Hills, El Dorado, County, California. Prepared by Ric Windmiller for Mark Thomas &			✓



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Table 1.
Documents reviewed in preparation of this report.

Date	Author(s)	Title	Directly Related to Bass Lake Hills Study Area¹	General Environmental Study (EIR/EIS)	Cultural Resources Study
		Company.			
2013	Armstrong, Mathew D. and Mary Clark Baloian	Supplemental Cultural Resources Survey for the Missouri Flat-Gold Hill 115 kV Reconductoring Project, El Dorado and Sacramento Counties, California. Prepared by Applied Earthworks for PG&E.			✓
2013	Armstrong, Mathew D., Mary Clark Baloian, and Andrew P. Monastero	Cultural Resources Survey for the Missouri Flat-Gold Hill 115 kV Reconductoring Project, El Dorado and Sacramento Counties, California. Prepared by Applied Earthworks for PG&E			✓
2014	Shields, Krysten	Bell Woods Section 106 Consultation [Regulatory ID (SPK-2004-00960)]. Letter from Foothills Resources to Peck Ha, U.S. Army Corps of Engineers. Dated May 27, 2014. Attached to Tentative Subdivision Map Application, Hawk View and Bell Woods, dated September 15, 2014.	✓		✓
2014a	Walker, Douglas A.	Response to Invitation to Comment, Bell Woods Subdivision TM 01-1380-R. Letter from El Dorado County Historical Society to Tiffany Schmid, Community Development Agency, Development Services Division, dated December 30, 2014.	✓		✓
2014b	Walker, Douglas A.	Response to Invitation to Comment Hawk View Ridge TM 00-1371-R. Letter from El Dorado County Historical Society to Tiffany Schmid, Community Development Agency, Development Services Division, dated December 30, 2014.	✓		✓

¹ Report prepared for an earlier iteration or component of the Bass Lake Hills Study Area.

² Not on file with the NCIC.

Field Visit

On January 28, 2015, I conducted a field visit of the project area with project proponents George Carpenter and Norm Brown. I walked and visually inspected each of the proposed project's on- and off-site components (**Figures 1 and 2**) to determine if any cultural resources were present on the surface of each proposed project component. On February 26, 2015 I revisited several of the site components with Norm Brown to further delineate the geographical relationship of these components and several previously recorded cultural resources.

The various project components overlap with or intersect 10 previously recorded cultural resources (as noted in **Table 2**). Several of these previously recorded sites (including one historic district) encompass large areas. In



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such instances particular attention was paid as to whether individual cultural resource site elements were present within each proposed project element footprint.

Table 2.
Previously recorded sites that intersect or overlap one or more of the project components.

Primary Number	Trinomial	Description	Project Component	Recorded By	NRHP/CRHR Eligible
P-09-0066	None assigned	Dry-laid, stacked stone wall, dates to 1866 or earlier	1B/Hollow Oak Road and Component 4 (EID Tanks)	Nenuenschander and Oglesby (1989)	Unevaluated (Peak & Associates 2001).
P-09-0688	CA-ELD-600/H	Historic-era toll road, historic-era habitation sites, barns, corrals, rock walls, mining features (shafts and adits), historic-era refuse features, and bedrock milling features	Gravity Sewer through Serrano property	Windmiller (2010), Jones & Stokes (1998), Foster and Foster (1992), and Peak et al. (1987)	Several individual prehistoric and historic elements near APE recommended not eligible (Windmiller 2011a:55-57, 77).
P-09-0807	CA-ELD-719/H	Mining related ditches, rock dams, rock walls, as well as historic-era refuse and a bedrock milling feature	Bass Lake Road and possibly "Church Road"	Foster and Foster (1990a)	Unevaluated. Foster and Foster (1990b:11) recommended preservation in place, but did not provide a formal evaluation.
P-09-0809	CA-ELD-721H	Sacramento-Placerville/Mormon Hill/White Rock/Johnson Cutoff/Lake Tahoe Wagon Road/Lincoln Highway/Old U.S. 50	Bass Lake Road, "Church Road", Tierra De Dios Drive (Western Extension to Silver Dove Road)	Windmiller (2014), Armstrong et al. (2012), Windmiller (2010), Wade (2005), Larson et al. (2007), Dexter (2005), Hoffman and Denardo (2005), Fryman and Fernandez (2005), Lindstrom (2004 and 2003), Darcangelo (2002), Jones & Stokes (1999), numerous segments well beyond project area.	Portions of the road near APE not eligible for NRHP (Windmiller 2011a:65-67); Foster and Foster (1992c:12) recommended preservation in place; NRHP eligible (Fryman 2000; Jones & Stokes 2000).
P-09-1614	CA-ELD-1219H	Altdoerffer homestead, established by 1866. Includes	1A (Tierra De Dios Drive at Country Club Drive)	Peak et al. (1985)	NRHP eligible under criterion b and d (Peak & Assoc. 1985:7).



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Table 2.
Previously recorded sites that intersect or overlap one or more of the project components.

Primary Number	Trinomial	Description	Project Component	Recorded By	NRHP/CRHR Eligible
		stone lined cellar, stone lined well, stone spring house, stone walls, dirt road, and domestic refuse scatter			
P-09-1644	CA-ELD-1239H	Mining ditch	Bass Lake Road	Green (2004), Foster and Foster (1991b)	Not significant.
P-09-1670	Mormon Hill Historic District	Mormon Hill Historic District. Including: roads, ditches, rock walls, borrow pits, stone piles, prospect pits, fences, corrals, etc.	Bass Lake Road, Tierra De Dios Drive (Western Extension to Silver Dove Road), Silver Dove Road, Gravity Sewer through Serrano property	Windmiller (2011b), Fryman (2000)	NRHP eligible under criterion a and d (Fryman 2000).
P-09-1695	CA-ELD-1278H	Historic Bass Lake Road	Bass Lake Road	Foster and Foster (1992b)	Unevaluated.
P-09-4410	None assigned	Rock wall and barbed wire fence	Country Club Drive (G-H) (Tierra De Dios Drive Western Extension to Silver Dove Road and Park and Ride Area at Bass Lake Road)	Lawson (2007)	Unevaluated.
P-09-5514	None assigned	Rock wall	1A (Tierra De Dios Drive at Country Club Drive)	Armstrong et al. (2012)	Unevaluated.

Results

The following is a summary of the cultural resources identified within each of the various project components. Because the exact alignments and locations of these components have not yet been finalized, these results are considered preliminary assessments.

Component 1A (Tierra De Dios Drive at Country Club Drive)

Component 1A is limited to an area wide enough to put in curb, gutter, and side walk along both sides of Tierra De Dios Drive. The existing road runs through P-09-1614 (CA-ELD-1219H), the Altdoerffer homestead. This



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1860s homestead was previously recommended as eligible for the NRHP under criterion b and d. Based on the site record, the site lies just to the north of the road, that is, outside of the currently designed project footprint.

A rock wall designated as P-09-5514 also lies just north of the road. No surface archaeological constituents were noted within the project footprint during the field visit.

Component 1B

This location is in the immediate vicinity of a non-historic El Dorado Irrigation District water tank location and P-09-0066, a dry-laid stone wall. This resource has not been evaluated for either the NRHP or CRHR, but appears to be outside the currently designed project footprint.

Country Club Drive (G-H) (Tierra De Dios Drive Western Extension to Silver Dove Road and Park and Ride Area at Bass Lake Road)

Country Club Drive (G-H) extends westward from the existing Bass Lake Road alignment. It follows the general alignment of P-09-0809, the Placerville-Sacramento Road. In its current state this segment of the road is nearly invisible, only evidenced by a gate at Bass Lake Road and a gate at a barbed wire fence crossing the road alignment. In its entirety, the Placerville-Sacramento Road has been determined eligible for the NRHP; however, segments of the road in this general area have previously been determined not eligible (non-contributing segments), due to lack of integrity. It is unclear if this exact segment of the road within the currently designed project footprint has been determined eligible or not.

Country Club Drive (G-H) also overlaps with P-09-1670, the Mormon Hill Historic District, although the only previously recorded element of this district noted in this area is the Placerville-Sacramento Road. No additional elements were noted on the surface of the APE during the field visit.

Bass Lake Road

Currently, Bass Lake Road roughly follows the alignment of historic Base Lake Road which has been recorded as P-09-1695 (CA-ELD-1278H). This resource has not yet been evaluated for the NRHP or CRHR. Bass Lake Road also runs along P-09-807 (CA-ELD-807/H), a complex of historic mining features and a bedrock mortar. This site is also unevaluated, but no elements of the site were noted on the surface of the project footprint, along the road alignment. Bass Lake Road also crosses P-09-1644 (CA-ELD-1239H), an unevaluated historic mining ditch. No portion of the ditch was apparent in the currently designed project footprint.

Church Road

The exact alignment of this project component has not yet been finally determined. It roughly parallels a segment of P-09-0809 (CA-ELD-721H) which is referred to by a number of names, but most commonly Placerville-Sacramento or Mormon Hill Road. As discussed above, in its entirety the road has been determined eligible for the NRHP. Segments of the road in this general area have previously been determined not eligible (non-contributing features to the whole) due to lack of integrity. It is unclear if the exact segment of the road within the project footprint has been determined eligible or not.

The Church Road project footprint also runs near or overlaps P-09-0807 (CA-ELD-719/H), a complex of historic-era mining features and a bedrock milling feature. No surface elements of this site were identified within the currently designed project footprint during the field visit.



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Gravity Sewer

The proposed gravity sewer crosses the boundaries of P-09-1670 (Mormon Hill Historic District, **Figure 3**) and P-09-688 (CA-ELD-600/H), which was subsumed by the district. Both of these resources have been recommended as eligible for the NRHP and CRHR. Notably the sewer follows along a segment of the Empire Ditch, which was recommended as a contributing element of the district. The proposed sewer also crosses a previously undocumented ditch, not nearly as substantial as the Empire ditch, but probably serving the same purpose of moving water to where the miners needed it. A number of rock cairns also fall within the APE of the sewer as well as several barbed wire fences, and a substantial stone wall. All of the noted cultural resources in this area could be considered contributing elements of either site. The small ditch, rock cairns, wall, and fences have not yet been formally evaluated.

Silver Dove Way

This component overlaps with P-09-1670, the Mormon Hill Historic District (**Figure 3**). No previously recorded elements of this district were noted on the surface of the proposed project footprint.

During the field visit, a previously unrecorded historic-era hearth was noted in the proposed project alignment, adjacent to an unnamed drainage. The hearth is substantial, and was probably part of a structure at that location. Groundcover was dense, and no artifacts were noted on the surface. However, as a probable occupation site, there is a high likelihood of a subsurface archaeological deposit associated with the hearth. In addition, an unrecorded dirt road crosses the project footprint just north of an unnamed creek. Both the hearth and road may be considered unevaluated elements of P-09-1670, the Mormon Hill Historic District.

Conclusions and Recommendations

The Study Area has been thoroughly inventoried for cultural resources, with numerous resources recorded. Not all of these resources have been well documented and/or evaluated for potential eligibility for the NRHP or CRHR.

As currently designed, most of the project components avoid cultural resources altogether. In several instances, these components intersect or overlap with previously recorded resources. Several of the project components may impact eligible or potentially eligible resources. The following actions are suggested to determine if any potentially eligible sites will be impacted.

1. Determine if P-09-1695 (Bass Lake Road) has been evaluated for the NRHP and/or CRHR. If not, evaluate the resource for NRHP and CRHR eligibility. If found eligible, ESA can recommend mitigation measures.
2. Determine if the segments of P-09-0809 (Placerville-Sacramento Road) which would be impacted by the project are contributing elements of the NRHP/CRHR eligible site. These segments are those in Country Club Drive (G-H) and Church Street. If they are eligible, ESA can recommend mitigation measures.
3. Record and evaluate for NRHP and CRHR eligibility those elements of P-09-1670 (Mormon Hill Historic District) and P-09-688 (CA-ELD-600/H) which would be impacted by the Gravity Sewer and Silver Dove Way components. This would include documentation on DPR523 forms, and possible subsurface testing. If these elements are found eligible, ESA can recommend mitigation measures.



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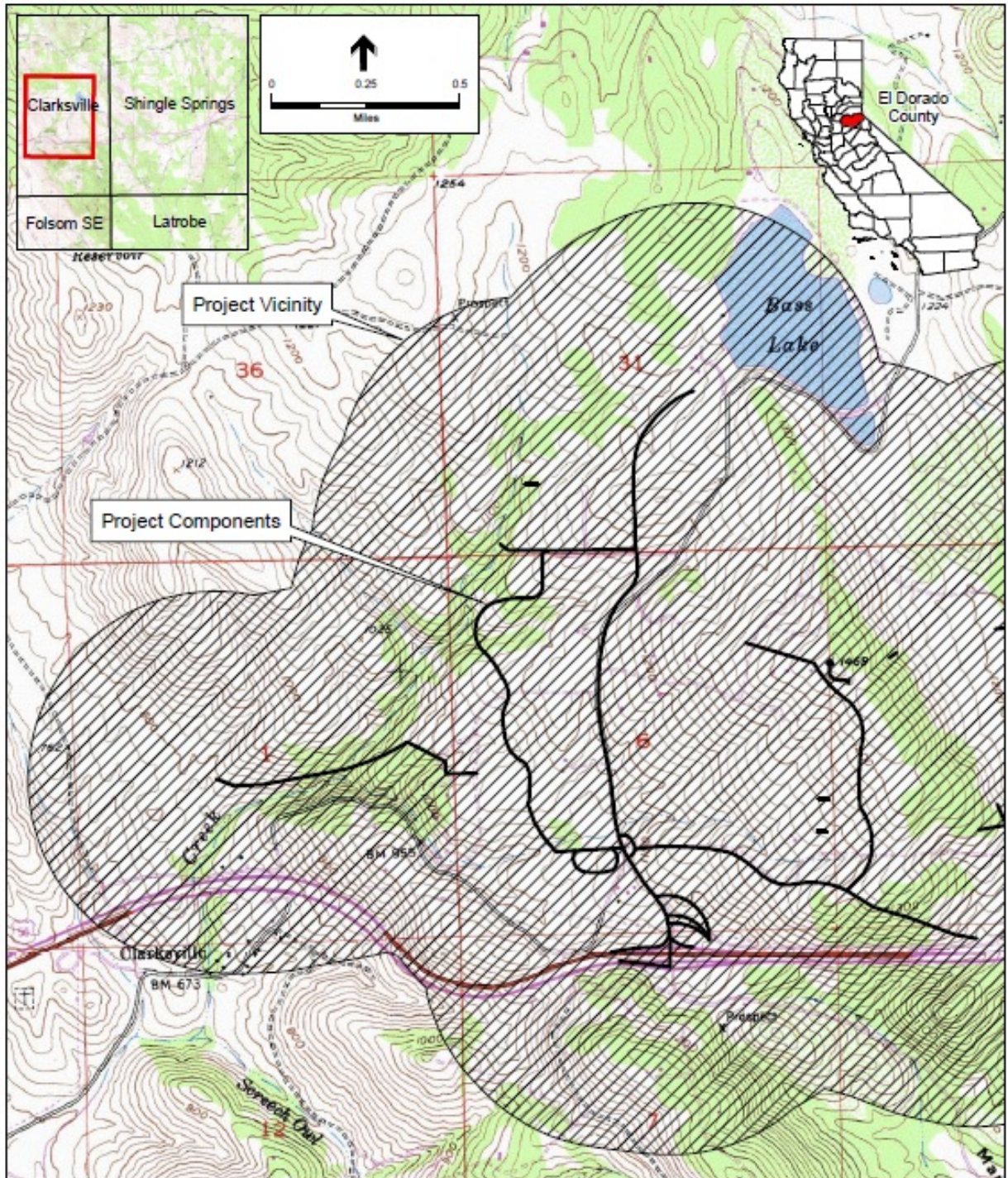
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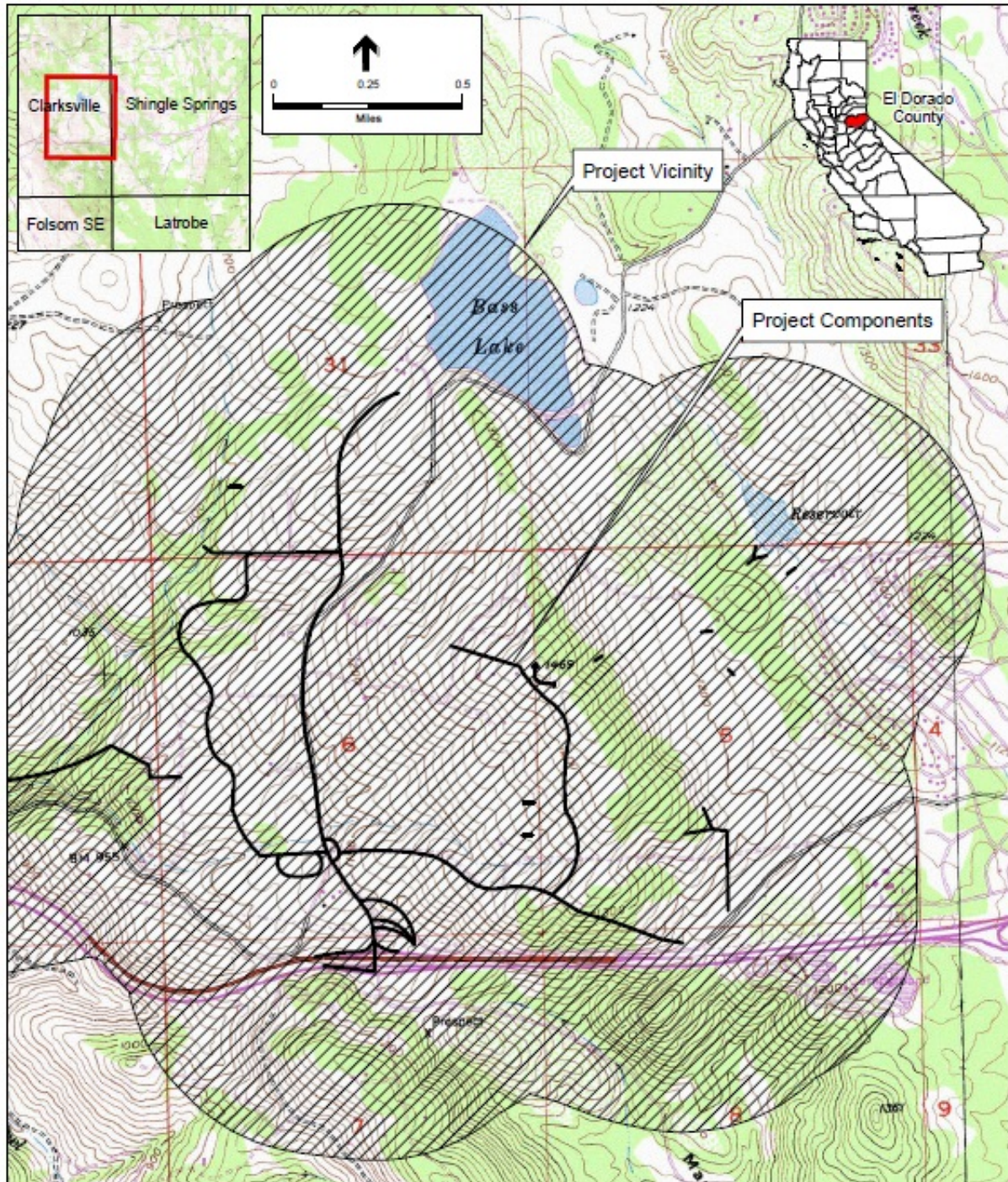
If you have any questions or comments please let me know. Thank you for your time.

Sincerely,

A handwritten signature in blue ink, reading "R. Scott Baxter". The signature is fluid and cursive, with the first name "R." and last name "Baxter" clearly legible.

R. Scott Baxter, M.A., RPA
Senior Archaeologist
209.245.6339 office
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Figure 3
Mormon Hill Historic District

Appendix C

Traffic Analysis





T. KEAR

TRANSPORTATION PLANNING
& MANAGEMENT, INC.

Memorandum

TO: George Carpenter, BL Road LLC, Winn Communities

FROM: Tom Kear, PhD, PE

Date: June 29, 2015

RE: Bass Lake Hills Phase 1a traffic operations with relocation of Country Club Drive

Introduction

The Bass Lake Hills Specific Plan and Public Facilities Financing Plan include realignment of Country Club Drive. The realignment will move the existing Country Club Drive/Bass Lake Road intersection about 1300 feet to the north. Realigned Country Club will follow the alignment of City Lights Drive and Tierra de Dios Drive until it reconnects to the existing Country Club Drive alignment. The existing segment of Country Club Drive between Bass Lake Road and Tierra de Dios Drive will be converted into a class 1 bike path.

This memorandum documents how the proposed relocation of Country Club Drive would effect level-of-service estimates and recommendations from our recent *Bass Lake Hills Specific Plan Phase 1a Traffic Impact Analysis (TIA)*, dated July 2014, and *Ten-Year 2025 Bass Lake Road Interchange Interim Improvements Traffic Operations Analysis (TOA)*, dated January 2015. This memorandum has two purposes:

- First, it provides a level-of-service and queueing Analysis with the relocation of Country Club Drive. This analysis provides information for El Dorado County to consider when drafting conditions of approval for the Bass Lake Hills Specific Plan Phase 1a project. This information is also applicable to the discussion with Caltrans regarding making improvements at the Bass Lake interchange through the encroachment permit process.
- Second, a review and syntheses of findings from the July 2014 TIA, January 2015 TOA, and this memorandum is presented and a revised package of recommended conditions of approval incorporating the relocation of Country Club Drive.

Relationship Between Studies

This is the third traffic study performed for the proposed revisions to the tentative map conditions. It's useful to summarize what each study has looked at and why.

Bass Lake Hills Specific Plan Phase 1a Traffic Impact Analysis, July 2014

Referred to as the “July 2014 TIA” in this memorandum. The July 2014 TIA served as the basis for initial discussions with El Dorado County for revisions to the tentative map conditions on the Hawk View, Bell Woods, and Bell Ranch projects. The July 2014 TIA focused specifically on El Dorado County requirements at the time the study was initiated.

Ten-Year 2025 Bass Lake Road Interchange Interim Improvements Traffic Operations Analysis

Referred to as the “January 2015 TOA” in this memorandum. The focus of the January 2015 TOA was to address the additional requirements that Caltrans has for review and approval of improvements effecting state highways. With specific emphasis on showing the Bass Lake Road interchange operates acceptable for at least ten years.

Traffic Operations with Relocation of Country Club Drive (this memorandum)

Caltrans requested that El Dorado County and the project realign Country Club Drive and relocate the Bass Lake Road/Country Club Drive intersection to facilitate the Caltrans approval and encroachment permits for planned improvements at the Bass Lake Road interchange. This memorandum looks at the traffic operations with the new roadway geometry that results from the realignment of Country Club Drive and relocation of the Bass Lake Road/Country Club Drive intersection.

The study scenarios, and BLHSP land use assumptions across all three studies, are summarized in **Table 1**.

Table 1. Scenarios addressed by each study

	no project (BLHSP: 99 DUs*)	Phase 1a (BLHSP: 380 DUs)	Phase 1a + half of Phases 2 & 3 (BLHSP: 914 DUs)	Phase 1a + Phases 2 & 3 (BLHSP: 1,448 DUs)
Existing 2014 conditions	July 2014 TIA	July 2014 TIA, and <u>this memorandum</u>		
EPAP 2019 conditions	July 2014 TIA	July 2014 TIA, and <u>this memorandum</u>		
Ten year 2025 conditions	Jan 2015 TOA		Jan 2015 TOA, and <u>this memorandum</u>	
Cumulative 2035 conditions	July 2014 TIA	July 2014 TIA		July 2014 TIA (with and without relocation of Country Club Dr.)

* DUs = Dwelling Units.

Level-of-Service and Queueing Analysis

This memorandum updates the existing analysis to look at the preferred improvement assuming that the Bass Lake/Country Club intersection is relocated 1,300 feet to the north as described in the introduction above. In the July 2014 TIA, Synchro models were used to evaluate level-of-service consistent with the El Dorado County traffic impact study guidelines¹. In the January 2015 TOA, SimTraffic microsimulation models were used for a more detailed analysis of queueing at the Bass Lake Road interchange in 2025 to look in more detail at queueing, which was requested by Caltrans District 3 staff. Analysis for both sets of models (Synchro and SimTraffic) were revised as described below to address the realignment of Country Club Drive and relocation of the Bass Lake Road/Country Club Drive intersection.

The descriptions of trip generation, trip distribution, traffic forecasting, turn movement forecasting, level-of-service methodology and standards of significance contained in the July 2014 TIA and January 2015 TOA are applicable to the analysis in this memorandum.

SimTraffic:

Scenarios:

- Ten-Year 2025 + BLHSP Phase 1a and 50% of 2 & 3 (turn movements from Fig 7, page 15 of *Interchange Report*).

Intersections:

- Bass Lake/Country Club (start with geometry from Fig 16, page 47 of TIA).
- Bass Lake/WB Ramps (geometry from Fig. 17, page 54 of TIA, and text on page 52 of TIA).
- Bass Lake/EB Ramps (geometry from Fig. 17, page 54 and of TIA, and text on page 53 of TIA).

The Bass Lake Rd/WB ramp intersection is analyzed with both side street stop and signal controls. As part of the simulation analysis, the need for any additional through lanes between US 50 and Country Club Drive was also evaluated along with the required turn pocket lengths.

Synchro:

Scenarios:

- Existing 2014 + BLHSP Phase 1a (turn movements from Fig 10, page 32 of TIA).
- EPAP 2019 + BLHSP Phase 1a (turn movements from Fig 12, page 36 of TIA).

Intersections:

- Bass Lake/Country Club (geometry from SimTraffic above).
- Bass Lake/WB Ramps (geometry from SimTraffic above).

¹ El Dorado County DOT (2008) Traffic Impact Study Protocols and Procedures, June 2008. Note that the guidance was updated in November 2014, after the July 2014 TIA was accepted by El Dorado County staff.

- Bass Lake/EB Ramps (geometry from Fig. 17, page 54 and of TIA, and text on page 53 of TIA).

Proposed Improvements:

Bass Lake Road/Country Club Drive:

- NB Approach: one through lane plus 200 ft right turn pocket.
- SB Approach: one through lane plus 300 ft left turn pocket.
- WB Approach: one through lane plus 300 ft left turn pocket.
- Signalize the intersection.

Bass Lake Road/WB Ramps:

- NB Approach: one shared through -left lane plus one through lane.
- SB Approach: one through lane plus 300 ft right turn pocket.
- WB Approach: one through -left lane plus a right turn pocket/with pork-chop island (existing configuration).
- Side street stop control (existing control); s delay and queueing results are also shown for signalization of the westbound off-ramp; this intersection meets the peak-hour signal warrant, but is anticipated to operate at an acceptable level-of-service with or without signalization².

Bass Lake Road/EB Ramps:

- NB Approach: one through lane .
- SB Approach: one through -left lane.
- EB Approach: one shared left- through -right lane plus 240 ft left turn pocket.
- Signalize the intersection.
- Two northbound lanes underneath US 50 are required to receive traffic from the eastbound off-ramp.

Level-of-Service and Queueing Results

Level-of Service Tables for 2014 (**Table 2** and **Table 3**), 2019 (**Table 4** and **Table 5**), and 2025 (**Table 6** and **Table 7**) are provided below. Anticipated queue lengths based on the estimated 95th percentile queue are provided graphically for 2025 in **Figure 1** through **Figure 4**. All calculation sheets are provided in Attachment 1.

Microsimulation Results:

Reported SimTraffic results for 2025 are the average of ten microsimulation runs.

² The January 2015 TOA found that the Bass Lake Road/westbound off-ramp intersection meet the peak hour signal warrant in 2025, but was anticipated to operate at an acceptable level-of-service C without signalization.

2014 Level-of-Service

The delay and level-of-service estimates presented below for Existing 2014 Plus BLHSP Phase 1a conditions, with Country Club Drive relocated can be contrasted with the no-project results shown in Table 7 (page 25) of the July 2014 TIA, and the mitigated results shown in Table 15 (page 45) and Table 16 (page 46) of the July 2014 TIA. **Table 2** below shows the delay and estimated level-of-service assuming that existing side street stop control for the westbound off-ramp is left in place, and **Table 3** below assumes that it the westbound off-ramp intersection is signalized. With the proposed interim improvements to the Bass Lake Road interchange, all three intersections are projected to operate at an acceptable level-of-service under 2014 plus BLHSP phase 1a condition.

Table 2. Delay and Level-of-Service, 2014 with BLHSP phase 1a project traffic, Side Street Stop Control at WB Ramps

Intersection	Control	2014 AM Peak		2014 PM Peak	
		Delay	LOS	Delay	LOS
Bass Lake Road & Country Club Drive	signal	13.3	B	13.4	B
Bass Lake Road & US 50 WB Ramps	SSSC	9.7	A	12.5	B
Bass Lake Road & US 50 EB Ramps	signal	11.5	B	21.9	C
Results are based on 2010 Highway Capacity Manual					

Table 3. Delay and Level-of-Service, 2014 with BLHSP phase 1a project traffic, Signal Control at WB Ramps

Intersection	Control	2014 AM Peak		2014 PM Peak	
		Delay	LOS	Delay	LOS
Bass Lake Road & Country Club Drive	signal	13.3	B	13.4	B
Bass Lake Road & US 50 WB Ramps	signal	11.8	B	11.8	A
Bass Lake Road & US 50 EB Ramps	signal	11.5	B	21.9	C
Results are based on 2010 Highway Capacity Manual					

2019 Level-of-Service

The delay and level-of-service estimates presented below for EPAP 2019 Plus BLHSP Phase 1a conditions, with Country Club Drive relocated can be contrasted with the no-project results shown in Table 9 (page 35) of the July 2014 TIA, and the mitigated results shown in Table 17 (page 48) and Table 18 (page 49) of the July 2014 TIA. **Table 4** below shows the delay and estimated level-of-service assuming that existing side street stop control for the westbound off-ramp is left in place, and **Table 5** below assumes that it the westbound off-ramp intersection is signalized. With the proposed interim improvements to the Bass Lake Road interchange, all three intersections are projected to operate at an acceptable level-of-service in under EPAP 2019 plus BLHSP phase 1a condition.

Table 4. Delay and Level-of-Service, 2019 with BLHSP phase 1a project traffic, Side Street Stop Control at WB Ramps

Intersection	Control	2019 AM Peak		2019 PM Peak	
		Delay	LOS	Delay	LOS
Bass Lake Road & Country Club Drive	signal	21.3	C	15	B
Bass Lake Road & US 50 WB Ramps	SSSC	9.9	A	13	B
Bass Lake Road & US 50 EB Ramps	signal	12.2	B	22	C
Results are based on 2010 Highway Capacity Manual					

Table 5. Delay and Level-of-Service, 2019 with BLHSP phase 1a project traffic, Signal Control at WB Ramps

Intersection	Control	2019 AM Peak		2019 PM Peak	
		Delay	LOS	Delay	LOS
Bass Lake Road & Country Club Drive	signal	21.3	C	15	B
Bass Lake Road & US 50 WB Ramps	signal	12.1	B	8.3	A
Bass Lake Road & US 50 EB Ramps	signal	12.2	B	22	C
Results are based on 2010 Highway Capacity Manual					

2025 Level-of-Service

The delay and level-of-service estimates presented below for ten-year 2025 Plus BLHSP Phase 1a conditions, with Country Club Drive relocated can be contrasted with the no-project results shown in Table 2 (page 18) and Table 3 (page 19) of the January 2015 TOA. **Table 6** below shows the delay and estimated level-of-service assuming that existing side street stop control for the westbound off-ramp is left in place, and **Table 7** below assumes that it the westbound off-ramp intersection is signalized. With the proposed interim improvements to the Bass Lake Road interchange, all three intersections are projected to operate at an acceptable level-of-service under the ten-year 2025 plus BLHSP phase 1a condition. Note that this scenario also includes the projected traffic from 50% of the dwelling units in BLHSP phases two and three (an additional 534 dwelling units).

Table 6. Delay and Level-of-Service, 2025 with BLHSP phase 1a plus 534 Dwelling Units from Phase 2 and 3, Side Street Stop Control at WB Ramps

Intersection	Control	2025 AM Peak		2025 PM Peak	
		Delay	LOS	Delay	LOS
Bass Lake Road & Country Club Drive	signal	25.5	C	14.2	B
Bass Lake Road & US 50 WB Ramps	SSSC	12	B	17.4	C
Bass Lake Road & US 50 EB Ramps	signal	13	B	13.1	B
Results are based on 2010 Highway Capacity Manual					

Table 7. Delay and Level-of-Service, 2025 with BLHSP phase 1a plus 534 Dwelling Units from Phase 2 and 3, Signal Control at WB Ramps

Intersection	Control	2025 AM Peak		2025 PM Peak	
		Delay	LOS	Delay	LOS
Bass Lake Road & Country Club Drive	signal	26.3	C	14	B
Bass Lake Road & US 50 WB Ramps	signal	8.1	A	8.5	A
Bass Lake Road & US 50 EB Ramps	signal	16.8	B	16.1	B
Results are based on 2010 Highway Capacity Manual					

2025 Queueing Analysis

Anticipated peak-hour queue lengths based on the 95th percentile queues predicted by SimTraffic are presented in Figure 1 through Figure 4. Queue lengths shown include ten years of growth in background traffic, traffic from BLHSP phase 1a traffic, and traffic from 50% of the proposed land uses in BLHSP phases two and three. As shown in the figures, the projected 95th percentile queues are not anticipated to block the adjacent intersection. Queueing is anticipated to be acceptable with or without the signalization of the Bass Lake Road/westbound off-ramp intersection.

Figure 1. Anticipated morning 95% queue lengths in 2025 with stop control at westbound off-ramp

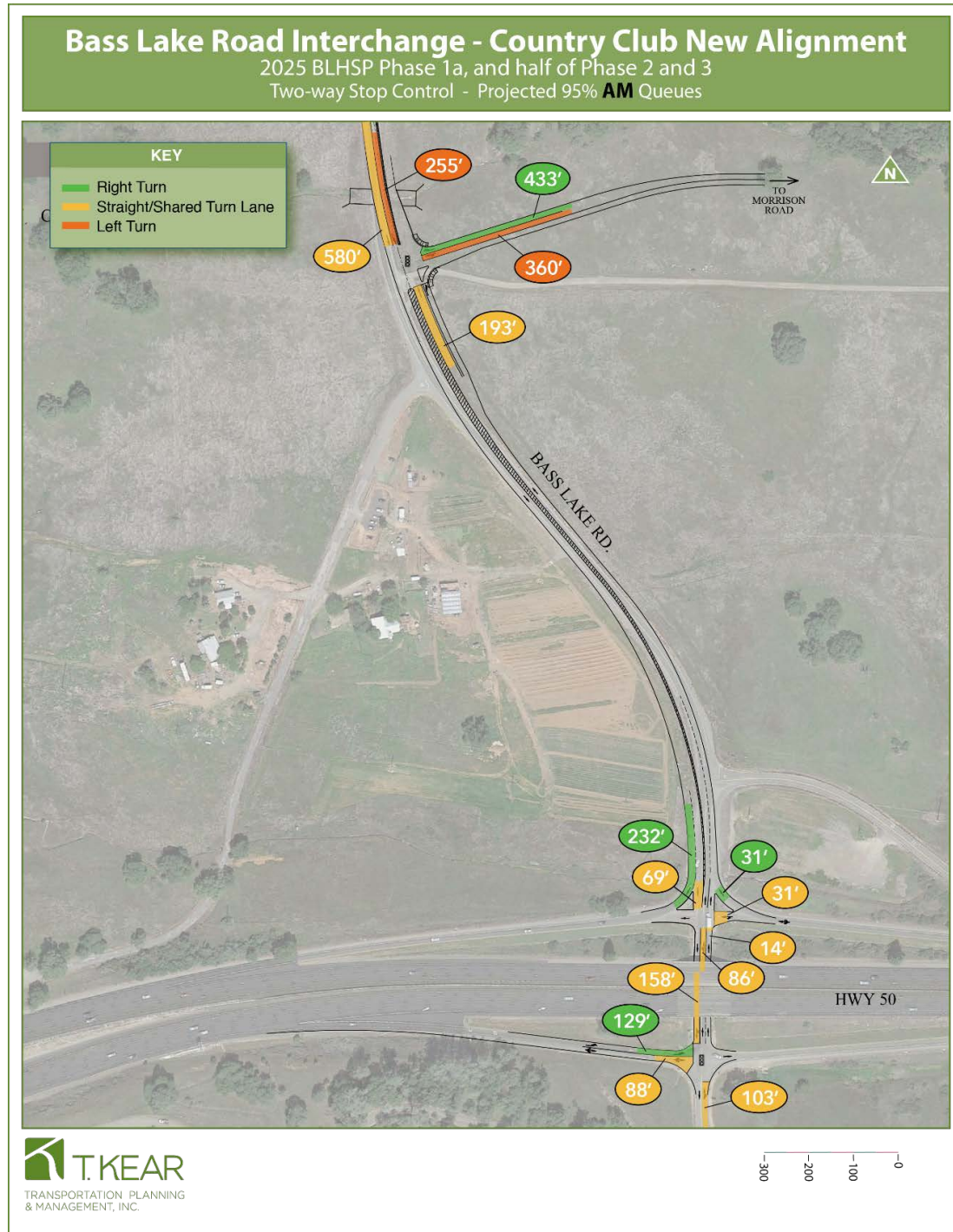


Figure 2. Anticipated evening 95% queue lengths in 2025 with stop control at westbound off-ramp

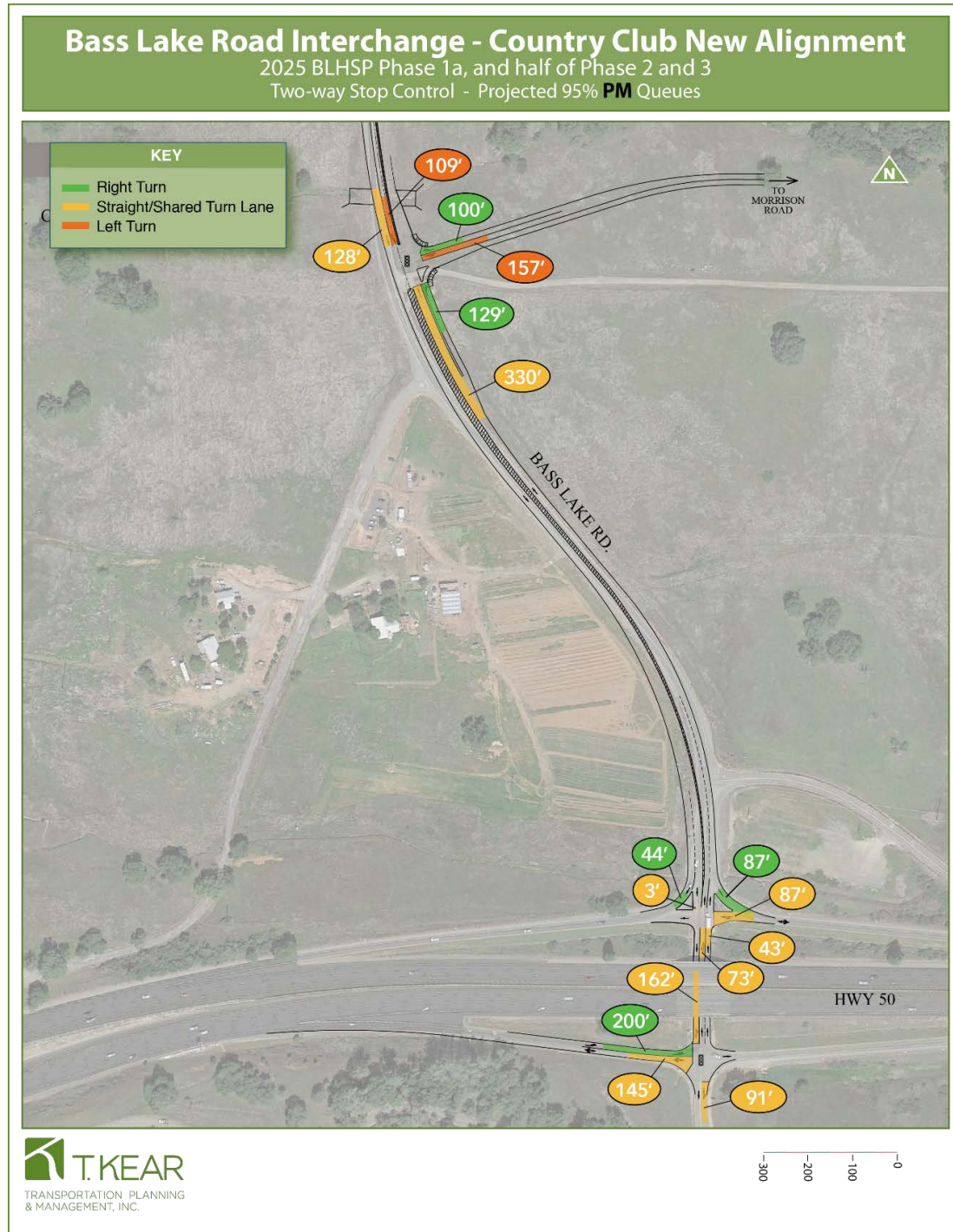


Figure 3. Anticipated morning 95% queue lengths in 2025 with signal control at westbound off-ramp

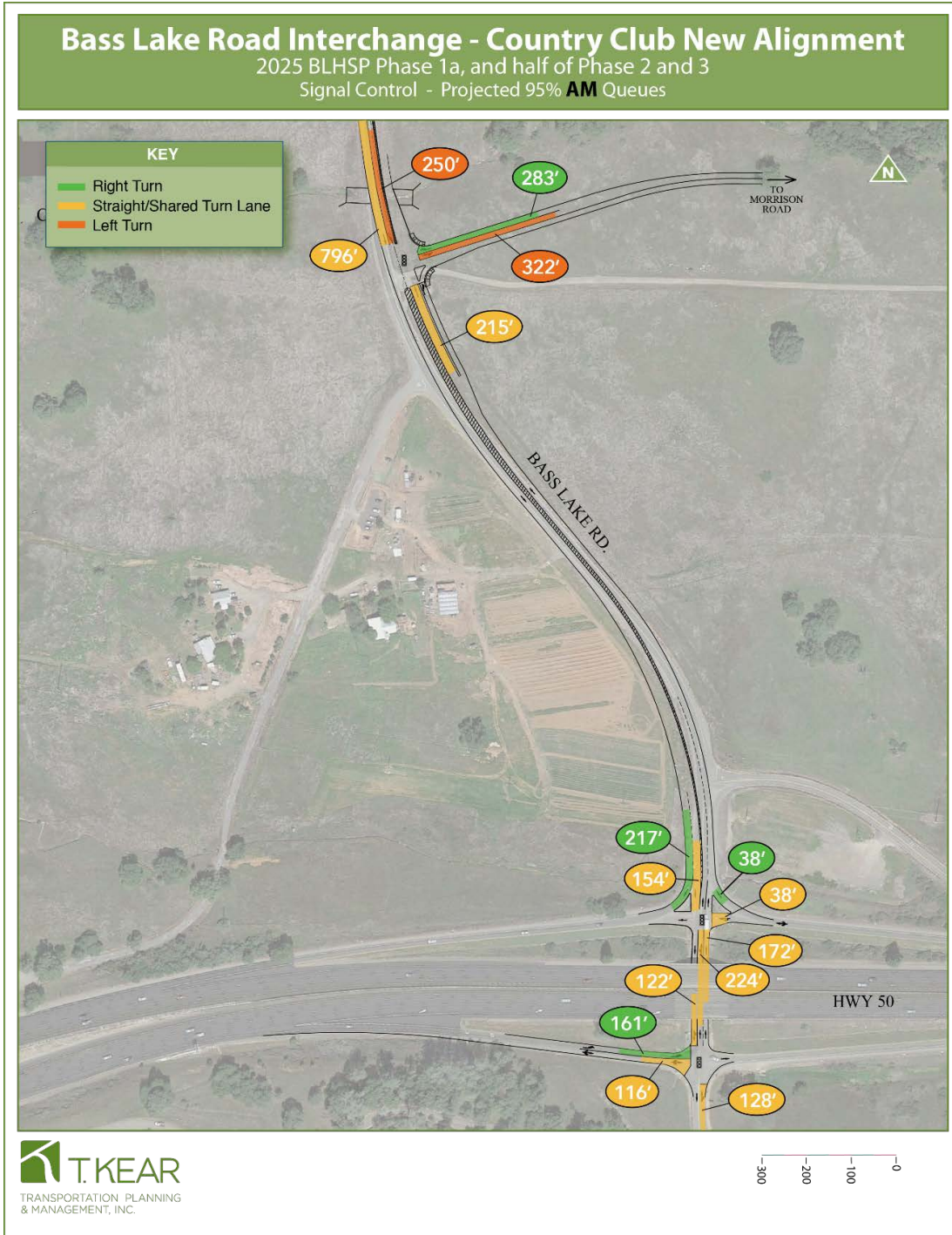
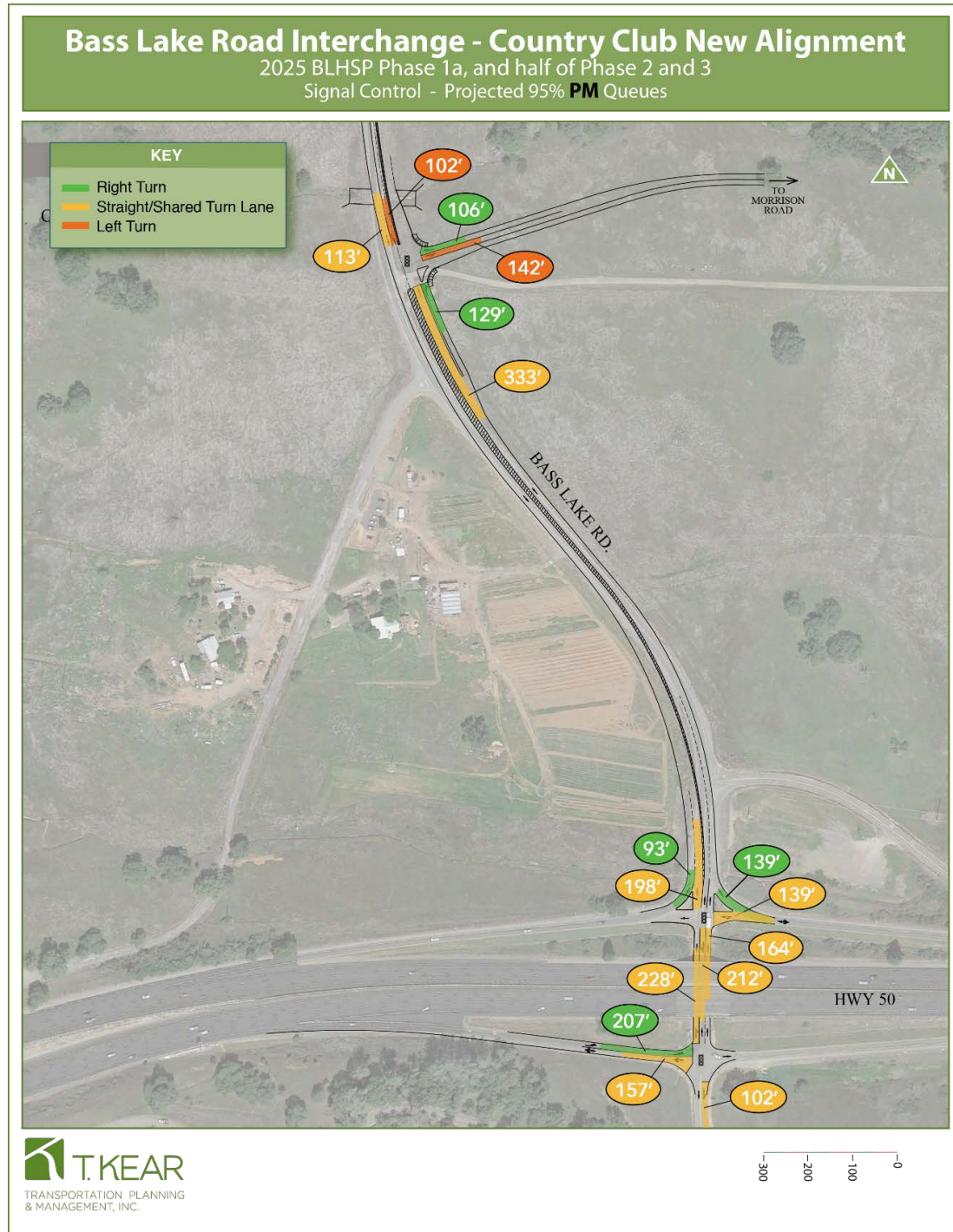


Figure 4. Anticipated evening 95% queue lengths in 2025 with signal control at westbound off-ramp



Synthesis of Studies and Recommended Conditions of Approval

Existing plus 2014 Conditions

Table 8 shows the delay and level-of-service with and without out the proposed BLHSP phase 1a project under year 2014 scenarios.

Deficiencies

Bass Lake Road and Existing Country Club Drive

- Deficiency 1: As shown in **Table 8**, this intersection operates at level-of-service F during the AM peak hour and the addition of project traffic significantly worsens the intersection. **This is a significant deficiency.**
- Deficiency 2: As shown in **Table 8**, this intersection operates at level-of-service F during the PM peak hour and the addition of project traffic significantly worsens the intersection. **This is a significant deficiency.**

Bass Lake Road and Eastbound Ramps

- Deficiency 3: As shown in **Table 8**, the addition of project traffic degrades the eastbound left turn from level-of-service D to F during the AM peak hour. **This is a significant deficiency.**
- Deficiency 4: As shown in **Table 8**, the addition of project traffic degrades the eastbound left turn from level-of-service E to F during the PM peak hour. **This is a significant deficiency.**

Recommended Improvements for Existing 2014 Plus BLHSP Phase 1a Conditions

Required interchange mitigations identified in the PFFP and the BLHSP are incorporated into a preferred improvement strategy. This preferred strategy comprehensively addresses traffic operations under all scenarios at the eastbound ramp, westbound ramp, and existing Country Club Drive intersections, until such time as the interchange is reconstructed and/or the Country Club Drive intersection is relocated.

The preferred set of improvements will relocate the existing Bass Lake Road Country Club Drive Intersection, signalize the eastbound off ramp intersection, and strip an additional northbound lane on Bass Lake Road underneath US 50. Specific details of these improvements are bulleted out below.

Table 8. Delay and level-of-service comparison for 2014 demonstrating acceptable traffic operations with improvements recommended as conditions of approval

		AM Peak-Hour (2014)			PM Peak-Hour (2014)		
Intersection	LOS Standard	No-Project	With Project	With Project & Improvements	No-Project	With Project	With Project & Improvements
<u>With SSSC at Westbound Off-Ramp</u>							
Bass Lake Rd./Hawk View Rd.	E	17.2 (C)	27.6 (D)	no change	15.7 (C)	18.4 (C)	no change
Bass Lake Rd./Hollow Oak Rd.	E	31.1 (D)	45.5 (E)	no change	16.4 (C)	18.6 (C)	no change
Bass Lake Rd./ Country Club Dr. (Existing intersection)	E	921.8 (F)	>999 (F)	n/a	123.3 (F)	450.5 (F)	n/a
(Relocated)	D	n/a	n/a	13.3 (B)	n/a	n/a	13.4 (B)
Bass Lake Rd./westbound ramps	D	11.2 (B)	11.8 (B)	9.7 (A)	15.5 (C)	20.5 (C)	12.5 (B)
Bass Lake Rd./eastbound ramps	D	28.2 (C)	63.3 (F)	11.5 (B)	37.3 (E)	92.6 (F)	21.9 (C)
<u>With Signal Control at Westbound Off-Ramp</u>							
Bass Lake Rd./Hawk View Rd.	E	Same as above, signalization of intersections only occurs as a project condition of approval.		no change	Same as above, signalization of intersections only occurs as a project condition of approval.		no change
Bass Lake Rd./Hollow Oak Rd.	E			no change			no change
Bass Lake Rd./ Country Club Dr. (Existing intersection)	E			n/a			n/a
(Relocated)	D			13.3 (B)			13.4 (B)
Bass Lake Rd./westbound ramps	D			11.8 (B)			11.8 (B)
Bass Lake Rd./eastbound ramps	D			11.5 (B)			21.9 (C)

- Bass Lake Road/eastbound ramp intersection: Signalize the existing intersection, construct a 240' (minimum) left turn pocket on the eastbound off-ramp, and stripe a seconded northbound receiving lane on Bass Lake Road. The resulting lane configuration shall be:
 - Northbound approach: one shared through-right lane.
 - Southbound Approach: one shared through-left lane.
 - Eastbound approach: one shared (left-through-right) lane and a one left turn lane.

- Bass Lake Road/westbound ramps intersection: Retain the existing side-street-stop-control for the eastbound off-ramp. The second northbound through lane on Bass Lake Road underneath US 50 shall be continued through the westbound ramp intersection, and can be dropped north of the intersection. The resulting lane configuration shall be:
 - Northbound approach: one shared through-left lane and one through lane.
 - Southbound Approach: one through lane and a channelized right turn pocket.
 - Westbound approach: one shared through-left lane and a channelized right turn pocket.

- Existing Bass Lake Road/Country Club Drive Intersection: Demolish the existing intersection, leaving a bicycle and pedestrian connection to the existing Country Club Drive alignment which is a planned Class I bike trail.

- New Bass Lake Road/Country Club Drive Intersection: Construct a new signalized intersection for realigned Country Club Drive, approximately 1300 feet north of the existing intersection.
 - NB Approach: one through lane plus 200' right turn pocket.
 - SB Approach: one through lane plus 300' left turn pocket.
 - WB Approach: one through lane plus 300' left turn pocket.

The proposed improvements would be constructed as a Tentative Map condition on the BLHSP Phase 1a projects as partial implementation of mitigation measure J01 from the 1992 EIR and 1995 EIR addendum. With these improvements the ramp intersections and the Bass Lake Road/Country Club Drive intersection all operate at level-of-service C or better during both the AM and PM peak-hours. The projected delay and level-of-service with the proposed improvements is also shown in **Table 8**.

EPAP 2019 Conditions

Table 9 shows the delay and level-of-service with and without out the proposed BLHSP phase 1a project under year 2019 scenarios.

Deficiencies

Bass Lake Road and (Existing) Country Club Drive

- Deficiency 5: As shown in **Table 9**, this intersection operates at level-of-service F during the AM peak hour and the addition of project traffic significantly worsens the intersection. **This is a significant deficiency.**
- Deficiency 6: As shown in **Table 9**, this intersection also operates at level-of-service F during the PM peak hour and the addition of project traffic significantly worsens the intersection. **This is a significant deficiency.**

Bass Lake Road and Eastbound Ramps

- Deficiency 7: As shown in **Table 9**, this intersection also operates at level-of-service F during the AM peak hour and the addition of project traffic significantly worsens the intersection. **This is a significant deficiency.**
- Deficiency 8: As shown in **Table 9**, this intersection also operates at level-of-service F during the PM peak hour and the addition of project traffic significantly worsens the intersection. **This is a significant deficiency.**

Recommended Improvements for EPAP 2019 Plus BLHSP Phase 1a Conditions

With the preferred set of improvements identified in the 2014 discussion above, the ramp intersections and the Bass Lake Road/Country Club Drive intersection all operate at level-of-service C or better during both the AM and PM peak-hours. The projected delay and level-of-service with the proposed improvements is also shown in **Table 9**.

Table 9. Delay and level-of-service comparison for 2019 demonstrating acceptable traffic operations with improvements recommended as conditions of approval

		AM Peak-Hour (2019)			PM Peak-Hour (2019)		
Intersection	LOS Standard	No-Project	With Project	With Project & Improvements	No-Project	With Project	With Project & Improvements
<u>With SSSC at Westbound Off-Ramp</u>							
Bass Lake Rd./Hawk View Rd.	E	17.2 (C)	27.6 (D)	no change	15.9 (C)	18.8 (C)	no change
Bass Lake Rd./Hollow Oak Rd.	E	31.19(D)	45.3 (E)	no change	16.9 (C)	19.2 (C)	no change
Bass Lake Rd./ Country Club Dr. (Existing intersection)	E	>999 (F)	>999 (F)	n/a	291.8 (F)	721.4 (F)	n/a
(Relocated)	D	n/a	n/a	21.3 (C)	n/a	n/a	15 (B)
Bass Lake Rd./westbound ramps	D	11.8 (B)	12.6 (B)	9.9 (A)	17.4 (C)	25.3 (D)	13 (B)
Bass Lake Rd./eastbound ramps	D	84.7 (F)	199.2 (F)	12.2 (B)	92.1 (EF)	188.5 (F)	22 (C)
<u>With Signal Control at Westbound Off-Ramp</u>							
Bass Lake Rd./Hawk View Rd.	E	Same as above, signalization of intersections only occurs as a project condition of approval.		no change	Same as above, signalization of intersections only occurs as a project condition of approval.		no change
Bass Lake Rd./Hollow Oak Rd.	E			no change			no change
Bass Lake Rd./ Country Club Dr. (Existing intersection)	E			n/a			n/a
(Relocated)	D			21.3 (C)			15 (B)
Bass Lake Rd./westbound ramps	D			12.1 (B)			8.3 (A)
Bass Lake Rd./eastbound ramps	D			12.2 (B)			22 (C)

Ten-Year 2025 Conditions

Table 9 shows the delay and level-of-service with and without out the proposed BLHSP phase 1a project under year 2025 scenarios. In addition to the BLHSP phase 1a land use, traffic forecasts used for these calculations included an additional 534 dwelling units in BLHSP phase 2 and phase 3. Note that reported delay and level-of-service for the ten-year 2025 scenarios are based on SimTraffic microsimulation rather than Synchro models used to analyze the other years.

Deficiencies

Bass Lake Road and (Existing) Country Club Drive

- Deficiency 9: As shown in **Table 10**, this intersection operates at level-of-service F during the AM peak hour and the addition of project traffic would be expected to significantly worsen the intersection. **This is a significant deficiency.**
- Deficiency 10: As shown in **Table 10**, this intersection also operates at level-of-service F during the PM peak hour and the addition of project traffic would be expected to significantly worsen the intersection. **This is a significant deficiency.**

Bass Lake Road and Westbound Ramps

- Deficiency 11: As shown in **Table 10**, this intersection operates at level-of-service F during the PM peak hour and the addition of project traffic would be expected to significantly worsen the intersection. **This is a significant deficiency.**

Bass Lake Road and Eastbound Ramps

- Deficiency 13: As shown in **Table 10**, this intersection operates at level-of-service E during the PM peak hour and the addition of project traffic significantly worsen the intersection. **This is a significant deficiency.**

Recommended Improvements for Ten-Year 2025 Plus BLHSP Phase 1a Conditions

With the preferred set of improvements identified in the 2014 discussion above, the ramp intersections and the Bass Lake Road/Country Club Drive intersection all operate at level-of-service C or better during both the AM and PM peak-hours. The projected delay and level-of-service with the proposed improvements is also shown in **Table 10**.

Table 10. Delay and level-of-service comparison for 2025 demonstrating acceptable traffic operations with improvements recommended as conditions of approval
(Results are the average of ten microsimulations using SimTraffic)

		AM Peak-Hour (2025)			PM Peak-Hour (2025)		
Intersection	LOS Standard	No-Project	With Project	With Project & Improvements	No-Project	With Project	With Project & Improvements
<u>With SSSC at Westbound Off-Ramp</u>							
Bass Lake Rd./Hawk View Rd.	E	The intersections of Bass Lake Road with Hawk View Road and Hollow Oak Road were not analyzed for 2025.					
Bass Lake Rd./Hollow Oak Rd.	E						
Bass Lake Rd./ Country Club Dr. (Existing intersection) (Relocated)	E D	>999 (F) n/a	With project and no improvements was not analyzed for 2025	n/a 25.5 (C)	>999 (F) n/a	With project and no improvements was not analyzed for 2025	n/a 14.2 (B)
Bass Lake Rd./westbound ramps	D	5.4 (A)		12 (B)	>999 (F)		17.4 (C)
Bass Lake Rd./eastbound ramps	D	11.6 (B)		13 (B)	58.5 (E)		13.1 (B)
<u>With Signal Control at Westbound Off-Ramp</u>							
Bass Lake Rd./Hawk View Rd.	E	Same as above, signalization of intersections only occurs as a project condition of approval.				Same as above, signalization of intersections only occurs as a project condition of approval.	
Bass Lake Rd./Hollow Oak Rd.	E						
Bass Lake Rd./ Country Club Dr. (Existing intersection) (Relocated)	E D				n/a 13.3 (B)		n/a 13.4 (B)
Bass Lake Rd./westbound ramps	D				11.8 (B)		11.8 (B)
Bass Lake Rd./eastbound ramps	D				11.5 (B)		21.9 (C)

Cumulative 2035 Conditions

Table 11 shows the delay and level-of-service with and without out the proposed BLHSP phase 1a project under year 2035 scenarios. Traffic forecasting utilized for these calculations also included projected traffic from buildout of BLHSP phase 2 and phase 3.

Deficiencies

Bass Lake Road & Hollow Oak Road

- Deficiency 9: As shown in **Tables 11**, the addition of project traffic degrades the westbound left turn from level-of-service E to F during the AM peak hour. **This is a significant deficiency.**
- Deficiency 10: As shown in **Tables 11**, the addition of project traffic degrades the westbound left turn from level-of-service C to F during the PM peak hour. **This is a significant deficiency.**

Bass Lake Road and (New) Country Club Drive

- Deficiency 11: As shown in **Table 11**, this intersection operates at level-of-service F during the AM peak hour and the addition of project traffic significantly worsens the intersection. **This is a significant deficiency.**
- Deficiency 12: As shown in **Table 14**, this intersection operates at level-of-service F during the PM peak hour and the addition of project traffic significantly worsens the intersection. **This is a significant deficiency.**

Bass Lake Road and Westbound Ramps

- Deficiency 13: As shown in **Table 11**, the addition of project traffic degrades the westbound left turn from level-of-service C to F during the PM peak hour. **This is a significant deficiency.**

Bass Lake Road and Eastbound Ramps

- Deficiency 14: As shown in **Table 11**, the eastbound approach operates at level-of-service F during the AM peak hour and the addition of project traffic significantly worsens the intersection. **This is a significant deficiency.**
- Deficiency 15: As shown in **Table 11**, the eastbound approach operates at level-of-service F during the PM peak hour and the addition of project traffic significantly worsens the intersection. **This is a significant deficiency.**

Table 11. Delay and level-of-service comparison for 2035 demonstrating acceptable traffic operations with improvements recommended as conditions of approval

		AM Peak-Hour (2035)			PM Peak-Hour (2035)		
Intersection	LOS Standard	No-Project	With Project	With Project & Improvements	No-Project	With Project	With Project & Improvements
<u>With SSSC at Westbound Off-Ramp</u>							
Bass Lake Rd./Hawk View Rd.	E	17.8 (C)	37.4 (E)	Signalization of westbound off-ramp is a required improvement	16.7 (C)	24.5 (C)	Signalization of westbound off-ramp is a required improvement
Bass Lake Rd./Hollow Oak Rd.	E	39.2 (E)	>999 (F)		17.8 (C)	111.5 (F)	
Bass Lake Rd./ Country Club Dr. (Existing intersection) (Relocated)	E D	927.1 (F) n/a	>999 (F) n/a		249 (F) n/a	841.6 (F) n/a	
Bass Lake Rd./westbound ramps	D	11.6 (B)	16.4 (C)		17.7 (C)	421.6 (F)	
Bass Lake Rd./eastbound ramps	D	530.5 (F)	>999 (F)		310.3 (F)	>999 (F)	
<u>With Signal Control at Westbound Off-Ramp</u>							
Bass Lake Rd./Hawk View Rd.	E	Same as above, signalization of intersections only occurs as a project condition of approval.		no change	Same as above, signalization of intersections only occurs as a project condition of approval.		no change
Bass Lake Rd./Hollow Oak Rd.	E			64.7 (E)			24.6 (C)
Bass Lake Rd./ Country Club Dr. (Existing intersection) (Relocated)	E D			n/a 18.1 (B)			n/a 18.1 (B)
Bass Lake Rd./westbound ramps	D			48.7 (D)			39.3 (D)
Bass Lake Rd./eastbound ramps	D			36.5 (D)			28.7 (C)

Recommended Improvements for Cumulative 2035 plus BLHSP phase 1a conditions

Recommended improvements build upon those identified for the 2014 scenarios. In addition to the preferred set of improvements discussed above (page 12 & 14), the following improvements are recommended:

- New Bass Lake Road/Country Club Drive Intersection: reconstruct the intersection.
 - Westbound approach: provide a left turn lane with a 300' pocket and a shared through-right.
 - Eastbound approach: provide a left turn lane with a 60' pocket and a shared through-right.
 - Southbound approach: provide a left turn lane with a 200' pocket; a through lane and a shared through-right lane. The second lane for the southbound shared through-right should be developed on the southbound approach to the intersection via a 200' storage pocket.
 - Northbound approach: provide a left turn lane with a 120' pocket, through lane, and a right turn lane (a trap lane).

- Bass Lake Road/Hollow Oak Road: Signalize the intersection with the existing lane geometry.

With the recorded improvements, all study intersections operate at an acceptable level-of-service D or better in 2035 with buildout of the BLHSP area.

Attachment: Synchro and SimTraffic Calculation Sheets







Note: Calculation sheets provided here are limited to the analysis of the relocation of the Bass Lake Road/Country Club Drive intersection discussed at the beginning of this memorandum. Additional calculation sheets and supporting information is located in appendices of the July 2014 TIA and the January 2015 TOA.

HCM 2010 Signalized Intersection Summary

3: Bass Lake Road & Country Club Drive

4/30/2015



Movement	WBL	WBR	NBT	NBR	SBL	SBT		
Lane Configurations								
Volume (veh/h)	233	69	245	140	143	793		
Number	3	18	2	12	1	6		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863		
Adj Flow Rate, veh/h	307	91	350	200	168	933		
Adj No. of Lanes	1	1	1	1	1	1		
Peak Hour Factor	0.76	0.76	0.70	0.70	0.85	0.85		
Percent Heavy Veh, %	2	2	2	2	2	2		
Cap, veh/h	390	348	715	608	247	1134		
Arrive On Green	0.22	0.22	0.38	0.38	0.14	0.61		
Sat Flow, veh/h	1774	1583	1863	1583	1774	1863		
Grp Volume(v), veh/h	307	91	350	200	168	933		
Grp Sat Flow(s),veh/h/ln	1774	1583	1863	1583	1774	1863		
Q Serve(g_s), s	7.6	2.2	6.7	4.2	4.2	18.3		
Cycle Q Clear(g_c), s	7.6	2.2	6.7	4.2	4.2	18.3		
Prop In Lane	1.00	1.00		1.00	1.00			
Lane Grp Cap(c), veh/h	390	348	715	608	247	1134		
V/C Ratio(X)	0.79	0.26	0.49	0.33	0.68	0.82		
Avail Cap(c_a), veh/h	608	542	715	608	608	1436		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00		
Uniform Delay (d), s/veh	17.2	15.1	10.9	10.2	19.1	7.2		
Incr Delay (d2), s/veh	3.7	0.4	0.5	0.3	3.3	3.2		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	1.1	1.0	3.5	1.8	2.3	10.1		
LnGrp Delay(d),s/veh	20.8	15.5	11.4	10.5	22.4	10.4		
LnGrp LOS	C	B	B	B	C	B		
Approach Vol, veh/h	398		550			1101		
Approach Delay, s/veh	19.6		11.1			12.2		
Approach LOS	B		B			B		
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	10.5	21.9				32.4		14.3
Change Period (Y+Rc), s	4.0	4.0				4.0		4.0
Max Green Setting (G_max), s	10.0	16.0				36.0		16.0
Max Q Clear Time (g_c+1), s	10.2	8.7				20.3		9.6
Green Ext Time (p_c), s	0.3	5.1				8.1		0.7
Intersection Summary								
HCM 2010 Ctrl Delay			13.3					
HCM 2010 LOS			B					

HCM 2010 Signalized Intersection Summary

4: Bass Lake Road & westbound ramp

4/30/2015



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	0	0	3	1	128	25	258	0	0	208	818
Number				3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln				1900	1863	1900	1900	1863	0	0	1863	1863
Adj Flow Rate, veh/h				3	1	0	27	280	0	0	226	0
Adj No. of Lanes				0	1	0	0	2	0	0	1	1
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				0	2	0	2	2	0	0	2	2
Cap, veh/h				6	2	0	142	1547	0	0	333	283
Arrive On Green				0.00	0.00	0.00	0.15	0.15	0.00	0.00	0.18	0.00
Sat Flow, veh/h				1347	449	0	304	3407	0	0	1863	1583
Grp Volume(v), veh/h				4	0	0	164	143	0	0	226	0
Grp Sat Flow(s),veh/h/ln				1795	0	0	1848	1770	0	0	1863	1583
Q Serve(g_s), s				0.1	0.0	0.0	2.7	2.4	0.0	0.0	3.9	0.0
Cycle Q Clear(g_c), s				0.1	0.0	0.0	2.7	2.4	0.0	0.0	3.9	0.0
Prop In Lane				0.75		0.00	0.16		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				8	0	0	862	826	0	0	333	283
V/C Ratio(X)				0.51	0.00	0.00	0.19	0.17	0.00	0.00	0.68	0.00
Avail Cap(c_a), veh/h				838	0	0	862	826	0	0	1141	970
HCM Platoon Ratio				1.00	1.00	1.00	0.33	0.33	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	0.00	0.98	0.98	0.00	0.00	0.48	0.00
Uniform Delay (d), s/veh				17.0	0.0	0.0	8.9	8.7	0.0	0.0	13.2	0.0
Incr Delay (d2), s/veh				43.3	0.0	0.0	0.5	0.4	0.0	0.0	1.2	0.0
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				0.1	0.0	0.0	1.5	1.3	0.0	0.0	2.1	0.0
LnGrp Delay(d),s/veh				60.4	0.0	0.0	9.3	9.2	0.0	0.0	14.3	0.0
LnGrp LOS				E			A	A			B	
Approach Vol, veh/h					4			307			226	
Approach Delay, s/veh					60.4			9.3			14.3	
Approach LOS					E			A			B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2				6		8				
Phs Duration (G+Y+Rc), s		50.7				10.1		4.1				
Change Period (Y+Rc), s		4.0				4.0		4.0				
Max Green Setting (Gmax), s		16.0				21.0		16.0				
Max Q Clear Time (g_c+I1), s		4.7				5.9		2.1				
Green Ext Time (p_c), s		1.3				1.1		0.0				
Intersection Summary												
HCM 2010 Ctrl Delay				11.8								
HCM 2010 LOS				B								

HCM 2010 Signalized Intersection Summary

5: Bass Lake Road & eastbound ramp

4/30/2015



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	261	0	5	0	0	0	0	22	4	204	7	0
Number	7	4	14				5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900				0	1863	1900	1900	1863	0
Adj Flow Rate, veh/h	435	0	0				0	31	6	232	8	0
Adj No. of Lanes	2	1	0				0	1	0	0	1	0
Peak Hour Factor	0.61	0.61	0.61				0.72	0.72	0.72	0.88	0.88	0.88
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	1693	889	0				0	51	10	322	11	0
Arrive On Green	0.48	0.00	0.00				0.00	0.03	0.03	0.19	0.19	0.00
Sat Flow, veh/h	3548	1863	0				0	1517	294	1718	59	0
Grp Volume(v), veh/h	435	0	0				0	0	37	240	0	0
Grp Sat Flow(s), veh/h/ln	1774	1863	0				0	0	1811	1777	0	0
Q Serve(g_s), s	2.9	0.0	0.0				0.0	0.0	0.8	5.1	0.0	0.0
Cycle Q Clear(g_c), s	2.9	0.0	0.0				0.0	0.0	0.8	5.1	0.0	0.0
Prop In Lane	1.00		0.00				0.00		0.16	0.97		0.00
Lane Grp Cap(c), veh/h	1693	889	0				0	0	61	333	0	0
V/C Ratio(X)	0.26	0.00	0.00				0.00	0.00	0.61	0.72	0.00	0.00
Avail Cap(c_a), veh/h	1693	889	0				0	0	728	803	0	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00				0.00	0.00	1.00	0.88	0.00	0.00
Uniform Delay (d), s/veh	6.2	0.0	0.0				0.0	0.0	19.0	15.2	0.0	0.0
Incr Delay (d2), s/veh	0.4	0.0	0.0				0.0	0.0	9.3	2.6	0.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	1.5	0.0	0.0				0.0	0.0	0.5	2.7	0.0	0.0
LnGrp Delay(d), s/veh	6.6	0.0	0.0				0.0	0.0	28.3	17.8	0.0	0.0
LnGrp LOS	A								C	B		
Approach Vol, veh/h	435							37			240	
Approach Delay, s/veh	6.6							28.3			17.8	
Approach LOS	A							C			B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2		4		6						
Phs Duration (G+Y+Rc), s		5.3		48.2		11.5						
Change Period (Y+Rc), s		4.0		4.0		4.0						
Max Green Setting (Gmax), s		16.0		19.0		18.0						
Max Q Clear Time (g_c+I1), s		2.8		4.9		7.1						
Green Ext Time (p_c), s		0.1		1.4		1.0						
Intersection Summary												
HCM 2010 Ctrl Delay			11.5									
HCM 2010 LOS			B									













Notes

User approved volume balancing among the lanes for turning movement.

HCM 2010 Signalized Intersection Summary

3: Bass Lake Road & Country Club Drive

















4/30/2015

								
Movement	WBL	WBR	NBT	NBR	SBL	SBT		
Lane Configurations								
Volume (veh/h)	117	92	650	211	79	335		
Number	3	18	2	12	1	6		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863		
Adj Flow Rate, veh/h	202	159	707	229	86	364		
Adj No. of Lanes	1	1	1	1	1	1		
Peak Hour Factor	0.58	0.58	0.92	0.92	0.92	0.92		
Percent Heavy Veh, %	2	2	2	2	2	2		
Cap, veh/h	283	253	1024	870	109	1281		
Arrive On Green	0.16	0.16	0.55	0.55	0.06	0.69		
Sat Flow, veh/h	1774	1583	1863	1583	1774	1863		
Grp Volume(v), veh/h	202	159	707	229	86	364		
Grp Sat Flow(s),veh/h/ln	1774	1583	1863	1583	1774	1863		
Q Serve(g_s), s	5.7	4.9	14.4	4.0	2.5	4.0		
Cycle Q Clear(g_c), s	5.7	4.9	14.4	4.0	2.5	4.0		
Prop In Lane	1.00	1.00		1.00	1.00			
Lane Grp Cap(c), veh/h	283	253	1024	870	109	1281		
V/C Ratio(X)	0.71	0.63	0.69	0.26	0.79	0.28		
Avail Cap(c_a), veh/h	542	484	1024	870	169	1281		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00		
Uniform Delay (d), s/veh	20.9	20.5	8.6	6.2	24.2	3.2		
Incr Delay (d2), s/veh	3.3	2.6	3.8	0.7	12.4	0.6		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	3.0	2.3	8.4	1.9	1.6	2.2		
LnGrp Delay(d),s/veh	24.2	23.1	12.4	6.9	36.6	3.7		
LnGrp LOS	C	C	B	A	D	A		
Approach Vol, veh/h	361		936			450		
Approach Delay, s/veh	23.7		11.1			10.0		
Approach LOS	C		B			B		
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	7.2	32.8				40.0		12.4
Change Period (Y+Rc), s	4.0	4.0				4.0		4.0
Max Green Setting (Gmax), s	5.0	27.0				36.0		16.0
Max Q Clear Time (g_c+I1), s	4.5	16.4				6.0		7.7
Green Ext Time (p_c), s	0.0	5.7				9.8		0.8
Intersection Summary								
HCM 2010 Ctrl Delay			13.4					
HCM 2010 LOS			B					

HCM 2010 Signalized Intersection Summary

4: Bass Lake Road & westbound ramp

















4/30/2015

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	0	0	8	0	176	11	686	0	0	114	339
Number				3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln				1900	1863	1900	1900	1863	0	0	1863	1863
Adj Flow Rate, veh/h				8	0	0	11	707	0	0	118	0
Adj No. of Lanes				0	1	0	0	2	0	0	1	1
Peak Hour Factor				0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %				0	2	0	2	2	0	0	2	2
Cap, veh/h				15	0	0	32	2151	0	0	166	141
Arrive On Green				0.01	0.00	0.00	0.20	0.20	0.00	0.00	0.09	0.00
Sat Flow, veh/h				1774	0	0	53	3670	0	0	1863	1583
Grp Volume(v), veh/h				8	0	0	385	333	0	0	118	0
Grp Sat Flow(s),veh/h/ln				1774	0	0	1860	1770	0	0	1863	1583
Q Serve(g_s), s				0.2	0.0	0.0	7.1	6.4	0.0	0.0	2.5	0.0
Cycle Q Clear(g_c), s				0.2	0.0	0.0	7.1	6.4	0.0	0.0	2.5	0.0
Prop In Lane				1.00		0.00	0.03		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				15	0	0	1119	1064	0	0	166	141
V/C Ratio(X)				0.53	0.00	0.00	0.34	0.31	0.00	0.00	0.71	0.00
Avail Cap(c_a), veh/h				711	0	0	1119	1064	0	0	840	714
HCM Platoon Ratio				1.00	1.00	1.00	0.33	0.33	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	0.00	0.65	0.65	0.00	0.00	0.93	0.00
Uniform Delay (d), s/veh				19.7	0.0	0.0	9.2	8.9	0.0	0.0	17.7	0.0
Incr Delay (d2), s/veh				25.9	0.0	0.0	0.6	0.5	0.0	0.0	5.1	0.0
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				0.2	0.0	0.0	3.9	3.3	0.0	0.0	1.5	0.0
LnGrp Delay(d),s/veh				45.6	0.0	0.0	9.8	9.4	0.0	0.0	22.8	0.0
LnGrp LOS				D			A	A			C	
Approach Vol, veh/h					8			718			118	
Approach Delay, s/veh					45.6			9.6			22.8	
Approach LOS					D			A			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2				6		8				
Phs Duration (G+Y+Rc), s		58.1				7.6		4.3				
Change Period (Y+Rc), s		4.0				4.0		4.0				
Max Green Setting (Gmax), s		24.0				18.0		16.0				
Max Q Clear Time (g_c+I1), s		9.1				4.5		2.2				
Green Ext Time (p_c), s		3.9				0.4		0.0				
Intersection Summary												
HCM 2010 Ctrl Delay			11.8									
HCM 2010 LOS			B									

HCM 2010 Signalized Intersection Summary

5: Bass Lake Road & eastbound ramp

4/30/2015

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	688	2	16	0	0	0	0	9	7	115	7	0
Number	7	4	14				5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900				0	1863	1900	1900	1863	0
Adj Flow Rate, veh/h	734	0	0				0	13	10	125	8	0
Adj No. of Lanes	2	1	0				0	1	0	0	1	0
Peak Hour Factor	0.96	0.96	0.96				0.67	0.67	0.67	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	932	489	0				0	272	210	438	28	0
Arrive On Green	0.26	0.00	0.00				0.00	0.28	0.28	0.26	0.26	0.00
Sat Flow, veh/h	3548	1863	0				0	978	752	1672	107	0
Grp Volume(v), veh/h	734	0	0				0	0	23	133	0	0
Grp Sat Flow(s),veh/h/ln	1774	1863	0				0	0	1730	1779	0	0
Q Serve(g_s), s	11.7	0.0	0.0				0.0	0.0	0.6	3.6	0.0	0.0
Cycle Q Clear(g_c), s	11.7	0.0	0.0				0.0	0.0	0.6	3.6	0.0	0.0
Prop In Lane	1.00		0.00				0.00		0.43	0.94		0.00
Lane Grp Cap(c), veh/h	932	489	0				0	0	482	466	0	0
V/C Ratio(X)	0.79	0.00	0.00				0.00	0.00	0.05	0.29	0.00	0.00
Avail Cap(c_a), veh/h	1453	763	0				0	0	482	466	0	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00				0.00	0.00	1.00	0.91	0.00	0.00
Uniform Delay (d), s/veh	20.9	0.0	0.0				0.0	0.0	16.1	18.0	0.0	0.0
Incr Delay (d2), s/veh	1.6	0.0	0.0				0.0	0.0	0.2	1.4	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.9	0.0	0.0				0.0	0.0	0.3	2.0	0.0	0.0
LnGrp Delay(d),s/veh	22.5	0.0	0.0				0.0	0.0	16.3	19.4	0.0	0.0
LnGrp LOS	C								B	B		
Approach Vol, veh/h		734						23			133	
Approach Delay, s/veh		22.5						16.3			19.4	
Approach LOS		C						B			B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2		4		6						
Phs Duration (G+Y+Rc), s		30.0		20.0		20.0						
Change Period (Y+Rc), s		4.0		4.0		4.0						
Max Green Setting (Gmax), s		17.0		25.0		16.0						
Max Q Clear Time (g_c+I1), s		2.6		13.7		5.6						
Green Ext Time (p_c), s		0.0		2.3		0.4						
Intersection Summary												
HCM 2010 Ctrl Delay			21.9									
HCM 2010 LOS			C									

Notes

User approved volume balancing among the lanes for turning movement.

Intersection

Int Delay, s/veh 1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	0	0	0	3	1	128	25	258	0	0	208	818
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	Yield	-	-	None	-	-	Yield
Storage Length	-	-	-	-	-	-	-	-	-	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	3	1	139	27	280	0	0	226	889

Major/Minor	Minor1			Major1			Major2		
Conflicting Flow All	561	561	140	226	0	0	280	0	0
Stage 1	335	335	-	-	-	-	-	-	-
Stage 2	226	226	-	-	-	-	-	-	-
Critical Hdwy	6.63	6.53	6.93	4.12	-	-	4.14	-	-
Critical Hdwy Stg 1	5.83	5.53	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.43	5.53	-	-	-	-	-	-	-
Follow-up Hdwy	3.519	4.019	3.319	2.218	-	-	2.22	-	-
Pot Cap-1 Maneuver	473	436	883	1342	-	-	1280	-	-
Stage 1	697	642	-	-	-	-	-	-	-
Stage 2	811	716	-	-	-	-	-	-	-
Platoon blocked, %					-	-		-	-
Mov Cap-1 Maneuver	462	0	883	1342	-	-	1280	-	-
Mov Cap-2 Maneuver	462	0	-	-	-	-	-	-	-
Stage 1	680	0	-	-	-	-	-	-	-
Stage 2	811	0	-	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.7	0.8	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1342	-	-	911	1280	-	-
HCM Lane V/C Ratio	0.02	-	-	0.157	-	-	-
HCM Control Delay (s)	7.7	0.1	-	9.7	0	-	-
HCM Lane LOS	A	A	-	A	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0.6	0	-	-

Intersection

Int Delay, s/veh 1.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	0	0	0	8	0	176	11	686	0	0	114	339
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	Yield	-	-	None	-	-	Yield
Storage Length	-	-	-	-	-	-	-	-	-	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	97	97	97	97	97	97	97	97	97	97	97	97
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	8	0	181	11	707	0	0	118	349

Major/Minor	Minor1			Major1			Major2		
Conflicting Flow All	848	848	354	118	0	0	707	0	0
Stage 1	730	730	-	-	-	-	-	-	-
Stage 2	118	118	-	-	-	-	-	-	-
Critical Hdwy	6.63	6.53	6.93	4.12	-	-	4.14	-	-
Critical Hdwy Stg 1	5.83	5.53	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.43	5.53	-	-	-	-	-	-	-
Follow-up Hdwy	3.519	4.019	3.319	2.218	-	-	2.22	-	-
Pot Cap-1 Maneuver	316	298	643	1470	-	-	887	-	-
Stage 1	439	427	-	-	-	-	-	-	-
Stage 2	907	798	-	-	-	-	-	-	-
Platoon blocked, %					-	-		-	-
Mov Cap-1 Maneuver	312	0	643	1470	-	-	887	-	-
Mov Cap-2 Maneuver	312	0	-	-	-	-	-	-	-
Stage 1	434	0	-	-	-	-	-	-	-
Stage 2	907	0	-	-	-	-	-	-	-













Approach	WB	NB	SB
HCM Control Delay, s	12.5	0.1	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1470	-	-	672	887	-	-
HCM Lane V/C Ratio	0.008	-	-	0.282	-	-	-
HCM Control Delay (s)	7.5	0	-	12.5	0	-	-
HCM Lane LOS	A	A	-	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	1.2	0	-	-

HCM 2010 Signalized Intersection Summary

3: Bass Lake Road & Country Club Drive

















4/30/2015

								
Movement	WBL	WBR	NBT	NBR	SBL	SBT		
Lane Configurations								
Volume (veh/h)	279	69	248	188	145	793		
Number	3	18	2	12	1	6		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863		
Adj Flow Rate, veh/h	367	91	354	269	171	933		
Adj No. of Lanes	1	1	1	1	1	1		
Peak Hour Factor	0.76	0.76	0.70	0.70	0.85	0.85		
Percent Heavy Veh, %	2	2	2	2	2	2		
Cap, veh/h	426	380	515	438	490	1158		
Arrive On Green	0.24	0.24	0.28	0.28	0.28	0.62		
Sat Flow, veh/h	1774	1583	1863	1583	1774	1863		
Grp Volume(v), veh/h	367	91	354	269	171	933		
Grp Sat Flow(s),veh/h/ln	1774	1583	1863	1583	1774	1863		
Q Serve(g_s), s	11.5	2.7	9.8	8.6	4.5	22.0		
Cycle Q Clear(g_c), s	11.5	2.7	9.8	8.6	4.5	22.0		
Prop In Lane	1.00	1.00		1.00	1.00			
Lane Grp Cap(c), veh/h	426	380	515	438	490	1158		
V/C Ratio(X)	0.86	0.24	0.69	0.61	0.35	0.81		
Avail Cap(c_a), veh/h	490	438	515	438	490	1158		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00		
Uniform Delay (d), s/veh	21.1	17.7	18.7	18.3	16.8	8.3		
Incr Delay (d2), s/veh	13.2	0.3	7.3	6.3	2.0	6.0		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	7.2	1.2	6.1	4.5	2.5	12.8		
LnGrp Delay(d),s/veh	34.3	18.1	26.0	24.6	18.7	14.3		
LnGrp LOS	C	B	C	C	B	B		
Approach Vol, veh/h	458		623			1104		
Approach Delay, s/veh	31.0		25.4			15.0		
Approach LOS	C		C			B		
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	20.0	20.0				40.0		17.9
Change Period (Y+Rc), s	4.0	4.0				4.0		4.0
Max Green Setting (Gmax), s	16.0	16.0				36.0		16.0
Max Q Clear Time (g_c+I1), s	6.5	11.8				24.0		13.5
Green Ext Time (p_c), s	0.3	3.2				7.7		0.4
Intersection Summary								
HCM 2010 Ctrl Delay			21.3					
HCM 2010 LOS			C					

HCM 2010 Signalized Intersection Summary

4: Bass Lake Road & westbound ramp

















4/30/2015

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	0	0	5	1	128	57	309	0	0	232	840
Number				3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln				1900	1863	1900	1900	1863	0	0	1863	1863
Adj Flow Rate, veh/h				5	1	0	62	336	0	0	252	0
Adj No. of Lanes				0	1	0	0	2	0	0	1	1
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				0	2	0	2	2	0	0	2	2
Cap, veh/h				10	2	0	245	1406	0	0	358	304
Arrive On Green				0.01	0.01	0.00	0.15	0.15	0.00	0.00	0.19	0.00
Sat Flow, veh/h				1490	298	0	536	3163	0	0	1863	1583
Grp Volume(v), veh/h				6	0	0	213	185	0	0	252	0
Grp Sat Flow(s),veh/h/ln				1788	0	0	1836	1770	0	0	1863	1583
Q Serve(g_s), s				0.1	0.0	0.0	3.6	3.2	0.0	0.0	4.4	0.0
Cycle Q Clear(g_c), s				0.1	0.0	0.0	3.6	3.2	0.0	0.0	4.4	0.0
Prop In Lane				0.83		0.00	0.29		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				12	0	0	841	810	0	0	358	304
V/C Ratio(X)				0.52	0.00	0.00	0.25	0.23	0.00	0.00	0.70	0.00
Avail Cap(c_a), veh/h				819	0	0	841	810	0	0	853	725
HCM Platoon Ratio				1.00	1.00	1.00	0.33	0.33	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	0.00	0.85	0.85	0.00	0.00	0.47	0.00
Uniform Delay (d), s/veh				17.3	0.0	0.0	9.6	9.4	0.0	0.0	13.2	0.0
Incr Delay (d2), s/veh				31.5	0.0	0.0	0.6	0.6	0.0	0.0	1.2	0.0
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				0.2	0.0	0.0	2.0	1.7	0.0	0.0	2.4	0.0
LnGrp Delay(d),s/veh				48.8	0.0	0.0	10.2	10.0	0.0	0.0	14.4	0.0
LnGrp LOS				D			B	A			B	
Approach Vol, veh/h					6			398			252	
Approach Delay, s/veh					48.8			10.1			14.4	
Approach LOS					D			B			B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2				6		8				
Phs Duration (G+Y+Rc), s		45.1				10.7		4.2				
Change Period (Y+Rc), s		4.0				4.0		4.0				
Max Green Setting (Gmax), s		16.0				16.0		16.0				
Max Q Clear Time (g_c+I1), s		5.6				6.4		2.1				
Green Ext Time (p_c), s		1.7				0.9		0.0				
Intersection Summary												
HCM 2010 Ctrl Delay			12.1									
HCM 2010 LOS			B									

HCM 2010 Signalized Intersection Summary

5: Bass Lake Road & eastbound ramp

4/30/2015







												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	302	0	16	0	0	0	0	64	14	221	16	0
Number	7	4	14				5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900				0	1863	1900	1900	1863	0
Adj Flow Rate, veh/h	519	0	0				0	89	19	251	18	0
Adj No. of Lanes	2	1	0				0	1	0	0	1	0
Peak Hour Factor	0.61	0.61	0.61				0.72	0.72	0.72	0.88	0.88	0.88
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	851	447	0				0	197	42	392	28	0
Arrive On Green	0.24	0.00	0.00				0.00	0.13	0.13	0.24	0.24	0.00
Sat Flow, veh/h	3548	1863	0				0	1489	318	1661	119	0
Grp Volume(v), veh/h	519	0	0				0	0	108	269	0	0
Grp Sat Flow(s),veh/h/ln	1774	1863	0				0	0	1807	1780	0	0
Q Serve(g_s), s	4.0	0.0	0.0				0.0	0.0	1.7	4.2	0.0	0.0
Cycle Q Clear(g_c), s	4.0	0.0	0.0				0.0	0.0	1.7	4.2	0.0	0.0
Prop In Lane	1.00		0.00				0.00		0.18	0.93		0.00
Lane Grp Cap(c), veh/h	851	447	0				0	0	239	420	0	0
V/C Ratio(X)	0.61	0.00	0.00				0.00	0.00	0.45	0.64	0.00	0.00
Avail Cap(c_a), veh/h	1854	973	0				0	0	944	930	0	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00				0.00	0.00	1.00	0.81	0.00	0.00
Uniform Delay (d), s/veh	10.4	0.0	0.0				0.0	0.0	12.3	10.5	0.0	0.0
Incr Delay (d2), s/veh	0.7	0.0	0.0				0.0	0.0	6.1	1.3	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	0.0	0.0				0.0	0.0	1.2	2.2	0.0	0.0
LnGrp Delay(d),s/veh	11.1	0.0	0.0				0.0	0.0	18.3	11.9	0.0	0.0
LnGrp LOS	B								B	B		
Approach Vol, veh/h		519						108			269	
Approach Delay, s/veh		11.1						18.3			11.9	
Approach LOS		B						B			B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2		4		6						
Phs Duration (G+Y+Rc), s		37.4		11.3		11.2						
Change Period (Y+Rc), s		4.0		4.0		4.0						
Max Green Setting (Gmax), s		16.0		16.0		16.0						
Max Q Clear Time (g_c+I1), s		3.7		6.0		6.2						
Green Ext Time (p_c), s		0.4		1.4		1.1						
Intersection Summary												
HCM 2010 Ctrl Delay			12.2									
HCM 2010 LOS			B									
Notes												
User approved volume balancing among the lanes for turning movement.												

HCM 2010 Signalized Intersection Summary

3: Bass Lake Road & Country Club Drive

4/30/2015



Movement	WBL	WBR	NBT	NBR	SBL	SBT		
Lane Configurations								
Volume (veh/h)	141	92	686	273	79	347		
Number	3	18	2	12	1	6		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863		
Adj Flow Rate, veh/h	243	159	746	297	86	377		
Adj No. of Lanes	1	1	1	1	1	1		
Peak Hour Factor	0.58	0.58	0.92	0.92	0.92	0.92		
Percent Heavy Veh, %	2	2	2	2	2	2		
Cap, veh/h	321	287	995	846	109	1248		
Arrive On Green	0.18	0.18	0.53	0.53	0.06	0.67		
Sat Flow, veh/h	1774	1583	1863	1583	1774	1863		
Grp Volume(v), veh/h	243	159	746	297	86	377		
Grp Sat Flow(s),veh/h/ln	1774	1583	1863	1583	1774	1863		
Q Serve(g_s), s	7.0	4.9	16.7	5.8	2.6	4.5		
Cycle Q Clear(g_c), s	7.0	4.9	16.7	5.8	2.6	4.5		
Prop In Lane	1.00	1.00		1.00	1.00			
Lane Grp Cap(c), veh/h	321	287	995	846	109	1248		
V/C Ratio(X)	0.76	0.55	0.75	0.35	0.79	0.30		
Avail Cap(c_a), veh/h	528	471	995	846	132	1248		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00		
Uniform Delay (d), s/veh	20.9	20.0	9.7	7.2	24.9	3.7		
Incr Delay (d2), s/veh	3.6	1.7	5.2	1.1	22.5	0.6		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	8.7	2.3	9.9	2.7	1.9	2.5		
LnGrp Delay(d),s/veh	24.5	21.7	14.9	8.3	47.4	4.3		
LnGrp LOS	C	C	B	A	D	A		
Approach Vol, veh/h	402		1043			463		
Approach Delay, s/veh	23.4		13.0			12.3		
Approach LOS	C		B			B		
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	7.3	32.7				40.0		13.7
Change Period (Y+Rc), s	4.0	4.0				4.0		4.0
Max Green Setting (Gmax), s	4.0	28.0				36.0		16.0
Max Q Clear Time (g_c+1), s	4.0	18.7				6.5		9.0
Green Ext Time (p_c), s	0.0	5.6				10.7		0.8
Intersection Summary								
HCM 2010 Ctrl Delay			15.0					
HCM 2010 LOS			B					

Two Way Analysis cannot be performed on Signalized Intersection.

HCM 2010 Signalized Intersection Summary

4: Bass Lake Road & westbound ramp

4/30/2015



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	0	0	19	0	192	24	767	0	0	124	364
Number				3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln				1900	1863	1900	1900	1863	0	0	1863	1863
Adj Flow Rate, veh/h				20	0	0	25	791	0	0	128	0
Adj No. of Lanes				0	1	0	0	2	0	0	1	1
Peak Hour Factor				0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %				0	2	0	2	2	0	0	2	2
Cap, veh/h				35	0	0	63	2102	0	0	180	153
Arrive On Green				0.02	0.00	0.00	0.20	0.20	0.00	0.00	0.10	0.00
Sat Flow, veh/h				1774	0	0	106	3614	0	0	1863	1583
Grp Volume(v), veh/h				20	0	0	437	379	0	0	128	0
Grp Sat Flow(s),veh/h/ln				1774	0	0	1857	1770	0	0	1863	1583
Q Serve(g_s), s				0.5	0.0	0.0	8.6	7.7	0.0	0.0	2.8	0.0
Cycle Q Clear(g_c), s				0.5	0.0	0.0	8.6	7.7	0.0	0.0	2.8	0.0
Prop In Lane				1.00		0.00	0.06		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				35	0	0	1109	1056	0	0	180	153
V/C Ratio(X)				0.57	0.00	0.00	0.39	0.36	0.00	0.00	0.71	0.00
Avail Cap(c_a), veh/h				678	0	0	1109	1056	0	0	756	643
HCM Platoon Ratio				1.00	1.00	1.00	0.33	0.33	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	0.00	0.66	0.66	0.00	0.00	0.90	0.00
Uniform Delay (d), s/veh				20.3	0.0	0.0	10.2	9.9	0.0	0.0	18.3	0.0
Incr Delay (d2), s/veh				13.6	0.0	0.0	0.7	0.6	0.0	0.0	4.6	0.0
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				0.4	0.0	0.0	4.6	4.0	0.0	0.0	1.7	0.0
LnGrp Delay(d),s/veh				34.0	0.0	0.0	10.9	10.5	0.0	0.0	22.9	0.0
LnGrp LOS				C			B	B			C	
Approach Vol, veh/h					20			816			128	
Approach Delay, s/veh					34.0			10.7			22.9	
Approach LOS					C			B			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2				6		8				
Phs Duration (G+Y+Rc), s		57.1				8.1		4.8				
Change Period (Y+Rc), s		4.0				4.0		4.0				
Max Green Setting (Gmax), s		25.0				17.0		16.0				
Max Q Clear Time (g_c+I1), s		10.6				4.8		2.5				
Green Ext Time (p_c), s		4.5				0.4		0.0				
Intersection Summary												
HCM 2010 Ctrl Delay				12.8								
HCM 2010 LOS				B								

Two Way Analysis cannot be performed on Signalized Intersection.

HCM 2010 Signalized Intersection Summary

5: Bass Lake Road & eastbound ramp

4/30/2015



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	760	2	42	0	0	0	0	30	13	115	28	0
Number	7	4	14				5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900				0	1863	1900	1900	1863	0
Adj Flow Rate, veh/h	834	0	0				0	45	19	125	30	0
Adj No. of Lanes	2	1	0				0	1	0	0	1	0
Peak Hour Factor	0.96	0.96	0.96				0.67	0.67	0.67	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	1034	543	0				0	321	135	372	89	0
Arrive On Green	0.29	0.00	0.00				0.00	0.26	0.26	0.26	0.26	0.00
Sat Flow, veh/h	3548	1863	0				0	1245	525	1444	347	0
Grp Volume(v), veh/h	834	0	0				0	0	64	155	0	0
Grp Sat Flow(s), veh/h/ln	1774	1863	0				0	0	1770	1791	0	0
Q Serve(g_s), s	13.5	0.0	0.0				0.0	0.0	1.7	4.4	0.0	0.0
Cycle Q Clear(g_c), s	13.5	0.0	0.0				0.0	0.0	1.7	4.4	0.0	0.0
Prop In Lane	1.00		0.00				0.00		0.30	0.81		0.00
Lane Grp Cap(c), veh/h	1034	543	0				0	0	456	461	0	0
V/C Ratio(X)	0.81	0.00	0.00				0.00	0.00	0.14	0.34	0.00	0.00
Avail Cap(c_a), veh/h	1486	780	0				0	0	456	461	0	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00				0.00	0.00	1.00	0.90	0.00	0.00
Uniform Delay (d), s/veh	20.4	0.0	0.0				0.0	0.0	17.8	18.7	0.0	0.0
Incr Delay (d2), s/veh	2.2	0.0	0.0				0.0	0.0	0.6	1.8	0.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	16.9	0.0	0.0				0.0	0.0	0.9	2.4	0.0	0.0
LnGrp Delay(d), s/veh	22.6	0.0	0.0				0.0	0.0	18.4	20.5	0.0	0.0
LnGrp LOS	C								B	C		
Approach Vol, veh/h	834							64			155	
Approach Delay, s/veh	22.6							18.4			20.5	
Approach LOS	C							B			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2		4		6						
Phs Duration (G+Y+Rc), s		27.9		22.1		20.0						
Change Period (Y+Rc), s		4.0		4.0		4.0						
Max Green Setting (Gmax), s		16.0		26.0		16.0						
Max Q Clear Time (g_c+I1), s		3.7		15.5		6.4						
Green Ext Time (p_c), s		0.2		2.6		0.5						
Intersection Summary												
HCM 2010 Ctrl Delay			22.0									
HCM 2010 LOS			C									
Notes												
User approved volume balancing among the lanes for turning movement.												

Two Way Analysis cannot be performed on Signalized Intersection.

Intersection

Int Delay, s/veh 1.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	0	0	0	5	1	128	57	309	0	0	232	840
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	Yield	-	-	None	-	-	Yield
Storage Length	-	-	-	-	-	-	-	-	-	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	5	1	139	62	336	0	0	252	913

Major/Minor	Minor1			Major1			Major2		
Conflicting Flow All	712	712	168	252	0	0	336	0	0
Stage 1	460	460	-	-	-	-	-	-	-
Stage 2	252	252	-	-	-	-	-	-	-
Critical Hdwy	6.63	6.53	6.93	4.12	-	-	4.14	-	-
Critical Hdwy Stg 1	5.83	5.53	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.43	5.53	-	-	-	-	-	-	-
Follow-up Hdwy	3.519	4.019	3.319	2.218	-	-	2.22	-	-
Pot Cap-1 Maneuver	383	357	847	1313	-	-	1220	-	-
Stage 1	603	565	-	-	-	-	-	-	-
Stage 2	789	698	-	-	-	-	-	-	-
Platoon blocked, %									
Mov Cap-1 Maneuver	361	0	847	1313	-	-	1220	-	-
Mov Cap-2 Maneuver	361	0	-	-	-	-	-	-	-
Stage 1	568	0	-	-	-	-	-	-	-
Stage 2	789	0	-	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.9	1.4	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1313	-	-	887	1220	-	-
HCM Lane V/C Ratio	0.047	-	-	0.164	-	-	-
HCM Control Delay (s)	7.9	0.2	-	9.9	0	-	-
HCM Lane LOS	A	A	-	A	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0.6	0	-	-

Intersection

Int Delay, s/veh 2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	0	0	0	19	0	192	24	767	0	0	124	364
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	Yield	-	-	None	-	-	Yield
Storage Length	-	-	-	-	-	-	-	-	-	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	97	97	97	97	97	97	97	97	97	97	97	97
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	20	0	198	25	791	0	0	128	375

Major/Minor	Minor1			Major1			Major2		
Conflicting Flow All	968	968	395	128	0	0	791	0	0
Stage 1	840	840	-	-	-	-	-	-	-
Stage 2	128	128	-	-	-	-	-	-	-
Critical Hdwy	6.63	6.53	6.93	4.12	-	-	4.14	-	-
Critical Hdwy Stg 1	5.83	5.53	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.43	5.53	-	-	-	-	-	-	-
Follow-up Hdwy	3.519	4.019	3.319	2.218	-	-	2.22	-	-
Pot Cap-1 Maneuver	266	253	605	1458	-	-	825	-	-
Stage 1	385	380	-	-	-	-	-	-	-
Stage 2	897	790	-	-	-	-	-	-	-
Platoon blocked, %									
Mov Cap-1 Maneuver	258	0	605	1458	-	-	825	-	-
Mov Cap-2 Maneuver	258	0	-	-	-	-	-	-	-
Stage 1	373	0	-	-	-	-	-	-	-
Stage 2	897	0	-	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	13	0.3	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1458	-	-	665	825	-	-
HCM Lane V/C Ratio	0.017	-	-	0.327	-	-	-
HCM Control Delay (s)	7.5	0.1	-	13	0	-	-
HCM Lane LOS	A	A	-	B	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	1.4	0	-	-

1: Bass Lake Road & Country Club Drive Performance by movement

Movement	WBL	WBR	NBT	NBR	SBL	SBT	All
Denied Del/Veh (s)	3.6	1.0	0.0	0.1	0.0	0.0	0.6
Total Del/Veh (s)	37.3	8.9	18.6	3.5	38.6	29.5	26.3
Stop Delay (hr)	2.7	0.2	1.2	0.0	1.1	2.5	7.6
Vehicles Entered	303	84	353	197	175	982	2094
Vehicles Exited	302	84	356	198	175	980	2095
Hourly Exit Rate	302	84	356	198	175	980	2095
Input Volume	313	79	347	195	174	986	2093
% of Volume	97	106	103	102	101	99	100

2: Bass Lake Road & westbound ramp Performance by movement

Movement	WBL	WBT	WBR	NBL	NBT	SBT	SBR	All
Denied Del/Veh (s)	0.1	0.2	0.2	0.1	0.0	0.1	0.4	0.3
Total Del/Veh (s)	39.1	35.6	1.7	21.0	15.7	5.5	5.4	8.1
Stop Delay (hr)	0.1	0.0	0.0	0.4	1.3	0.4	0.3	2.5
Vehicles Entered	8	2	161	91	404	413	952	2031
Vehicles Exited	8	2	160	90	401	413	953	2027
Hourly Exit Rate	8	2	160	90	401	413	953	2027
Input Volume	7	2	152	91	401	410	967	2030
% of Volume	110	100	105	99	100	101	99	100

3: Bass Lake Road & eastbound ramp Performance by movement

Movement	EBL	EBR	NBT	NBR	SBL	SBT	All
Denied Del/Veh (s)	0.9	0.4	0.2	0.2	0.0	0.0	0.4
Total Del/Veh (s)	19.8	8.4	32.2	15.9	9.5	9.9	16.8
Stop Delay (hr)	1.8	0.1	0.8	0.1	0.6	0.1	3.4
Vehicles Entered	374	29	106	23	309	30	871
Vehicles Exited	374	29	105	23	309	30	870
Hourly Exit Rate	374	29	105	23	309	30	870
Input Volume	370	27	105	25	313	26	867
% of Volume	101	106	100	92	99	114	100

Total Network Performance

Movement	
Denied Del/Veh (s)	1.6
Total Del/Veh (s)	49.9
Stop Delay (hr)	14.0
Vehicles Entered	2354
Vehicles Exited	2347
Hourly Exit Rate	2347
Input Volume	12224
% of Volume	19

Queuing and Blocking Report

2025 AM BLHSP Phase 1a, and half of Phase 2 & 3 (WB ramps signal control)

4/27/2015

Intersection: 1: Bass Lake Road & Country Club Drive

Movement	WB	WB	NB	B41	SB	SB
Directions Served	L	R	T	T	L	T
Maximum Queue (ft)	367	361	249	28	299	1008
Average Queue (ft)	155	68	119	1	107	282
95th Queue (ft)	322	283	215	28	250	769
Link Distance (ft)		862	1178	283		2496
Upstream Blk Time (%)				0		
Queuing Penalty (veh)				0		
Storage Bay Dist (ft)	300				200	
Storage Blk Time (%)	5	0	0		0	10
Queuing Penalty (veh)	6	0	0		0	18

Intersection: 2: Bass Lake Road & westbound ramp

Movement	WB	NB	NB	SB	SB
Directions Served	LTR	LT	T	T	R
Maximum Queue (ft)	56	252	215	226	246
Average Queue (ft)	10	130	71	78	99
95th Queue (ft)	38	224	172	154	217
Link Distance (ft)	1251	278	278	283	
Upstream Blk Time (%)		0	0	0	0
Queuing Penalty (veh)		0	0	0	0
Storage Bay Dist (ft)					300
Storage Blk Time (%)				0	0
Queuing Penalty (veh)				0	0

Intersection: 3: Bass Lake Road & eastbound ramp

Movement	EB	EB	NB	SB
Directions Served	L	LTR	TR	LT
Maximum Queue (ft)	206	141	144	146
Average Queue (ft)	99	63	71	71
95th Queue (ft)	161	116	128	122
Link Distance (ft)		899	284	278
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)	240			
Storage Blk Time (%)	0			
Queuing Penalty (veh)	0			

Network Summary

Network wide Queuing Penalty: 26

SimTraffic Performance Report

2025 AM BLHSP Phase 1a, and half of Phase 2 & 3 (WB ramps signal control)

4/27/2015

1: Bass Lake Road & Country Club Drive Performance by run number

Run Number	10	13	14	15	17	18	20	4	6	8	Avg
Denied Del/Veh (s)	0.5	0.6	0.6	0.5	0.6	0.6	0.6	0.6	0.5	0.5	0.6
Total Del/Veh (s)	35.1	22.3	26.5	22.2	29.5	26.0	24.5	29.3	24.3	23.4	26.3
Stop Delay (hr)	10.2	6.7	7.2	5.7	9.3	7.2	7.6	8.9	6.5	6.7	7.6
Vehicles Entered	2088	2108	2113	2124	2052	2053	2100	2101	2072	2124	2094
Vehicles Exited	2078	2105	2116	2132	2058	2065	2092	2110	2081	2115	2095
Hourly Exit Rate	2078	2105	2116	2132	2058	2065	2092	2110	2081	2115	2095
Input Volume	2093	2093	2093	2093	2093	2093	2093	2093	2093	2093	2093
% of Volume	99	101	101	102	98	99	100	101	99	101	100

2: Bass Lake Road & westbound ramp Performance by run number

Run Number	10	13	14	15	17	18	20	4	6	8	Avg
Denied Del/Veh (s)	0.2	0.2	0.3	0.3	0.1	0.2	0.5	0.1	0.2	0.2	0.3
Total Del/Veh (s)	7.4	7.9	8.4	9.2	8.3	7.8	8.6	7.7	7.2	7.9	8.1
Stop Delay (hr)	2.1	2.5	2.8	3.3	2.7	2.4	2.7	2.4	2.0	2.4	2.5
Vehicles Entered	1994	2044	2071	2084	2000	2038	2037	2013	1991	2036	2031
Vehicles Exited	1988	2039	2073	2079	2002	2030	2034	2007	1986	2034	2027
Hourly Exit Rate	1988	2039	2073	2079	2002	2030	2034	2007	1986	2034	2027
Input Volume	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030
% of Volume	98	100	102	102	99	100	100	99	98	100	100

3: Bass Lake Road & eastbound ramp Performance by run number

Run Number	10	13	14	15	17	18	20	4	6	8	Avg
Denied Del/Veh (s)	0.4	0.4	0.4	0.4	0.4	0.5	0.5	0.4	0.4	0.4	0.4
Total Del/Veh (s)	16.8	16.6	16.6	17.2	16.4	17.2	17.4	17.3	16.0	16.6	16.8
Stop Delay (hr)	3.4	3.4	3.4	3.7	3.4	3.5	3.6	3.5	3.0	3.4	3.4
Vehicles Entered	852	879	887	930	896	852	874	857	810	874	871
Vehicles Exited	843	885	885	929	894	853	871	864	809	873	870
Hourly Exit Rate	843	885	885	929	894	853	871	864	809	873	870
Input Volume	867	867	867	867	867	867	867	867	867	867	867
% of Volume	97	102	102	107	103	98	100	100	93	101	100

SimTraffic Performance Report

2025 AM BLHSP Phase 1a, and half of Phase 2 & 3 (WB ramps signal control)

4/27/2015

Total Network Performance By Run

Run Number	10	13	14	15	17	18	20
Denied Del/Veh (s)	1.8	1.6	1.7	1.9	1.4	1.6	1.7
Total Del/Veh (s)	57.1	46.1	50.5	47.8	52.4	48.9	49.2
Stop Delay (hr)	16.1	13.0	13.9	13.2	15.8	13.5	14.4
Vehicles Entered	2318	2382	2366	2413	2317	2355	2356
Vehicles Exited	2299	2388	2370	2422	2331	2341	2340
Hourly Exit Rate	2299	2388	2370	2422	2331	2341	2340
Input Volume	12224	12224	12224	12224	12224	12224	12224
% of Volume	19	20	19	20	19	19	19

Total Network Performance By Run

Run Number	4	6	8	Avg
Denied Del/Veh (s)	1.4	1.5	1.5	1.6
Total Del/Veh (s)	52.6	47.4	47.1	49.9
Stop Delay (hr)	15.3	12.0	13.0	14.0
Vehicles Entered	2328	2319	2384	2354
Vehicles Exited	2327	2281	2378	2347
Hourly Exit Rate	2327	2281	2378	2347
Input Volume	12224	12224	12224	12224
% of Volume	19	19	19	19

SimTraffic Performance Report

2025 PM BLHSP Phase 1a, and half of Phase 2 & 3 (WB ramps signal control)

4/27/2015

1: Bass Lake Road & Country Club Drive Performance by movement

Movement	WBL	WBR	NBT	NBR	SBL	SBT	All
Denied Del/Veh (s)	3.6	0.6	0.0	0.0	0.0	0.0	0.3
Total Del/Veh (s)	24.5	14.9	16.5	6.2	32.3	7.6	14.0
Stop Delay (hr)	0.9	0.5	1.5	0.0	0.7	0.1	3.7
Vehicles Entered	150	125	901	324	95	494	2089
Vehicles Exited	150	126	900	324	94	494	2088
Hourly Exit Rate	150	126	900	324	94	494	2088
Input Volume	154	122	892	321	97	495	2082
% of Volume	97	103	101	101	97	100	100

2: Bass Lake Road & westbound ramp Performance by movement

Movement	WBL	WBR	NBL	NBT	SBT	SBR	All
Denied Del/Veh (s)	0.3	0.3	0.0	0.0	0.1	0.0	0.1
Total Del/Veh (s)	39.7	3.9	7.5	7.2	26.9	2.7	8.5
Stop Delay (hr)	0.4	0.1	0.0	1.0	1.5	0.0	3.0
Vehicles Entered	34	302	31	922	230	451	1970
Vehicles Exited	34	303	32	923	231	451	1974
Hourly Exit Rate	34	303	32	923	231	451	1974
Input Volume	35	292	34	927	232	456	1975
% of Volume	98	104	94	100	100	99	100

3: Bass Lake Road & eastbound ramp Performance by movement

Movement	EBL	EBT	EBR	NBT	NBR	SBL	SBT	All
Denied Del/Veh (s)	1.0	1.0	1.0	0.1	0.1	0.1	0.0	0.8
Total Del/Veh (s)	8.6	9.6	5.7	34.7	15.3	43.1	44.2	16.1
Stop Delay (hr)	1.3	0.0	0.1	0.5	0.1	1.9	0.6	4.4
Vehicles Entered	880	2	67	59	21	175	52	1256
Vehicles Exited	877	2	68	61	21	174	51	1254
Hourly Exit Rate	877	2	68	61	21	174	51	1254
Input Volume	884	2	67	60	23	176	53	1265
% of Volume	99	100	101	102	92	99	96	99

Total Network Performance

Movement	WBL	WBR	NBL	NBT	NBR	SBL	SBT	All
Denied Del/Veh (s)				0.9				
Total Del/Veh (s)				43.4				
Stop Delay (hr)				11.9				
Vehicles Entered				2292				
Vehicles Exited				2303				
Hourly Exit Rate				2303				
Input Volume				12594				
% of Volume				18				

Queuing and Blocking Report

2025 PM BLHSP Phase 1a, and half of Phase 2 & 3 (WB ramps signal control)

4/27/2015

Intersection: 1: Bass Lake Road & Country Club Drive

Movement	WB	WB	NB	NB	B41	B41	SB	SB
Directions Served	L	R	T	R	T		L	T
Maximum Queue (ft)	185	127	404	200	328	250	116	143
Average Queue (ft)	72	55	181	13	82	14	57	49
95th Queue (ft)	142	106	333	129	295	118	102	113
Link Distance (ft)		862	1178		283	283		2496
Upstream Blk Time (%)					1	0		
Queuing Penalty (veh)					7	1		
Storage Bay Dist (ft)	300			300			200	
Storage Blk Time (%)	0		2				0	0
Queuing Penalty (veh)	0		6				0	0

Intersection: 2: Bass Lake Road & westbound ramp

Movement	WB	NB	NB	SB	SB	B41
Directions Served	LTR	LT	T	T	R	T
Maximum Queue (ft)	219	250	218	248	132	46
Average Queue (ft)	47	113	60	106	15	3
95th Queue (ft)	139	212	164	198	93	48
Link Distance (ft)	1251	278	278	283		1178
Upstream Blk Time (%)		0		1	0	
Queuing Penalty (veh)		0		4	0	
Storage Bay Dist (ft)					300	
Storage Blk Time (%)				1	0	
Queuing Penalty (veh)				2	0	

Intersection: 3: Bass Lake Road & eastbound ramp

Movement	EB	EB	NB	SB
Directions Served	L	LTR	TR	LT
Maximum Queue (ft)	248	182	129	278
Average Queue (ft)	125	83	51	123
95th Queue (ft)	207	157	102	228
Link Distance (ft)		899	284	278
Upstream Blk Time (%)				1
Queuing Penalty (veh)				1
Storage Bay Dist (ft)	240			
Storage Blk Time (%)	0	0		
Queuing Penalty (veh)	2	0		

Network Summary

Network wide Queuing Penalty: 24

SimTraffic Performance Report

2025 PM BLHSP Phase 1a, and half of Phase 2 & 3 (WB ramps signal control)

4/27/2015

1: Bass Lake Road & Country Club Drive Performance by run number

Run Number	10	12	13	14	17	18	19	2	20	5	Avg
Denied Del/Veh (s)	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Total Del/Veh (s)	13.7	14.1	15.3	14.9	13.2	12.8	13.8	12.6	15.3	14.2	14.0
Stop Delay (hr)	3.6	3.6	4.1	4.1	3.6	3.3	3.8	3.1	4.2	3.6	3.7
Vehicles Entered	2062	2023	2043	2091	2158	2091	2119	2080	2101	2118	2089
Vehicles Exited	2058	2016	2044	2097	2159	2100	2128	2084	2086	2109	2088
Hourly Exit Rate	2058	2016	2044	2097	2159	2100	2128	2084	2086	2109	2088
Input Volume	2082	2082	2082	2082	2082	2082	2082	2082	2082	2082	2082
% of Volume	99	97	98	101	104	101	102	100	100	101	100

2: Bass Lake Road & westbound ramp Performance by run number

Run Number	10	12	13	14	17	18	19	2	20	5	Avg
Denied Del/Veh (s)	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Total Del/Veh (s)	9.1	8.9	8.3	7.5	8.2	8.4	8.8	8.8	9.3	8.3	8.5
Stop Delay (hr)	3.2	3.0	2.8	2.4	2.9	2.9	3.1	3.0	3.5	2.9	3.0
Vehicles Entered	1951	1897	1926	1975	2029	2000	2015	1967	1970	1981	1970
Vehicles Exited	1952	1895	1932	1978	2030	2000	2017	1973	1974	1987	1974
Hourly Exit Rate	1952	1895	1932	1978	2030	2000	2017	1973	1974	1987	1974
Input Volume	1975	1975	1975	1975	1975	1975	1975	1975	1975	1975	1975
% of Volume	99	96	98	100	103	101	102	100	100	101	100

3: Bass Lake Road & eastbound ramp Performance by run number

Run Number	10	12	13	14	17	18	19	2	20	5	Avg
Denied Del/Veh (s)	0.9	0.7	0.9	0.9	0.8	0.8	0.8	0.7	0.7	0.8	0.8
Total Del/Veh (s)	16.7	16.6	14.8	15.4	15.4	16.3	17.0	16.2	16.6	15.6	16.1
Stop Delay (hr)	4.6	4.6	3.9	4.2	4.2	4.5	4.8	4.5	4.4	4.4	4.4
Vehicles Entered	1258	1231	1216	1280	1288	1241	1269	1271	1213	1292	1256
Vehicles Exited	1250	1232	1210	1283	1283	1246	1270	1275	1205	1286	1254
Hourly Exit Rate	1250	1232	1210	1283	1283	1246	1270	1275	1205	1286	1254
Input Volume	1265	1265	1265	1265	1265	1265	1265	1265	1265	1265	1265
% of Volume	99	97	96	101	101	98	100	101	95	102	99

SimTraffic Performance Report

2025 PM BLHSP Phase 1a, and half of Phase 2 & 3 (WB ramps signal control)

4/27/2015

Total Network Performance By Run

Run Number	10	12	13	14	17	18	19
Denied Del/Veh (s)	1.0	0.8	1.0	1.0	0.9	0.9	0.9
Total Del/Veh (s)	44.0	44.3	43.8	43.0	42.1	41.9	44.3
Stop Delay (hr)	12.2	12.1	11.6	11.3	11.5	11.5	12.6
Vehicles Entered	2256	2243	2253	2286	2349	2303	2315
Vehicles Exited	2244	2232	2267	2313	2342	2320	2331
Hourly Exit Rate	2244	2232	2267	2313	2342	2320	2331
Input Volume	12594	12594	12594	12594	12594	12594	12594
% of Volume	18	18	18	18	19	18	19

Total Network Performance By Run

Run Number	2	20	5	Avg
Denied Del/Veh (s)	0.9	0.9	0.9	0.9
Total Del/Veh (s)	41.9	45.3	43.8	43.4
Stop Delay (hr)	11.5	12.9	11.6	11.9
Vehicles Entered	2312	2302	2304	2292
Vehicles Exited	2349	2309	2301	2303
Hourly Exit Rate	2349	2309	2301	2303
Input Volume	12594	12594	12594	12594
% of Volume	19	18	18	18

SimTraffic Performance Report

2025 AM BLHSP Phase 1a, and half of Phase 2 & 3 (WB ramps SSSC control)

5/4/2015

1: Bass Lake Road & Country Club Drive Performance by movement

Movement	WBL	WBR	NBT	NBR	SBL	SBT	All
Denied Del/Veh (s)	4.3	1.6	0.0	0.0	0.0	0.0	0.7
Total Del/Veh (s)	46.3	12.6	17.7	3.0	35.6	25.4	25.5
Stop Delay (hr)	3.5	0.2	1.1	0.0	1.0	2.0	7.8
Vehicles Entered	315	84	342	198	174	975	2088
Vehicles Exited	315	84	340	198	173	975	2085
Hourly Exit Rate	315	84	340	198	173	975	2085
Input Volume	313	79	347	195	174	986	2093
% of Volume	101	106	98	102	99	99	100

2: Bass Lake Road & westbound ramp Performance by movement

Movement	WBL	WBT	WBR	NBL	NBT	SBT	SBR	All
Denied Del/Veh (s)	0.2	0.3	0.2	0.0	0.0	0.2	0.5	0.3
Total Del/Veh (s)	12.0	11.7	1.3	4.5	2.5	0.4	5.5	3.5
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.5
Vehicles Entered	7	2	155	95	398	413	956	2026
Vehicles Exited	7	2	154	95	399	413	955	2025
Hourly Exit Rate	7	2	154	95	399	413	955	2025
Input Volume	7	2	152	91	401	410	967	2030
% of Volume	97	100	101	104	100	101	99	100

3: Bass Lake Road & eastbound ramp Performance by movement

Movement	EBL	EBR	NBT	NBR	SBL	SBT	All
Denied Del/Veh (s)	0.9	0.5	0.2	0.2	0.0	0.0	0.4
Total Del/Veh (s)	12.5	5.5	19.0	10.2	12.5	13.2	13.0
Stop Delay (hr)	1.0	0.0	0.5	0.1	0.9	0.1	2.5
Vehicles Entered	370	28	107	23	316	25	869
Vehicles Exited	368	28	108	23	316	25	868
Hourly Exit Rate	368	28	108	23	316	25	868
Input Volume	370	27	105	25	313	26	867
% of Volume	99	103	103	92	101	95	100

Total Network Performance

Movement	
Denied Del/Veh (s)	1.7
Total Del/Veh (s)	43.7
Stop Delay (hr)	11.3
Vehicles Entered	2338
Vehicles Exited	2337
Hourly Exit Rate	2337
Input Volume	12224
% of Volume	19

Queuing and Blocking Report

2025 AM BLHSP Phase 1a, and half of Phase 2 & 3 (WB ramps SSSC control)

5/4/2015

Intersection: 1: Bass Lake Road & Country Club Drive

Movement	WB	WB	NB	SB	SB
Directions Served	L	R	T	L	T
Maximum Queue (ft)	383	544	242	299	778
Average Queue (ft)	169	104	109	112	237
95th Queue (ft)	360	433	193	255	580
Link Distance (ft)		862	1178		2496
Upstream Blk Time (%)		1			
Queuing Penalty (veh)		0			
Storage Bay Dist (ft)	300			200	
Storage Blk Time (%)	9	0	0	0	9
Queuing Penalty (veh)	11	0	0	1	16

Intersection: 2: Bass Lake Road & westbound ramp

Movement	WB	NB	NB	SB	SB
Directions Served	LTR	LT	T	T	R
Maximum Queue (ft)	32	104	17	122	248
Average Queue (ft)	9	33	1	6	106
95th Queue (ft)	31	86	14	69	232
Link Distance (ft)	1251	278	278	283	
Upstream Blk Time (%)				0	0
Queuing Penalty (veh)				0	0
Storage Bay Dist (ft)					300
Storage Blk Time (%)				0	0
Queuing Penalty (veh)				0	0

Intersection: 3: Bass Lake Road & eastbound ramp

Movement	EB	EB	NB	SB
Directions Served	L	LTR	TR	LT
Maximum Queue (ft)	151	101	131	184
Average Queue (ft)	77	49	56	101
95th Queue (ft)	129	88	103	158
Link Distance (ft)		899	284	278
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)	240			
Storage Blk Time (%)				
Queuing Penalty (veh)				

Network Summary

Network wide Queuing Penalty: 30

SimTraffic Performance Report

2025 AM BLHSP Phase 1a, and half of Phase 2 & 3 (WB ramps SSSC control)

5/4/2015

1: Bass Lake Road & Country Club Drive WB, Performance by run number

Run Number	1	13	14	15	16	2	20	3	6	9	Avg
Denied Del/Veh (s)	3.0	3.4	2.9	3.0	3.0	3.0	9.6	3.0	3.0	3.0	3.8
Total Del/Veh (s)	43.2	63.1	34.7	30.7	35.0	25.6	70.0	36.6	25.2	23.5	39.3
Stop Delay (hr)	4.1	6.4	3.5	2.7	3.1	2.4	7.6	3.3	2.2	2.3	3.8
Vehicles Entered	403	409	432	382	380	397	438	377	362	408	399
Vehicles Exited	407	407	430	385	377	396	439	378	363	409	399
Hourly Exit Rate	407	407	430	385	377	396	439	378	363	409	399
Input Volume	392	392	392	392	392	392	392	392	392	392	392
% of Volume	104	104	110	98	96	101	112	96	93	104	102

1: Bass Lake Road & Country Club Drive NB, Performance by run number

Run Number	1	13	14	15	16	2	20	3	6	9	Avg
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Del/Veh (s)	10.9	13.5	13.5	13.3	12.0	11.5	13.0	11.3	11.4	12.4	12.3
Stop Delay (hr)	0.9	1.3	1.2	1.2	1.0	0.9	1.2	0.9	0.9	1.1	1.1
Vehicles Entered	589	583	521	549	530	500	543	531	510	544	540
Vehicles Exited	585	577	514	551	529	501	538	534	513	541	538
Hourly Exit Rate	585	577	514	551	529	501	538	534	513	541	538
Input Volume	542	542	542	542	542	542	542	542	542	542	542
% of Volume	108	107	95	102	98	92	99	99	95	100	99

1: Bass Lake Road & Country Club Drive SB, Performance by run number

Run Number	1	13	14	15	16	2	20	3	6	9	Avg
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Del/Veh (s)	25.5	26.7	25.5	23.4	30.5	28.0	22.3	30.9	27.9	28.4	26.9
Stop Delay (hr)	2.8	3.1	2.9	2.3	3.4	2.9	2.3	3.8	3.4	3.1	3.0
Vehicles Entered	1134	1113	1153	1152	1144	1174	1112	1176	1167	1162	1149
Vehicles Exited	1134	1112	1141	1146	1147	1176	1112	1182	1168	1164	1148
Hourly Exit Rate	1134	1112	1141	1146	1147	1176	1112	1182	1168	1164	1148
Input Volume	1160	1160	1160	1160	1160	1160	1160	1160	1160	1160	1160
% of Volume	98	96	98	99	99	101	96	102	101	100	99

2: Bass Lake Road & westbound ramp WB, Performance by run number

Run Number	1	13	14	15	16	2	20	3	6	9	Avg
Denied Del/Veh (s)	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2
Total Del/Veh (s)	1.4	1.9	2.2	2.0	1.8	1.8	1.7	2.3	1.9	1.9	1.9
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Vehicles Entered	159	177	163	167	137	170	184	169	157	160	164
Vehicles Exited	159	179	162	167	134	167	185	169	155	160	163
Hourly Exit Rate	159	179	162	167	134	167	185	169	155	160	163
Input Volume	161	161	161	161	161	161	161	161	161	161	161
% of Volume	99	111	101	104	83	104	115	105	96	99	101

SimTraffic Performance Report

2025 AM BLHSP Phase 1a, and half of Phase 2 & 3 (WB ramps SSSC control)

5/4/2015

2: Bass Lake Road & westbound ramp NB, Performance by run number

Run Number	1	13	14	15	16	2	20	3	6	9	Avg
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Del/Veh (s)	3.0	2.9	3.1	2.7	2.9	3.2	2.7	2.7	2.6	2.7	2.9
Stop Delay (hr)	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Vehicles Entered	556	521	490	496	519	476	460	465	471	479	493
Vehicles Exited	558	521	489	492	525	472	463	466	472	482	494
Hourly Exit Rate	558	521	489	492	525	472	463	466	472	482	494
Input Volume	492	492	492	492	492	492	492	492	492	492	492
% of Volume	113	106	99	100	107	96	94	95	96	98	100

2: Bass Lake Road & westbound ramp SB, Performance by run number

Run Number	1	13	14	15	16	2	20	3	6	9	Avg
Denied Del/Veh (s)	0.1	0.4	0.3	0.2	1.4	0.2	0.6	0.1	0.4	0.1	0.4
Total Del/Veh (s)	4.0	4.0	4.0	3.9	5.2	3.4	3.9	3.7	4.0	3.7	4.0
Stop Delay (hr)	0.3	0.5	0.4	0.4	0.8	0.3	0.3	0.3	0.3	0.4	0.4
Vehicles Entered	1372	1347	1408	1330	1380	1375	1390	1361	1355	1377	1369
Vehicles Exited	1374	1347	1398	1331	1377	1374	1392	1360	1351	1380	1368
Hourly Exit Rate	1374	1347	1398	1331	1377	1374	1392	1360	1351	1380	1368
Input Volume	1377	1377	1377	1377	1377	1377	1377	1377	1377	1377	1377
% of Volume	100	98	102	97	100	100	101	99	98	100	99

3: Bass Lake Road & eastbound ramp EB, Performance by run number

Run Number	1	13	14	15	16	2	20	3	6	9	Avg
Denied Del/Veh (s)	0.9	0.8	1.0	0.9	0.9	0.9	0.8	0.8	0.9	0.8	0.9
Total Del/Veh (s)	12.3	11.9	11.8	12.6	12.5	12.0	11.1	10.8	11.7	13.4	12.0
Stop Delay (hr)	1.2	1.1	1.0	1.1	1.1	1.0	0.9	0.9	1.0	1.2	1.1
Vehicles Entered	446	411	395	399	408	387	374	395	379	391	398
Vehicles Exited	444	408	393	401	408	384	370	396	376	384	396
Hourly Exit Rate	444	408	393	401	408	384	370	396	376	384	396
Input Volume	397	397	397	397	397	397	397	397	397	397	397
% of Volume	112	103	99	101	103	97	93	100	95	97	100

3: Bass Lake Road & eastbound ramp NB, Performance by run number

Run Number	1	13	14	15	16	2	20	3	6	9	Avg
Denied Del/Veh (s)	0.3	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Total Del/Veh (s)	18.7	18.0	16.7	16.7	18.0	15.8	20.2	17.9	15.3	16.8	17.4
Stop Delay (hr)	0.6	0.6	0.5	0.5	0.5	0.5	0.6	0.5	0.4	0.5	0.5
Vehicles Entered	139	143	135	121	132	132	123	112	132	133	130
Vehicles Exited	141	144	135	122	133	131	124	111	132	135	131
Hourly Exit Rate	141	144	135	122	133	131	124	111	132	135	131
Input Volume	130	130	130	130	130	130	130	130	130	130	130
% of Volume	108	111	104	94	102	101	95	85	101	104	101

SimTraffic Performance Report

2025 AM BLHSP Phase 1a, and half of Phase 2 & 3 (WB ramps SSSC control)

5/4/2015

3: Bass Lake Road & eastbound ramp SB, Performance by run number

Run Number	1	13	14	15	16	2	20	3	6	9	Avg
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Del/Veh (s)	14.0	11.6	12.8	11.9	13.0	12.6	12.1	13.1	13.0	11.9	12.6
Stop Delay (hr)	1.0	0.8	1.0	0.9	0.9	1.0	0.9	0.9	0.9	0.9	0.9
Vehicles Entered	323	328	375	349	303	375	340	318	330	364	341
Vehicles Exited	322	328	376	345	307	378	339	318	330	366	341
Hourly Exit Rate	322	328	376	345	307	378	339	318	330	366	341
Input Volume	339	339	339	339	339	339	339	339	339	339	339
% of Volume	95	97	111	102	90	111	100	94	97	108	101

Total Network Performance By Run

Run Number	1	13	14	15	16	2	20
Denied Del/Veh (s)	1.4	1.5	1.5	1.6	2.3	1.4	3.0
Total Del/Veh (s)	43.6	47.5	42.8	41.0	46.0	41.5	46.8
Stop Delay (hr)	11.6	14.3	11.0	9.7	11.5	9.6	14.2
Vehicles Entered	2379	2362	2371	2326	2325	2333	2337
Vehicles Exited	2388	2355	2341	2325	2315	2345	2347
Hourly Exit Rate	2388	2355	2341	2325	2315	2345	2347
Input Volume	12224	12224	12224	12224	12224	12224	12224
% of Volume	20	19	19	19	19	19	19

Total Network Performance By Run

Run Number	3	6	9	Avg
Denied Del/Veh (s)	1.4	1.7	1.5	1.7
Total Del/Veh (s)	44.2	41.4	41.5	43.7
Stop Delay (hr)	11.0	9.7	10.1	11.3
Vehicles Entered	2309	2286	2368	2338
Vehicles Exited	2329	2273	2359	2337
Hourly Exit Rate	2329	2273	2359	2337
Input Volume	12224	12224	12224	12224
% of Volume	19	19	19	19

SimTraffic Performance Report

2025 PM BLHSP Phase 1a, and half of Phase 2 & 3 (WB ramps SSSC control)

5/4/2015

1: Bass Lake Road & Country Club Drive Performance by movement

Movement	WBL	WBR	NBT	NBR	SBL	SBT	All
Denied Del/Veh (s)	3.6	0.6	0.0	0.1	0.0	0.0	0.3
Total Del/Veh (s)	25.9	14.7	16.2	6.1	36.2	7.9	14.2
Stop Delay (hr)	1.0	0.4	1.4	0.0	0.8	0.2	3.9
Vehicles Entered	155	117	890	327	97	506	2092
Vehicles Exited	156	118	893	326	97	508	2098
Hourly Exit Rate	156	118	893	326	97	508	2098
Input Volume	154	122	892	321	97	495	2082
% of Volume	101	97	100	102	100	103	101

2: Bass Lake Road & westbound ramp Performance by movement

Movement	WBL	WBR	NBL	NBT	SBT	SBR	All
Denied Del/Veh (s)	0.3	0.3	0.1	0.0	0.0	0.0	0.1
Total Del/Veh (s)	17.4	2.4	4.0	2.8	0.3	2.4	2.7
Stop Delay (hr)	0.1	0.0	0.0	0.1	0.0	0.0	0.2
Vehicles Entered	36	293	33	930	233	472	1997
Vehicles Exited	36	293	33	932	233	472	1999
Hourly Exit Rate	36	293	33	932	233	472	1999
Input Volume	35	292	34	927	232	456	1975
% of Volume	104	100	97	101	101	104	101

3: Bass Lake Road & eastbound ramp Performance by movement

Movement	EBL	EBT	EBR	NBT	NBR	SBL	SBT	All
Denied Del/Veh (s)	1.0	0.9	0.9	0.2	0.1	0.0	0.0	0.8
Total Del/Veh (s)	10.7	10.5	6.2	25.0	9.8	21.3	21.4	13.1
Stop Delay (hr)	1.7	0.0	0.1	0.4	0.1	0.9	0.3	3.4
Vehicles Entered	885	2	65	62	22	178	53	1267
Vehicles Exited	884	2	65	63	22	176	53	1265
Hourly Exit Rate	884	2	65	63	22	176	53	1265
Input Volume	884	2	67	60	23	176	53	1265
% of Volume	100	100	97	105	97	100	100	100

Total Network Performance

Movement	
Denied Del/Veh (s)	0.9
Total Del/Veh (s)	36.0
Stop Delay (hr)	8.0
Vehicles Entered	2308
Vehicles Exited	2322
Hourly Exit Rate	2322
Input Volume	12594
% of Volume	18

Queuing and Blocking Report

2025 PM BLHSP Phase 1a, and half of Phase 2 & 3 (WB ramps SSSC control)

5/4/2015

Intersection: 1: Bass Lake Road & Country Club Drive

Movement	WB	WB	NB	NB	B41	B41	SB	SB
Directions Served	L	R	T	R	T		L	T
Maximum Queue (ft)	198	125	410	240	326	113	133	162
Average Queue (ft)	79	52	176	13	39	5	58	56
95th Queue (ft)	157	100	330	129	199	66	109	128
Link Distance (ft)		862	1178		283	283		2496
Upstream Blk Time (%)					0	0		
Queuing Penalty (veh)					3	0		
Storage Bay Dist (ft)	300			300			200	
Storage Blk Time (%)	0		2				0	0
Queuing Penalty (veh)	0		5				0	0

Intersection: 2: Bass Lake Road & westbound ramp

Movement	WB	NB	NB	SB	SB
Directions Served	LTR	LT	T	T	R
Maximum Queue (ft)	137	127	83	3	71
Average Queue (ft)	31	16	3	0	8
95th Queue (ft)	87	73	43	3	44
Link Distance (ft)	1251	278	278	283	
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)				300	
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 3: Bass Lake Road & eastbound ramp

Movement	EB	EB	NB	SB
Directions Served	L	LTR	TR	LT
Maximum Queue (ft)	232	174	115	196
Average Queue (ft)	134	88	47	97
95th Queue (ft)	200	145	91	162
Link Distance (ft)		899	284	278
Upstream Blk Time (%)				0
Queuing Penalty (veh)				0
Storage Bay Dist (ft)	240			
Storage Blk Time (%)	0	0		
Queuing Penalty (veh)	0	0		

Network Summary

Network wide Queuing Penalty: 9

SimTraffic Performance Report

2025 PM BLHSP Phase 1a, and half of Phase 2 & 3 (WB ramps SSSC control)

5/4/2015

1: Bass Lake Road & Country Club Drive WB, Performance by run number

Run Number	1	10	13	14	15	19	3	4	6	8	Avg
Denied Del/Veh (s)	2.5	2.3	2.3	2.4	2.4	2.3	2.3	2.2	2.3	2.4	2.3
Total Del/Veh (s)	20.4	19.7	18.8	19.3	26.9	21.9	20.8	21.1	19.4	21.9	21.1
Stop Delay (hr)	1.3	1.3	1.2	1.3	2.0	1.6	1.5	1.4	1.3	1.5	1.4
Vehicles Entered	259	269	249	279	289	288	276	266	263	280	272
Vehicles Exited	263	269	252	277	289	292	279	269	265	286	274
Hourly Exit Rate	263	269	252	277	289	292	279	269	265	286	274
Input Volume	276	276	276	276	276	276	276	276	276	276	276
% of Volume	95	97	91	100	105	106	101	97	96	103	99

1: Bass Lake Road & Country Club Drive NB, Performance by run number

Run Number	1	10	13	14	15	19	3	4	6	8	Avg
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Del/Veh (s)	12.7	14.7	13.6	10.0	15.4	12.8	13.0	15.0	12.5	15.0	13.5
Stop Delay (hr)	1.3	1.6	1.4	0.9	1.8	1.4	1.3	1.7	1.3	1.8	1.4
Vehicles Entered	1180	1230	1223	1186	1268	1212	1218	1222	1190	1244	1217
Vehicles Exited	1190	1237	1218	1195	1255	1223	1216	1216	1193	1241	1219
Hourly Exit Rate	1190	1237	1218	1195	1255	1223	1216	1216	1193	1241	1219
Input Volume	1213	1213	1213	1213	1213	1213	1213	1213	1213	1213	1213
% of Volume	98	102	100	99	103	101	100	100	98	102	100

1: Bass Lake Road & Country Club Drive SB, Performance by run number

Run Number	1	10	13	14	15	19	3	4	6	8	Avg
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Del/Veh (s)	10.8	10.4	12.3	10.7	14.1	12.4	11.7	11.6	15.7	14.3	12.4
Stop Delay (hr)	0.7	0.6	1.0	0.8	1.2	1.0	0.9	0.9	1.6	1.3	1.0
Vehicles Entered	589	565	637	617	567	600	578	613	641	626	603
Vehicles Exited	588	570	637	616	568	597	589	611	644	628	605
Hourly Exit Rate	588	570	637	616	568	597	589	611	644	628	605
Input Volume	592	592	592	592	592	592	592	592	592	592	592
% of Volume	99	96	108	104	96	101	99	103	109	106	102

2: Bass Lake Road & westbound ramp WB, Performance by run number

Run Number	1	10	13	14	15	19	3	4	6	8	Avg
Denied Del/Veh (s)	0.3	0.2	0.3	0.3	0.3	0.2	0.2	0.3	0.3	0.3	0.3
Total Del/Veh (s)	3.9	4.4	4.6	4.3	3.8	3.5	3.5	4.9	3.0	4.5	4.0
Stop Delay (hr)	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.1	0.2	0.2
Vehicles Entered	346	327	336	331	363	306	326	325	302	326	329
Vehicles Exited	341	324	338	335	358	311	325	324	302	325	329
Hourly Exit Rate	341	324	338	335	358	311	325	324	302	325	329
Input Volume	326	326	326	326	326	326	326	326	326	326	326
% of Volume	104	99	104	103	110	95	100	99	92	100	101

SimTraffic Performance Report

2025 PM BLHSP Phase 1a, and half of Phase 2 & 3 (WB ramps SSSC control)

5/4/2015

2: Bass Lake Road & westbound ramp NB, Performance by run number

Run Number	1	10	13	14	15	19	3	4	6	8	Avg
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Del/Veh (s)	3.0	2.9	3.0	2.5	3.1	3.1	2.7	2.8	2.9	2.8	2.9
Stop Delay (hr)	0.1	0.1	0.0	0.0	0.1	0.1	0.1	0.0	0.1	0.1	0.1
Vehicles Entered	907	984	975	925	981	973	955	974	969	988	963
Vehicles Exited	908	984	978	927	988	975	957	976	965	990	965
Hourly Exit Rate	908	984	978	927	988	975	957	976	965	990	965
Input Volume	961	961	961	961	961	961	961	961	961	961	961
% of Volume	95	102	102	96	103	101	100	102	100	103	100

2: Bass Lake Road & westbound ramp SB, Performance by run number

Run Number	1	10	13	14	15	19	3	4	6	8	Avg
Denied Del/Veh (s)	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0
Total Del/Veh (s)	1.7	1.8	1.7	1.7	1.5	1.5	1.8	1.8	1.7	1.8	1.7
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Vehicles Entered	722	691	711	728	670	693	687	714	713	718	705
Vehicles Exited	721	692	712	729	668	690	689	714	713	718	705
Hourly Exit Rate	721	692	712	729	668	690	689	714	713	718	705
Input Volume	688	688	688	688	688	688	688	688	688	688	688
% of Volume	105	101	104	106	97	100	100	104	104	104	103

3: Bass Lake Road & eastbound ramp EB, Performance by run number

Run Number	1	10	13	14	15	19	3	4	6	8	Avg
Denied Del/Veh (s)	1.0	1.1	1.1	0.9	1.0	0.9	1.1	1.0	1.1	1.0	1.0
Total Del/Veh (s)	11.1	10.5	10.1	9.8	10.6	10.4	9.8	10.5	11.4	10.1	10.4
Stop Delay (hr)	1.8	1.9	1.7	1.6	1.8	1.8	1.6	1.8	2.0	1.7	1.8
Vehicles Entered	897	970	962	909	982	941	939	970	962	988	952
Vehicles Exited	896	966	965	917	975	942	942	971	966	979	951
Hourly Exit Rate	896	966	965	917	975	942	942	971	966	979	951
Input Volume	953	953	953	953	953	953	953	953	953	953	953
% of Volume	94	101	101	96	102	99	99	102	101	103	100

3: Bass Lake Road & eastbound ramp NB, Performance by run number

Run Number	1	10	13	14	15	19	3	4	6	8	Avg
Denied Del/Veh (s)	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.2
Total Del/Veh (s)	20.1	28.4	18.5	15.5	19.3	24.3	19.7	23.6	19.5	22.4	21.1
Stop Delay (hr)	0.4	0.6	0.4	0.3	0.4	0.5	0.4	0.5	0.4	0.4	0.4
Vehicles Entered	74	88	82	86	86	93	87	79	87	79	84
Vehicles Exited	75	88	82	88	88	93	88	79	87	77	85
Hourly Exit Rate	75	88	82	88	88	93	88	79	87	77	85
Input Volume	83	83	83	83	83	83	83	83	83	83	83
% of Volume	91	106	99	106	106	112	106	95	105	93	103

SimTraffic Performance Report

2025 PM BLHSP Phase 1a, and half of Phase 2 & 3 (WB ramps SSSC control)

5/4/2015

3: Bass Lake Road & eastbound ramp SB, Performance by run number

Run Number	1	10	13	14	15	19	3	4	6	8	Avg
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Del/Veh (s)	21.8	20.1	20.7	21.4	23.5	22.3	18.8	21.5	21.1	22.1	21.3
Stop Delay (hr)	1.3	1.1	1.2	1.3	1.3	1.3	0.9	1.2	1.1	1.2	1.2
Vehicles Entered	246	227	232	248	233	237	206	230	221	229	231
Vehicles Exited	243	227	232	246	233	235	204	229	216	227	229
Hourly Exit Rate	243	227	232	246	233	235	204	229	216	227	229
Input Volume	229	229	229	229	229	229	229	229	229	229	229
% of Volume	106	99	101	107	102	103	89	100	94	99	100

Total Network Performance By Run

Run Number	1	10	13	14	15	19	3
Denied Del/Veh (s)	0.9	0.9	0.9	0.8	0.9	0.9	0.9
Total Del/Veh (s)	35.3	36.7	35.6	32.6	38.5	36.0	34.7
Stop Delay (hr)	7.6	7.9	7.7	6.8	9.4	8.3	7.3
Vehicles Entered	2238	2284	2340	2280	2349	2292	2279
Vehicles Exited	2270	2316	2338	2308	2340	2340	2309
Hourly Exit Rate	2270	2316	2338	2308	2340	2340	2309
Input Volume	12594	12594	12594	12594	12594	12594	12594
% of Volume	18	18	19	18	19	19	18

Total Network Performance By Run

Run Number	4	6	8	Avg
Denied Del/Veh (s)	0.9	0.9	0.9	0.9
Total Del/Veh (s)	36.6	36.1	37.2	36.0
Stop Delay (hr)	8.2	8.2	8.7	8.0
Vehicles Entered	2328	2317	2374	2308
Vehicles Exited	2318	2315	2365	2322
Hourly Exit Rate	2318	2315	2365	2322
Input Volume	12594	12594	12594	12594
% of Volume	18	18	19	18

Traffic Impact Analysis

**Bass Lake Hills Phase 1a – Hawk View, Bell Woods, and Bell Ranch
El Dorado Hills, California**

2025 Bass Lake Road Interchange Analysis Addendum

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1.0: INTRODUCTION

Purpose

This addendum supports implementation of interim improvements to the Bass Lake Road interchange, located on US 50 in El Dorado County, California.

The analysis evaluates traffic operations under a ten-year (2025) planning scenario for improvements to the Bass Lake Road interchange that were identified in the Bass Lake Hills Phase 1a Traffic Impact Analysis (TIA). Caltrans and Federal Highway Administration policy requires that improvements within the US 50 right-of-way accommodate ten years of growth, or more. The TIA focused on 2014, 2019, and 2035 conditions at several intersections along Bass Lake Road, the Bass Lake Interchange, and freeway merge and diverge areas at the Bass Lake Road interchange. The 2025 analysis presented in this addendum was not required for El Dorado County review and approval but is necessary for Caltrans review before encroachment permits are issued to construct the planned improvements.

Traffic operations at three study intersections are presented. Study intersections are numbered three through five for consistency with the body of the TIA:

- #3 Bass Lake Road/Country Club Drive (existing)
- #4 Bass Lake Road/westbound ramps
- #5 Bass Lake Road/eastbound ramps

Merge and diverge segments on US 50 at the Bass Lake Road interchange are also presented in this addendum for 2025 scenarios.

Organization of this Addendum

The introductory section of this addendum continues with background material on previously approved environmental mitigation measures that this addendum seeks to implement, and planned TIM Fee projects that would replace the Bass Lake Road interchange by 2035. Existing conditions are discussed briefly by referencing the material in the body of the TIA report. Three sections then present the traffic forecasting and operations:

- 2025 study intersections without improvements or BLHSP traffic.
- 2025 study intersections with improvements and BLHSP traffic.
- 2025 merge/diverge segment analysis with BLHSP traffic.

A discussion section completes this Addendum.

Background

El Dorado County, as lead agency, prepared and certified a Program Environmental Impact Report and Addendum for the Bass Lake Road Study Area on March 17, 1992 and November 7, 1995, respectively (SCH#90020375). The environmental documents determined that improvements to Bass Lake Road interchange would be required to increase carrying capacity until the planned

replacement of the interchange. An interim design was provided by Caltrans and integrated into the environmental document as part of Mitigation Measure J01. The Mitigation Measure J01 (interim improvements) and planned projects to replace the interchange by 2035 are described below.

Interim Improvements from the EIR

Interim improvements (**Figure 1**) are described in the 1992 final environmental document as widening of the eastbound off-ramp to provide dual left turn lanes, signaling the eastbound off-ramp intersection, and striping Bass Lake road to provide two northbound lanes under the freeway¹. The 2004 Public Facilities Financing Plan (PFFP)² requirement specifies that these improvements would be constructed and paid for by Phase 1a of the Bass Lake Hills Specific Plan (BLHSP), consisting of any combination of the Hawk View, Bell Woods, and Bell Ranch projects. Interim Improvement costs are not eligible for Traffic Impact Mitigation (TIM) Fee funding because of the longer term projects to replace the interchange. The environmental document also requires on-ramp metering, if warranted and/or to maintain level-of-service on US 50.

Interchange Replacement Project (Phase 1)³

The first part of a TIM Fee funded project for the complete reconstruction of the Bass Lake Road interchange. This portion of the project includes a detailed study to determine the complete improvements needed, and is assumed to include ramp widenings, road widening, signals, and the WB auxiliary lane between Bass Lake and Silva Valley interchanges and replacement of the bridge for the Bass Lake Road underpass. Total cost (2010 dollars/year of expenditure dollars) is \$20,829,200 / \$34,913,028 with construction assumed to occur between fiscal year 2022/23 and fiscal year 2032/33.

Fee Interchange Replacement Project (Phase 2)⁴

This portion of the TIM Fee funded interchange improvement project is assumed to include additional ramp and road widenings; eastbound auxiliary lanes from Bass Lake Road to Cambridge Road interchanges; and widening of a portion of the westbound auxiliary lane at the westbound off ramp. Assumed ramp widenings include adding a second westbound off-ramp lane, additional eastbound off-ramp turning lane, and adding an eastbound on-ramp HOV bypass lane. Total cost (2010 dollars/year of expenditure dollars) is \$23,640,000 / \$29,516,471 with construction also assumed to occur between fiscal year 2022/23 and fiscal year 2032/33.

¹ 1992, *Bass Lake Road Study Area Program Environmental Impact Report* (Final), Appendix D.

² El Dorado County (2004) *Bass Lake Hills Specific Plan Public Facilities Financing Plan*.

³ SACOG (2012) *2035 Metropolitan Transportation Plan*, Appendix A project list, P15.

⁴ SACOG (2012) *2035 Metropolitan Transportation Plan*, Appendix A project list, P14.

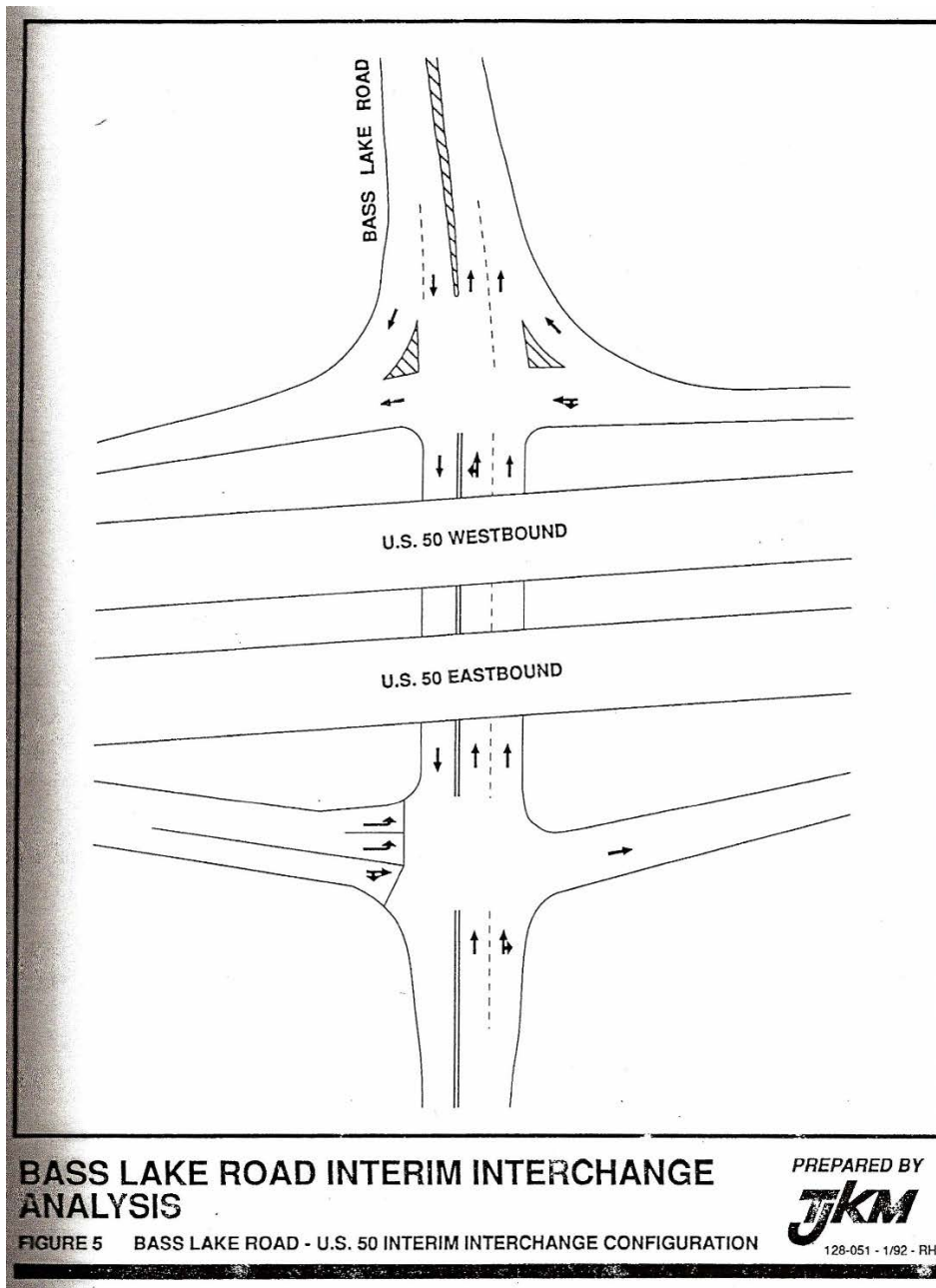


Figure 1. Recommended Interchange Geometry from 1992 EIR

Bass Lake Hills Phase 1a TIA Findings

The BLHSP Phase 1a TIA analyzed existing (2014), near term (2019) and cumulative (2035) traffic operations to identify improvements that would accommodate buildout of the BLHSP area and be consistent with Mitigation Measure J01. The TIA recommended:

- Addition of a 240', or longer, left turn pocket to the eastbound off-ramp.
- Restriping Bass Lake Road between the eastbound and westbound ramps to include two northbound lanes.
- Widening Bass Lake Road between the westbound ramps and Country Club Drive to include a northbound trap lane accessing Country Club Drive and a southbound trap lane accessing westbound US 50.
- Signalization of the eastbound ramp intersection.
- Signalization of the westbound ramp intersection when warranted and necessary to maintain level-of-service D. The westbound ramp intersection was found not to require signalization in 2019, but would need to be signalized by 2035.
- Ramp metering was found not to be warranted.

Ramp Metering

The review of ramp metering warrants⁵ conducted as part of the Bass Lake Hills Phase 1a TIA indicated that the interchange did not meet metering warrants for an isolated ramp meter deployment. Ramp metering at the Bass Lake Road interchange is part of Caltrans District 3 strategy to manage US 50⁶. However, this location is not identified as a priority location for ramp meters. The Transportation Concept Report (TCR) and Corridor System Management Plan (CSMP)⁷ group ramp metering with Intelligent Transportation System (ITS) measures, and lists the first phase of the Bass Lake Road interchange replacement project in the Caltrans list of projects to implement ITS measures.

⁵ (2013) Warrants for the Installation and Use of Technology Devices for Transportation Operations and Maintenance, ENTERPRISE Pooled Fund Study, <http://enterprise.prog.org/itswarrants/rampmeters.html>.

⁶ Caltrans (2013) *Ramp Metering Development Plan*

⁷ Caltrans (2014) *Transportation Concept Report and Corridor System Management Plan, United States Route 50, District 3*.

2.0: Existing Condition

Existing (2014) Conditions are documented in the Bass Lake Hills Phase 1a TIA, based on counts collected during the week of January 26th, 2014.

3.0: Ten-year (2025) Without the Project

The projected ten-year turn movement forecast without any BLHSP development is provided in Figure 2, along with the existing lane configuration and controls.

Following **Figure 2**, this section presents material summarizing traffic forecasting procedures used to develop the 2025 intersection turning movements, then discusses intersection level-of-service and queuing assuming no development in the BLHSP area and the existing lane geometry and controls at study intersections.

Travel Demand Model

Traffic forecasts were based on travel demand modeling work done for the TIA using the 11/7/2013 version of the El Dorado County Travel Demand Model (TDM), which was the latest available version when the study was initiated. Anticipating TDM updates, we worked with El Dorado County staff to increase cumulative land use assumptions in the community regions and specific plan areas to insure that future growth estimates used in this study would be conservatively high relative to any anticipated changes to the model. Enhancements to the November 2013 TDM made for this study are detailed in the traffic forecasting section of the TIA report (section 4.2).

Two key updates to the model have been made since the November 2013 version used for this study:

- An April 28, 2014 version re-focused growth on the existing community regions. This April 2014 version of the TDM was adopted by the board of supervisors for use in updating the County's Housing Element.
- A September 5, 2014 version corrected some land use errors and double counting near Placerville and modified some link attributes representing US 50 and parallel routes in western El Dorado County. Subsequently, Caltrans District 3 approved this version for use on studies effecting US 50⁸

Comparisons between forecasts for this study to the April 2014 and September 2015 TDMs were made as the model revisions came out to verify that the forecasts prepared for this study are conservatively higher than those made using the newer versions of the TDM. Cumulative link volumes along both US 50 and Bass Lake Road were checked against the April 2014 model, and volumes along US 50 were checked against the September 2014 model. In all cases forecasts made for this TIA resulted in conservatively higher traffic volumes on Bass Lake Road and US 50 than forecasts generated using the newer versions of the TDM.

⁸ Marlon Flournoy (2014) Letter to Steve Pedretti dated September 22, 2014.

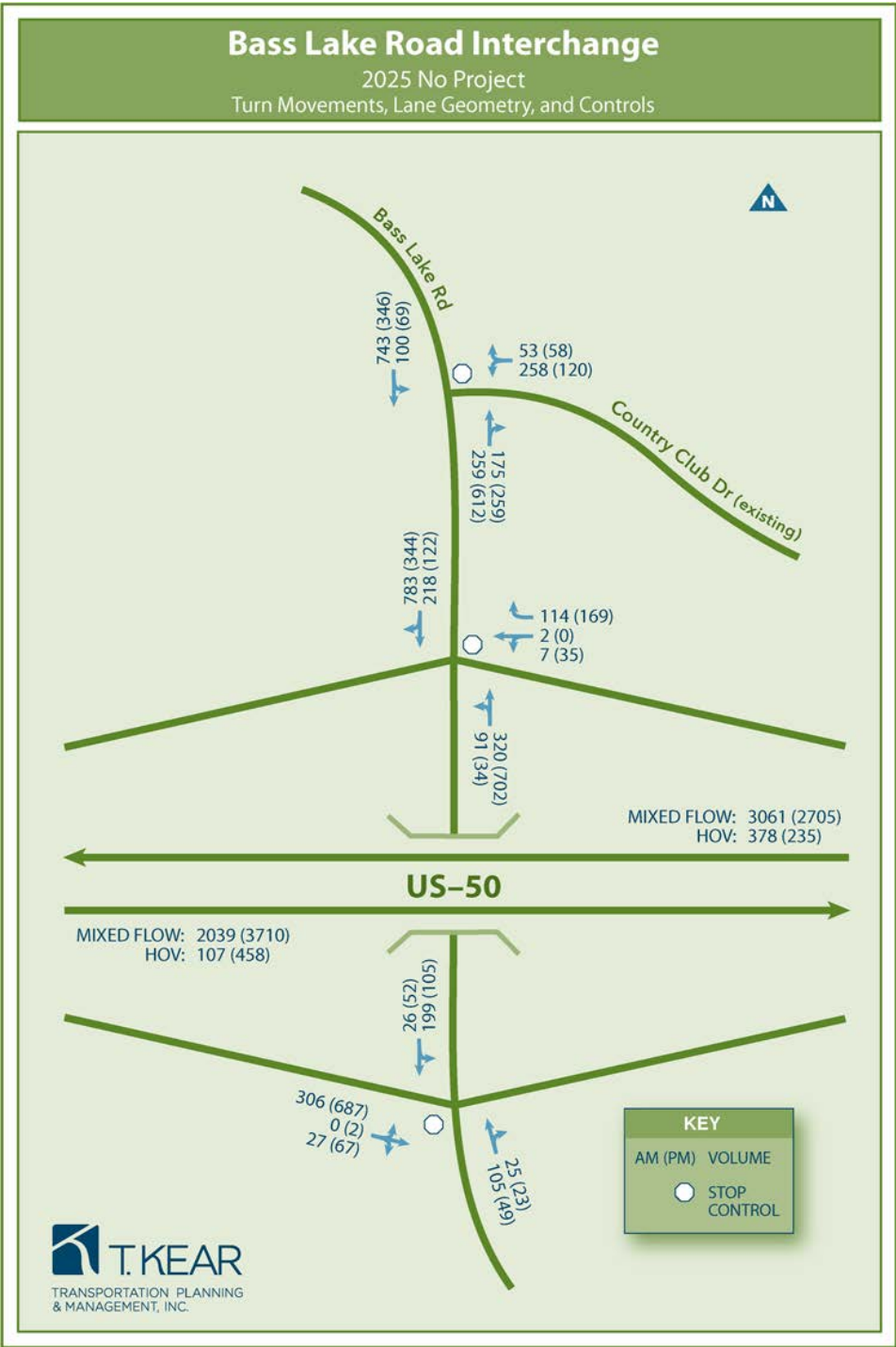


Figure 2. 2025 volumes, lanes, and controls without Bass Lake Hills Development

Forecasting Methodology

Ten-year (2025) traffic forecasts were made by adding incremental growth from the travel demand model to observed traffic counts. 2025 growth was based on linear interpolation between the Existing (2014) condition travel demand model and Cumulative (2035) condition travel demand model results. The NCHRP 255 correction methodology was applied at all intersections. Details can be found in the traffic forecasting methodology sections of the report (section 4.2 and section 4.3).

Intersection Level-of Service and Queuing

SimTraffic microsimulation was used to evaluate intersection and movement delay at the three study intersections and estimate queueing. Ten simulations were prepared of both the AM and PM peak-hours. Average delays reported are the average from all ten runs. 95% queues are the 95th percentile based on all ten runs.

Estimated delay and level of service are presented in **Table 1**. AM and PM peak hour queues are presented in **Figure 3** and **Figure 4**, respectively. Both ramp intersections will operate at Level-of-service F and queueing on the westbound off-ramp during the afternoon is estimated to extend onto US 50 mainline without the interim improvements proposed to mitigate the BLHSP Phase 1a development. Eastbound off-ramp queueing would extend into the gore-point area, but not onto the mainline. The eastbound ramp intersection and Country Club Drive intersection meet peak-hour signal warrant today⁹. The westbound off-ramp intersection will meet the peak-hour warrant by 2025. SimTraffic result and signal warrant worksheets are attached for reference. It is important to note that no diversion has been assumed to compensate for these delays and queues on the side street stop controlled approaches. Actual queues in 2025 would likely be shorter, with traffic diverting to the Cambridge Drive and Silva Valley Parkway interchanges.

Table 1. Intersection Delay and Level-of-Service without Interchange Improvements and without BLHSP Development

Intersection	AM 2025, No Project		PM 2025, No Project	
	Delay (Seconds)	LOS	Delay (Seconds)	LOS
3. Bass Lake Rd. & (Existing) Country Club Dr.	333 (1470.1)	F (F)	290.9 (1500.8)	F (F)
4. Bass Lake Rd. & US 50 WB Ramps*	5.3 (5.4)	A (A)	164.1 (973.9)	F (F)
5. Bass Lake Rd. & US 50 EB Ramps	7.7 (11.6)	A (B)	47.2 (58.5)	E (F)

* Two way stop controlled intersections – Intersection average delay and level-of-service is reported first, followed by the delay and level-of-service for the worst minor street approach movement in parentheses.

⁹ The Peak-Hour Signal Warrant (Warrant 3) was evaluated within the TIA for 2014, 2019, and 2035 conditions with and without the project.

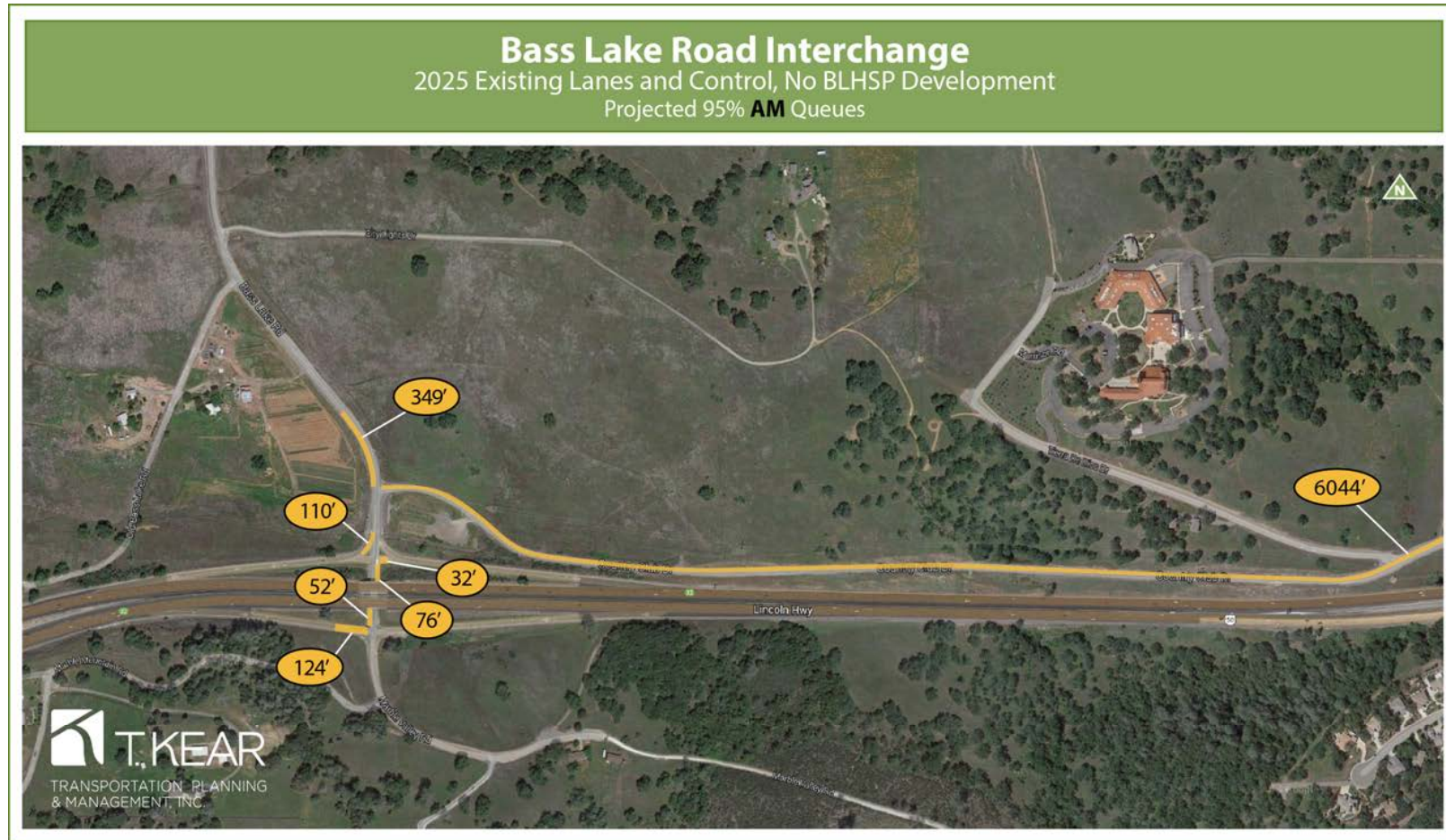


Figure 3. Bass Lake Road Interchange 2025 AM Peak-Hour Queues Without Interchange Improvements and Without BLHSP Development

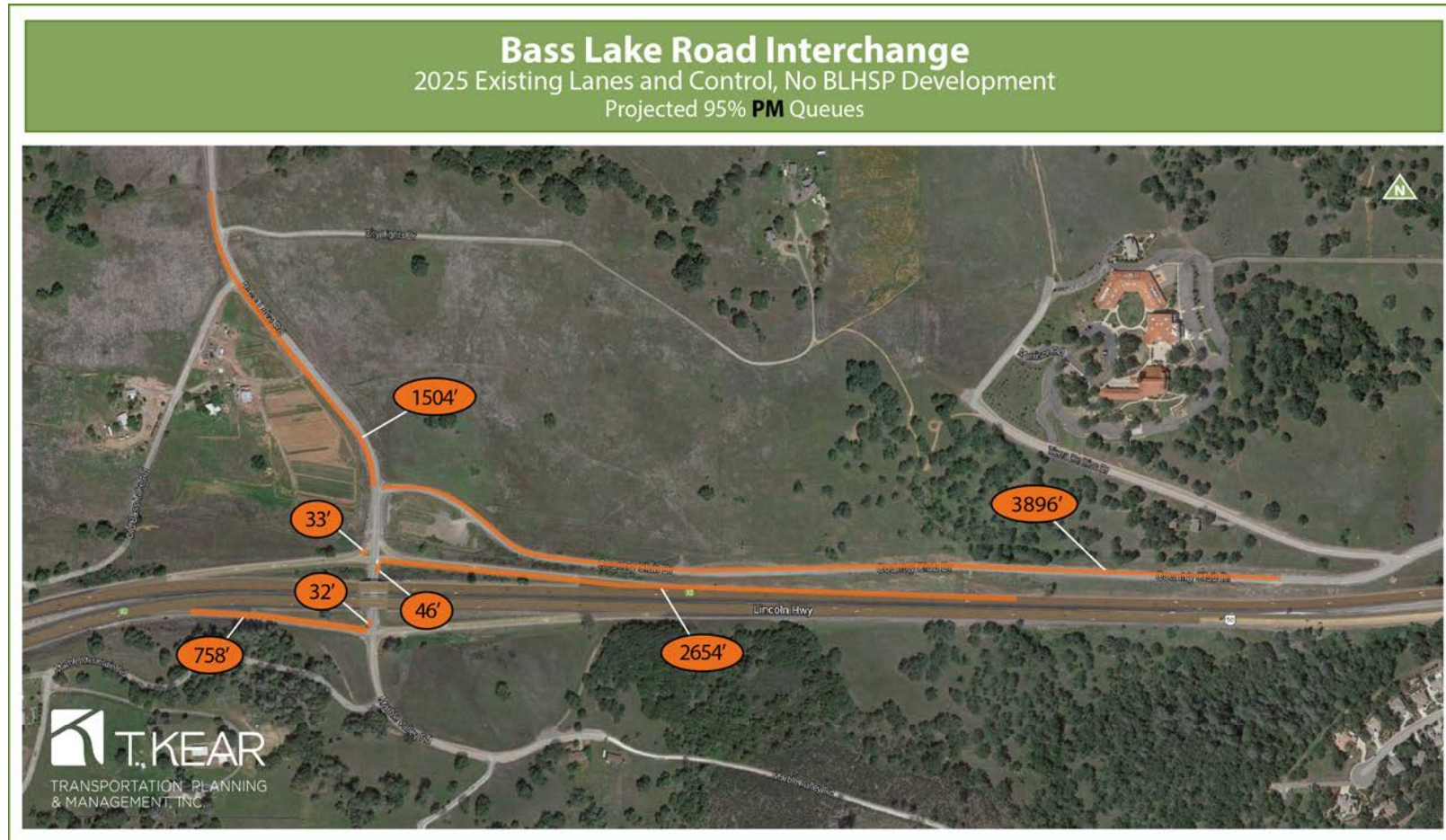


Figure 4. Bass Lake Road Interchange 2025 PM Peak-Hour Queues Without Interchange Improvements and Without BLHSP Development

4.0: Ten-year (2025) With the Project

Because any development within the BLHSP is required to provide the interim interchange improvements described in this addendum, the 2025 without project scenario assumes no development within the BLHSP area. The 2025 With Project scenario assumes construction of 815 homes in the BLHSP area. Of those, 281 homes are in BLHSP Phase 1a projects (Hawk View, Bell Woods, and Bell Ranch) described in the body of the TIA. The remaining 534 homes reflect 50% units in BLHSP Phase 2 and 3.

Half of BLHSP Phase 2 and 3 was assumed to be constructed by 2025 for consistency with TIA assumptions that specified buildout of the BLHSP area under the Cumulative 2035 Plus Project scenario. In reality, the Development Agreements expire in 2016 and the assumption that half of the remaining homes in the specific plan would be approved and constructed by 2025 is extremely conservative.

Turning Movement Forecast

Assignment of project trips from 281 homes in the proposed BLHSP Phase 1a developments is shown in **Figure 5**. The assignment of trips accessing the potential 534 additional homes that theoretically could be constructed in BLHSP Phase 2 and 3 is shown in **Figure 6**. Combining that trip assignment information with the 2025 No Project turning movements (**Figure 2**) results in the estimated 2025 Plus Project turning movements for this analysis, shown in **Figure 7**.

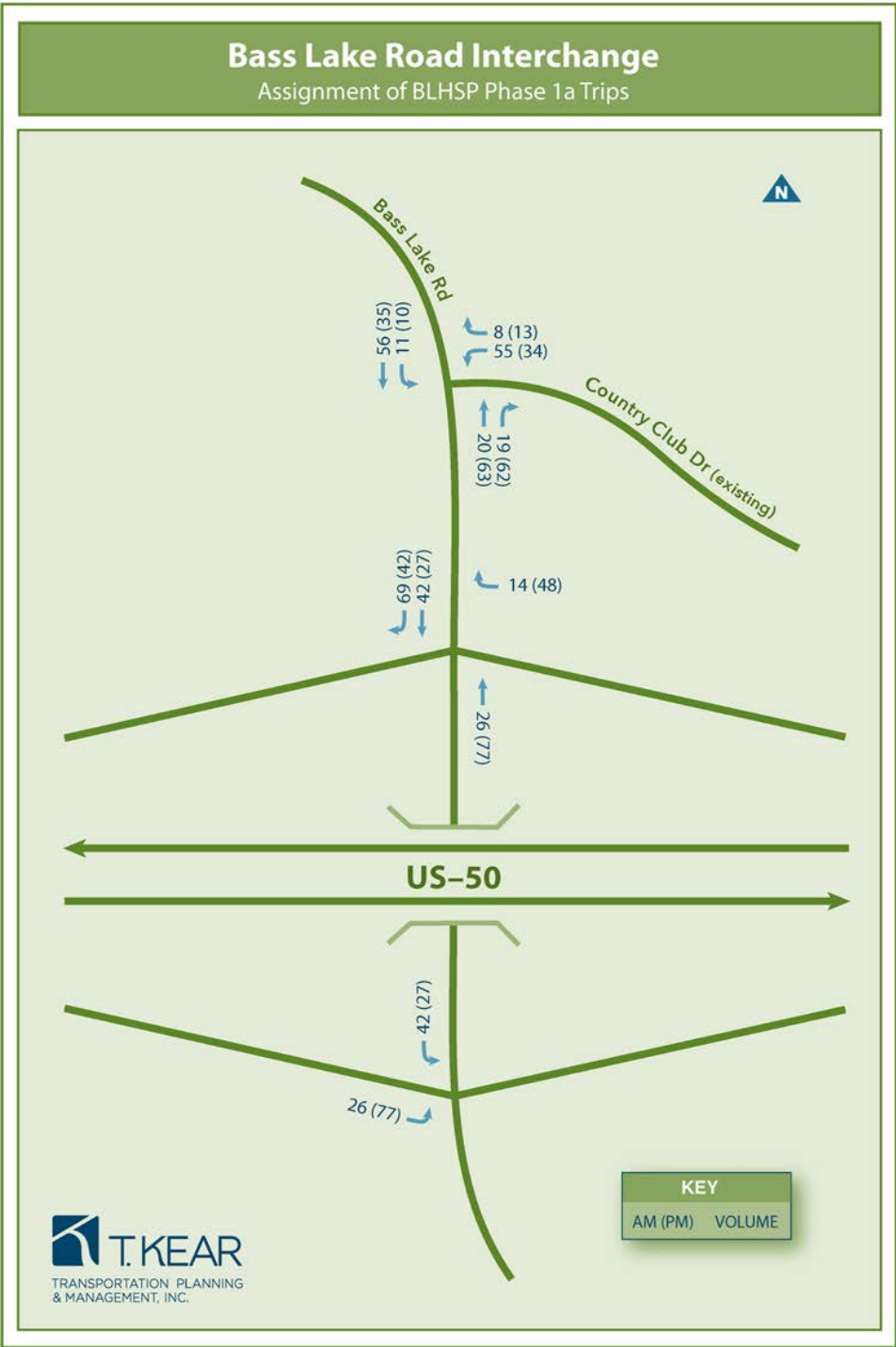


Figure 5. Assignment of BLHSP Phase 1a Trips

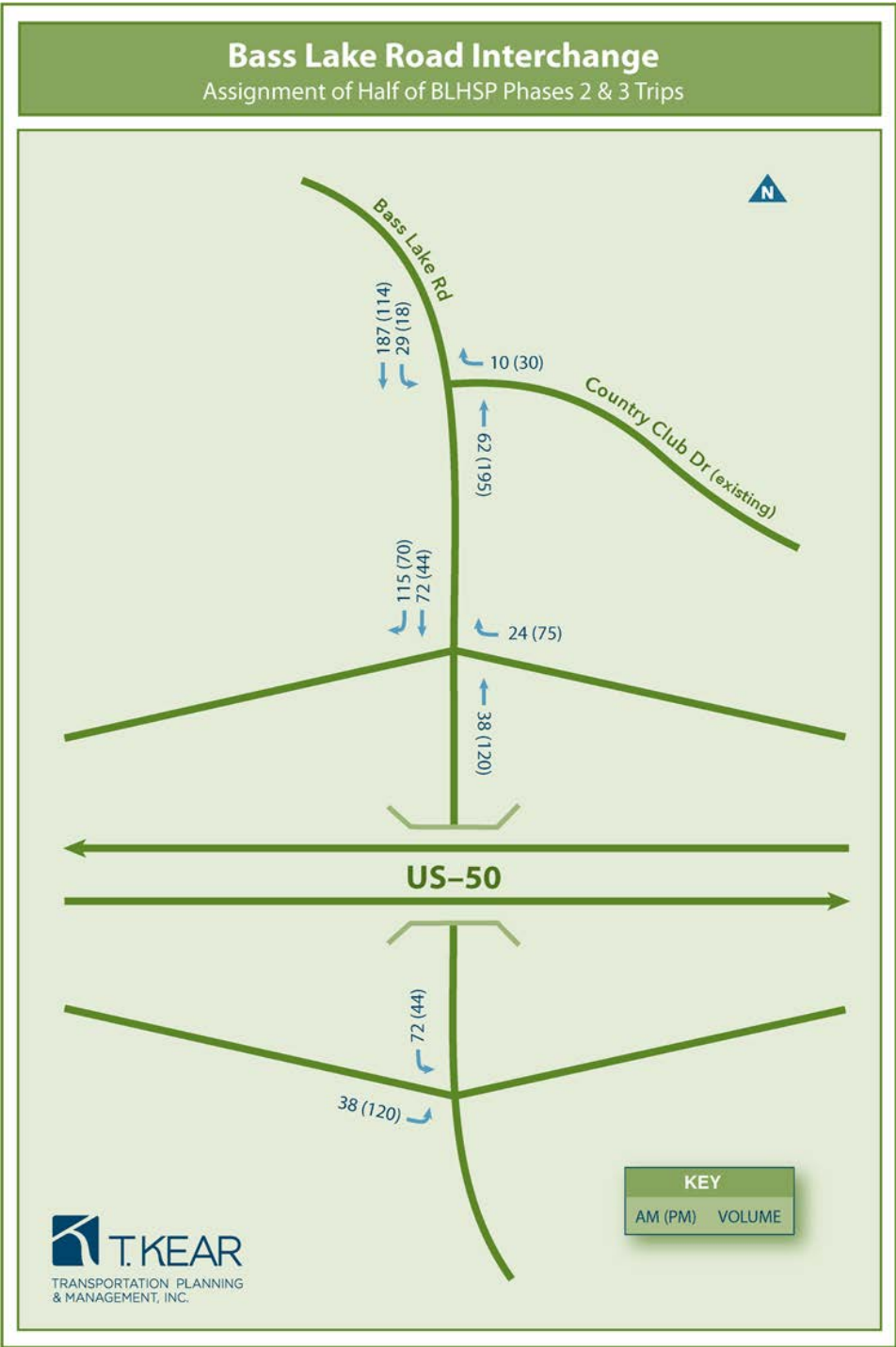


Figure 6. Assignment of Trips from 534 Homes in Phase 2 and 3 of the BLHSP

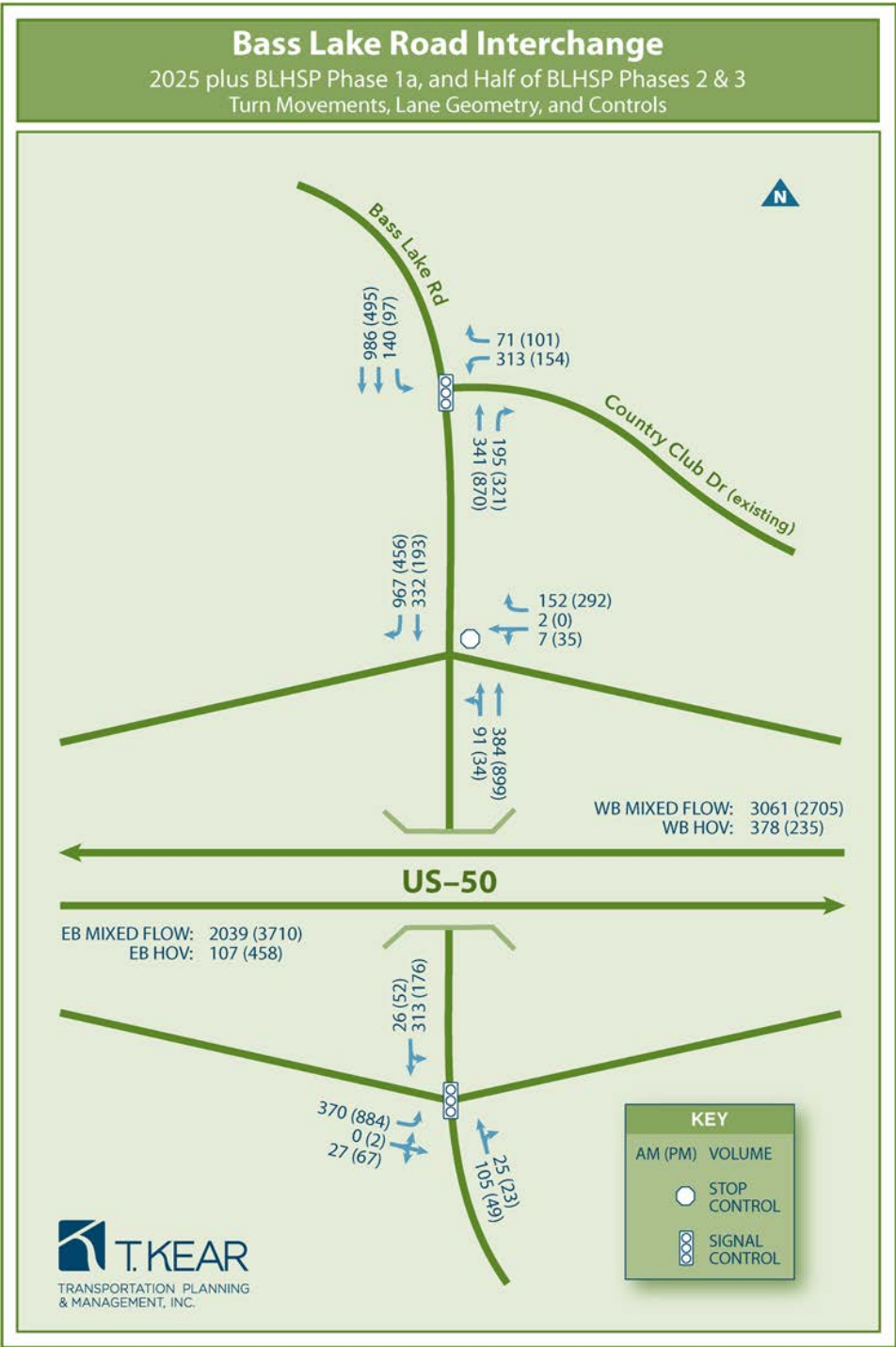


Figure 7. Ten year (2025) Plus Project Turning Movements

Intersection Level-of Service and Queuing

SimTraffic microsimulation was used to evaluate intersection and movement delay at the three study intersections and estimate queueing. Ten simulations were prepared of both the AM and PM peak-hours. Average delays reported are the average from all ten runs. 95% queues are the 95th percentile based on all ten runs.

Estimated delay and level-of-service are presented in **Table 2** for both with and without project scenarios. AM and PM peak hour queues are presented in **Figure 8** and **Figure 9**, respectively. With the proposed improvements, all intersections are expected to operate at level-of-service C or better. Queues are anticipated to remain within the available storage pockets, and do not impact the US 50 mainline. The eastbound off-ramp intersection will meet the peak-hour warrant by 2025, but signalization is not necessary to maintain acceptable level-of-service or manage queueing. SimTraffic result and signal warrant worksheets are attached for reference.

Table 2. Intersection Delay and Level-of-sService with and without Interchange Improvements and BLHSP Development

Intersection	<u>AM 2025, No Project</u>		<u>PM 2025, No Project</u>		<u>AM 2025 With Project</u>		<u>PM 2025 With Project</u>	
	Delay (Seconds)	LOS	Delay (Seconds)	LOS	Delay (Seconds)	LOS	Delay (Seconds)	LOS
3. Bass Lake Rd. & (Existing) Country Club Dr. *	333 (1470.1)	F (F)	290.9 (1500.8)	F (F)	18.3	B	15.3	B
4. Bass Lake Rd. & US 50 WB Ramps*	5.3 (5.4)	A (A)	164.1 (973.9)	F (F)	4.9 (15.7)	A (C)	4.8 (25.6)	A (C)
5. Bass Lake Rd. & US 50 EB Ramps*	7.7 (11.6)	A (B)	47.2 (58.5)	E (F)	16.4	B	16.0	B

* Two way stop controlled intersections – Intersection average delay and level-of-service is reported first, followed by the delay and level-of-service for the worst minor street approach movement in parentheses.

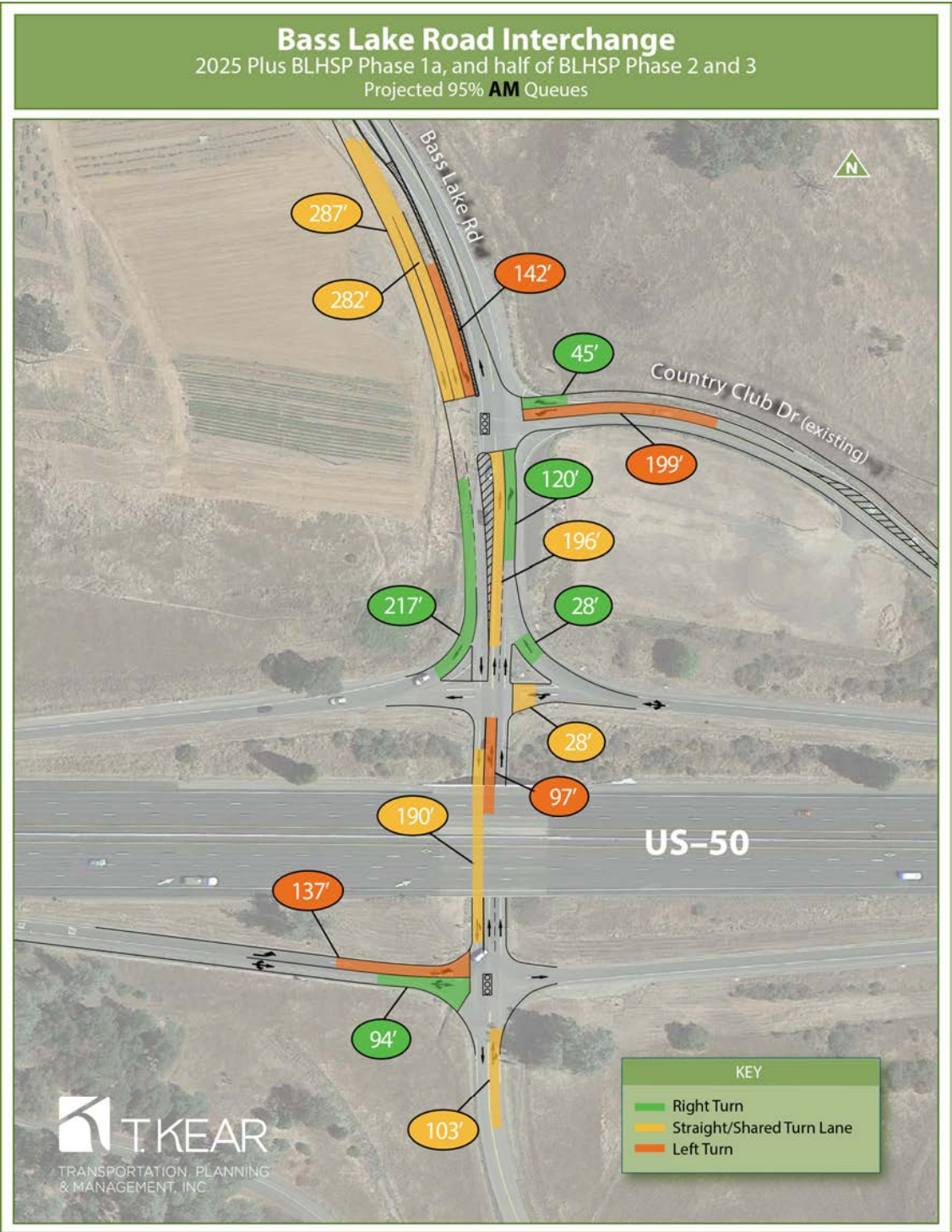


Figure 8. Bass Lake Road Interchange 2025 AM Peak-hour Queues with Interchange Improvements and BLHSP Development

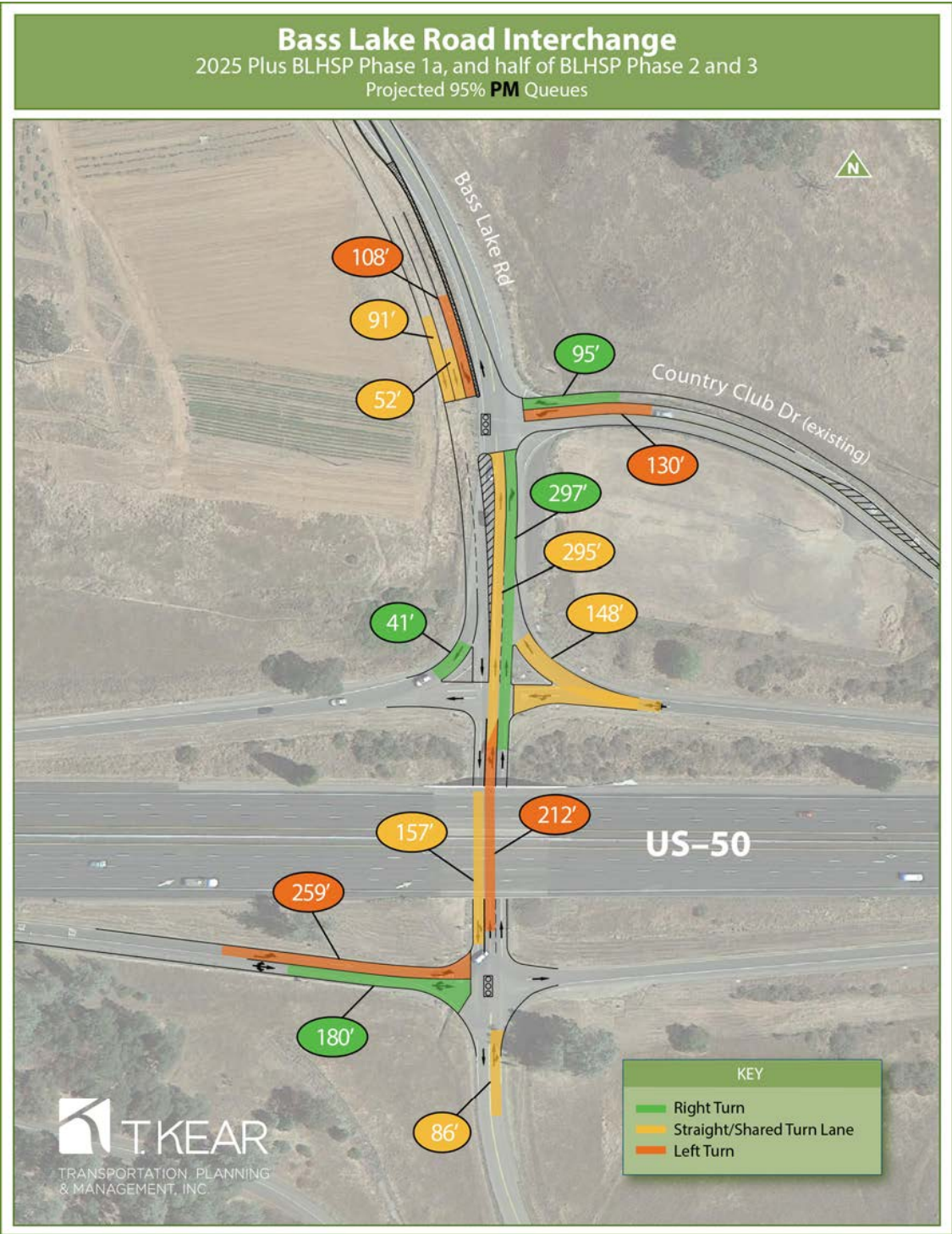


Figure 9. Bass Lake Road Interchange 2025 PM Peak-hour Queues with Interchange Improvements and BLHSP Development

5.0: Freeways

Traffic counts from the Town Center Apartments TIA, coupled with growth forecasts from the travel demand model as previously described, were utilized to forecast ten-year (2025) US 50 mainline volumes. Counts were collected in Late August 2013, midweek, after schools had started for the year. Total flow in each direction was documented along with peak hour factors, truck percentages, truck passenger car equivalencies, and HOV lane volumes. Caltrans previously reviewed these US 50 traffic counts and associated data on trucks and HOV, concurring with the results¹⁰. Traffic forecasts for US 50 in the body of the BLHSP Phase 1a TIA were based on data from the PeMS system because the Town Center Apartments study had not been approved by Caltrans at that time. Forecasts based on the observed counts are lower than those that were based on the PeMS loop data. However the loop data on US 50 in the study area is not considered reliable.

Level-of Service

Merge and Diverge segments at the Bass Lake Interchange for the ten-year (2025) plus project scenario were analyzed using HCM 2010 methods within the HCS software package. Results are shown in **Table 3**. Study segments are anticipated to operate acceptably at level-of-service D or better. HCS calculation sheets are provided in the attachments for reference.

Table 3. US 50 Segment Density and Level-of-Service with Interchange Improvements and BLHSP Development

Freeway	Segment	Facility Type	2025 W/ Improvements (Density/LOS)	
			AM	PM
US 50 EB	Bass Lake Rd off-ramp	Diverge	18.1/B	28.1/D
	Bass Lake Rd on-ramp	Merge	24.7/C	34.2/D
US 50 WB	Bass Lake Rd off-ramp	Diverge	29.7/D	27.7/C
	Bass Lake Rd on-ramp	Merge	34.3/D	26.6/C

Ramp Metering

The review of ramp metering warrants¹¹ conducted as part of the Bass Lake Hills Phase 1a TIA was reevaluated at continues to indicated that the interchange dose not meet the warrants for an isolated ramp meter deployment. As described earlier, ramp meeting at the Bass Lake Road interchange is part of Caltrans District 3 strategy to manage US 50¹². However, this location is not identified as a priority location for ramp meters. The Transportation Concept Report (TCR) and

¹⁰ June 25, 2014 letter from Marlo Tinney (Caltrans District 3) to Romel Pabalinal (El Dorado County) concurring with findings of the El Dorado Hills Apartments Initial Study/Mitigated Negative Declaration.

¹¹ (2013) Warrants for the Installation and Use of Technology Devices for Transportation Operations and Maintenance, ENTERPRISE Pooled Fund Study, <http://enterprise.prog.org/itswarrants/rampmeters.html>.

¹² Caltrans (2013) *Ramp Metering Development Plan*

Corridor System Management Plan (CSMP)¹³ group ramp metering with intelligent transportation system (ITS) measures, and lists the first phase of the Bass Lake Road interchange replacement project in the Caltrans list of projects to implement ITS measures.

¹³ Caltrans (2014) *Transportation Concept Report and Corridor System Management Plan, United States Rout 50, District 3*.

6.0: Discussion

Without improvements at the Bass Lake Road interchange, the interchange will have deficient traffic operations by 2025 during the PM peak-hour. The following deficiencies are anticipated to occur without development of any homes in the GLHSP area.

- Ramp intersections are expected to operate at level-of-service F.
- Queues are expected to spillback onto the US 50 mainline.

Proposed improvements consist of:

- Addition of a 240', or longer, left turn pocket to the eastbound off-ramp.
- Restriping Bass Lake Road between the eastbound and westbound ramps to include two northbound lanes.
- Widening Bass Lake Road between the westbound ramps and Country Club Drive to include a northbound trap lane accessing Country Club Drive and a southbound trap lane accessing westbound US 50.
- Signalization of the eastbound ramp intersection.

The proposed improvements would be constructed as a Tentative Map condition on the BLHSP Phase 1a projects as partial implementation of mitigation measure J01 from the 1992 EIR and 1995 EIR addendum. With these improvements:

- Ramp intersections and the Bass Lake Road/Country Club Drive intersection all operate at level-of-service D or better during both the AM and PM peak-hours.
- The 95th percentile queues on the ramps do not impact the US 50 mainline.
- Merge and diverge segment level-of Service is D or better at the Bass Lake Road interchange during both the AM and PM peak hours.

Ramp metering at this location is anticipated to be implemented with the first phase of the planned reconstruction of the interchange sometime before 2035. The location does not meet the warrants for isolated ramp metering, and it is not necessary to implement ramp metering at this time.

During the afternoon peak hour, 95th percentile queues on the northbound approach to the Bass Lake Road/Country Club Drive intersection are anticipated to extend back through the westbound ramp intersection. The simulation tools used account for this blockage in the estimated delay and queueing on the westbound off-ramp and no level-of-service or queueing issues are created. It would be necessary to move the existing Bass Lake Road/Country Club Drive intersection approximately 200 feet north to make sure that the intersection operated independently of the westbound ramp intersection (**Figure 10** and **Figure 11**). It is not necessary to relocate Country Club Drive to achieve acceptable level-of-service and queue behavior at the Bass Lake Road Interchange.

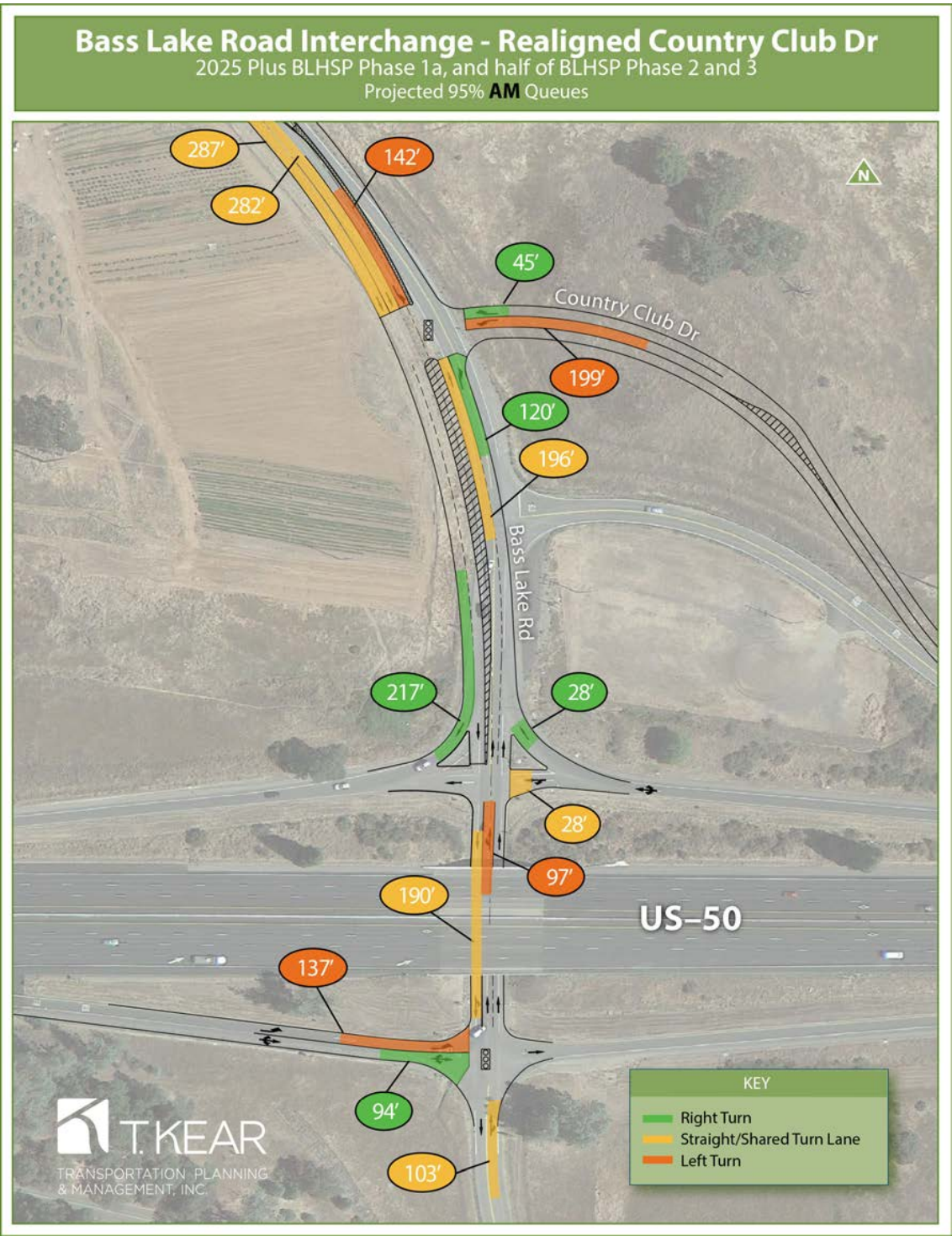


Figure 10. Bass Lake Road Interchange 2025 AM Peak-hour Queues with Interchange Improvements and Relocation of Country Club Drive

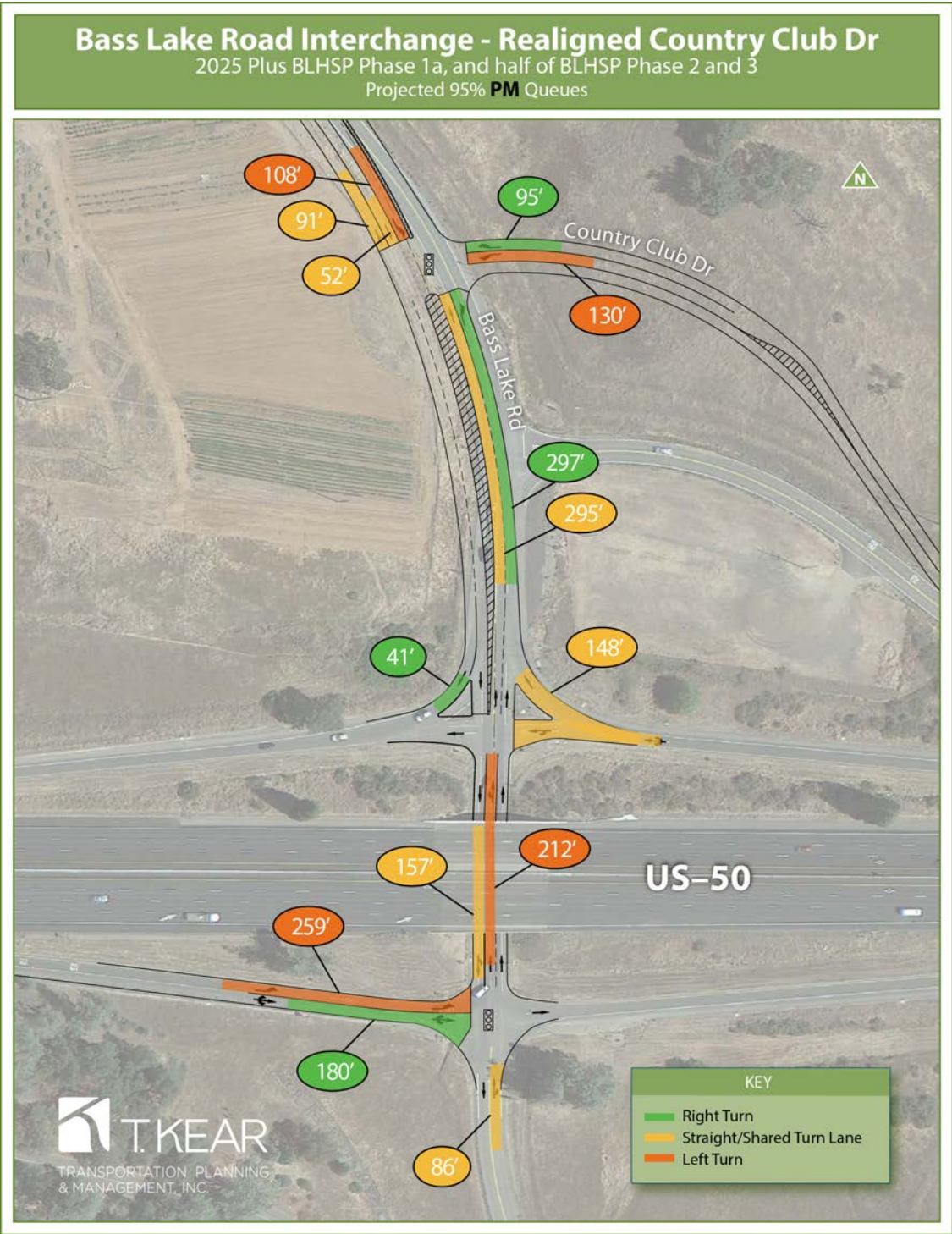


Figure 11. Bass Lake Road Interchange 2025 PM Peak-hour Queues with Interchange Improvements and Relocation of Country Club Drive

Attachments:

- SimTraffic results
- Signal Warrant Worksheet
- HCS Results

3: Bass Lake Road & Country Club Drive Performance by approach

Approach	WB	NB	SB	All
Denied Del/Veh (s)	0.3	0.0	0.8	0.5
Total Del/Veh (s)	1470.1	6.0	17.9	333.0
Stop Del/Veh (s)	1479.1	3.2	4.5	327.3

4: Bass Lake Road & westbound ramp Performance by approach

Approach	WB	NB	SB	All
Denied Del/Veh (s)	0.2	0.0	0.0	0.0
Total Del/Veh (s)	5.4	2.7	6.5	5.3
Stop Del/Veh (s)	0.7	1.0	0.5	0.6

5: Bass Lake Road & eastbound ramp Performance by approach

Approach	EB	NB	SB	All
Denied Del/Veh (s)	0.3	0.2	0.0	0.2
Total Del/Veh (s)	11.6	1.4	4.8	7.7
Stop Del/Veh (s)	7.0	0.0	0.6	3.8

Total Network Performance

Denied Del/Veh (s)	0.5
Total Del/Veh (s)	309.9
Stop Del/Veh (s)	295.7

Queuing and Blocking Report
2025 AM Peak, No Project

11/12/2014

Intersection: 3: Bass Lake Road & Country Club Drive

Movement	WB	NB	SB
Directions Served	LR	UTR	LT
Maximum Queue (ft)	5949	26	452
Average Queue (ft)	3547	3	147
95th Queue (ft)	6044	15	349
Link Distance (ft)	6839	245	4409
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 4: Bass Lake Road & westbound ramp

Movement	WB	NB	SB
Directions Served	LTR	LT	TR
Maximum Queue (ft)	54	88	170
Average Queue (ft)	7	29	28
95th Queue (ft)	32	76	110
Link Distance (ft)	6644	284	245
Upstream Blk Time (%)			0
Queuing Penalty (veh)			0
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 5: Bass Lake Road & eastbound ramp

Movement	EB	NB	SB
Directions Served	LTR	TR	LT
Maximum Queue (ft)	158	2	59
Average Queue (ft)	75	0	19
95th Queue (ft)	124	2	52
Link Distance (ft)	3758	1720	284
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Network Summary

Network wide Queuing Penalty: 0

3: Bass Lake Road & Country Club Drive Performance by approach

Approach	WB	NB	SB	All
Denied Del/Veh (s)	0.2	0.0	0.3	0.1
Total Del/Veh (s)	1500.8	22.0	156.2	290.9
Stop Del/Veh (s)	1504.0	19.5	141.1	285.5

4: Bass Lake Road & westbound ramp Performance by approach

Approach	WB	NB	SB	All
Denied Del/Veh (s)	0.2	0.0	0.0	0.0
Total Del/Veh (s)	973.9	1.8	6.5	164.1
Stop Del/Veh (s)	976.7	0.5	0.2	162.0

5: Bass Lake Road & eastbound ramp Performance by approach

Approach	EB	NB	SB	All
Denied Del/Veh (s)	0.6	0.1	0.0	0.5
Total Del/Veh (s)	58.5	1.9	4.3	47.2
Stop Del/Veh (s)	52.8	0.0	0.6	42.1

Total Network Performance

Denied Del/Veh (s)			0.4	
Total Del/Veh (s)			392.5	
Stop Del/Veh (s)			379.1	

Queuing and Blocking Report
2025 PM Peak, No Project

11/12/2014

Intersection: 3: Bass Lake Road & Country Club Drive

Movement	WB	NB	SB
Directions Served	LR	UTR	LT
Maximum Queue (ft)	3630	29	1488
Average Queue (ft)	2194	4	575
95th Queue (ft)	3896	18	1504
Link Distance (ft)	6839	245	4409
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 4: Bass Lake Road & westbound ramp

Movement	WB	NB	SB
Directions Served	LTR	LT	TR
Maximum Queue (ft)	2452	89	58
Average Queue (ft)	1486	9	5
95th Queue (ft)	2654	46	33
Link Distance (ft)	6644	284	245
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 5: Bass Lake Road & eastbound ramp

Movement	EB	SB
Directions Served	LTR	LT
Maximum Queue (ft)	775	46
Average Queue (ft)	402	8
95th Queue (ft)	758	32
Link Distance (ft)	3758	284
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Network Summary

Network wide Queuing Penalty: 0

SimTraffic Performance Report

2035 AM Preferred Mitigation, BLHSP Phase 1, 1a, and half of Phase 2 & 3

11/12/2014

1: Bass Lake Road & Country Club Drive Performance by movement

Movement	WBL	WBR	NBT	NBR	SBL	SBT	All
Denied Del/Veh (s)	3.6	0.8	0.0	0.0	3.3	3.0	2.3
Total Del/Veh (s)	24.5	4.8	20.1	6.3	27.7	17.4	18.3
Stop Del/Veh (s)	19.6	3.8	14.1	4.8	20.2	6.3	10.5

2: Bass Lake Road & westbound ramp Performance by movement

Movement	WBL	WBT	WBR	NBL	NBT	SBT	SBR	All
Denied Del/Veh (s)	0.1	0.2	0.2	0.0	0.0	0.0	0.0	0.0
Total Del/Veh (s)	13.9	15.7	3.4	4.8	3.0	2.0	6.8	4.9
Stop Del/Veh (s)	11.0	8.4	0.0	2.0	0.6	0.1	1.2	0.9

3: Bass Lake Road & eastbound ramp Performance by movement

Movement	EBL	EBR	NBT	NBR	SBL	SBT	All
Denied Del/Veh (s)	2.6	0.7	0.2	0.2	0.0	0.0	1.1
Total Del/Veh (s)	12.9	5.4	25.9	12.1	18.2	20.9	16.4
Stop Del/Veh (s)	9.9	3.8	18.9	9.7	14.9	14.5	12.8

Total Network Performance

Movement	EBL	EBR	NBT	NBR	SBL	SBT	All
Denied Del/Veh (s)							2.5
Total Del/Veh (s)							30.9
Stop Del/Veh (s)							15.8

Queuing and Blocking Report

2035 AM Preferred Mitigation, BLHSP Phase 1, 1a, and half of Phase 2 & 3

11/12/2014

Intersection: 1: Bass Lake Road & Country Club Drive

Movement	WB	WB	NB	NB	SB	SB	SB
Directions Served	L	R	T	R	L	T	T
Maximum Queue (ft)	240	57	222	215	185	419	290
Average Queue (ft)	127	22	118	52	83	83	171
95th Queue (ft)	199	45	196	120	142	282	287
Link Distance (ft)		1297	232	232		1368	
Upstream Blk Time (%)			0	0			
Queuing Penalty (veh)			1	0			
Storage Bay Dist (ft)	300				200		200
Storage Blk Time (%)	0				0	0	6
Queuing Penalty (veh)	0				0	0	40

Intersection: 2: Bass Lake Road & westbound ramp

Movement	WB	NB	NB	SB	SB
Directions Served	LTR	LT	T	T	R
Maximum Queue (ft)	38	139	9	6	237
Average Queue (ft)	7	34	0	0	108
95th Queue (ft)	28	97	5	4	217
Link Distance (ft)	1252	275	275	232	232
Upstream Blk Time (%)					0
Queuing Penalty (veh)					2
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 3: Bass Lake Road & eastbound ramp

Movement	EB	EB	NB	SB
Directions Served	L	LTR	TR	LT
Maximum Queue (ft)	163	119	132	221
Average Queue (ft)	77	47	59	120
95th Queue (ft)	137	94	103	190
Link Distance (ft)		895	734	275
Upstream Blk Time (%)				0
Queuing Penalty (veh)				0
Storage Bay Dist (ft)	240			
Storage Blk Time (%)				
Queuing Penalty (veh)				

Network Summary

Network wide Queuing Penalty: 44

SimTraffic Performance Report

2025 PM Preferred Mitigation, BLHSP Phase 1, 1a, and half of Phase 2 & 3

11/12/2014

1: Bass Lake Road & Country Club Drive Performance by movement

Movement	WBL	WBR	NBT	NBR	SBL	SBT	All
Denied Del/Veh (s)	3.7	0.5	0.0	0.0	3.1	2.3	1.0
Total Del/Veh (s)	29.7	17.6	18.7	7.5	38.9	4.7	15.3
Stop Del/Veh (s)	26.0	16.4	11.5	5.6	35.9	1.2	10.6

2: Bass Lake Road & westbound ramp Performance by movement

Movement	WBL	WBR	NBL	NBT	SBT	SBR	All
Denied Del/Veh (s)	0.3	0.3	0.0	0.0	0.0	0.0	0.0
Total Del/Veh (s)	25.6	6.1	6.6	5.3	1.4	2.7	4.8
Stop Del/Veh (s)	20.5	1.5	3.4	2.0	0.1	0.1	1.7

3: Bass Lake Road & eastbound ramp Performance by movement

Movement	EBL	EBT	EBR	NBT	NBR	SBL	SBT	All
Denied Del/Veh (s)	2.8	2.9	1.7	0.1	0.1	0.0	0.0	2.0
Total Del/Veh (s)	13.5	18.7	7.6	30.9	11.8	24.4	24.7	16.0
Stop Del/Veh (s)	7.6	5.9	3.7	24.1	10.0	21.6	18.8	10.6

Total Network Performance

Movement	WBL	WBR	NBL	NBT	SBT	SBR	EBL	EBT	EBR	All
Denied Del/Veh (s)										2.1
Total Del/Veh (s)										30.2
Stop Del/Veh (s)										17.2

Queuing and Blocking Report

2025 PM Preferred Mitigation, BLHSP Phase 1, 1a, and half of Phase 2 & 3

11/12/2014

Intersection: 1: Bass Lake Road & Country Club Drive

Movement	WB	WB	NB	NB	SB	SB	SB
Directions Served	L	R	T	R	L	T	T
Maximum Queue (ft)	158	114	257	320	127	65	114
Average Queue (ft)	77	49	204	130	60	18	42
95th Queue (ft)	130	95	295	297	108	52	91
Link Distance (ft)		1297	232	232		1368	
Upstream Blk Time (%)			9	4			
Queuing Penalty (veh)			56	26			
Storage Bay Dist (ft)	300				200		200
Storage Blk Time (%)					0		
Queuing Penalty (veh)					0		

Intersection: 2: Bass Lake Road & westbound ramp

Movement	WB	NB	NB	SB	SB
Directions Served	LTR	LT	T	T	R
Maximum Queue (ft)	220	272	52	12	74
Average Queue (ft)	48	74	3	1	7
95th Queue (ft)	148	212	24	12	41
Link Distance (ft)	1252	275	275	232	232
Upstream Blk Time (%)		1			
Queuing Penalty (veh)		3			
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

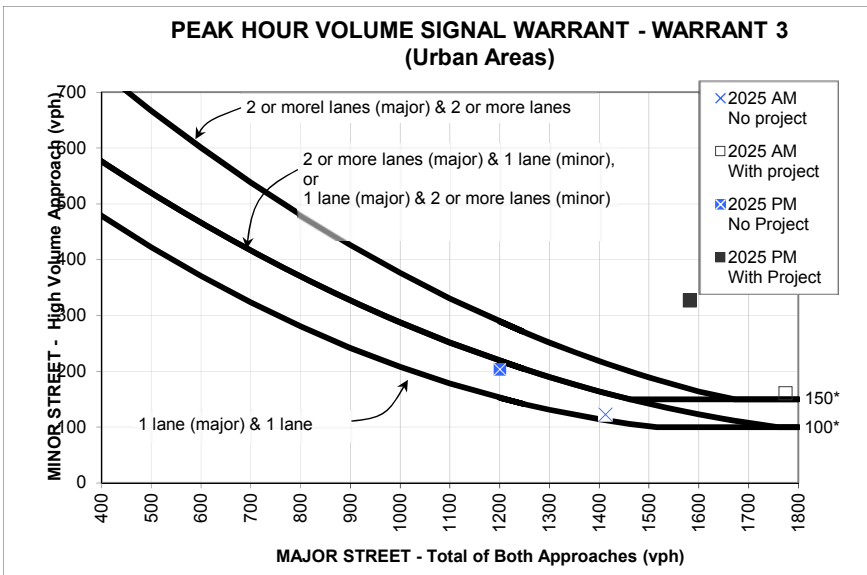
Intersection: 3: Bass Lake Road & eastbound ramp

Movement	EB	EB	NB	SB
Directions Served	L	LTR	TR	LT
Maximum Queue (ft)	291	237	102	172
Average Queue (ft)	159	91	45	100
95th Queue (ft)	259	180	86	157
Link Distance (ft)		895	734	275
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)	240			
Storage Blk Time (%)	1	0		
Queuing Penalty (veh)	6	1		

Network Summary

Network wide Queuing Penalty: 91

Bass Lake Rd. and WB Ramp



* NOTE: 150 vph applies as the lower threshold volume for a minor street approach with 2 or more lanes and 100 vph applies as the lower threshold volume for a minor street approach with 1 lane.

WARRANT 3 - Part B (Peak Hour Volume)

		Approach Lanes		2025 AM No project	2025 AM With project		
		2 or One	More				
Major Street - Both Approaches	Bass Lake Rd.	x		1412	1774		
Minor Street - Highest Approach	WB Ramp		x	123	161		
Warrant Met?				yes	yes		

		Approach Lanes		2025 PM No Project	2025 PM With Project		
		2 or One	More				
Major Street - Both Approaches	Bass Lake Rd.	x		1200	1582		
Minor Street - Highest Approach	WB Ramp		x	204	327		
Part B Satisfied?				yes	yes		

Condition Met? AM (PM)

WARRANT 3 - Part A (Peak Hour Delay)

The total stopped time delay experienced by the traffic on one minor-street approach (one direction only) controlled by a STOP sign equals or exceeds: 4 vehicle-hours for a one-lane approach or 5 vehicle-hours for a two-lane approach.	Approach Lanes	Number of Approaches	2025 No Project	2025 With Project		
	2		no (yes)	no (no)		
The volume on the same minor-street approach (one direction only) equals or exceeds 100 vehicles per hour for one moving lane of traffic or 150 vehicles per hour for two moving lanes.	1		yes (yes)	yes (yes)		
The total entering volume serviced during the hour equals or exceeds 650 vehicles per hour for intersections with three approaches or 800 vehicles per hour for intersections with four or more approaches.		3	yes (yes)	yes (yes)		
Part A satisfied if all 3 conditions are met?			no (yes)	no (no)		

WARRANT 3 - Part A or Part B must be satisfied

Part A or Part B Satisfied during AM	yes	yes		
Part A or Part B Satisfied during PM	yes	yes		

RAMPS AND RAMP JUNCTIONS WORKSHEET									
General Information					Site Information				
Analyst		Tom Kear		Freeway/Dir of Travel		US 50/Eastbound			
Agency or Company		T. Kear Transportation		Junction		El Dorado County			
Date Performed		11/5/2014		Jurisdiction		Bass Lake Road			
Analysis Time Period		AM		Analysis Year		2025			
Project Description EB Bass Lake Rd, AM, diverge with BLHSP Phases 1,1a,+ 534 DU									
Inputs									
Upstream Adj Ramp <input type="checkbox"/> Yes <input type="checkbox"/> On <input checked="" type="checkbox"/> No <input type="checkbox"/> Off $L_{up} =$ ft $V_u =$ veh/h		Freeway Number of Lanes, N 3				Downstream Adj Ramp <input type="checkbox"/> Yes <input type="checkbox"/> On <input checked="" type="checkbox"/> No <input type="checkbox"/> Off $L_{down} =$ ft $V_D =$ veh/h			
		Ramp Number of Lanes, N 1							
		Acceleration Lane Length, L_A							
		Deceleration Lane Length L_D 500							
		Freeway Volume, V_F 2436							
		Ramp Volume, V_R 397							
Freeway Free-Flow Speed, S_{FF} 65.0									
Ramp Free-Flow Speed, S_{FR} 35.0									
Conversion to pc/h Under Base Conditions									
(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	$v = V/PHF \times f_{HV} \times f_p$	
Freeway	2436	0.87	Level	4	0	0.943	1.00	2968	
Ramp	397	0.87	Level	4	0	0.943	1.00	484	
UpStream									
DownStream									
Merge Areas					Diverge Areas				
Estimation of v_{12}					Estimation of v_{12}				
$V_{12} = V_F (P_{FM})$ (Equation 13-6 or 13-7) $L_{EQ} =$ using Equation (Exhibit 13-6) $P_{FM} =$ pc/h $V_{12} =$ pc/h (Equation 13-14 or 13-17) V_3 or V_{av34} pc/h Is V_3 or $V_{av34} > 2,700$ pc/h? <input type="checkbox"/> Yes <input type="checkbox"/> No Is V_3 or $V_{av34} > 1.5 \times V_{12}/2$ <input type="checkbox"/> Yes <input type="checkbox"/> No If Yes, $V_{12a} =$ pc/h (Equation 13-16, 13-18, or 13-19)					$V_{12} = V_R + (V_F - V_R)P_{FD}$ (Equation 13-12 or 13-13) $L_{EQ} =$ 0.664 using Equation (Exhibit 13-7) $P_{FD} =$ 2132 pc/h $V_{12} =$ 836 pc/h (Equation 13-14 or 13-17) V_3 or V_{av34} 836 pc/h Is V_3 or $V_{av34} > 2,700$ pc/h? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Is V_3 or $V_{av34} > 1.5 \times V_{12}/2$ <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If Yes, $V_{12a} =$ pc/h (Equation 13-16, 13-18, or 13-19)				
Capacity Checks					Capacity Checks				
	Actual	Capacity		LOS F?		Actual	Capacity		LOS F?
V_{FO}		Exhibit 13-8			V_F	2968	Exhibit 13-8	7050	No
					$V_{FO} = V_F - V_R$	2484	Exhibit 13-8	7050	No
					V_R	484	Exhibit 13-10	2000	No
Flow Entering Merge Influence Area					Flow Entering Diverge Influence Area				
	Actual	Max Desirable		Violation?		Actual	Max Desirable		Violation?
V_{R12}		Exhibit 13-8			V_{12}	2132	Exhibit 13-8	4400:All	No
Level of Service Determination (if not F)					Level of Service Determination (if not F)				
$D_R = 5.475 + 0.00734 v_R + 0.0078 V_{12} - 0.00627 L_A$ $D_R =$ (pc/mi/ln) LOS = (Exhibit 13-2)					$D_R = 4.252 + 0.0086 V_{12} - 0.009 L_D$ $D_R =$ 18.1 (pc/mi/ln) LOS = B (Exhibit 13-2)				
Speed Determination					Speed Determination				
$M_S =$ (Exhibit 13-11) $S_R =$ mph (Exhibit 13-11) $S_0 =$ mph (Exhibit 13-11) $S =$ mph (Exhibit 13-13)					$D_S =$ 0.472 (Exhibit 13-12) $S_R =$ 54.2 mph (Exhibit 13-12) $S_0 =$ 71.3 mph (Exhibit 13-12) $S =$ 58.1 mph (Exhibit 13-13)				

RAMPS AND RAMP JUNCTIONS WORKSHEET									
General Information					Site Information				
Analyst		Tom Kear			Freeway/Dir of Travel		US 50/Eastbound		
Agency or Company		T. Kear Transportation			Junction		Bass Lake Road		
Date Performed		11/4/2014			Jurisdiction		El Dorado County		
Analysis Time Period		AM			Analysis Year		2025		
Project Description EB Bass Lake Rd, AM, merge With BLHSP Phase 1, 1a, + 534 DU									
Inputs									
Upstream Adj Ramp <input type="checkbox"/> Yes <input type="checkbox"/> On <input checked="" type="checkbox"/> No <input type="checkbox"/> Off L _{up} = ft V _u = veh/h		Freeway Number of Lanes, N 2				Downstream Adj Ramp <input type="checkbox"/> Yes <input type="checkbox"/> On <input checked="" type="checkbox"/> No <input type="checkbox"/> Off L _{down} = ft V _D = veh/h			
		Ramp Number of Lanes, N 1							
		Acceleration Lane Length, L _A 500							
		Deceleration Lane Length L _D							
		Freeway Volume, V _F 2039							
		Ramp Volume, V _R 338							
		Freeway Free-Flow Speed, S _{FF} 65.0							
		Ramp Free-Flow Speed, S _{FR} 35.0							
Conversion to pc/h Under Base Conditions									
(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f _{HV}	f _p	v = V/PHF x f _{HV} x f _p	
Freeway	2039	0.87	Rolling	4	0	0.943	1.00	2484	
Ramp	338	0.87	Mountainous	4	0	0.943	1.00	412	
UpStream									
DownStream									
Merge Areas					Diverge Areas				
Estimation of v₁₂					Estimation of v₁₂				
$V_{12} = V_F (P_{FM})$ L _{EQ} = (Equation 13-6 or 13-7) P _{FM} = 1.000 using Equation (Exhibit 13-6) V ₁₂ = 2484 pc/h V ₃ or V _{av34} 0 pc/h (Equation 13-14 or 13-17) Is V ₃ or V _{av34} > 2,700 pc/h? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Is V ₃ or V _{av34} > 1.5 * V ₁₂ /2 <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If Yes, V _{12a} = pc/h (Equation 13-16, 13-18, or 13-19)					$V_{12} = V_R + (V_F - V_R)P_{FD}$ L _{EQ} = (Equation 13-12 or 13-13) P _{FD} = using Equation (Exhibit 13-7) V ₁₂ = pc/h V ₃ or V _{av34} pc/h (Equation 13-14 or 13-17) Is V ₃ or V _{av34} > 2,700 pc/h? <input type="checkbox"/> Yes <input type="checkbox"/> No Is V ₃ or V _{av34} > 1.5 * V ₁₂ /2 <input type="checkbox"/> Yes <input type="checkbox"/> No If Yes, V _{12a} = pc/h (Equation 13-16, 13-18, or 13-19)				
Capacity Checks					Capacity Checks				
	Actual	Capacity		LOS F?		Actual	Capacity		LOS F?
V _{FO}	2896	Exhibit 13-8		No	V _F		Exhibit 13-8		
					V _{FO} = V _F - V _R		Exhibit 13-8		
					V _R		Exhibit 13-10		
Flow Entering Merge Influence Area					Flow Entering Diverge Influence Area				
	Actual	Max Desirable		Violation?		Actual	Max Desirable		Violation?
V _{R12}	2896	Exhibit 13-8	4600:All	No	V ₁₂		Exhibit 13-8		
Level of Service Determination (if not F)					Level of Service Determination (if not F)				
$D_R = 5.475 + 0.00734 V_R + 0.0078 V_{12} - 0.00627 L_A$ D _R = 24.7 (pc/mi/ln) LOS = C (Exhibit 13-2)					$D_R = 4.252 + 0.0086 V_{12} - 0.009 L_D$ D _R = (pc/mi/ln) LOS = (Exhibit 13-2)				
Speed Determination					Speed Determination				
M _S = 0.357 (Exhibit 13-11) S _R = 56.8 mph (Exhibit 13-11) S ₀ = N/A mph (Exhibit 13-11) S = 56.8 mph (Exhibit 13-13)					D _S = (Exhibit 13-12) S _R = mph (Exhibit 13-12) S ₀ = mph (Exhibit 13-12) S = mph (Exhibit 13-13)				

RAMPS AND RAMP JUNCTIONS WORKSHEET									
General Information					Site Information				
Analyst		Tom Kear		Freeway/Dir of Travel		US 50/Eastbound			
Agency or Company		T. Kear Transportation		Junction		El Dorado County			
Date Performed		11/5/2014		Jurisdiction		Bass Lake Road			
Analysis Time Period		PM		Analysis Year		2025			
Project Description EB Bass Lake Rd, PM, diverge with BLHSP Phases 1,1a,+ 534 DU									
Inputs									
Upstream Adj Ramp <input type="checkbox"/> Yes <input type="checkbox"/> On <input checked="" type="checkbox"/> No <input type="checkbox"/> Off $L_{up} =$ ft $V_u =$ veh/h		Freeway Number of Lanes, N 3				Downstream Adj Ramp <input type="checkbox"/> Yes <input type="checkbox"/> On <input checked="" type="checkbox"/> No <input type="checkbox"/> Off $L_{down} =$ ft $V_D =$ veh/h			
		Ramp Number of Lanes, N 1							
		Acceleration Lane Length, L_A							
		Deceleration Lane Length L_D 500							
		Freeway Volume, V_F 4663							
		Ramp Volume, V_R 953							
Freeway Free-Flow Speed, S_{FF} 65.0									
Ramp Free-Flow Speed, S_{FR} 35.0									
Conversion to pc/h Under Base Conditions									
(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	$v = V/PHF \times f_{HV} \times f_p$	
Freeway	4663	0.97	Level	1	0	0.985	1.00	4879	
Ramp	953	0.97	Level	1	0	0.985	1.00	997	
UpStream									
DownStream									
Merge Areas					Diverge Areas				
Estimation of v_{12}					Estimation of v_{12}				
$V_{12} = V_F (P_{FM})$ (Equation 13-6 or 13-7) $L_{EQ} =$ using Equation (Exhibit 13-6) $P_{FM} =$ pc/h $V_{12} =$ pc/h (Equation 13-14 or 13-17) V_3 or V_{av34} pc/h Is V_3 or $V_{av34} > 2,700$ pc/h? <input type="checkbox"/> Yes <input type="checkbox"/> No Is V_3 or $V_{av34} > 1.5 \times V_{12}/2$ <input type="checkbox"/> Yes <input type="checkbox"/> No If Yes, $V_{12a} =$ pc/h (Equation 13-16, 13-18, or 13-19)					$V_{12} = V_R + (V_F - V_R)P_{FD}$ (Equation 13-12 or 13-13) $L_{EQ} =$ 0.592 using Equation (Exhibit 13-7) $P_{FD} =$ 3296 pc/h $V_{12} =$ 1583 pc/h (Equation 13-14 or 13-17) V_3 or V_{av34} 1583 pc/h Is V_3 or $V_{av34} > 2,700$ pc/h? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Is V_3 or $V_{av34} > 1.5 \times V_{12}/2$ <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If Yes, $V_{12a} =$ pc/h (Equation 13-16, 13-18, or 13-19)				
Capacity Checks					Capacity Checks				
	Actual	Capacity		LOS F?		Actual	Capacity		LOS F?
V_{FO}					V_F	4879	Exhibit 13-8	7050	No
		Exhibit 13-8			$V_{FO} = V_F - V_R$	3882	Exhibit 13-8	7050	No
					V_R	997	Exhibit 13-10	2000	No
Flow Entering Merge Influence Area					Flow Entering Diverge Influence Area				
	Actual	Max Desirable		Violation?		Actual	Max Desirable		Violation?
V_{R12}		Exhibit 13-8			V_{12}	3296	Exhibit 13-8	4400:All	No
Level of Service Determination (if not F)					Level of Service Determination (if not F)				
$D_R = 5.475 + 0.00734 v_R + 0.0078 V_{12} - 0.00627 L_A$ $D_R =$ (pc/mi/ln) LOS = (Exhibit 13-2)					$D_R = 4.252 + 0.0086 V_{12} - 0.009 L_D$ $D_R =$ 28.1 (pc/mi/ln) LOS = D (Exhibit 13-2)				
Speed Determination					Speed Determination				
$M_S =$ (Exhibit 13-11) $S_R =$ mph (Exhibit 13-11) $S_0 =$ mph (Exhibit 13-11) $S =$ mph (Exhibit 13-13)					$D_S =$ 0.518 (Exhibit 13-12) $S_R =$ 53.1 mph (Exhibit 13-12) $S_0 =$ 69.0 mph (Exhibit 13-12) $S =$ 57.4 mph (Exhibit 13-13)				

RAMPS AND RAMP JUNCTIONS WORKSHEET									
General Information					Site Information				
Analyst		Tom Kear			Freeway/Dir of Travel		US 50/Eastbound		
Agency or Company		T. Kear Transportation			Junction		Bass Lake Road		
Date Performed		11/4/2014			Jurisdiction		El Dorado County		
Analysis Time Period		PM			Analysis Year		2025		
Project Description EB Bass Lake Rd, PM, merge With BLHSP Phase 1, 1a, + 534 DU									
Inputs									
Upstream Adj Ramp <input type="checkbox"/> Yes <input type="checkbox"/> On <input checked="" type="checkbox"/> No <input type="checkbox"/> Off L _{up} = ft V _u = veh/h		Freeway Number of Lanes, N 2				Downstream Adj Ramp <input type="checkbox"/> Yes <input type="checkbox"/> On <input checked="" type="checkbox"/> No <input type="checkbox"/> Off L _{down} = ft V _D = veh/h			
		Ramp Number of Lanes, N 1							
		Acceleration Lane Length, L _A 500							
		Deceleration Lane Length L _D							
		Freeway Volume, V _F 3710							
		Ramp Volume, V _R 201							
		Freeway Free-Flow Speed, S _{FF} 65.0							
		Ramp Free-Flow Speed, S _{FR} 35.0							
Conversion to pc/h Under Base Conditions									
(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f _{HV}	f _p	v = V/PHF x f _{HV} x f _p	
Freeway	3710	0.97	Rolling	1	0	0.985	1.00	3882	
Ramp	201	0.97	Mountainous	1	0	0.985	1.00	210	
UpStream									
DownStream									
Estimation of v₁₂					Estimation of v₁₂				
V ₁₂ = V _F (P _{FM}) (Equation 13-6 or 13-7) L _{EQ} = P _{FM} = 1.000 using Equation (Exhibit 13-6) V ₁₂ = 3882 pc/h V ₃ or V _{av34} = 0 pc/h (Equation 13-14 or 13-17) Is V ₃ or V _{av34} > 2,700 pc/h? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Is V ₃ or V _{av34} > 1.5 * V ₁₂ /2 <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If Yes, V _{12a} = pc/h (Equation 13-16, 13-18, or 13-19)					V ₁₂ = V _R + (V _F - V _R)P _{FD} (Equation 13-12 or 13-13) L _{EQ} = P _{FD} = using Equation (Exhibit 13-7) V ₁₂ = pc/h V ₃ or V _{av34} = pc/h (Equation 13-14 or 13-17) Is V ₃ or V _{av34} > 2,700 pc/h? <input type="checkbox"/> Yes <input type="checkbox"/> No Is V ₃ or V _{av34} > 1.5 * V ₁₂ /2 <input type="checkbox"/> Yes <input type="checkbox"/> No If Yes, V _{12a} = pc/h (Equation 13-16, 13-18, or 13-19)				
Capacity Checks					Capacity Checks				
	Actual	Capacity		LOS F?		Actual	Capacity		LOS F?
V _{FO}	4092	Exhibit 13-8		No	V _F		Exhibit 13-8		
					V _{FO} = V _F - V _R		Exhibit 13-8		
					V _R		Exhibit 13-10		
Flow Entering Merge Influence Area					Flow Entering Diverge Influence Area				
	Actual	Max Desirable		Violation?		Actual	Max Desirable		Violation?
V _{R12}	4092	Exhibit 13-8	4600:All	No	V ₁₂		Exhibit 13-8		
Level of Service Determination (if not F)					Level of Service Determination (if not F)				
D _R = 5.475 + 0.00734 V _R + 0.0078 V ₁₂ - 0.00627 L _A D _R = 34.2 (pc/mi/ln) LOS = D (Exhibit 13-2)					D _R = 4.252 + 0.0086 V ₁₂ - 0.009 L _D D _R = (pc/mi/ln) LOS = (Exhibit 13-2)				
Speed Determination					Speed Determination				
M _S = 0.519 (Exhibit 13-11) S _R = 53.1 mph (Exhibit 13-11) S ₀ = N/A mph (Exhibit 13-11) S = 53.1 mph (Exhibit 13-13)					D _S = (Exhibit 13-12) S _R = mph (Exhibit 13-12) S ₀ = mph (Exhibit 13-12) S = mph (Exhibit 13-13)				

RAMPS AND RAMP JUNCTIONS WORKSHEET									
General Information					Site Information				
Analyst	Tom Kear		Freeway/Dir of Travel	US 50/Westbound					
Agency or Company	T. Kear Transportation		Junction	El Dorado County					
Date Performed	11/5/2014		Jurisdiction	Bass Lake Road					
Analysis Time Period	AM		Analysis Year	2025					
Project Description WB Bass Lake Rd, AM, diverge with BLHSP Phases 1,1a,+ 534 DU									
Inputs									
Upstream Adj Ramp		Freeway Number of Lanes, N				2		Downstream Adj Ramp	
<input type="checkbox"/> Yes <input type="checkbox"/> On		Ramp Number of Lanes, N				1		<input type="checkbox"/> Yes <input type="checkbox"/> On	
<input checked="" type="checkbox"/> No <input type="checkbox"/> Off		Acceleration Lane Length, L_A						<input checked="" type="checkbox"/> No <input type="checkbox"/> Off	
$L_{up} =$ ft		Deceleration Lane Length L_D				500		$L_{down} =$ ft	
$V_u =$ veh/h		Freeway Volume, V_F				3222		$V_D =$ veh/h	
		Ramp Volume, V_R				161			
		Freeway Free-Flow Speed, S_{FF}				65.0			
		Ramp Free-Flow Speed, S_{FR}				35.0			
Conversion to pc/h Under Base Conditions									
(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	$v = V/PHF \times f_{HV} \times f_p$	
Freeway	3222	0.94	Rolling	1	0	0.985	1.00	3479	
Ramp	161	0.94	Rolling	1	0	0.985	1.00	174	
UpStream									
DownStream									
Merge Areas					Diverge Areas				
Estimation of v_{12}					Estimation of v_{12}				
$V_{12} = V_F (P_{FM})$ (Equation 13-6 or 13-7)					$V_{12} = V_R + (V_F - V_R)P_{FD}$ (Equation 13-12 or 13-13)				
$L_{EQ} =$ using Equation (Exhibit 13-6)					$L_{EQ} =$ 1.000 using Equation (Exhibit 13-7)				
$P_{FM} =$ pc/h					$P_{FD} =$ 3479 pc/h				
$V_{12} =$ pc/h (Equation 13-14 or 13-17)					$V_{12} =$ 0 pc/h (Equation 13-14 or 13-17)				
V_3 or V_{av34} Is V_3 or $V_{av34} > 2,700$ pc/h? <input type="checkbox"/> Yes <input type="checkbox"/> No					V_3 or V_{av34} Is V_3 or $V_{av34} > 2,700$ pc/h? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
Is V_3 or $V_{av34} > 1.5 \times V_{12}/2$ <input type="checkbox"/> Yes <input type="checkbox"/> No					Is V_3 or $V_{av34} > 1.5 \times V_{12}/2$ <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
If Yes, $V_{12a} =$ pc/h (Equation 13-16, 13-18, or 13-19)					If Yes, $V_{12a} =$ pc/h (Equation 13-16, 13-18, or 13-19)				
Capacity Checks									
	Actual	Capacity		LOS F?		Actual	Capacity		LOS F?
V_{FO}					V_F	3479	Exhibit 13-8	4700	No
		Exhibit 13-8			$V_{FO} = V_F - V_R$	3305	Exhibit 13-8	4700	No
					V_R	174	Exhibit 13-10	2000	No
Flow Entering Merge Influence Area					Flow Entering Diverge Influence Area				
	Actual	Max Desirable		Violation?		Actual	Max Desirable		Violation?
V_{R12}		Exhibit 13-8			V_{12}	3479	Exhibit 13-8	4400:All	No
Level of Service Determination (if not F)					Level of Service Determination (if not F)				
$D_R = 5.475 + 0.00734 v_R + 0.0078 V_{12} - 0.00627 L_A$					$D_R = 4.252 + 0.0086 V_{12} - 0.009 L_D$				
$D_R =$ (pc/mi/ln)					$D_R =$ 29.7 (pc/mi/ln)				
LOS = (Exhibit 13-2)					LOS = D (Exhibit 13-2)				
Speed Determination					Speed Determination				
$M_S =$ (Exhibit 13-11)					$D_S =$ 0.444 (Exhibit 13-12)				
$S_R =$ mph (Exhibit 13-11)					$S_R =$ 54.8 mph (Exhibit 13-12)				
$S_0 =$ mph (Exhibit 13-11)					$S_0 =$ N/A mph (Exhibit 13-12)				
$S =$ mph (Exhibit 13-13)					$S =$ 54.8 mph (Exhibit 13-13)				

RAMPS AND RAMP JUNCTIONS WORKSHEET									
General Information					Site Information				
Analyst		Tom Kear		Freeway/Dir of Travel		US 50/Westbound			
Agency or Company		T. Kear Transportation		Junction		Bass Lake Road			
Date Performed		11/4/2014		Jurisdiction		El Dorado County			
Analysis Time Period		AM		Analysis Year		2025			
Project Description WB Bass Lake Rd, AM, merge With BLHSP Phase 1, 1a, + 534 DU									
Inputs									
Upstream Adj Ramp <input type="checkbox"/> Yes <input type="checkbox"/> On <input checked="" type="checkbox"/> No <input type="checkbox"/> Off $L_{up} =$ ft $V_u =$ veh/h		Freeway Number of Lanes, N 2				Downstream Adj Ramp <input type="checkbox"/> Yes <input type="checkbox"/> On <input checked="" type="checkbox"/> No <input type="checkbox"/> Off $L_{down} =$ ft $V_D =$ veh/h			
		Ramp Number of Lanes, N 1							
		Acceleration Lane Length, L_A 850							
		Deceleration Lane Length L_D							
		Freeway Volume, V_F 3061							
		Ramp Volume, V_R 1060							
Freeway Free-Flow Speed, S_{FF} 65.0				Ramp Free-Flow Speed, S_{FR} 35.0					
Conversion to pc/h Under Base Conditions									
(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	$v = V/PHF \times f_{HV} \times f_p$	
Freeway	3061	0.94	Rolling	1	0	0.985	1.00	3305	
Ramp	1060	0.94	Mountainous	1	0	0.985	1.00	1145	
UpStream									
DownStream									
Merge Areas					Diverge Areas				
Estimation of v_{12}					Estimation of v_{12}				
$V_{12} = V_F (P_{FM})$ $L_{EQ} =$ (Equation 13-6 or 13-7) $P_{FM} =$ 1.000 using Equation (Exhibit 13-6) $V_{12} =$ 3305 pc/h V_3 or V_{av34} 0 pc/h (Equation 13-14 or 13-17) Is V_3 or $V_{av34} > 2,700$ pc/h? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Is V_3 or $V_{av34} > 1.5 \times V_{12}/2$ <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If Yes, $V_{12a} =$ pc/h (Equation 13-16, 13-18, or 13-19)					$V_{12} = V_R + (V_F - V_R)P_{FD}$ $L_{EQ} =$ (Equation 13-12 or 13-13) $P_{FD} =$ using Equation (Exhibit 13-7) $V_{12} =$ pc/h V_3 or V_{av34} pc/h (Equation 13-14 or 13-17) Is V_3 or $V_{av34} > 2,700$ pc/h? <input type="checkbox"/> Yes <input type="checkbox"/> No Is V_3 or $V_{av34} > 1.5 \times V_{12}/2$ <input type="checkbox"/> Yes <input type="checkbox"/> No If Yes, $V_{12a} =$ pc/h (Equation 13-16, 13-18, or 13-19)				
Capacity Checks					Capacity Checks				
	Actual	Capacity		LOS F?		Actual	Capacity		LOS F?
V_{FO}	4450	Exhibit 13-8		No	V_F		Exhibit 13-8		
					$V_{FO} = V_F - V_R$		Exhibit 13-8		
					V_R		Exhibit 13-10		
Flow Entering Merge Influence Area					Flow Entering Diverge Influence Area				
	Actual	Max Desirable		Violation?		Actual	Max Desirable		Violation?
V_{R12}	4450	Exhibit 13-8	4600:All	No	V_{12}		Exhibit 13-8		
Level of Service Determination (if not F)					Level of Service Determination (if not F)				
$D_R = 5.475 + 0.00734 V_R + 0.0078 V_{12} - 0.00627 L_A$ $D_R =$ 34.3 (pc/mi/ln) $LOS =$ D (Exhibit 13-2)					$D_R = 4.252 + 0.0086 V_{12} - 0.009 L_D$ $D_R =$ (pc/mi/ln) $LOS =$ (Exhibit 13-2)				
Speed Determination					Speed Determination				
$M_S =$ 0.595 (Exhibit 13-11) $S_R =$ 51.3 mph (Exhibit 13-11) $S_0 =$ N/A mph (Exhibit 13-11) $S =$ 51.3 mph (Exhibit 13-13)					$D_S =$ (Exhibit 13-12) $S_R =$ mph (Exhibit 13-12) $S_0 =$ mph (Exhibit 13-12) $S =$ mph (Exhibit 13-13)				

RAMPS AND RAMP JUNCTIONS WORKSHEET									
General Information					Site Information				
Analyst		Tom Kear		Freeway/Dir of Travel		US 50/Westbound			
Agency or Company		T. Kear Transportation		Junction		El Dorado County			
Date Performed		11/5/2014		Jurisdiction		Bass Lake Road			
Analysis Time Period		PM		Analysis Year		2025			
Project Description WB Bass Lake Rd, PM, diverge with BLHSP Phases 1,1a,+ 534 DU									
Inputs									
Upstream Adj Ramp <input type="checkbox"/> Yes <input type="checkbox"/> On <input checked="" type="checkbox"/> No <input type="checkbox"/> Off $L_{up} =$ ft $V_u =$ veh/h		Freeway Number of Lanes, N 2				Downstream Adj Ramp <input type="checkbox"/> Yes <input type="checkbox"/> On <input checked="" type="checkbox"/> No <input type="checkbox"/> Off $L_{down} =$ ft $V_D =$ veh/h			
		Ramp Number of Lanes, N 1							
		Acceleration Lane Length, L_A							
		Deceleration Lane Length L_D 500							
		Freeway Volume, V_F 3032							
		Ramp Volume, V_R 327							
Freeway Free-Flow Speed, S_{FF} 65.0									
Ramp Free-Flow Speed, S_{FR} 35.0									
Conversion to pc/h Under Base Conditions									
(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	$v = V/PHF \times f_{HV} \times f_p$	
Freeway	3032	0.96	Rolling	2	0	0.971	1.00	3253	
Ramp	327	0.96	Rolling	2	0	0.971	1.00	351	
UpStream									
DownStream									
Merge Areas					Diverge Areas				
Estimation of v_{12}					Estimation of v_{12}				
$V_{12} = V_F (P_{FM})$ (Equation 13-6 or 13-7) $L_{EQ} =$ using Equation (Exhibit 13-6) $P_{FM} =$ pc/h $V_{12} =$ pc/h (Equation 13-14 or 13-17) V_3 or V_{av34} pc/h (Equation 13-14 or 13-17) Is V_3 or $V_{av34} > 2,700$ pc/h? <input type="checkbox"/> Yes <input type="checkbox"/> No Is V_3 or $V_{av34} > 1.5 \times V_{12}/2$ <input type="checkbox"/> Yes <input type="checkbox"/> No If Yes, $V_{12a} =$ pc/h (Equation 13-16, 13-18, or 13-19)					$V_{12} = V_R + (V_F - V_R)P_{FD}$ (Equation 13-12 or 13-13) $L_{EQ} =$ using Equation (Exhibit 13-7) $P_{FD} =$ 1.000 pc/h $V_{12} =$ 3253 pc/h V_3 or V_{av34} 0 pc/h (Equation 13-14 or 13-17) Is V_3 or $V_{av34} > 2,700$ pc/h? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Is V_3 or $V_{av34} > 1.5 \times V_{12}/2$ <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If Yes, $V_{12a} =$ pc/h (Equation 13-16, 13-18, or 13-19)				
Capacity Checks					Capacity Checks				
	Actual	Capacity		LOS F?		Actual	Capacity		LOS F?
V_{FO}					V_F	3253	Exhibit 13-8	4700	No
		Exhibit 13-8			$V_{FO} = V_F - V_R$	2902	Exhibit 13-8	4700	No
					V_R	351	Exhibit 13-10	2000	No
Flow Entering Merge Influence Area					Flow Entering Diverge Influence Area				
	Actual	Max Desirable		Violation?		Actual	Max Desirable		Violation?
V_{R12}		Exhibit 13-8			V_{12}	3253	Exhibit 13-8		4400:All No
Level of Service Determination (if not F)					Level of Service Determination (if not F)				
$D_R = 5.475 + 0.00734 v_R + 0.0078 V_{12} - 0.00627 L_A$ $D_R =$ (pc/mi/ln) $LOS =$ (Exhibit 13-2)					$D_R = 4.252 + 0.0086 V_{12} - 0.009 L_D$ $D_R =$ 27.7 (pc/mi/ln) $LOS =$ C (Exhibit 13-2)				
Speed Determination					Speed Determination				
$M_S =$ (Exhibit 13-11) $S_R =$ mph (Exhibit 13-11) $S_0 =$ mph (Exhibit 13-11) $S =$ mph (Exhibit 13-13)					$D_S =$ 0.460 (Exhibit 13-12) $S_R =$ 54.4 mph (Exhibit 13-12) $S_0 =$ N/A mph (Exhibit 13-12) $S =$ 54.4 mph (Exhibit 13-13)				

RAMPS AND RAMP JUNCTIONS WORKSHEET									
General Information					Site Information				
Analyst		Tom Kear		Freeway/Dir of Travel		US 50/Westbound			
Agency or Company		T. Kear Transportation		Junction		Bass Lake Road			
Date Performed		11/4/2014		Jurisdiction		El Dorado County			
Analysis Time Period		PM		Analysis Year		2025			
Project Description WB Bass Lake Rd, PM, merge With BLHSP Phase 1, 1a, + 534 DU									
Inputs									
Upstream Adj Ramp <input type="checkbox"/> Yes <input type="checkbox"/> On <input checked="" type="checkbox"/> No <input type="checkbox"/> Off $L_{up} =$ ft $V_u =$ veh/h		Freeway Number of Lanes, N				2		Downstream Adj Ramp <input type="checkbox"/> Yes <input type="checkbox"/> On <input checked="" type="checkbox"/> No <input type="checkbox"/> Off $L_{down} =$ ft $V_D =$ veh/h	
		Ramp Number of Lanes, N				1			
		Acceleration Lane Length, L_A				850			
		Deceleration Lane Length L_D							
		Freeway Volume, V_F				2705			
		Ramp Volume, V_R				490			
		Freeway Free-Flow Speed, S_{FF}				65.0			
		Ramp Free-Flow Speed, S_{FR}				35.0			
Conversion to pc/h Under Base Conditions									
(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	$v = V/PHF \times f_{HV} \times f_p$	
Freeway	2705	0.96	Rolling	2	0	0.971	1.00	2902	
Ramp	490	0.96	Mountainous	2	0	0.971	1.00	526	
UpStream									
DownStream									
Merge Areas					Diverge Areas				
Estimation of v_{12}					Estimation of v_{12}				
$V_{12} = V_F (P_{FM})$ (Equation 13-6 or 13-7) $L_{EQ} =$ $P_{FM} =$ 1.000 using Equation (Exhibit 13-6) $V_{12} =$ 2902 pc/h V_3 or V_{av34} 0 pc/h (Equation 13-14 or 13-17) Is V_3 or $V_{av34} > 2,700$ pc/h? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Is V_3 or $V_{av34} > 1.5 \times V_{12}/2$ <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If Yes, $V_{12a} =$ pc/h (Equation 13-16, 13-18, or 13-19)					$V_{12} = V_R + (V_F - V_R)P_{FD}$ (Equation 13-12 or 13-13) $L_{EQ} =$ $P_{FD} =$ using Equation (Exhibit 13-7) $V_{12} =$ pc/h V_3 or V_{av34} pc/h (Equation 13-14 or 13-17) Is V_3 or $V_{av34} > 2,700$ pc/h? <input type="checkbox"/> Yes <input type="checkbox"/> No Is V_3 or $V_{av34} > 1.5 \times V_{12}/2$ <input type="checkbox"/> Yes <input type="checkbox"/> No If Yes, $V_{12a} =$ pc/h (Equation 13-16, 13-18, or 13-19)				
Capacity Checks					Capacity Checks				
	Actual	Capacity		LOS F?		Actual	Capacity		LOS F?
V_{FO}	3428	Exhibit 13-8		No	V_F		Exhibit 13-8		
					$V_{FO} = V_F - V_R$		Exhibit 13-8		
					V_R		Exhibit 13-10		
Flow Entering Merge Influence Area					Flow Entering Diverge Influence Area				
	Actual	Max Desirable		Violation?		Actual	Max Desirable		Violation?
V_{R12}	3428	Exhibit 13-8	4600:All	No	V_{12}		Exhibit 13-8		
Level of Service Determination (if not F)					Level of Service Determination (if not F)				
$D_R = 5.475 + 0.00734 V_R + 0.0078 V_{12} - 0.00627 L_A$ $D_R =$ 26.6 (pc/mi/ln) $LOS =$ C (Exhibit 13-2)					$D_R = 4.252 + 0.0086 V_{12} - 0.009 L_D$ $D_R =$ (pc/mi/ln) $LOS =$ (Exhibit 13-2)				
Speed Determination					Speed Determination				
$M_S =$ 0.382 (Exhibit 13-11) $S_R =$ 56.2 mph (Exhibit 13-11) $S_0 =$ N/A mph (Exhibit 13-11) $S =$ 56.2 mph (Exhibit 13-13)					$D_S =$ (Exhibit 13-12) $S_R =$ mph (Exhibit 13-12) $S_0 =$ mph (Exhibit 13-12) $S =$ mph (Exhibit 13-13)				



T. KEAR

TRANSPORTATION PLANNING
& MANAGEMENT, INC.

Memorandum

TO: George Carpenter, BL Road LLC, Winn Communities

FROM: Tom Kear, PhD, PE

Date: June 29, 2015

RE: Bass Lake Hills Phase 1a traffic operations with relocation of Country Club Drive

Introduction

The Bass Lake Hills Specific Plan and Public Facilities Financing Plan include realignment of Country Club Drive. The realignment will move the existing Country Club Drive/Bass Lake Road intersection about 1300 feet to the north. Realigned Country Club will follow the alignment of City Lights Drive and Tierra de Dios Drive until it reconnects to the existing Country Club Drive alignment. The existing segment of Country Club Drive between Bass Lake Road and Tierra de Dios Drive will be converted into a class 1 bike path.

This memorandum documents how the proposed relocation of Country Club Drive would effect level-of-service estimates and recommendations from our recent *Bass Lake Hills Specific Plan Phase 1a Traffic Impact Analysis (TIA)*, dated July 2014, and *Ten-Year 2025 Bass Lake Road Interchange Interim Improvements Traffic Operations Analysis (TOA)*, dated January 2015. This memorandum has two purposes:

- First, it provides a level-of-service and queueing Analysis with the relocation of Country Club Drive. This analysis provides information for El Dorado County to consider when drafting conditions of approval for the Bass Lake Hills Specific Plan Phase 1a project. This information is also applicable to the discussion with Caltrans regarding making improvements at the Bass Lake interchange through the encroachment permit process.
- Second, a review and syntheses of findings from the July 2014 TIA, January 2015 TOA, and this memorandum is presented and a revised package of recommended conditions of approval incorporating the relocation of Country Club Drive.

Relationship Between Studies

This is the third traffic study performed for the proposed revisions to the tentative map conditions. It's useful to summarize what each study has looked at and why.

Bass Lake Hills Specific Plan Phase 1a Traffic Impact Analysis, July 2014

Referred to as the “July 2014 TIA” in this memorandum. The July 2014 TIA served as the basis for initial discussions with El Dorado County for revisions to the tentative map conditions on the Hawk View, Bell Woods, and Bell Ranch projects. The July 2014 TIA focused specifically on El Dorado County requirements at the time the study was initiated.

Ten-Year 2025 Bass Lake Road Interchange Interim Improvements Traffic Operations Analysis

Referred to as the “January 2015 TOA” in this memorandum. The focus of the January 2015 TOA was to address the additional requirements that Caltrans has for review and approval of improvements effecting state highways. With specific emphasis on showing the Bass Lake Road interchange operates acceptable for at least ten years.

Traffic Operations with Relocation of Country Club Drive (this memorandum)

Caltrans requested that El Dorado County and the project realign Country Club Drive and relocate the Bass Lake Road/Country Club Drive intersection to facilitate the Caltrans approval and encroachment permits for planned improvements at the Bass Lake Road interchange. This memorandum looks at the traffic operations with the new roadway geometry that results from the realignment of Country Club Drive and relocation of the Bass Lake Road/Country Club Drive intersection.

The study scenarios, and BLHSP land use assumptions across all three studies, are summarized in **Table 1**.

Table 1. Scenarios addressed by each study

	no project (BLHSP: 99 DUs*)	Phase 1a (BLHSP: 380 DUs)	Phase 1a + half of Phases 2 & 3 (BLHSP: 914 DUs)	Phase 1a + Phases 2 & 3 (BLHSP: 1,448 DUs)
Existing 2014 conditions	July 2014 TIA	July 2014 TIA, and <u>this memorandum</u>		
EPAP 2019 conditions	July 2014 TIA	July 2014 TIA, and <u>this memorandum</u>		
Ten year 2025 conditions	Jan 2015 TOA		Jan 2015 TOA, and <u>this memorandum</u>	
Cumulative 2035 conditions	July 2014 TIA	July 2014 TIA		July 2014 TIA (with and without relocation of Country Club Dr.)

* DUs = Dwelling Units.

Level-of-Service and Queueing Analysis

This memorandum updates the existing analysis to look at the preferred improvement assuming that the Bass Lake/Country Club intersection is relocated 1,300 feet to the north as described in the introduction above. In the July 2014 TIA, Synchro models were used to evaluate level-of-service consistent with the El Dorado County traffic impact study guidelines¹. In the January 2015 TOA, SimTraffic microsimulation models were used for a more detailed analysis of queueing at the Bass Lake Road interchange in 2025 to look in more detail at queueing, which was requested by Caltrans District 3 staff. Analysis for both sets of models (Synchro and SimTraffic) were revised as described below to address the realignment of Country Club Drive and relocation of the Bass Lake Road/Country Club Drive intersection.

The descriptions of trip generation, trip distribution, traffic forecasting, turn movement forecasting, level-of-service methodology and standards of significance contained in the July 2014 TIA and January 2015 TOA are applicable to the analysis in this memorandum.

SimTraffic:

Scenarios:

- Ten-Year 2025 + BLHSP Phase 1a and 50% of 2 & 3 (turn movements from Fig 7, page 15 of *Interchange Report*).

Intersections:

- Bass Lake/Country Club (start with geometry from Fig 16, page 47 of TIA).
- Bass Lake/WB Ramps (geometry from Fig. 17, page 54 of TIA, and text on page 52 of TIA).
- Bass Lake/EB Ramps (geometry from Fig. 17, page 54 and of TIA, and text on page 53 of TIA).

The Bass Lake Rd/WB ramp intersection is analyzed with both side street stop and signal controls. As part of the simulation analysis, the need for any additional through lanes between US 50 and Country Club Drive was also evaluated along with the required turn pocket lengths.

Synchro:

Scenarios:

- Existing 2014 + BLHSP Phase 1a (turn movements from Fig 10, page 32 of TIA).
- EPAP 2019 + BLHSP Phase 1a (turn movements from Fig 12, page 36 of TIA).

Intersections:

- Bass Lake/Country Club (geometry from SimTraffic above).
- Bass Lake/WB Ramps (geometry from SimTraffic above).

¹ El Dorado County DOT (2008) Traffic Impact Study Protocols and Procedures, June 2008. Note that the guidance was updated in November 2014, after the July 2014 TIA was accepted by El Dorado County staff.

- Bass Lake/EB Ramps (geometry from Fig. 17, page 54 and of TIA, and text on page 53 of TIA).

Proposed Improvements:

Bass Lake Road/Country Club Drive:

- NB Approach: one through lane plus 200 ft right turn pocket.
- SB Approach: one through lane plus 300 ft left turn pocket.
- WB Approach: one through lane plus 300 ft left turn pocket.
- Signalize the intersection.

Bass Lake Road/WB Ramps:

- NB Approach: one shared through -left lane plus one through lane.
- SB Approach: one through lane plus 300 ft right turn pocket.
- WB Approach: one through -left lane plus a right turn pocket/with pork-chop island (existing configuration).
- Side street stop control (existing control); s delay and queueing results are also shown for signalization of the westbound off-ramp; this intersection meets the peak-hour signal warrant, but is anticipated to operate at an acceptable level-of-service with or without signalization².

Bass Lake Road/EB Ramps:

- NB Approach: one through lane .
- SB Approach: one through -left lane.
- EB Approach: one shared left- through -right lane plus 240 ft left turn pocket.
- Signalize the intersection.
- Two northbound lanes underneath US 50 are required to receive traffic from the eastbound off-ramp.

Level-of-Service and Queueing Results

Level-of Service Tables for 2014 (**Table 2** and **Table 3**), 2019 (**Table 4** and **Table 5**), and 2025 (**Table 6** and **Table 7**) are provided below. Anticipated queue lengths based on the estimated 95th percentile queue are provided graphically for 2025 in **Figure 1** through **Figure 4**. All calculation sheets are provided in Attachment 1.

Microsimulation Results:

Reported SimTraffic results for 2025 are the average of ten microsimulation runs.

² The January 2015 TOA found that the Bass Lake Road/westbound off-ramp intersection meet the peak hour signal warrant in 2025, but was anticipated to operate at an acceptable level-of-service C without signalization.

2014 Level-of-Service

The delay and level-of-service estimates presented below for Existing 2014 Plus BLHSP Phase 1a conditions, with Country Club Drive relocated can be contrasted with the no-project results shown in Table 7 (page 25) of the July 2014 TIA, and the mitigated results shown in Table 15 (page 45) and Table 16 (page 46) of the July 2014 TIA. **Table 2** below shows the delay and estimated level-of-service assuming that existing side street stop control for the westbound off-ramp is left in place, and **Table 3** below assumes that it the westbound off-ramp intersection is signalized. With the proposed interim improvements to the Bass Lake Road interchange, all three intersections are projected to operate at an acceptable level-of-service under 2014 plus BLHSP phase 1a condition.

Table 2. Delay and Level-of-Service, 2014 with BLHSP phase 1a project traffic, Side Street Stop Control at WB Ramps

Intersection	Control	2014 AM Peak		2014 PM Peak	
		Delay	LOS	Delay	LOS
Bass Lake Road & Country Club Drive	signal	13.3	B	13.4	B
Bass Lake Road & US 50 WB Ramps	SSSC	9.7	A	12.5	B
Bass Lake Road & US 50 EB Ramps	signal	11.5	B	21.9	C
Results are based on 2010 Highway Capacity Manual					

Table 3. Delay and Level-of-Service, 2014 with BLHSP phase 1a project traffic, Signal Control at WB Ramps

Intersection	Control	2014 AM Peak		2014 PM Peak	
		Delay	LOS	Delay	LOS
Bass Lake Road & Country Club Drive	signal	13.3	B	13.4	B
Bass Lake Road & US 50 WB Ramps	signal	11.8	B	11.8	A
Bass Lake Road & US 50 EB Ramps	signal	11.5	B	21.9	C
Results are based on 2010 Highway Capacity Manual					

2019 Level-of-Service

The delay and level-of-service estimates presented below for EPAP 2019 Plus BLHSP Phase 1a conditions, with Country Club Drive relocated can be contrasted with the no-project results shown in Table 9 (page 35) of the July 2014 TIA, and the mitigated results shown in Table 17 (page 48) and Table 18 (page 49) of the July 2014 TIA. **Table 4** below shows the delay and estimated level-of-service assuming that existing side street stop control for the westbound off-ramp is left in place, and **Table 5** below assumes that it the westbound off-ramp intersection is signalized. With the proposed interim improvements to the Bass Lake Road interchange, all three intersections are projected to operate at an acceptable level-of-service in under EPAP 2019 plus BLHSP phase 1a condition.

Table 4. Delay and Level-of-Service, 2019 with BLHSP phase 1a project traffic, Side Street Stop Control at WB Ramps

Intersection	Control	2019 AM Peak		2019 PM Peak	
		Delay	LOS	Delay	LOS
Bass Lake Road & Country Club Drive	signal	21.3	C	15	B
Bass Lake Road & US 50 WB Ramps	SSSC	9.9	A	13	B
Bass Lake Road & US 50 EB Ramps	signal	12.2	B	22	C
Results are based on 2010 Highway Capacity Manual					

Table 5. Delay and Level-of-Service, 2019 with BLHSP phase 1a project traffic, Signal Control at WB Ramps

Intersection	Control	2019 AM Peak		2019 PM Peak	
		Delay	LOS	Delay	LOS
Bass Lake Road & Country Club Drive	signal	21.3	C	15	B
Bass Lake Road & US 50 WB Ramps	signal	12.1	B	8.3	A
Bass Lake Road & US 50 EB Ramps	signal	12.2	B	22	C
Results are based on 2010 Highway Capacity Manual					

2025 Level-of-Service

The delay and level-of-service estimates presented below for ten-year 2025 Plus BLHSP Phase 1a conditions, with Country Club Drive relocated can be contrasted with the no-project results shown in Table 2 (page 18) and Table 3 (page 19) of the January 2015 TOA. **Table 6** below shows the delay and estimated level-of-service assuming that existing side street stop control for the westbound off-ramp is left in place, and **Table 7** below assumes that it the westbound off-ramp intersection is signalized. With the proposed interim improvements to the Bass Lake Road interchange, all three intersections are projected to operate at an acceptable level-of-service under the ten-year 2025 plus BLHSP phase 1a condition. Note that this scenario also includes the projected traffic from 50% of the dwelling units in BLHSP phases two and three (an additional 534 dwelling units).

Table 6. Delay and Level-of-Service, 2025 with BLHSP phase 1a plus 534 Dwelling Units from Phase 2 and 3, Side Street Stop Control at WB Ramps

Intersection	Control	2025 AM Peak		2025 PM Peak	
		Delay	LOS	Delay	LOS
Bass Lake Road & Country Club Drive	signal	25.5	C	14.2	B
Bass Lake Road & US 50 WB Ramps	SSSC	12	B	17.4	C
Bass Lake Road & US 50 EB Ramps	signal	13	B	13.1	B
Results are based on 2010 Highway Capacity Manual					

Table 7. Delay and Level-of-Service, 2025 with BLHSP phase 1a plus 534 Dwelling Units from Phase 2 and 3, Signal Control at WB Ramps

Intersection	Control	2025 AM Peak		2025 PM Peak	
		Delay	LOS	Delay	LOS
Bass Lake Road & Country Club Drive	signal	26.3	C	14	B
Bass Lake Road & US 50 WB Ramps	signal	8.1	A	8.5	A
Bass Lake Road & US 50 EB Ramps	signal	16.8	B	16.1	B
Results are based on 2010 Highway Capacity Manual					

2025 Queueing Analysis

Anticipated peak-hour queue lengths based on the 95th percentile queues predicted by SimTraffic are presented in Figure 1 through Figure 4. Queue lengths shown include ten years of growth in background traffic, traffic from BLHSP phase 1a traffic, and traffic from 50% of the proposed land uses in BLHSP phases two and three. As shown in the figures, the projected 95th percentile queues are not anticipated to block the adjacent intersection. Queueing is anticipated to be acceptable with or without the signalization of the Bass Lake Road/westbound off-ramp intersection.

Figure 1. Anticipated morning 95% queue lengths in 2025 with stop control at westbound off-ramp

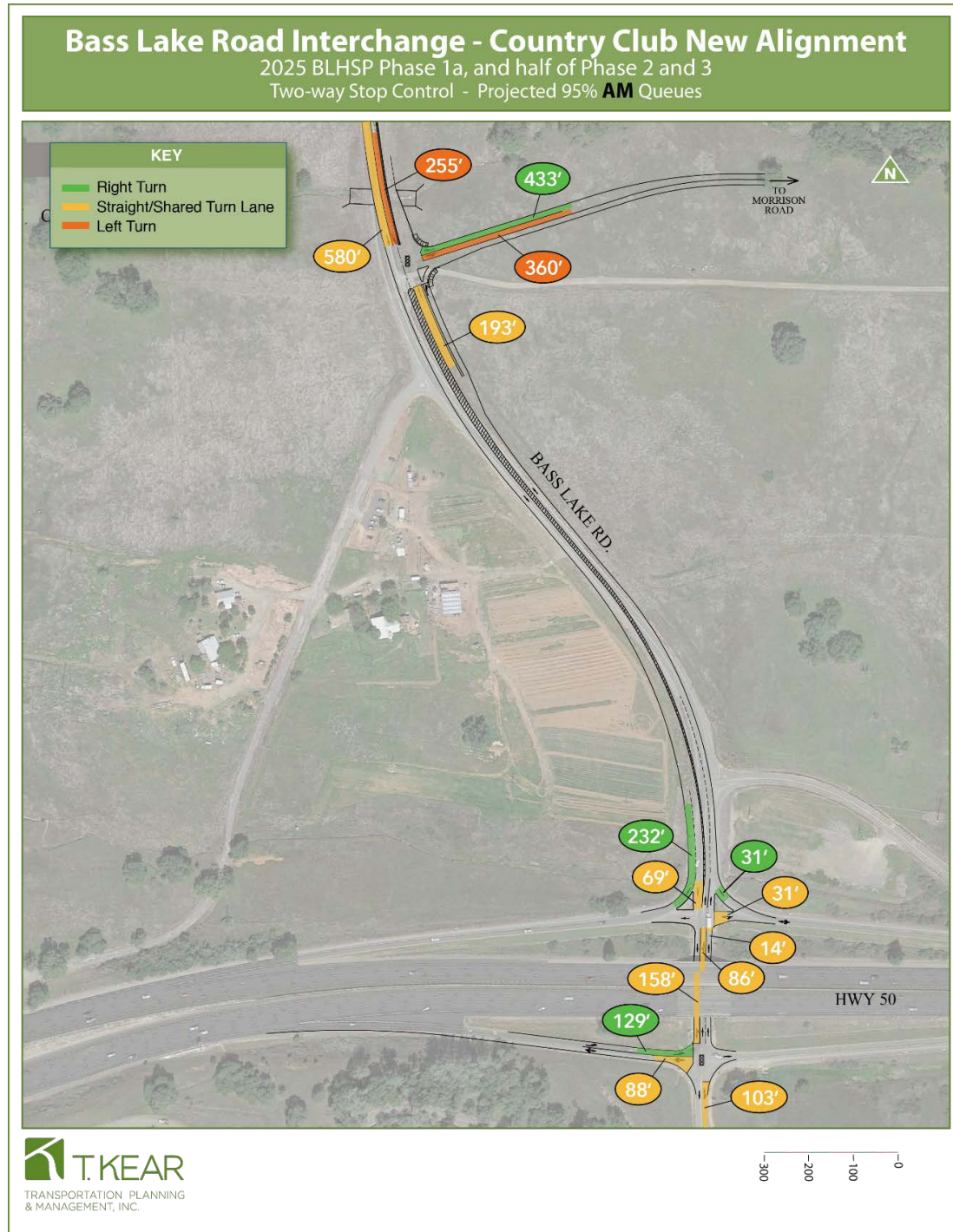


Figure 2. Anticipated evening 95% queue lengths in 2025 with stop control at westbound off-ramp

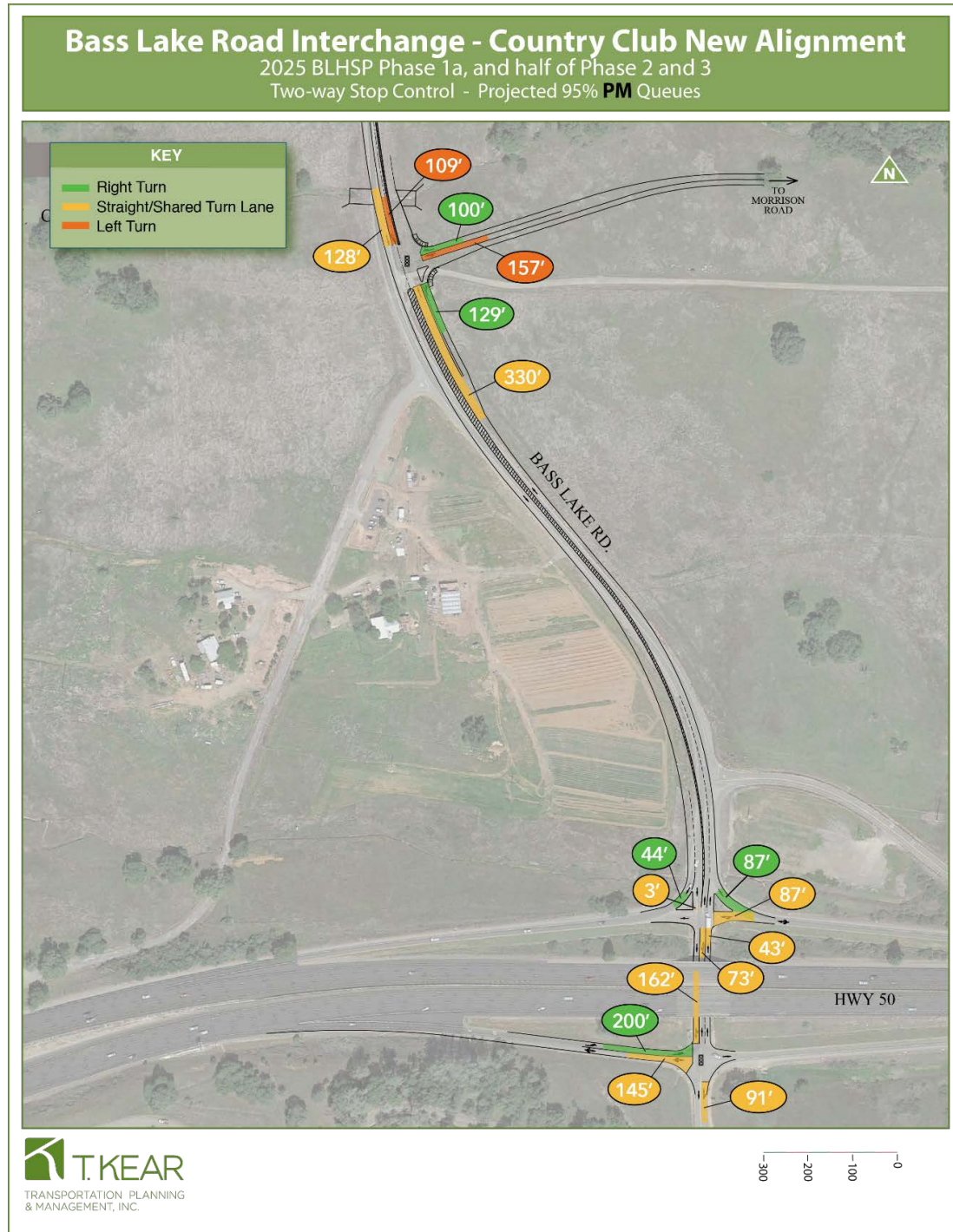


Figure 3. Anticipated morning 95% queue lengths in 2025 with signal control at westbound off-ramp

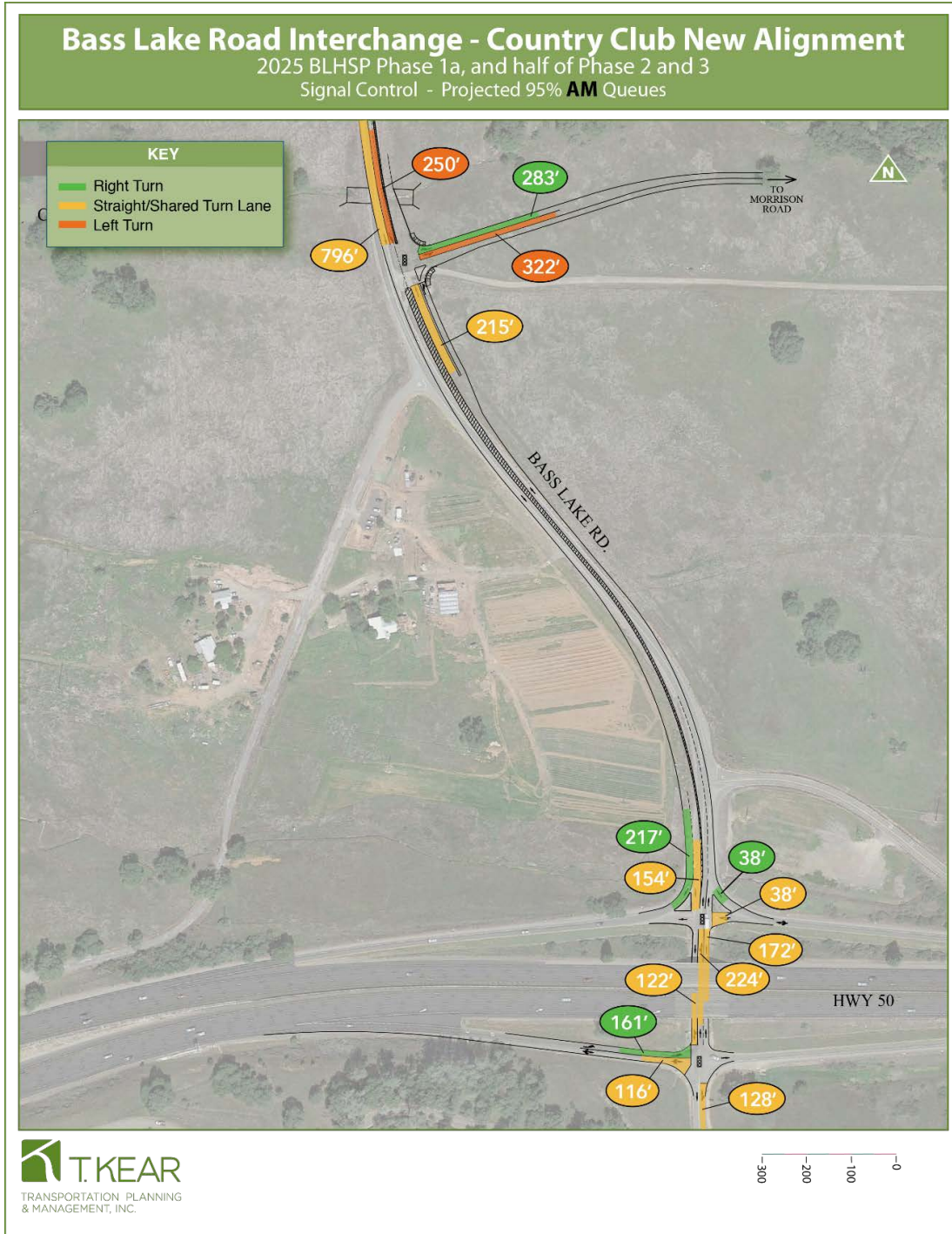
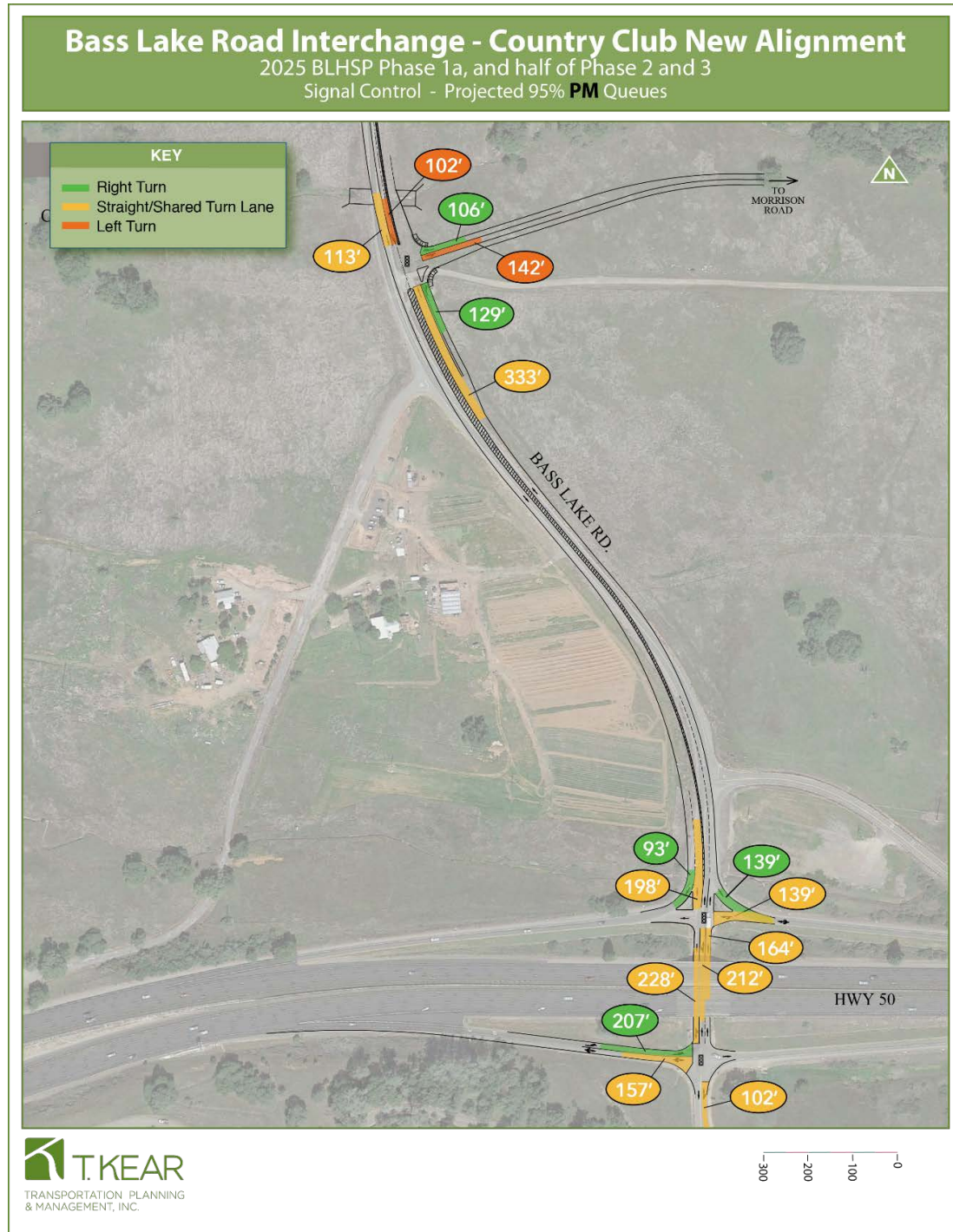


Figure 4. Anticipated evening 95% queue lengths in 2025 with signal control at westbound off-ramp



Synthesis of Studies and Recommended Conditions of Approval

Existing plus 2014 Conditions

Table 8 shows the delay and level-of-service with and without out the proposed BLHSP phase 1a project under year 2014 scenarios.

Deficiencies

Bass Lake Road and Existing Country Club Drive

- Deficiency 1: As shown in **Table 8**, this intersection operates at level-of-service F during the AM peak hour and the addition of project traffic significantly worsens the intersection. **This is a significant deficiency.**
- Deficiency 2: As shown in **Table 8**, this intersection operates at level-of-service F during the PM peak hour and the addition of project traffic significantly worsens the intersection. **This is a significant deficiency.**

Bass Lake Road and Eastbound Ramps

- Deficiency 3: As shown in **Table 8**, the addition of project traffic degrades the eastbound left turn from level-of-service D to F during the AM peak hour. **This is a significant deficiency.**
- Deficiency 4: As shown in **Table 8**, the addition of project traffic degrades the eastbound left turn from level-of-service E to F during the PM peak hour. **This is a significant deficiency.**

Recommended Improvements for Existing 2014 Plus BLHSP Phase 1a Conditions

Required interchange mitigations identified in the PFFP and the BLHSP are incorporated into a preferred improvement strategy. This preferred strategy comprehensively addresses traffic operations under all scenarios at the eastbound ramp, westbound ramp, and existing Country Club Drive intersections, until such time as the interchange is reconstructed and/or the Country Club Drive intersection is relocated.

The preferred set of improvements will relocate the existing Bass Lake Road Country Club Drive Intersection, signalize the eastbound off ramp intersection, and strip an additional northbound lane on Bass Lake Road underneath US 50. Specific details of these improvements are bulleted out below.

Table 8. Delay and level-of-service comparison for 2014 demonstrating acceptable traffic operations with improvements recommended as conditions of approval

		AM Peak-Hour (2014)			PM Peak-Hour (2014)		
Intersection	LOS Standard	No-Project	With Project	With Project & Improvements	No-Project	With Project	With Project & Improvements
<u>With SSSC at Westbound Off-Ramp</u>							
Bass Lake Rd./Hawk View Rd.	E	17.2 (C)	27.6 (D)	no change	15.7 (C)	18.4 (C)	no change
Bass Lake Rd./Hollow Oak Rd.	E	31.1 (D)	45.5 (E)	no change	16.4 (C)	18.6 (C)	no change
Bass Lake Rd./ Country Club Dr. (Existing intersection)	E	921.8 (F)	>999 (F)	n/a	123.3 (F)	450.5 (F)	n/a
(Relocated)	D	n/a	n/a	13.3 (B)	n/a	n/a	13.4 (B)
Bass Lake Rd./westbound ramps	D	11.2 (B)	11.8 (B)	9.7 (A)	15.5 (C)	20.5 (C)	12.5 (B)
Bass Lake Rd./eastbound ramps	D	28.2 (C)	63.3 (F)	11.5 (B)	37.3 (E)	92.6 (F)	21.9 (C)
<u>With Signal Control at Westbound Off-Ramp</u>							
Bass Lake Rd./Hawk View Rd.	E	Same as above, signalization of intersections only occurs as a project condition of approval.		no change	Same as above, signalization of intersections only occurs as a project condition of approval.		no change
Bass Lake Rd./Hollow Oak Rd.	E			no change			no change
Bass Lake Rd./ Country Club Dr. (Existing intersection)	E			n/a			n/a
(Relocated)	D			13.3 (B)			13.4 (B)
Bass Lake Rd./westbound ramps	D			11.8 (B)			11.8 (B)
Bass Lake Rd./eastbound ramps	D			11.5 (B)			21.9 (C)

- Bass Lake Road/eastbound ramp intersection: Signalize the existing intersection, construct a 240' (minimum) left turn pocket on the eastbound off-ramp, and stripe a seconded northbound receiving lane on Bass Lake Road. The resulting lane configuration shall be:
 - Northbound approach: one shared through-right lane.
 - Southbound Approach: one shared through-left lane.
 - Eastbound approach: one shared (left-through-right) lane and a one left turn lane.

- Bass Lake Road/westbound ramps intersection: Retain the existing side-street-stop-control for the eastbound off-ramp. The second northbound through lane on Bass Lake Road underneath US 50 shall be continued through the westbound ramp intersection, and can be dropped north of the intersection. The resulting lane configuration shall be:
 - Northbound approach: one shared through-left lane and one through lane.
 - Southbound Approach: one through lane and a channelized right turn pocket.
 - Westbound approach: one shared through-left lane and a channelized right turn pocket.

- Existing Bass Lake Road/Country Club Drive Intersection: Demolish the existing intersection, leaving a bicycle and pedestrian connection to the existing Country Club Drive alignment which is a planned Class I bike trail.

- New Bass Lake Road/Country Club Drive Intersection: Construct a new signalized intersection for realigned Country Club Drive, approximately 1300 feet north of the existing intersection.
 - NB Approach: one through lane plus 200' right turn pocket.
 - SB Approach: one through lane plus 300' left turn pocket.
 - WB Approach: one through lane plus 300' left turn pocket.

The proposed improvements would be constructed as a Tentative Map condition on the BLHSP Phase 1a projects as partial implementation of mitigation measure J01 from the 1992 EIR and 1995 EIR addendum. With these improvements the ramp intersections and the Bass Lake Road/Country Club Drive intersection all operate at level-of-service C or better during both the AM and PM peak-hours. The projected delay and level-of-service with the proposed improvements is also shown in **Table 8**.

EPAP 2019 Conditions

Table 9 shows the delay and level-of-service with and without out the proposed BLHSP phase 1a project under year 2019 scenarios.

Deficiencies

Bass Lake Road and (Existing) Country Club Drive

- Deficiency 5: As shown in **Table 9**, this intersection operates at level-of-service F during the AM peak hour and the addition of project traffic significantly worsens the intersection. **This is a significant deficiency.**
- Deficiency 6: As shown in **Table 9**, this intersection also operates at level-of-service F during the PM peak hour and the addition of project traffic significantly worsens the intersection. **This is a significant deficiency.**

Bass Lake Road and Eastbound Ramps

- Deficiency 7: As shown in **Table 9**, this intersection also operates at level-of-service F during the AM peak hour and the addition of project traffic significantly worsens the intersection. **This is a significant deficiency.**
- Deficiency 8: As shown in **Table 9**, this intersection also operates at level-of-service F during the PM peak hour and the addition of project traffic significantly worsens the intersection. **This is a significant deficiency.**

Recommended Improvements for EPAP 2019 Plus BLHSP Phase 1a Conditions

With the preferred set of improvements identified in the 2014 discussion above, the ramp intersections and the Bass Lake Road/Country Club Drive intersection all operate at level-of-service C or better during both the AM and PM peak-hours. The projected delay and level-of-service with the proposed improvements is also shown in **Table 9**.

Table 9. Delay and level-of-service comparison for 2019 demonstrating acceptable traffic operations with improvements recommended as conditions of approval

		AM Peak-Hour (2019)			PM Peak-Hour (2019)		
Intersection	LOS Standard	No-Project	With Project	With Project & Improvements	No-Project	With Project	With Project & Improvements
<u>With SSSC at Westbound Off-Ramp</u>							
Bass Lake Rd./Hawk View Rd.	E	17.2 (C)	27.6 (D)	no change	15.9 (C)	18.8 (C)	no change
Bass Lake Rd./Hollow Oak Rd.	E	31.19(D)	45.3 (E)	no change	16.9 (C)	19.2 (C)	no change
Bass Lake Rd./ Country Club Dr. (Existing intersection) (Relocated)	E D	>999 (F) n/a	>999 (F) n/a	n/a 21.3 (C)	291.8 (F) n/a	721.4 (F) n/a	n/a 15 (B)
Bass Lake Rd./westbound ramps	D	11.8 (B)	12.6 (B)	9.9 (A)	17.4 (C)	25.3 (D)	13 (B)
Bass Lake Rd./eastbound ramps	D	84.7 (F)	199.2 (F)	12.2 (B)	92.1 (EF)	188.5 (F)	22 (C)
<u>With Signal Control at Westbound Off-Ramp</u>							
Bass Lake Rd./Hawk View Rd.	E	Same as above, signalization of intersections only occurs as a project condition of approval.		no change	Same as above, signalization of intersections only occurs as a project condition of approval.		no change
Bass Lake Rd./Hollow Oak Rd.	E			no change			no change
Bass Lake Rd./ Country Club Dr. (Existing intersection) (Relocated)	E D			n/a 21.3 (C)			n/a 15 (B)
Bass Lake Rd./westbound ramps	D			12.1 (B)			8.3 (A)
Bass Lake Rd./eastbound ramps	D			12.2 (B)			22 (C)

Ten-Year 2025 Conditions

Table 9 shows the delay and level-of-service with and without out the proposed BLHSP phase 1a project under year 2025 scenarios. In addition to the BLHSP phase 1a land use, traffic forecasts used for these calculations included an additional 534 dwelling units in BLHSP phase 2 and phase 3. Note that reported delay and level-of-service for the ten-year 2025 scenarios are based on SimTraffic microsimulation rather than Synchro models used to analyze the other years.

Deficiencies

Bass Lake Road and (Existing) Country Club Drive

- Deficiency 9: As shown in **Table 10**, this intersection operates at level-of-service F during the AM peak hour and the addition of project traffic would be expected to significantly worsen the intersection. **This is a significant deficiency.**
- Deficiency 10: As shown in **Table 10**, this intersection also operates at level-of-service F during the PM peak hour and the addition of project traffic would be expected to significantly worsen the intersection. **This is a significant deficiency.**

Bass Lake Road and Westbound Ramps

- Deficiency 11: As shown in **Table 10**, this intersection operates at level-of-service F during the PM peak hour and the addition of project traffic would be expected to significantly worsen the intersection. **This is a significant deficiency.**

Bass Lake Road and Eastbound Ramps

- Deficiency 13: As shown in **Table 10**, this intersection operates at level-of-service E during the PM peak hour and the addition of project traffic significantly worsen the intersection. **This is a significant deficiency.**

Recommended Improvements for Ten-Year 2025 Plus BLHSP Phase 1a Conditions

With the preferred set of improvements identified in the 2014 discussion above, the ramp intersections and the Bass Lake Road/Country Club Drive intersection all operate at level-of-service C or better during both the AM and PM peak-hours. The projected delay and level-of-service with the proposed improvements is also shown in **Table 10**.

Table 10. Delay and level-of-service comparison for 2025 demonstrating acceptable traffic operations with improvements recommended as conditions of approval
(Results are the average of ten microsimulations using SimTraffic)

		AM Peak-Hour (2025)			PM Peak-Hour (2025)		
Intersection	LOS Standard	No-Project	With Project	With Project & Improvements	No-Project	With Project	With Project & Improvements
<u>With SSSC at Westbound Off-Ramp</u>							
Bass Lake Rd./Hawk View Rd.	E	The intersections of Bass Lake Road with Hawk View Road and Hollow Oak Road were not analyzed for 2025.					
Bass Lake Rd./Hollow Oak Rd.	E						
Bass Lake Rd./ Country Club Dr. (Existing intersection) (Relocated)	E D	>999 (F) n/a	With project and no improvements was not analyzed for 2025	n/a 25.5 (C)	>999 (F) n/a	With project and no improvements was not analyzed for 2025	n/a 14.2 (B)
Bass Lake Rd./westbound ramps	D	5.4 (A)		12 (B)	>999 (F)		17.4 (C)
Bass Lake Rd./eastbound ramps	D	11.6 (B)		13 (B)	58.5 (E)		13.1 (B)
<u>With Signal Control at Westbound Off-Ramp</u>							
Bass Lake Rd./Hawk View Rd.	E	Same as above, signalization of intersections only occurs as a project condition of approval.			Same as above, signalization of intersections only occurs as a project condition of approval.		
Bass Lake Rd./Hollow Oak Rd.	E						
Bass Lake Rd./ Country Club Dr. (Existing intersection) (Relocated)	E D			n/a 13.3 (B)			n/a 13.4 (B)
Bass Lake Rd./westbound ramps	D			11.8 (B)			11.8 (B)
Bass Lake Rd./eastbound ramps	D			11.5 (B)			21.9 (C)

Cumulative 2035 Conditions

Table 11 shows the delay and level-of-service with and without out the proposed BLHSP phase 1a project under year 2035 scenarios. Traffic forecasting utilized for these calculations also included projected traffic from buildout of BLHSP phase 2 and phase 3.

Deficiencies

Bass Lake Road & Hollow Oak Road

- Deficiency 9: As shown in **Tables 11**, the addition of project traffic degrades the westbound left turn from level-of-service E to F during the AM peak hour. **This is a significant deficiency.**
- Deficiency 10: As shown in **Tables 11**, the addition of project traffic degrades the westbound left turn from level-of-service C to F during the PM peak hour. **This is a significant deficiency.**

Bass Lake Road and (New) Country Club Drive

- Deficiency 11: As shown in **Table 11**, this intersection operates at level-of-service F during the AM peak hour and the addition of project traffic significantly worsens the intersection. **This is a significant deficiency.**
- Deficiency 12: As shown in Table 14, this intersection operates at level-of-service F during the PM peak hour and the addition of project traffic significantly worsens the intersection. **This is a significant deficiency.**

Bass Lake Road and Westbound Ramps

- Deficiency 13: As shown in **Table 11**, the addition of project traffic degrades the westbound left turn from level-of-service C to F during the PM peak hour. **This is a significant deficiency.**

Bass Lake Road and Eastbound Ramps

- Deficiency 14: As shown in **Table 11**, the eastbound approach operates at level-of-service F during the AM peak hour and the addition of project traffic significantly worsens the intersection. **This is a significant deficiency.**
- Deficiency 15: As shown in **Table 11**, the eastbound approach operates at level-of-service F during the PM peak hour and the addition of project traffic significantly worsens the intersection. **This is a significant deficiency.**

Table 11. Delay and level-of-service comparison for 2035 demonstrating acceptable traffic operations with improvements recommended as conditions of approval

		AM Peak-Hour (2035)			PM Peak-Hour (2035)		
Intersection	LOS Standard	No-Project	With Project	With Project & Improvements	No-Project	With Project	With Project & Improvements
<u>With SSSC at Westbound Off-Ramp</u>							
Bass Lake Rd./Hawk View Rd.	E	17.8 (C)	37.4 (E)	Signalization of westbound off-ramp is a required improvement	16.7 (C)	24.5 (C)	Signalization of westbound off-ramp is a required improvement
Bass Lake Rd./Hollow Oak Rd.	E	39.2 (E)	>999 (F)		17.8 (C)	111.5 (F)	
Bass Lake Rd./ Country Club Dr. (Existing intersection) (Relocated)	E D	927.1 (F) n/a	>999 (F) n/a		249 (F) n/a	841.6 (F) n/a	
Bass Lake Rd./westbound ramps	D	11.6 (B)	16.4 (C)		17.7 (C)	421.6 (F)	
Bass Lake Rd./eastbound ramps	D	530.5 (F)	>999 (F)		310.3 (F)	>999 (F)	
<u>With Signal Control at Westbound Off-Ramp</u>							
Bass Lake Rd./Hawk View Rd.	E	Same as above, signalization of intersections only occurs as a project condition of approval.		no change	Same as above, signalization of intersections only occurs as a project condition of approval.		no change
Bass Lake Rd./Hollow Oak Rd.	E			64.7 (E)			24.6 (C)
Bass Lake Rd./ Country Club Dr. (Existing intersection) (Relocated)	E D			n/a 18.1 (B)			n/a 18.1 (B)
Bass Lake Rd./westbound ramps	D			48.7 (D)			39.3 (D)
Bass Lake Rd./eastbound ramps	D			36.5 (D)			28.7 (C)

Recommended Improvements for Cumulative 2035 plus BLHSP phase 1a conditions

Recommended improvements build upon those identified for the 2014 scenarios. In addition to the preferred set of improvements discussed above (page 12 & 14), the following improvements are recommended:

- New Bass Lake Road/Country Club Drive Intersection: reconstruct the intersection.
 - Westbound approach: provide a left turn lane with a 300' pocket and a shared through-right.
 - Eastbound approach: provide a left turn lane with a 60' pocket and a shared through-right.
 - Southbound approach: provide a left turn lane with a 200' pocket; a through lane and a shared through-right lane. The second lane for the southbound shared through-right should be developed on the southbound approach to the intersection via a 200' storage pocket.
 - Northbound approach: provide a left turn lane with a 120' pocket, through lane, and a right turn lane (a trap lane).

- Bass Lake Road/Hollow Oak Road: Signalize the intersection with the existing lane geometry.

With the recorded improvements, all study intersections operate at an acceptable level-of-service D or better in 2035 with buildout of the BLHSP area.

Attachment: Synchro and SimTraffic Calculation Sheets







Note: Calculation sheets provided here are limited to the analysis of the relocation of the Bass Lake Road/Country Club Drive intersection discussed at the beginning of this memorandum. Additional calculation sheets and supporting information is located in appendices of the July 2014 TIA and the January 2015 TOA.

HCM 2010 Signalized Intersection Summary

3: Bass Lake Road & Country Club Drive

4/30/2015



Movement	WBL	WBR	NBT	NBR	SBL	SBT		
Lane Configurations								
Volume (veh/h)	233	69	245	140	143	793		
Number	3	18	2	12	1	6		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863		
Adj Flow Rate, veh/h	307	91	350	200	168	933		
Adj No. of Lanes	1	1	1	1	1	1		
Peak Hour Factor	0.76	0.76	0.70	0.70	0.85	0.85		
Percent Heavy Veh, %	2	2	2	2	2	2		
Cap, veh/h	390	348	715	608	247	1134		
Arrive On Green	0.22	0.22	0.38	0.38	0.14	0.61		
Sat Flow, veh/h	1774	1583	1863	1583	1774	1863		
Grp Volume(v), veh/h	307	91	350	200	168	933		
Grp Sat Flow(s),veh/h/ln	1774	1583	1863	1583	1774	1863		
Q Serve(g_s), s	7.6	2.2	6.7	4.2	4.2	18.3		
Cycle Q Clear(g_c), s	7.6	2.2	6.7	4.2	4.2	18.3		
Prop In Lane	1.00	1.00		1.00	1.00			
Lane Grp Cap(c), veh/h	390	348	715	608	247	1134		
V/C Ratio(X)	0.79	0.26	0.49	0.33	0.68	0.82		
Avail Cap(c_a), veh/h	608	542	715	608	608	1436		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00		
Uniform Delay (d), s/veh	17.2	15.1	10.9	10.2	19.1	7.2		
Incr Delay (d2), s/veh	3.7	0.4	0.5	0.3	3.3	3.2		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	1.1	1.0	3.5	1.8	2.3	10.1		
LnGrp Delay(d),s/veh	20.8	15.5	11.4	10.5	22.4	10.4		
LnGrp LOS	C	B	B	B	C	B		
Approach Vol, veh/h	398		550			1101		
Approach Delay, s/veh	19.6		11.1			12.2		
Approach LOS	B		B			B		
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	10.5	21.9				32.4		14.3
Change Period (Y+Rc), s	4.0	4.0				4.0		4.0
Max Green Setting (G_max), s	10.0	16.0				36.0		16.0
Max Q Clear Time (g_c+10), s	10.2	8.7				20.3		9.6
Green Ext Time (p_c), s	0.3	5.1				8.1		0.7
Intersection Summary								
HCM 2010 Ctrl Delay		13.3						
HCM 2010 LOS		B						

HCM 2010 Signalized Intersection Summary

4: Bass Lake Road & westbound ramp

4/30/2015



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	0	0	3	1	128	25	258	0	0	208	818
Number				3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln				1900	1863	1900	1900	1863	0	0	1863	1863
Adj Flow Rate, veh/h				3	1	0	27	280	0	0	226	0
Adj No. of Lanes				0	1	0	0	2	0	0	1	1
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				0	2	0	2	2	0	0	2	2
Cap, veh/h				6	2	0	142	1547	0	0	333	283
Arrive On Green				0.00	0.00	0.00	0.15	0.15	0.00	0.00	0.18	0.00
Sat Flow, veh/h				1347	449	0	304	3407	0	0	1863	1583
Grp Volume(v), veh/h				4	0	0	164	143	0	0	226	0
Grp Sat Flow(s),veh/h/ln				1795	0	0	1848	1770	0	0	1863	1583
Q Serve(g_s), s				0.1	0.0	0.0	2.7	2.4	0.0	0.0	3.9	0.0
Cycle Q Clear(g_c), s				0.1	0.0	0.0	2.7	2.4	0.0	0.0	3.9	0.0
Prop In Lane				0.75		0.00	0.16		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				8	0	0	862	826	0	0	333	283
V/C Ratio(X)				0.51	0.00	0.00	0.19	0.17	0.00	0.00	0.68	0.00
Avail Cap(c_a), veh/h				838	0	0	862	826	0	0	1141	970
HCM Platoon Ratio				1.00	1.00	1.00	0.33	0.33	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	0.00	0.98	0.98	0.00	0.00	0.48	0.00
Uniform Delay (d), s/veh				17.0	0.0	0.0	8.9	8.7	0.0	0.0	13.2	0.0
Incr Delay (d2), s/veh				43.3	0.0	0.0	0.5	0.4	0.0	0.0	1.2	0.0
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				0.1	0.0	0.0	1.5	1.3	0.0	0.0	2.1	0.0
LnGrp Delay(d),s/veh				60.4	0.0	0.0	9.3	9.2	0.0	0.0	14.3	0.0
LnGrp LOS				E			A	A			B	
Approach Vol, veh/h					4			307			226	
Approach Delay, s/veh					60.4			9.3			14.3	
Approach LOS					E			A			B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2				6		8				
Phs Duration (G+Y+Rc), s		50.7				10.1		4.1				
Change Period (Y+Rc), s		4.0				4.0		4.0				
Max Green Setting (Gmax), s		16.0				21.0		16.0				
Max Q Clear Time (g_c+I1), s		4.7				5.9		2.1				
Green Ext Time (p_c), s		1.3				1.1		0.0				
Intersection Summary												
HCM 2010 Ctrl Delay				11.8								
HCM 2010 LOS				B								

HCM 2010 Signalized Intersection Summary

5: Bass Lake Road & eastbound ramp

4/30/2015



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	261	0	5	0	0	0	0	22	4	204	7	0
Number	7	4	14				5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900				0	1863	1900	1900	1863	0
Adj Flow Rate, veh/h	435	0	0				0	31	6	232	8	0
Adj No. of Lanes	2	1	0				0	1	0	0	1	0
Peak Hour Factor	0.61	0.61	0.61				0.72	0.72	0.72	0.88	0.88	0.88
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	1693	889	0				0	51	10	322	11	0
Arrive On Green	0.48	0.00	0.00				0.00	0.03	0.03	0.19	0.19	0.00
Sat Flow, veh/h	3548	1863	0				0	1517	294	1718	59	0
Grp Volume(v), veh/h	435	0	0				0	0	37	240	0	0
Grp Sat Flow(s), veh/h/ln	1774	1863	0				0	0	1811	1777	0	0
Q Serve(g_s), s	2.9	0.0	0.0				0.0	0.0	0.8	5.1	0.0	0.0
Cycle Q Clear(g_c), s	2.9	0.0	0.0				0.0	0.0	0.8	5.1	0.0	0.0
Prop In Lane	1.00		0.00				0.00		0.16	0.97		0.00
Lane Grp Cap(c), veh/h	1693	889	0				0	0	61	333	0	0
V/C Ratio(X)	0.26	0.00	0.00				0.00	0.00	0.61	0.72	0.00	0.00
Avail Cap(c_a), veh/h	1693	889	0				0	0	728	803	0	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00				0.00	0.00	1.00	0.88	0.00	0.00
Uniform Delay (d), s/veh	6.2	0.0	0.0				0.0	0.0	19.0	15.2	0.0	0.0
Incr Delay (d2), s/veh	0.4	0.0	0.0				0.0	0.0	9.3	2.6	0.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	1.5	0.0	0.0				0.0	0.0	0.5	2.7	0.0	0.0
LnGrp Delay(d), s/veh	6.6	0.0	0.0				0.0	0.0	28.3	17.8	0.0	0.0
LnGrp LOS	A								C	B		
Approach Vol, veh/h	435						37			240		
Approach Delay, s/veh	6.6						28.3			17.8		
Approach LOS	A						C			B		
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2		4		6						
Phs Duration (G+Y+Rc), s		5.3		48.2		11.5						
Change Period (Y+Rc), s		4.0		4.0		4.0						
Max Green Setting (Gmax), s		16.0		19.0		18.0						
Max Q Clear Time (g_c+I1), s		2.8		4.9		7.1						
Green Ext Time (p_c), s		0.1		1.4		1.0						
Intersection Summary												
HCM 2010 Ctrl Delay			11.5									
HCM 2010 LOS			B									













Notes

User approved volume balancing among the lanes for turning movement.

HCM 2010 Signalized Intersection Summary

3: Bass Lake Road & Country Club Drive

















4/30/2015

								
Movement	WBL	WBR	NBT	NBR	SBL	SBT		
Lane Configurations								
Volume (veh/h)	117	92	650	211	79	335		
Number	3	18	2	12	1	6		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863		
Adj Flow Rate, veh/h	202	159	707	229	86	364		
Adj No. of Lanes	1	1	1	1	1	1		
Peak Hour Factor	0.58	0.58	0.92	0.92	0.92	0.92		
Percent Heavy Veh, %	2	2	2	2	2	2		
Cap, veh/h	283	253	1024	870	109	1281		
Arrive On Green	0.16	0.16	0.55	0.55	0.06	0.69		
Sat Flow, veh/h	1774	1583	1863	1583	1774	1863		
Grp Volume(v), veh/h	202	159	707	229	86	364		
Grp Sat Flow(s),veh/h/ln	1774	1583	1863	1583	1774	1863		
Q Serve(g_s), s	5.7	4.9	14.4	4.0	2.5	4.0		
Cycle Q Clear(g_c), s	5.7	4.9	14.4	4.0	2.5	4.0		
Prop In Lane	1.00	1.00		1.00	1.00			
Lane Grp Cap(c), veh/h	283	253	1024	870	109	1281		
V/C Ratio(X)	0.71	0.63	0.69	0.26	0.79	0.28		
Avail Cap(c_a), veh/h	542	484	1024	870	169	1281		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00		
Uniform Delay (d), s/veh	20.9	20.5	8.6	6.2	24.2	3.2		
Incr Delay (d2), s/veh	3.3	2.6	3.8	0.7	12.4	0.6		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	3.0	2.3	8.4	1.9	1.6	2.2		
LnGrp Delay(d),s/veh	24.2	23.1	12.4	6.9	36.6	3.7		
LnGrp LOS	C	C	B	A	D	A		
Approach Vol, veh/h	361		936			450		
Approach Delay, s/veh	23.7		11.1			10.0		
Approach LOS	C		B			B		
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	7.2	32.8				40.0		12.4
Change Period (Y+Rc), s	4.0	4.0				4.0		4.0
Max Green Setting (Gmax), s	5.0	27.0				36.0		16.0
Max Q Clear Time (g_c+I1), s	4.5	16.4				6.0		7.7
Green Ext Time (p_c), s	0.0	5.7				9.8		0.8
Intersection Summary								
HCM 2010 Ctrl Delay			13.4					
HCM 2010 LOS			B					

HCM 2010 Signalized Intersection Summary

















4: Bass Lake Road & westbound ramp

4/30/2015

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	0	0	8	0	176	11	686	0	0	114	339
Number				3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln				1900	1863	1900	1900	1863	0	0	1863	1863
Adj Flow Rate, veh/h				8	0	0	11	707	0	0	118	0
Adj No. of Lanes				0	1	0	0	2	0	0	1	1
Peak Hour Factor				0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %				0	2	0	2	2	0	0	2	2
Cap, veh/h				15	0	0	32	2151	0	0	166	141
Arrive On Green				0.01	0.00	0.00	0.20	0.20	0.00	0.00	0.09	0.00
Sat Flow, veh/h				1774	0	0	53	3670	0	0	1863	1583
Grp Volume(v), veh/h				8	0	0	385	333	0	0	118	0
Grp Sat Flow(s),veh/h/ln				1774	0	0	1860	1770	0	0	1863	1583
Q Serve(g_s), s				0.2	0.0	0.0	7.1	6.4	0.0	0.0	2.5	0.0
Cycle Q Clear(g_c), s				0.2	0.0	0.0	7.1	6.4	0.0	0.0	2.5	0.0
Prop In Lane				1.00		0.00	0.03		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				15	0	0	1119	1064	0	0	166	141
V/C Ratio(X)				0.53	0.00	0.00	0.34	0.31	0.00	0.00	0.71	0.00
Avail Cap(c_a), veh/h				711	0	0	1119	1064	0	0	840	714
HCM Platoon Ratio				1.00	1.00	1.00	0.33	0.33	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	0.00	0.65	0.65	0.00	0.00	0.93	0.00
Uniform Delay (d), s/veh				19.7	0.0	0.0	9.2	8.9	0.0	0.0	17.7	0.0
Incr Delay (d2), s/veh				25.9	0.0	0.0	0.6	0.5	0.0	0.0	5.1	0.0
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				0.2	0.0	0.0	3.9	3.3	0.0	0.0	1.5	0.0
LnGrp Delay(d),s/veh				45.6	0.0	0.0	9.8	9.4	0.0	0.0	22.8	0.0
LnGrp LOS				D			A	A			C	
Approach Vol, veh/h					8			718			118	
Approach Delay, s/veh					45.6			9.6			22.8	
Approach LOS					D			A			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2				6		8				
Phs Duration (G+Y+Rc), s		58.1				7.6		4.3				
Change Period (Y+Rc), s		4.0				4.0		4.0				
Max Green Setting (Gmax), s		24.0				18.0		16.0				
Max Q Clear Time (g_c+I1), s		9.1				4.5		2.2				
Green Ext Time (p_c), s		3.9				0.4		0.0				
Intersection Summary												
HCM 2010 Ctrl Delay			11.8									
HCM 2010 LOS			B									

HCM 2010 Signalized Intersection Summary 5: Bass Lake Road & eastbound ramp

4/30/2015

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	688	2	16	0	0	0	0	9	7	115	7	0
Number	7	4	14				5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900				0	1863	1900	1900	1863	0
Adj Flow Rate, veh/h	734	0	0				0	13	10	125	8	0
Adj No. of Lanes	2	1	0				0	1	0	0	1	0
Peak Hour Factor	0.96	0.96	0.96				0.67	0.67	0.67	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	932	489	0				0	272	210	438	28	0
Arrive On Green	0.26	0.00	0.00				0.00	0.28	0.28	0.26	0.26	0.00
Sat Flow, veh/h	3548	1863	0				0	978	752	1672	107	0
Grp Volume(v), veh/h	734	0	0				0	0	23	133	0	0
Grp Sat Flow(s),veh/h/ln	1774	1863	0				0	0	1730	1779	0	0
Q Serve(g_s), s	11.7	0.0	0.0				0.0	0.0	0.6	3.6	0.0	0.0
Cycle Q Clear(g_c), s	11.7	0.0	0.0				0.0	0.0	0.6	3.6	0.0	0.0
Prop In Lane	1.00		0.00				0.00		0.43	0.94		0.00
Lane Grp Cap(c), veh/h	932	489	0				0	0	482	466	0	0
V/C Ratio(X)	0.79	0.00	0.00				0.00	0.00	0.05	0.29	0.00	0.00
Avail Cap(c_a), veh/h	1453	763	0				0	0	482	466	0	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00				0.00	0.00	1.00	0.91	0.00	0.00
Uniform Delay (d), s/veh	20.9	0.0	0.0				0.0	0.0	16.1	18.0	0.0	0.0
Incr Delay (d2), s/veh	1.6	0.0	0.0				0.0	0.0	0.2	1.4	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.9	0.0	0.0				0.0	0.0	0.3	2.0	0.0	0.0
LnGrp Delay(d),s/veh	22.5	0.0	0.0				0.0	0.0	16.3	19.4	0.0	0.0
LnGrp LOS	C								B	B		
Approach Vol, veh/h		734						23			133	
Approach Delay, s/veh		22.5						16.3			19.4	
Approach LOS		C						B			B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2		4		6						
Phs Duration (G+Y+Rc), s		30.0		20.0		20.0						
Change Period (Y+Rc), s		4.0		4.0		4.0						
Max Green Setting (Gmax), s		17.0		25.0		16.0						
Max Q Clear Time (g_c+I1), s		2.6		13.7		5.6						
Green Ext Time (p_c), s		0.0		2.3		0.4						
Intersection Summary												
HCM 2010 Ctrl Delay			21.9									
HCM 2010 LOS			C									

Notes

User approved volume balancing among the lanes for turning movement.

Intersection

Int Delay, s/veh 1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	0	0	0	3	1	128	25	258	0	0	208	818
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	Yield	-	-	None	-	-	Yield
Storage Length	-	-	-	-	-	-	-	-	-	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	3	1	139	27	280	0	0	226	889

Major/Minor	Minor1			Major1			Major2		
Conflicting Flow All	561	561	140	226	0	0	280	0	0
Stage 1	335	335	-	-	-	-	-	-	-
Stage 2	226	226	-	-	-	-	-	-	-
Critical Hdwy	6.63	6.53	6.93	4.12	-	-	4.14	-	-
Critical Hdwy Stg 1	5.83	5.53	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.43	5.53	-	-	-	-	-	-	-
Follow-up Hdwy	3.519	4.019	3.319	2.218	-	-	2.22	-	-
Pot Cap-1 Maneuver	473	436	883	1342	-	-	1280	-	-
Stage 1	697	642	-	-	-	-	-	-	-
Stage 2	811	716	-	-	-	-	-	-	-
Platoon blocked, %					-	-		-	-
Mov Cap-1 Maneuver	462	0	883	1342	-	-	1280	-	-
Mov Cap-2 Maneuver	462	0	-	-	-	-	-	-	-
Stage 1	680	0	-	-	-	-	-	-	-
Stage 2	811	0	-	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.7	0.8	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1342	-	-	911	1280	-	-
HCM Lane V/C Ratio	0.02	-	-	0.157	-	-	-
HCM Control Delay (s)	7.7	0.1	-	9.7	0	-	-
HCM Lane LOS	A	A	-	A	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0.6	0	-	-

Intersection

Int Delay, s/veh 1.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	0	0	0	8	0	176	11	686	0	0	114	339
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	Yield	-	-	None	-	-	Yield
Storage Length	-	-	-	-	-	-	-	-	-	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	97	97	97	97	97	97	97	97	97	97	97	97
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	8	0	181	11	707	0	0	118	349

Major/Minor	Minor1			Major1			Major2		
Conflicting Flow All	848	848	354	118	0	0	707	0	0
Stage 1	730	730	-	-	-	-	-	-	-
Stage 2	118	118	-	-	-	-	-	-	-
Critical Hdwy	6.63	6.53	6.93	4.12	-	-	4.14	-	-
Critical Hdwy Stg 1	5.83	5.53	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.43	5.53	-	-	-	-	-	-	-
Follow-up Hdwy	3.519	4.019	3.319	2.218	-	-	2.22	-	-
Pot Cap-1 Maneuver	316	298	643	1470	-	-	887	-	-
Stage 1	439	427	-	-	-	-	-	-	-
Stage 2	907	798	-	-	-	-	-	-	-
Platoon blocked, %					-	-		-	-
Mov Cap-1 Maneuver	312	0	643	1470	-	-	887	-	-
Mov Cap-2 Maneuver	312	0	-	-	-	-	-	-	-
Stage 1	434	0	-	-	-	-	-	-	-
Stage 2	907	0	-	-	-	-	-	-	-













Approach	WB	NB	SB
HCM Control Delay, s	12.5	0.1	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1470	-	-	672	887	-	-
HCM Lane V/C Ratio	0.008	-	-	0.282	-	-	-
HCM Control Delay (s)	7.5	0	-	12.5	0	-	-
HCM Lane LOS	A	A	-	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	1.2	0	-	-

HCM 2010 Signalized Intersection Summary

3: Bass Lake Road & Country Club Drive

















4/30/2015

								
Movement	WBL	WBR	NBT	NBR	SBL	SBT		
Lane Configurations								
Volume (veh/h)	279	69	248	188	145	793		
Number	3	18	2	12	1	6		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863		
Adj Flow Rate, veh/h	367	91	354	269	171	933		
Adj No. of Lanes	1	1	1	1	1	1		
Peak Hour Factor	0.76	0.76	0.70	0.70	0.85	0.85		
Percent Heavy Veh, %	2	2	2	2	2	2		
Cap, veh/h	426	380	515	438	490	1158		
Arrive On Green	0.24	0.24	0.28	0.28	0.28	0.62		
Sat Flow, veh/h	1774	1583	1863	1583	1774	1863		
Grp Volume(v), veh/h	367	91	354	269	171	933		
Grp Sat Flow(s),veh/h/ln	1774	1583	1863	1583	1774	1863		
Q Serve(g_s), s	11.5	2.7	9.8	8.6	4.5	22.0		
Cycle Q Clear(g_c), s	11.5	2.7	9.8	8.6	4.5	22.0		
Prop In Lane	1.00	1.00		1.00	1.00			
Lane Grp Cap(c), veh/h	426	380	515	438	490	1158		
V/C Ratio(X)	0.86	0.24	0.69	0.61	0.35	0.81		
Avail Cap(c_a), veh/h	490	438	515	438	490	1158		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00		
Uniform Delay (d), s/veh	21.1	17.7	18.7	18.3	16.8	8.3		
Incr Delay (d2), s/veh	13.2	0.3	7.3	6.3	2.0	6.0		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	7.2	1.2	6.1	4.5	2.5	12.8		
LnGrp Delay(d),s/veh	34.3	18.1	26.0	24.6	18.7	14.3		
LnGrp LOS	C	B	C	C	B	B		
Approach Vol, veh/h	458		623			1104		
Approach Delay, s/veh	31.0		25.4			15.0		
Approach LOS	C		C			B		
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	20.0	20.0				40.0		17.9
Change Period (Y+Rc), s	4.0	4.0				4.0		4.0
Max Green Setting (Gmax), s	16.0	16.0				36.0		16.0
Max Q Clear Time (g_c+I1), s	6.5	11.8				24.0		13.5
Green Ext Time (p_c), s	0.3	3.2				7.7		0.4
Intersection Summary								
HCM 2010 Ctrl Delay			21.3					
HCM 2010 LOS			C					

HCM 2010 Signalized Intersection Summary

4: Bass Lake Road & westbound ramp

















4/30/2015

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	0	0	5	1	128	57	309	0	0	232	840
Number				3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln				1900	1863	1900	1900	1863	0	0	1863	1863
Adj Flow Rate, veh/h				5	1	0	62	336	0	0	252	0
Adj No. of Lanes				0	1	0	0	2	0	0	1	1
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				0	2	0	2	2	0	0	2	2
Cap, veh/h				10	2	0	245	1406	0	0	358	304
Arrive On Green				0.01	0.01	0.00	0.15	0.15	0.00	0.00	0.19	0.00
Sat Flow, veh/h				1490	298	0	536	3163	0	0	1863	1583
Grp Volume(v), veh/h				6	0	0	213	185	0	0	252	0
Grp Sat Flow(s),veh/h/ln				1788	0	0	1836	1770	0	0	1863	1583
Q Serve(g_s), s				0.1	0.0	0.0	3.6	3.2	0.0	0.0	4.4	0.0
Cycle Q Clear(g_c), s				0.1	0.0	0.0	3.6	3.2	0.0	0.0	4.4	0.0
Prop In Lane				0.83		0.00	0.29		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				12	0	0	841	810	0	0	358	304
V/C Ratio(X)				0.52	0.00	0.00	0.25	0.23	0.00	0.00	0.70	0.00
Avail Cap(c_a), veh/h				819	0	0	841	810	0	0	853	725
HCM Platoon Ratio				1.00	1.00	1.00	0.33	0.33	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	0.00	0.85	0.85	0.00	0.00	0.47	0.00
Uniform Delay (d), s/veh				17.3	0.0	0.0	9.6	9.4	0.0	0.0	13.2	0.0
Incr Delay (d2), s/veh				31.5	0.0	0.0	0.6	0.6	0.0	0.0	1.2	0.0
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				0.2	0.0	0.0	2.0	1.7	0.0	0.0	2.4	0.0
LnGrp Delay(d),s/veh				48.8	0.0	0.0	10.2	10.0	0.0	0.0	14.4	0.0
LnGrp LOS				D			B	A			B	
Approach Vol, veh/h					6			398			252	
Approach Delay, s/veh					48.8			10.1			14.4	
Approach LOS					D			B			B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2				6		8				
Phs Duration (G+Y+Rc), s		45.1				10.7		4.2				
Change Period (Y+Rc), s		4.0				4.0		4.0				
Max Green Setting (Gmax), s		16.0				16.0		16.0				
Max Q Clear Time (g_c+I1), s		5.6				6.4		2.1				
Green Ext Time (p_c), s		1.7				0.9		0.0				
Intersection Summary												
HCM 2010 Ctrl Delay			12.1									
HCM 2010 LOS			B									

HCM 2010 Signalized Intersection Summary

5: Bass Lake Road & eastbound ramp

4/30/2015







												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	302	0	16	0	0	0	0	64	14	221	16	0
Number	7	4	14				5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900				0	1863	1900	1900	1863	0
Adj Flow Rate, veh/h	519	0	0				0	89	19	251	18	0
Adj No. of Lanes	2	1	0				0	1	0	0	1	0
Peak Hour Factor	0.61	0.61	0.61				0.72	0.72	0.72	0.88	0.88	0.88
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	851	447	0				0	197	42	392	28	0
Arrive On Green	0.24	0.00	0.00				0.00	0.13	0.13	0.24	0.24	0.00
Sat Flow, veh/h	3548	1863	0				0	1489	318	1661	119	0
Grp Volume(v), veh/h	519	0	0				0	0	108	269	0	0
Grp Sat Flow(s),veh/h/ln	1774	1863	0				0	0	1807	1780	0	0
Q Serve(g_s), s	4.0	0.0	0.0				0.0	0.0	1.7	4.2	0.0	0.0
Cycle Q Clear(g_c), s	4.0	0.0	0.0				0.0	0.0	1.7	4.2	0.0	0.0
Prop In Lane	1.00		0.00				0.00		0.18	0.93		0.00
Lane Grp Cap(c), veh/h	851	447	0				0	0	239	420	0	0
V/C Ratio(X)	0.61	0.00	0.00				0.00	0.00	0.45	0.64	0.00	0.00
Avail Cap(c_a), veh/h	1854	973	0				0	0	944	930	0	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00				0.00	0.00	1.00	0.81	0.00	0.00
Uniform Delay (d), s/veh	10.4	0.0	0.0				0.0	0.0	12.3	10.5	0.0	0.0
Incr Delay (d2), s/veh	0.7	0.0	0.0				0.0	0.0	6.1	1.3	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	0.0	0.0				0.0	0.0	1.2	2.2	0.0	0.0
LnGrp Delay(d),s/veh	11.1	0.0	0.0				0.0	0.0	18.3	11.9	0.0	0.0
LnGrp LOS	B								B		B	
Approach Vol, veh/h	519							108			269	
Approach Delay, s/veh	11.1							18.3			11.9	
Approach LOS	B							B			B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2		4		6						
Phs Duration (G+Y+Rc), s		37.4		11.3		11.2						
Change Period (Y+Rc), s		4.0		4.0		4.0						
Max Green Setting (Gmax), s		16.0		16.0		16.0						
Max Q Clear Time (g_c+I1), s		3.7		6.0		6.2						
Green Ext Time (p_c), s		0.4		1.4		1.1						
Intersection Summary												
HCM 2010 Ctrl Delay			12.2									
HCM 2010 LOS			B									
Notes												
User approved volume balancing among the lanes for turning movement.												

HCM 2010 Signalized Intersection Summary

3: Bass Lake Road & Country Club Drive

4/30/2015



Movement	WBL	WBR	NBT	NBR	SBL	SBT		
Lane Configurations								
Volume (veh/h)	141	92	686	273	79	347		
Number	3	18	2	12	1	6		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863		
Adj Flow Rate, veh/h	243	159	746	297	86	377		
Adj No. of Lanes	1	1	1	1	1	1		
Peak Hour Factor	0.58	0.58	0.92	0.92	0.92	0.92		
Percent Heavy Veh, %	2	2	2	2	2	2		
Cap, veh/h	321	287	995	846	109	1248		
Arrive On Green	0.18	0.18	0.53	0.53	0.06	0.67		
Sat Flow, veh/h	1774	1583	1863	1583	1774	1863		
Grp Volume(v), veh/h	243	159	746	297	86	377		
Grp Sat Flow(s),veh/h/ln	1774	1583	1863	1583	1774	1863		
Q Serve(g_s), s	7.0	4.9	16.7	5.8	2.6	4.5		
Cycle Q Clear(g_c), s	7.0	4.9	16.7	5.8	2.6	4.5		
Prop In Lane	1.00	1.00		1.00	1.00			
Lane Grp Cap(c), veh/h	321	287	995	846	109	1248		
V/C Ratio(X)	0.76	0.55	0.75	0.35	0.79	0.30		
Avail Cap(c_a), veh/h	528	471	995	846	132	1248		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00		
Uniform Delay (d), s/veh	20.9	20.0	9.7	7.2	24.9	3.7		
Incr Delay (d2), s/veh	3.6	1.7	5.2	1.1	22.5	0.6		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	3.7	2.3	9.9	2.7	1.9	2.5		
LnGrp Delay(d),s/veh	24.5	21.7	14.9	8.3	47.4	4.3		
LnGrp LOS	C	C	B	A	D	A		
Approach Vol, veh/h	402		1043			463		
Approach Delay, s/veh	23.4		13.0			12.3		
Approach LOS	C		B			B		
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	7.3	32.7				40.0		13.7
Change Period (Y+Rc), s	4.0	4.0				4.0		4.0
Max Green Setting (Gmax), s	4.0	28.0				36.0		16.0
Max Q Clear Time (g_c+I), s	4.0	18.7				6.5		9.0
Green Ext Time (p_c), s	0.0	5.6				10.7		0.8
Intersection Summary								
HCM 2010 Ctrl Delay			15.0					
HCM 2010 LOS			B					

Two Way Analysis cannot be performed on Signalized Intersection.

HCM 2010 Signalized Intersection Summary

4: Bass Lake Road & westbound ramp

4/30/2015



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	0	0	19	0	192	24	767	0	0	124	364
Number				3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln				1900	1863	1900	1900	1863	0	0	1863	1863
Adj Flow Rate, veh/h				20	0	0	25	791	0	0	128	0
Adj No. of Lanes				0	1	0	0	2	0	0	1	1
Peak Hour Factor				0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %				0	2	0	2	2	0	0	2	2
Cap, veh/h				35	0	0	63	2102	0	0	180	153
Arrive On Green				0.02	0.00	0.00	0.20	0.20	0.00	0.00	0.10	0.00
Sat Flow, veh/h				1774	0	0	106	3614	0	0	1863	1583
Grp Volume(v), veh/h				20	0	0	437	379	0	0	128	0
Grp Sat Flow(s),veh/h/ln				1774	0	0	1857	1770	0	0	1863	1583
Q Serve(g_s), s				0.5	0.0	0.0	8.6	7.7	0.0	0.0	2.8	0.0
Cycle Q Clear(g_c), s				0.5	0.0	0.0	8.6	7.7	0.0	0.0	2.8	0.0
Prop In Lane				1.00		0.00	0.06		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				35	0	0	1109	1056	0	0	180	153
V/C Ratio(X)				0.57	0.00	0.00	0.39	0.36	0.00	0.00	0.71	0.00
Avail Cap(c_a), veh/h				678	0	0	1109	1056	0	0	756	643
HCM Platoon Ratio				1.00	1.00	1.00	0.33	0.33	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	0.00	0.66	0.66	0.00	0.00	0.90	0.00
Uniform Delay (d), s/veh				20.3	0.0	0.0	10.2	9.9	0.0	0.0	18.3	0.0
Incr Delay (d2), s/veh				13.6	0.0	0.0	0.7	0.6	0.0	0.0	4.6	0.0
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				0.4	0.0	0.0	4.6	4.0	0.0	0.0	1.7	0.0
LnGrp Delay(d),s/veh				34.0	0.0	0.0	10.9	10.5	0.0	0.0	22.9	0.0
LnGrp LOS				C			B	B			C	
Approach Vol, veh/h				20			816				128	
Approach Delay, s/veh				34.0			10.7				22.9	
Approach LOS				C			B				C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2				6		8				
Phs Duration (G+Y+Rc), s		57.1				8.1		4.8				
Change Period (Y+Rc), s		4.0				4.0		4.0				
Max Green Setting (Gmax), s		25.0				17.0		16.0				
Max Q Clear Time (g_c+I1), s		10.6				4.8		2.5				
Green Ext Time (p_c), s		4.5				0.4		0.0				
Intersection Summary												
HCM 2010 Ctrl Delay				12.8								
HCM 2010 LOS				B								

Two Way Analysis cannot be performed on Signalized Intersection.

HCM 2010 Signalized Intersection Summary

5: Bass Lake Road & eastbound ramp

4/30/2015



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	760	2	42	0	0	0	0	30	13	115	28	0
Number	7	4	14				5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900				0	1863	1900	1900	1863	0
Adj Flow Rate, veh/h	834	0	0				0	45	19	125	30	0
Adj No. of Lanes	2	1	0				0	1	0	0	1	0
Peak Hour Factor	0.96	0.96	0.96				0.67	0.67	0.67	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	1034	543	0				0	321	135	372	89	0
Arrive On Green	0.29	0.00	0.00				0.00	0.26	0.26	0.26	0.26	0.00
Sat Flow, veh/h	3548	1863	0				0	1245	525	1444	347	0
Grp Volume(v), veh/h	834	0	0				0	0	64	155	0	0
Grp Sat Flow(s), veh/h/ln	1774	1863	0				0	0	1770	1791	0	0
Q Serve(g_s), s	13.5	0.0	0.0				0.0	0.0	1.7	4.4	0.0	0.0
Cycle Q Clear(g_c), s	13.5	0.0	0.0				0.0	0.0	1.7	4.4	0.0	0.0
Prop In Lane	1.00		0.00				0.00		0.30	0.81		0.00
Lane Grp Cap(c), veh/h	1034	543	0				0	0	456	461	0	0
V/C Ratio(X)	0.81	0.00	0.00				0.00	0.00	0.14	0.34	0.00	0.00
Avail Cap(c_a), veh/h	1486	780	0				0	0	456	461	0	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00				0.00	0.00	1.00	0.90	0.00	0.00
Uniform Delay (d), s/veh	20.4	0.0	0.0				0.0	0.0	17.8	18.7	0.0	0.0
Incr Delay (d2), s/veh	2.2	0.0	0.0				0.0	0.0	0.6	1.8	0.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	16.9	0.0	0.0				0.0	0.0	0.9	2.4	0.0	0.0
LnGrp Delay(d), s/veh	22.6	0.0	0.0				0.0	0.0	18.4	20.5	0.0	0.0
LnGrp LOS	C								B	C		
Approach Vol, veh/h	834							64			155	
Approach Delay, s/veh	22.6							18.4			20.5	
Approach LOS	C							B			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2		4		6						
Phs Duration (G+Y+Rc), s		27.9		22.1		20.0						
Change Period (Y+Rc), s		4.0		4.0		4.0						
Max Green Setting (Gmax), s		16.0		26.0		16.0						
Max Q Clear Time (g_c+I1), s		3.7		15.5		6.4						
Green Ext Time (p_c), s		0.2		2.6		0.5						
Intersection Summary												
HCM 2010 Ctrl Delay			22.0									
HCM 2010 LOS			C									

Notes

User approved volume balancing among the lanes for turning movement.

Two Way Analysis cannot be performed on Signalized Intersection.

Intersection

Int Delay, s/veh 1.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	0	0	0	5	1	128	57	309	0	0	232	840
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	Yield	-	-	None	-	-	Yield
Storage Length	-	-	-	-	-	-	-	-	-	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	5	1	139	62	336	0	0	252	913

Major/Minor	Minor1			Major1			Major2		
Conflicting Flow All	712	712	168	252	0	0	336	0	0
Stage 1	460	460	-	-	-	-	-	-	-
Stage 2	252	252	-	-	-	-	-	-	-
Critical Hdwy	6.63	6.53	6.93	4.12	-	-	4.14	-	-
Critical Hdwy Stg 1	5.83	5.53	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.43	5.53	-	-	-	-	-	-	-
Follow-up Hdwy	3.519	4.019	3.319	2.218	-	-	2.22	-	-
Pot Cap-1 Maneuver	383	357	847	1313	-	-	1220	-	-
Stage 1	603	565	-	-	-	-	-	-	-
Stage 2	789	698	-	-	-	-	-	-	-
Platoon blocked, %					-	-		-	-
Mov Cap-1 Maneuver	361	0	847	1313	-	-	1220	-	-
Mov Cap-2 Maneuver	361	0	-	-	-	-	-	-	-
Stage 1	568	0	-	-	-	-	-	-	-
Stage 2	789	0	-	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.9	1.4	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1313	-	-	887	1220	-	-
HCM Lane V/C Ratio	0.047	-	-	0.164	-	-	-
HCM Control Delay (s)	7.9	0.2	-	9.9	0	-	-
HCM Lane LOS	A	A	-	A	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0.6	0	-	-

Intersection

Int Delay, s/veh 2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	0	0	0	19	0	192	24	767	0	0	124	364
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	Yield	-	-	None	-	-	Yield
Storage Length	-	-	-	-	-	-	-	-	-	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	97	97	97	97	97	97	97	97	97	97	97	97
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	20	0	198	25	791	0	0	128	375

Major/Minor	Minor1			Major1			Major2		
Conflicting Flow All	968	968	395	128	0	0	791	0	0
Stage 1	840	840	-	-	-	-	-	-	-
Stage 2	128	128	-	-	-	-	-	-	-
Critical Hdwy	6.63	6.53	6.93	4.12	-	-	4.14	-	-
Critical Hdwy Stg 1	5.83	5.53	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.43	5.53	-	-	-	-	-	-	-
Follow-up Hdwy	3.519	4.019	3.319	2.218	-	-	2.22	-	-
Pot Cap-1 Maneuver	266	253	605	1458	-	-	825	-	-
Stage 1	385	380	-	-	-	-	-	-	-
Stage 2	897	790	-	-	-	-	-	-	-
Platoon blocked, %					-	-		-	-
Mov Cap-1 Maneuver	258	0	605	1458	-	-	825	-	-
Mov Cap-2 Maneuver	258	0	-	-	-	-	-	-	-
Stage 1	373	0	-	-	-	-	-	-	-
Stage 2	897	0	-	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	13	0.3	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1458	-	-	665	825	-	-
HCM Lane V/C Ratio	0.017	-	-	0.327	-	-	-
HCM Control Delay (s)	7.5	0.1	-	13	0	-	-
HCM Lane LOS	A	A	-	B	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	1.4	0	-	-

1: Bass Lake Road & Country Club Drive Performance by movement

Movement	WBL	WBR	NBT	NBR	SBL	SBT	All
Denied Del/Veh (s)	3.6	1.0	0.0	0.1	0.0	0.0	0.6
Total Del/Veh (s)	37.3	8.9	18.6	3.5	38.6	29.5	26.3
Stop Delay (hr)	2.7	0.2	1.2	0.0	1.1	2.5	7.6
Vehicles Entered	303	84	353	197	175	982	2094
Vehicles Exited	302	84	356	198	175	980	2095
Hourly Exit Rate	302	84	356	198	175	980	2095
Input Volume	313	79	347	195	174	986	2093
% of Volume	97	106	103	102	101	99	100

2: Bass Lake Road & westbound ramp Performance by movement

Movement	WBL	WBT	WBR	NBL	NBT	SBT	SBR	All
Denied Del/Veh (s)	0.1	0.2	0.2	0.1	0.0	0.1	0.4	0.3
Total Del/Veh (s)	39.1	35.6	1.7	21.0	15.7	5.5	5.4	8.1
Stop Delay (hr)	0.1	0.0	0.0	0.4	1.3	0.4	0.3	2.5
Vehicles Entered	8	2	161	91	404	413	952	2031
Vehicles Exited	8	2	160	90	401	413	953	2027
Hourly Exit Rate	8	2	160	90	401	413	953	2027
Input Volume	7	2	152	91	401	410	967	2030
% of Volume	110	100	105	99	100	101	99	100

3: Bass Lake Road & eastbound ramp Performance by movement

Movement	EBL	EBR	NBT	NBR	SBL	SBT	All
Denied Del/Veh (s)	0.9	0.4	0.2	0.2	0.0	0.0	0.4
Total Del/Veh (s)	19.8	8.4	32.2	15.9	9.5	9.9	16.8
Stop Delay (hr)	1.8	0.1	0.8	0.1	0.6	0.1	3.4
Vehicles Entered	374	29	106	23	309	30	871
Vehicles Exited	374	29	105	23	309	30	870
Hourly Exit Rate	374	29	105	23	309	30	870
Input Volume	370	27	105	25	313	26	867
% of Volume	101	106	100	92	99	114	100

Total Network Performance

Denied Del/Veh (s)	1.6
Total Del/Veh (s)	49.9
Stop Delay (hr)	14.0
Vehicles Entered	2354
Vehicles Exited	2347
Hourly Exit Rate	2347
Input Volume	12224
% of Volume	19

Queuing and Blocking Report

2025 AM BLHSP Phase 1a, and half of Phase 2 & 3 (WB ramps signal control)

4/27/2015

Intersection: 1: Bass Lake Road & Country Club Drive

Movement	WB	WB	NB	B41	SB	SB
Directions Served	L	R	T	T	L	T
Maximum Queue (ft)	367	361	249	28	299	1008
Average Queue (ft)	155	68	119	1	107	282
95th Queue (ft)	322	283	215	28	250	769
Link Distance (ft)		862	1178	283		2496
Upstream Blk Time (%)				0		
Queuing Penalty (veh)				0		
Storage Bay Dist (ft)	300				200	
Storage Blk Time (%)	5	0	0		0	10
Queuing Penalty (veh)	6	0	0		0	18

Intersection: 2: Bass Lake Road & westbound ramp

Movement	WB	NB	NB	SB	SB
Directions Served	LTR	LT	T	T	R
Maximum Queue (ft)	56	252	215	226	246
Average Queue (ft)	10	130	71	78	99
95th Queue (ft)	38	224	172	154	217
Link Distance (ft)	1251	278	278	283	
Upstream Blk Time (%)		0	0	0	0
Queuing Penalty (veh)		0	0	0	0
Storage Bay Dist (ft)					300
Storage Blk Time (%)				0	0
Queuing Penalty (veh)				0	0

Intersection: 3: Bass Lake Road & eastbound ramp

Movement	EB	EB	NB	SB
Directions Served	L	LTR	TR	LT
Maximum Queue (ft)	206	141	144	146
Average Queue (ft)	99	63	71	71
95th Queue (ft)	161	116	128	122
Link Distance (ft)		899	284	278
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)	240			
Storage Blk Time (%)	0			
Queuing Penalty (veh)	0			

Network Summary

Network wide Queuing Penalty: 26

SimTraffic Performance Report

2025 AM BLHSP Phase 1a, and half of Phase 2 & 3 (WB ramps signal control)

4/27/2015

1: Bass Lake Road & Country Club Drive Performance by run number

Run Number	10	13	14	15	17	18	20	4	6	8	Avg
Denied Del/Veh (s)	0.5	0.6	0.6	0.5	0.6	0.6	0.6	0.6	0.5	0.5	0.6
Total Del/Veh (s)	35.1	22.3	26.5	22.2	29.5	26.0	24.5	29.3	24.3	23.4	26.3
Stop Delay (hr)	10.2	6.7	7.2	5.7	9.3	7.2	7.6	8.9	6.5	6.7	7.6
Vehicles Entered	2088	2108	2113	2124	2052	2053	2100	2101	2072	2124	2094
Vehicles Exited	2078	2105	2116	2132	2058	2065	2092	2110	2081	2115	2095
Hourly Exit Rate	2078	2105	2116	2132	2058	2065	2092	2110	2081	2115	2095
Input Volume	2093	2093	2093	2093	2093	2093	2093	2093	2093	2093	2093
% of Volume	99	101	101	102	98	99	100	101	99	101	100

2: Bass Lake Road & westbound ramp Performance by run number

Run Number	10	13	14	15	17	18	20	4	6	8	Avg
Denied Del/Veh (s)	0.2	0.2	0.3	0.3	0.1	0.2	0.5	0.1	0.2	0.2	0.3
Total Del/Veh (s)	7.4	7.9	8.4	9.2	8.3	7.8	8.6	7.7	7.2	7.9	8.1
Stop Delay (hr)	2.1	2.5	2.8	3.3	2.7	2.4	2.7	2.4	2.0	2.4	2.5
Vehicles Entered	1994	2044	2071	2084	2000	2038	2037	2013	1991	2036	2031
Vehicles Exited	1988	2039	2073	2079	2002	2030	2034	2007	1986	2034	2027
Hourly Exit Rate	1988	2039	2073	2079	2002	2030	2034	2007	1986	2034	2027
Input Volume	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030
% of Volume	98	100	102	102	99	100	100	99	98	100	100

3: Bass Lake Road & eastbound ramp Performance by run number

Run Number	10	13	14	15	17	18	20	4	6	8	Avg
Denied Del/Veh (s)	0.4	0.4	0.4	0.4	0.4	0.5	0.5	0.4	0.4	0.4	0.4
Total Del/Veh (s)	16.8	16.6	16.6	17.2	16.4	17.2	17.4	17.3	16.0	16.6	16.8
Stop Delay (hr)	3.4	3.4	3.4	3.7	3.4	3.5	3.6	3.5	3.0	3.4	3.4
Vehicles Entered	852	879	887	930	896	852	874	857	810	874	871
Vehicles Exited	843	885	885	929	894	853	871	864	809	873	870
Hourly Exit Rate	843	885	885	929	894	853	871	864	809	873	870
Input Volume	867	867	867	867	867	867	867	867	867	867	867
% of Volume	97	102	102	107	103	98	100	100	93	101	100

SimTraffic Performance Report

2025 AM BLHSP Phase 1a, and half of Phase 2 & 3 (WB ramps signal control)

4/27/2015

Total Network Performance By Run

Run Number	10	13	14	15	17	18	20
Denied Del/Veh (s)	1.8	1.6	1.7	1.9	1.4	1.6	1.7
Total Del/Veh (s)	57.1	46.1	50.5	47.8	52.4	48.9	49.2
Stop Delay (hr)	16.1	13.0	13.9	13.2	15.8	13.5	14.4
Vehicles Entered	2318	2382	2366	2413	2317	2355	2356
Vehicles Exited	2299	2388	2370	2422	2331	2341	2340
Hourly Exit Rate	2299	2388	2370	2422	2331	2341	2340
Input Volume	12224	12224	12224	12224	12224	12224	12224
% of Volume	19	20	19	20	19	19	19

Total Network Performance By Run

Run Number	4	6	8	Avg
Denied Del/Veh (s)	1.4	1.5	1.5	1.6
Total Del/Veh (s)	52.6	47.4	47.1	49.9
Stop Delay (hr)	15.3	12.0	13.0	14.0
Vehicles Entered	2328	2319	2384	2354
Vehicles Exited	2327	2281	2378	2347
Hourly Exit Rate	2327	2281	2378	2347
Input Volume	12224	12224	12224	12224
% of Volume	19	19	19	19

SimTraffic Performance Report

2025 PM BLHSP Phase 1a, and half of Phase 2 & 3 (WB ramps signal control)

4/27/2015

1: Bass Lake Road & Country Club Drive Performance by movement

Movement	WBL	WBR	NBT	NBR	SBL	SBT	All
Denied Del/Veh (s)	3.6	0.6	0.0	0.0	0.0	0.0	0.3
Total Del/Veh (s)	24.5	14.9	16.5	6.2	32.3	7.6	14.0
Stop Delay (hr)	0.9	0.5	1.5	0.0	0.7	0.1	3.7
Vehicles Entered	150	125	901	324	95	494	2089
Vehicles Exited	150	126	900	324	94	494	2088
Hourly Exit Rate	150	126	900	324	94	494	2088
Input Volume	154	122	892	321	97	495	2082
% of Volume	97	103	101	101	97	100	100

2: Bass Lake Road & westbound ramp Performance by movement

Movement	WBL	WBR	NBL	NBT	SBT	SBR	All
Denied Del/Veh (s)	0.3	0.3	0.0	0.0	0.1	0.0	0.1
Total Del/Veh (s)	39.7	3.9	7.5	7.2	26.9	2.7	8.5
Stop Delay (hr)	0.4	0.1	0.0	1.0	1.5	0.0	3.0
Vehicles Entered	34	302	31	922	230	451	1970
Vehicles Exited	34	303	32	923	231	451	1974
Hourly Exit Rate	34	303	32	923	231	451	1974
Input Volume	35	292	34	927	232	456	1975
% of Volume	98	104	94	100	100	99	100

3: Bass Lake Road & eastbound ramp Performance by movement

Movement	EBL	EBT	EBR	NBT	NBR	SBL	SBT	All
Denied Del/Veh (s)	1.0	1.0	1.0	0.1	0.1	0.1	0.0	0.8
Total Del/Veh (s)	8.6	9.6	5.7	34.7	15.3	43.1	44.2	16.1
Stop Delay (hr)	1.3	0.0	0.1	0.5	0.1	1.9	0.6	4.4
Vehicles Entered	880	2	67	59	21	175	52	1256
Vehicles Exited	877	2	68	61	21	174	51	1254
Hourly Exit Rate	877	2	68	61	21	174	51	1254
Input Volume	884	2	67	60	23	176	53	1265
% of Volume	99	100	101	102	92	99	96	99

Total Network Performance

Movement	
Denied Del/Veh (s)	0.9
Total Del/Veh (s)	43.4
Stop Delay (hr)	11.9
Vehicles Entered	2292
Vehicles Exited	2303
Hourly Exit Rate	2303
Input Volume	12594
% of Volume	18

Queuing and Blocking Report

2025 PM BLHSP Phase 1a, and half of Phase 2 & 3 (WB ramps signal control)

4/27/2015

Intersection: 1: Bass Lake Road & Country Club Drive

Movement	WB	WB	NB	NB	B41	B41	SB	SB
Directions Served	L	R	T	R	T		L	T
Maximum Queue (ft)	185	127	404	200	328	250	116	143
Average Queue (ft)	72	55	181	13	82	14	57	49
95th Queue (ft)	142	106	333	129	295	118	102	113
Link Distance (ft)		862	1178		283	283		2496
Upstream Blk Time (%)					1	0		
Queuing Penalty (veh)					7	1		
Storage Bay Dist (ft)	300			300			200	
Storage Blk Time (%)	0		2				0	0
Queuing Penalty (veh)	0		6				0	0

Intersection: 2: Bass Lake Road & westbound ramp

Movement	WB	NB	NB	SB	SB	B41
Directions Served	LTR	LT	T	T	R	T
Maximum Queue (ft)	219	250	218	248	132	46
Average Queue (ft)	47	113	60	106	15	3
95th Queue (ft)	139	212	164	198	93	48
Link Distance (ft)	1251	278	278	283		1178
Upstream Blk Time (%)		0		1	0	
Queuing Penalty (veh)		0		4	0	
Storage Bay Dist (ft)					300	
Storage Blk Time (%)				1	0	
Queuing Penalty (veh)				2	0	

Intersection: 3: Bass Lake Road & eastbound ramp

Movement	EB	EB	NB	SB
Directions Served	L	LTR	TR	LT
Maximum Queue (ft)	248	182	129	278
Average Queue (ft)	125	83	51	123
95th Queue (ft)	207	157	102	228
Link Distance (ft)		899	284	278
Upstream Blk Time (%)				1
Queuing Penalty (veh)				1
Storage Bay Dist (ft)	240			
Storage Blk Time (%)	0	0		
Queuing Penalty (veh)	2	0		

Network Summary

Network wide Queuing Penalty: 24

SimTraffic Performance Report

2025 PM BLHSP Phase 1a, and half of Phase 2 & 3 (WB ramps signal control)

4/27/2015

1: Bass Lake Road & Country Club Drive Performance by run number

Run Number	10	12	13	14	17	18	19	2	20	5	Avg
Denied Del/Veh (s)	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Total Del/Veh (s)	13.7	14.1	15.3	14.9	13.2	12.8	13.8	12.6	15.3	14.2	14.0
Stop Delay (hr)	3.6	3.6	4.1	4.1	3.6	3.3	3.8	3.1	4.2	3.6	3.7
Vehicles Entered	2062	2023	2043	2091	2158	2091	2119	2080	2101	2118	2089
Vehicles Exited	2058	2016	2044	2097	2159	2100	2128	2084	2086	2109	2088
Hourly Exit Rate	2058	2016	2044	2097	2159	2100	2128	2084	2086	2109	2088
Input Volume	2082	2082	2082	2082	2082	2082	2082	2082	2082	2082	2082
% of Volume	99	97	98	101	104	101	102	100	100	101	100

2: Bass Lake Road & westbound ramp Performance by run number

Run Number	10	12	13	14	17	18	19	2	20	5	Avg
Denied Del/Veh (s)	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Total Del/Veh (s)	9.1	8.9	8.3	7.5	8.2	8.4	8.8	8.8	9.3	8.3	8.5
Stop Delay (hr)	3.2	3.0	2.8	2.4	2.9	2.9	3.1	3.0	3.5	2.9	3.0
Vehicles Entered	1951	1897	1926	1975	2029	2000	2015	1967	1970	1981	1970
Vehicles Exited	1952	1895	1932	1978	2030	2000	2017	1973	1974	1987	1974
Hourly Exit Rate	1952	1895	1932	1978	2030	2000	2017	1973	1974	1987	1974
Input Volume	1975	1975	1975	1975	1975	1975	1975	1975	1975	1975	1975
% of Volume	99	96	98	100	103	101	102	100	100	101	100

3: Bass Lake Road & eastbound ramp Performance by run number

Run Number	10	12	13	14	17	18	19	2	20	5	Avg
Denied Del/Veh (s)	0.9	0.7	0.9	0.9	0.8	0.8	0.8	0.7	0.7	0.8	0.8
Total Del/Veh (s)	16.7	16.6	14.8	15.4	15.4	16.3	17.0	16.2	16.6	15.6	16.1
Stop Delay (hr)	4.6	4.6	3.9	4.2	4.2	4.5	4.8	4.5	4.4	4.4	4.4
Vehicles Entered	1258	1231	1216	1280	1288	1241	1269	1271	1213	1292	1256
Vehicles Exited	1250	1232	1210	1283	1283	1246	1270	1275	1205	1286	1254
Hourly Exit Rate	1250	1232	1210	1283	1283	1246	1270	1275	1205	1286	1254
Input Volume	1265	1265	1265	1265	1265	1265	1265	1265	1265	1265	1265
% of Volume	99	97	96	101	101	98	100	101	95	102	99

SimTraffic Performance Report

2025 PM BLHSP Phase 1a, and half of Phase 2 & 3 (WB ramps signal control)

4/27/2015

Total Network Performance By Run

Run Number	10	12	13	14	17	18	19
Denied Del/Veh (s)	1.0	0.8	1.0	1.0	0.9	0.9	0.9
Total Del/Veh (s)	44.0	44.3	43.8	43.0	42.1	41.9	44.3
Stop Delay (hr)	12.2	12.1	11.6	11.3	11.5	11.5	12.6
Vehicles Entered	2256	2243	2253	2286	2349	2303	2315
Vehicles Exited	2244	2232	2267	2313	2342	2320	2331
Hourly Exit Rate	2244	2232	2267	2313	2342	2320	2331
Input Volume	12594	12594	12594	12594	12594	12594	12594
% of Volume	18	18	18	18	19	18	19

Total Network Performance By Run

Run Number	2	20	5	Avg
Denied Del/Veh (s)	0.9	0.9	0.9	0.9
Total Del/Veh (s)	41.9	45.3	43.8	43.4
Stop Delay (hr)	11.5	12.9	11.6	11.9
Vehicles Entered	2312	2302	2304	2292
Vehicles Exited	2349	2309	2301	2303
Hourly Exit Rate	2349	2309	2301	2303
Input Volume	12594	12594	12594	12594
% of Volume	19	18	18	18

SimTraffic Performance Report

2025 AM BLHSP Phase 1a, and half of Phase 2 & 3 (WB ramps SSSC control)

5/4/2015

1: Bass Lake Road & Country Club Drive Performance by movement

Movement	WBL	WBR	NBT	NBR	SBL	SBT	All
Denied Del/Veh (s)	4.3	1.6	0.0	0.0	0.0	0.0	0.7
Total Del/Veh (s)	46.3	12.6	17.7	3.0	35.6	25.4	25.5
Stop Delay (hr)	3.5	0.2	1.1	0.0	1.0	2.0	7.8
Vehicles Entered	315	84	342	198	174	975	2088
Vehicles Exited	315	84	340	198	173	975	2085
Hourly Exit Rate	315	84	340	198	173	975	2085
Input Volume	313	79	347	195	174	986	2093
% of Volume	101	106	98	102	99	99	100

2: Bass Lake Road & westbound ramp Performance by movement

Movement	WBL	WBT	WBR	NBL	NBT	SBT	SBR	All
Denied Del/Veh (s)	0.2	0.3	0.2	0.0	0.0	0.2	0.5	0.3
Total Del/Veh (s)	12.0	11.7	1.3	4.5	2.5	0.4	5.5	3.5
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.5
Vehicles Entered	7	2	155	95	398	413	956	2026
Vehicles Exited	7	2	154	95	399	413	955	2025
Hourly Exit Rate	7	2	154	95	399	413	955	2025
Input Volume	7	2	152	91	401	410	967	2030
% of Volume	97	100	101	104	100	101	99	100

3: Bass Lake Road & eastbound ramp Performance by movement

Movement	EBL	EBR	NBT	NBR	SBL	SBT	All
Denied Del/Veh (s)	0.9	0.5	0.2	0.2	0.0	0.0	0.4
Total Del/Veh (s)	12.5	5.5	19.0	10.2	12.5	13.2	13.0
Stop Delay (hr)	1.0	0.0	0.5	0.1	0.9	0.1	2.5
Vehicles Entered	370	28	107	23	316	25	869
Vehicles Exited	368	28	108	23	316	25	868
Hourly Exit Rate	368	28	108	23	316	25	868
Input Volume	370	27	105	25	313	26	867
% of Volume	99	103	103	92	101	95	100

Total Network Performance

Movement	
Denied Del/Veh (s)	1.7
Total Del/Veh (s)	43.7
Stop Delay (hr)	11.3
Vehicles Entered	2338
Vehicles Exited	2337
Hourly Exit Rate	2337
Input Volume	12224
% of Volume	19

Queuing and Blocking Report

2025 AM BLHSP Phase 1a, and half of Phase 2 & 3 (WB ramps SSSC control)

5/4/2015

Intersection: 1: Bass Lake Road & Country Club Drive

Movement	WB	WB	NB	SB	SB
Directions Served	L	R	T	L	T
Maximum Queue (ft)	383	544	242	299	778
Average Queue (ft)	169	104	109	112	237
95th Queue (ft)	360	433	193	255	580
Link Distance (ft)		862	1178		2496
Upstream Blk Time (%)		1			
Queuing Penalty (veh)		0			
Storage Bay Dist (ft)	300			200	
Storage Blk Time (%)	9	0	0	0	9
Queuing Penalty (veh)	11	0	0	1	16

Intersection: 2: Bass Lake Road & westbound ramp

Movement	WB	NB	NB	SB	SB
Directions Served	LTR	LT	T	T	R
Maximum Queue (ft)	32	104	17	122	248
Average Queue (ft)	9	33	1	6	106
95th Queue (ft)	31	86	14	69	232
Link Distance (ft)	1251	278	278	283	
Upstream Blk Time (%)				0	0
Queuing Penalty (veh)				0	0
Storage Bay Dist (ft)					300
Storage Blk Time (%)				0	0
Queuing Penalty (veh)				0	0

Intersection: 3: Bass Lake Road & eastbound ramp

Movement	EB	EB	NB	SB
Directions Served	L	LTR	TR	LT
Maximum Queue (ft)	151	101	131	184
Average Queue (ft)	77	49	56	101
95th Queue (ft)	129	88	103	158
Link Distance (ft)		899	284	278
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)	240			
Storage Blk Time (%)				
Queuing Penalty (veh)				

Network Summary

Network wide Queuing Penalty: 30

SimTraffic Performance Report

2025 AM BLHSP Phase 1a, and half of Phase 2 & 3 (WB ramps SSSC control)

5/4/2015

1: Bass Lake Road & Country Club Drive WB, Performance by run number

Run Number	1	13	14	15	16	2	20	3	6	9	Avg
Denied Del/Veh (s)	3.0	3.4	2.9	3.0	3.0	3.0	9.6	3.0	3.0	3.0	3.8
Total Del/Veh (s)	43.2	63.1	34.7	30.7	35.0	25.6	70.0	36.6	25.2	23.5	39.3
Stop Delay (hr)	4.1	6.4	3.5	2.7	3.1	2.4	7.6	3.3	2.2	2.3	3.8
Vehicles Entered	403	409	432	382	380	397	438	377	362	408	399
Vehicles Exited	407	407	430	385	377	396	439	378	363	409	399
Hourly Exit Rate	407	407	430	385	377	396	439	378	363	409	399
Input Volume	392	392	392	392	392	392	392	392	392	392	392
% of Volume	104	104	110	98	96	101	112	96	93	104	102

1: Bass Lake Road & Country Club Drive NB, Performance by run number

Run Number	1	13	14	15	16	2	20	3	6	9	Avg
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Del/Veh (s)	10.9	13.5	13.5	13.3	12.0	11.5	13.0	11.3	11.4	12.4	12.3
Stop Delay (hr)	0.9	1.3	1.2	1.2	1.0	0.9	1.2	0.9	0.9	1.1	1.1
Vehicles Entered	589	583	521	549	530	500	543	531	510	544	540
Vehicles Exited	585	577	514	551	529	501	538	534	513	541	538
Hourly Exit Rate	585	577	514	551	529	501	538	534	513	541	538
Input Volume	542	542	542	542	542	542	542	542	542	542	542
% of Volume	108	107	95	102	98	92	99	99	95	100	99

1: Bass Lake Road & Country Club Drive SB, Performance by run number

Run Number	1	13	14	15	16	2	20	3	6	9	Avg
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Del/Veh (s)	25.5	26.7	25.5	23.4	30.5	28.0	22.3	30.9	27.9	28.4	26.9
Stop Delay (hr)	2.8	3.1	2.9	2.3	3.4	2.9	2.3	3.8	3.4	3.1	3.0
Vehicles Entered	1134	1113	1153	1152	1144	1174	1112	1176	1167	1162	1149
Vehicles Exited	1134	1112	1141	1146	1147	1176	1112	1182	1168	1164	1148
Hourly Exit Rate	1134	1112	1141	1146	1147	1176	1112	1182	1168	1164	1148
Input Volume	1160	1160	1160	1160	1160	1160	1160	1160	1160	1160	1160
% of Volume	98	96	98	99	99	101	96	102	101	100	99

2: Bass Lake Road & westbound ramp WB, Performance by run number

Run Number	1	13	14	15	16	2	20	3	6	9	Avg
Denied Del/Veh (s)	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2
Total Del/Veh (s)	1.4	1.9	2.2	2.0	1.8	1.8	1.7	2.3	1.9	1.9	1.9
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Vehicles Entered	159	177	163	167	137	170	184	169	157	160	164
Vehicles Exited	159	179	162	167	134	167	185	169	155	160	163
Hourly Exit Rate	159	179	162	167	134	167	185	169	155	160	163
Input Volume	161	161	161	161	161	161	161	161	161	161	161
% of Volume	99	111	101	104	83	104	115	105	96	99	101

SimTraffic Performance Report

2025 AM BLHSP Phase 1a, and half of Phase 2 & 3 (WB ramps SSSC control)

5/4/2015

2: Bass Lake Road & westbound ramp NB, Performance by run number

Run Number	1	13	14	15	16	2	20	3	6	9	Avg
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Del/Veh (s)	3.0	2.9	3.1	2.7	2.9	3.2	2.7	2.7	2.6	2.7	2.9
Stop Delay (hr)	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Vehicles Entered	556	521	490	496	519	476	460	465	471	479	493
Vehicles Exited	558	521	489	492	525	472	463	466	472	482	494
Hourly Exit Rate	558	521	489	492	525	472	463	466	472	482	494
Input Volume	492	492	492	492	492	492	492	492	492	492	492
% of Volume	113	106	99	100	107	96	94	95	96	98	100

2: Bass Lake Road & westbound ramp SB, Performance by run number

Run Number	1	13	14	15	16	2	20	3	6	9	Avg
Denied Del/Veh (s)	0.1	0.4	0.3	0.2	1.4	0.2	0.6	0.1	0.4	0.1	0.4
Total Del/Veh (s)	4.0	4.0	4.0	3.9	5.2	3.4	3.9	3.7	4.0	3.7	4.0
Stop Delay (hr)	0.3	0.5	0.4	0.4	0.8	0.3	0.3	0.3	0.3	0.4	0.4
Vehicles Entered	1372	1347	1408	1330	1380	1375	1390	1361	1355	1377	1369
Vehicles Exited	1374	1347	1398	1331	1377	1374	1392	1360	1351	1380	1368
Hourly Exit Rate	1374	1347	1398	1331	1377	1374	1392	1360	1351	1380	1368
Input Volume	1377	1377	1377	1377	1377	1377	1377	1377	1377	1377	1377
% of Volume	100	98	102	97	100	100	101	99	98	100	99

3: Bass Lake Road & eastbound ramp EB, Performance by run number

Run Number	1	13	14	15	16	2	20	3	6	9	Avg
Denied Del/Veh (s)	0.9	0.8	1.0	0.9	0.9	0.9	0.8	0.8	0.9	0.8	0.9
Total Del/Veh (s)	12.3	11.9	11.8	12.6	12.5	12.0	11.1	10.8	11.7	13.4	12.0
Stop Delay (hr)	1.2	1.1	1.0	1.1	1.1	1.0	0.9	0.9	1.0	1.2	1.1
Vehicles Entered	446	411	395	399	408	387	374	395	379	391	398
Vehicles Exited	444	408	393	401	408	384	370	396	376	384	396
Hourly Exit Rate	444	408	393	401	408	384	370	396	376	384	396
Input Volume	397	397	397	397	397	397	397	397	397	397	397
% of Volume	112	103	99	101	103	97	93	100	95	97	100

3: Bass Lake Road & eastbound ramp NB, Performance by run number

Run Number	1	13	14	15	16	2	20	3	6	9	Avg
Denied Del/Veh (s)	0.3	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Total Del/Veh (s)	18.7	18.0	16.7	16.7	18.0	15.8	20.2	17.9	15.3	16.8	17.4
Stop Delay (hr)	0.6	0.6	0.5	0.5	0.5	0.5	0.6	0.5	0.4	0.5	0.5
Vehicles Entered	139	143	135	121	132	132	123	112	132	133	130
Vehicles Exited	141	144	135	122	133	131	124	111	132	135	131
Hourly Exit Rate	141	144	135	122	133	131	124	111	132	135	131
Input Volume	130	130	130	130	130	130	130	130	130	130	130
% of Volume	108	111	104	94	102	101	95	85	101	104	101

SimTraffic Performance Report

2025 AM BLHSP Phase 1a, and half of Phase 2 & 3 (WB ramps SSSC control)

5/4/2015

3: Bass Lake Road & eastbound ramp SB, Performance by run number

Run Number	1	13	14	15	16	2	20	3	6	9	Avg
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Del/Veh (s)	14.0	11.6	12.8	11.9	13.0	12.6	12.1	13.1	13.0	11.9	12.6
Stop Delay (hr)	1.0	0.8	1.0	0.9	0.9	1.0	0.9	0.9	0.9	0.9	0.9
Vehicles Entered	323	328	375	349	303	375	340	318	330	364	341
Vehicles Exited	322	328	376	345	307	378	339	318	330	366	341
Hourly Exit Rate	322	328	376	345	307	378	339	318	330	366	341
Input Volume	339	339	339	339	339	339	339	339	339	339	339
% of Volume	95	97	111	102	90	111	100	94	97	108	101

Total Network Performance By Run

Run Number	1	13	14	15	16	2	20
Denied Del/Veh (s)	1.4	1.5	1.5	1.6	2.3	1.4	3.0
Total Del/Veh (s)	43.6	47.5	42.8	41.0	46.0	41.5	46.8
Stop Delay (hr)	11.6	14.3	11.0	9.7	11.5	9.6	14.2
Vehicles Entered	2379	2362	2371	2326	2325	2333	2337
Vehicles Exited	2388	2355	2341	2325	2315	2345	2347
Hourly Exit Rate	2388	2355	2341	2325	2315	2345	2347
Input Volume	12224	12224	12224	12224	12224	12224	12224
% of Volume	20	19	19	19	19	19	19

Total Network Performance By Run

Run Number	3	6	9	Avg
Denied Del/Veh (s)	1.4	1.7	1.5	1.7
Total Del/Veh (s)	44.2	41.4	41.5	43.7
Stop Delay (hr)	11.0	9.7	10.1	11.3
Vehicles Entered	2309	2286	2368	2338
Vehicles Exited	2329	2273	2359	2337
Hourly Exit Rate	2329	2273	2359	2337
Input Volume	12224	12224	12224	12224
% of Volume	19	19	19	19

SimTraffic Performance Report

2025 PM BLHSP Phase 1a, and half of Phase 2 & 3 (WB ramps SSSC control)

5/4/2015

1: Bass Lake Road & Country Club Drive Performance by movement

Movement	WBL	WBR	NBT	NBR	SBL	SBT	All
Denied Del/Veh (s)	3.6	0.6	0.0	0.1	0.0	0.0	0.3
Total Del/Veh (s)	25.9	14.7	16.2	6.1	36.2	7.9	14.2
Stop Delay (hr)	1.0	0.4	1.4	0.0	0.8	0.2	3.9
Vehicles Entered	155	117	890	327	97	506	2092
Vehicles Exited	156	118	893	326	97	508	2098
Hourly Exit Rate	156	118	893	326	97	508	2098
Input Volume	154	122	892	321	97	495	2082
% of Volume	101	97	100	102	100	103	101

2: Bass Lake Road & westbound ramp Performance by movement

Movement	WBL	WBR	NBL	NBT	SBT	SBR	All
Denied Del/Veh (s)	0.3	0.3	0.1	0.0	0.0	0.0	0.1
Total Del/Veh (s)	17.4	2.4	4.0	2.8	0.3	2.4	2.7
Stop Delay (hr)	0.1	0.0	0.0	0.1	0.0	0.0	0.2
Vehicles Entered	36	293	33	930	233	472	1997
Vehicles Exited	36	293	33	932	233	472	1999
Hourly Exit Rate	36	293	33	932	233	472	1999
Input Volume	35	292	34	927	232	456	1975
% of Volume	104	100	97	101	101	104	101

3: Bass Lake Road & eastbound ramp Performance by movement

Movement	EBL	EBT	EBR	NBT	NBR	SBL	SBT	All
Denied Del/Veh (s)	1.0	0.9	0.9	0.2	0.1	0.0	0.0	0.8
Total Del/Veh (s)	10.7	10.5	6.2	25.0	9.8	21.3	21.4	13.1
Stop Delay (hr)	1.7	0.0	0.1	0.4	0.1	0.9	0.3	3.4
Vehicles Entered	885	2	65	62	22	178	53	1267
Vehicles Exited	884	2	65	63	22	176	53	1265
Hourly Exit Rate	884	2	65	63	22	176	53	1265
Input Volume	884	2	67	60	23	176	53	1265
% of Volume	100	100	97	105	97	100	100	100

Total Network Performance

Movement	WBL	WBR	NBL	NBT	NBR	SBL	SBT	All
Denied Del/Veh (s)				0.9				
Total Del/Veh (s)				36.0				
Stop Delay (hr)				8.0				
Vehicles Entered				2308				
Vehicles Exited				2322				
Hourly Exit Rate				2322				
Input Volume				12594				
% of Volume				18				

Queuing and Blocking Report

2025 PM BLHSP Phase 1a, and half of Phase 2 & 3 (WB ramps SSSC control)

5/4/2015

Intersection: 1: Bass Lake Road & Country Club Drive

Movement	WB	WB	NB	NB	B41	B41	SB	SB
Directions Served	L	R	T	R	T		L	T
Maximum Queue (ft)	198	125	410	240	326	113	133	162
Average Queue (ft)	79	52	176	13	39	5	58	56
95th Queue (ft)	157	100	330	129	199	66	109	128
Link Distance (ft)		862	1178		283	283		2496
Upstream Blk Time (%)					0	0		
Queuing Penalty (veh)					3	0		
Storage Bay Dist (ft)	300			300			200	
Storage Blk Time (%)	0		2				0	0
Queuing Penalty (veh)	0		5				0	0

Intersection: 2: Bass Lake Road & westbound ramp

Movement	WB	NB	NB	SB	SB
Directions Served	LTR	LT	T	T	R
Maximum Queue (ft)	137	127	83	3	71
Average Queue (ft)	31	16	3	0	8
95th Queue (ft)	87	73	43	3	44
Link Distance (ft)	1251	278	278	283	
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)				300	
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 3: Bass Lake Road & eastbound ramp

Movement	EB	EB	NB	SB
Directions Served	L	LTR	TR	LT
Maximum Queue (ft)	232	174	115	196
Average Queue (ft)	134	88	47	97
95th Queue (ft)	200	145	91	162
Link Distance (ft)		899	284	278
Upstream Blk Time (%)				0
Queuing Penalty (veh)				0
Storage Bay Dist (ft)	240			
Storage Blk Time (%)	0	0		
Queuing Penalty (veh)	0	0		

Network Summary

Network wide Queuing Penalty: 9

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1: Bass Lake Road & Country Club Drive WB, Performance by run number

Run Number	1	10	13	14	15	19	3	4	6	8	Avg
Denied Del/Veh (s)	2.5	2.3	2.3	2.4	2.4	2.3	2.3	2.2	2.3	2.4	2.3
Total Del/Veh (s)	20.4	19.7	18.8	19.3	26.9	21.9	20.8	21.1	19.4	21.9	21.1
Stop Delay (hr)	1.3	1.3	1.2	1.3	2.0	1.6	1.5	1.4	1.3	1.5	1.4
Vehicles Entered	259	269	249	279	289	288	276	266	263	280	272
Vehicles Exited	263	269	252	277	289	292	279	269	265	286	274
Hourly Exit Rate	263	269	252	277	289	292	279	269	265	286	274
Input Volume	276	276	276	276	276	276	276	276	276	276	276
% of Volume	95	97	91	100	105	106	101	97	96	103	99

1: Bass Lake Road & Country Club Drive NB, Performance by run number

Run Number	1	10	13	14	15	19	3	4	6	8	Avg
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Del/Veh (s)	12.7	14.7	13.6	10.0	15.4	12.8	13.0	15.0	12.5	15.0	13.5
Stop Delay (hr)	1.3	1.6	1.4	0.9	1.8	1.4	1.3	1.7	1.3	1.8	1.4
Vehicles Entered	1180	1230	1223	1186	1268	1212	1218	1222	1190	1244	1217
Vehicles Exited	1190	1237	1218	1195	1255	1223	1216	1216	1193	1241	1219
Hourly Exit Rate	1190	1237	1218	1195	1255	1223	1216	1216	1193	1241	1219
Input Volume	1213	1213	1213	1213	1213	1213	1213	1213	1213	1213	1213
% of Volume	98	102	100	99	103	101	100	100	98	102	100

1: Bass Lake Road & Country Club Drive SB, Performance by run number

Run Number	1	10	13	14	15	19	3	4	6	8	Avg
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Del/Veh (s)	10.8	10.4	12.3	10.7	14.1	12.4	11.7	11.6	15.7	14.3	12.4
Stop Delay (hr)	0.7	0.6	1.0	0.8	1.2	1.0	0.9	0.9	1.6	1.3	1.0
Vehicles Entered	589	565	637	617	567	600	578	613	641	626	603
Vehicles Exited	588	570	637	616	568	597	589	611	644	628	605
Hourly Exit Rate	588	570	637	616	568	597	589	611	644	628	605
Input Volume	592	592	592	592	592	592	592	592	592	592	592
% of Volume	99	96	108	104	96	101	99	103	109	106	102

2: Bass Lake Road & westbound ramp WB, Performance by run number

Run Number	1	10	13	14	15	19	3	4	6	8	Avg
Denied Del/Veh (s)	0.3	0.2	0.3	0.3	0.3	0.2	0.2	0.3	0.3	0.3	0.3
Total Del/Veh (s)	3.9	4.4	4.6	4.3	3.8	3.5	3.5	4.9	3.0	4.5	4.0
Stop Delay (hr)	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.1	0.2	0.2
Vehicles Entered	346	327	336	331	363	306	326	325	302	326	329
Vehicles Exited	341	324	338	335	358	311	325	324	302	325	329
Hourly Exit Rate	341	324	338	335	358	311	325	324	302	325	329
Input Volume	326	326	326	326	326	326	326	326	326	326	326
% of Volume	104	99	104	103	110	95	100	99	92	100	101

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2: Bass Lake Road & westbound ramp NB, Performance by run number

Run Number	1	10	13	14	15	19	3	4	6	8	Avg
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Del/Veh (s)	3.0	2.9	3.0	2.5	3.1	3.1	2.7	2.8	2.9	2.8	2.9
Stop Delay (hr)	0.1	0.1	0.0	0.0	0.1	0.1	0.1	0.0	0.1	0.1	0.1
Vehicles Entered	907	984	975	925	981	973	955	974	969	988	963
Vehicles Exited	908	984	978	927	988	975	957	976	965	990	965
Hourly Exit Rate	908	984	978	927	988	975	957	976	965	990	965
Input Volume	961	961	961	961	961	961	961	961	961	961	961
% of Volume	95	102	102	96	103	101	100	102	100	103	100

2: Bass Lake Road & westbound ramp SB, Performance by run number

Run Number	1	10	13	14	15	19	3	4	6	8	Avg
Denied Del/Veh (s)	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0
Total Del/Veh (s)	1.7	1.8	1.7	1.7	1.5	1.5	1.8	1.8	1.7	1.8	1.7
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Vehicles Entered	722	691	711	728	670	693	687	714	713	718	705
Vehicles Exited	721	692	712	729	668	690	689	714	713	718	705
Hourly Exit Rate	721	692	712	729	668	690	689	714	713	718	705
Input Volume	688	688	688	688	688	688	688	688	688	688	688
% of Volume	105	101	104	106	97	100	100	104	104	104	103

3: Bass Lake Road & eastbound ramp EB, Performance by run number

Run Number	1	10	13	14	15	19	3	4	6	8	Avg
Denied Del/Veh (s)	1.0	1.1	1.1	0.9	1.0	0.9	1.1	1.0	1.1	1.0	1.0
Total Del/Veh (s)	11.1	10.5	10.1	9.8	10.6	10.4	9.8	10.5	11.4	10.1	10.4
Stop Delay (hr)	1.8	1.9	1.7	1.6	1.8	1.8	1.6	1.8	2.0	1.7	1.8
Vehicles Entered	897	970	962	909	982	941	939	970	962	988	952
Vehicles Exited	896	966	965	917	975	942	942	971	966	979	951
Hourly Exit Rate	896	966	965	917	975	942	942	971	966	979	951
Input Volume	953	953	953	953	953	953	953	953	953	953	953
% of Volume	94	101	101	96	102	99	99	102	101	103	100

3: Bass Lake Road & eastbound ramp NB, Performance by run number

Run Number	1	10	13	14	15	19	3	4	6	8	Avg
Denied Del/Veh (s)	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.2
Total Del/Veh (s)	20.1	28.4	18.5	15.5	19.3	24.3	19.7	23.6	19.5	22.4	21.1
Stop Delay (hr)	0.4	0.6	0.4	0.3	0.4	0.5	0.4	0.5	0.4	0.4	0.4
Vehicles Entered	74	88	82	86	86	93	87	79	87	79	84
Vehicles Exited	75	88	82	88	88	93	88	79	87	77	85
Hourly Exit Rate	75	88	82	88	88	93	88	79	87	77	85
Input Volume	83	83	83	83	83	83	83	83	83	83	83
% of Volume	91	106	99	106	106	112	106	95	105	93	103

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3: Bass Lake Road & eastbound ramp SB, Performance by run number

Run Number	1	10	13	14	15	19	3	4	6	8	Avg
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Del/Veh (s)	21.8	20.1	20.7	21.4	23.5	22.3	18.8	21.5	21.1	22.1	21.3
Stop Delay (hr)	1.3	1.1	1.2	1.3	1.3	1.3	0.9	1.2	1.1	1.2	1.2
Vehicles Entered	246	227	232	248	233	237	206	230	221	229	231
Vehicles Exited	243	227	232	246	233	235	204	229	216	227	229
Hourly Exit Rate	243	227	232	246	233	235	204	229	216	227	229
Input Volume	229	229	229	229	229	229	229	229	229	229	229
% of Volume	106	99	101	107	102	103	89	100	94	99	100

Total Network Performance By Run

Run Number	1	10	13	14	15	19	3
Denied Del/Veh (s)	0.9	0.9	0.9	0.8	0.9	0.9	0.9
Total Del/Veh (s)	35.3	36.7	35.6	32.6	38.5	36.0	34.7
Stop Delay (hr)	7.6	7.9	7.7	6.8	9.4	8.3	7.3
Vehicles Entered	2238	2284	2340	2280	2349	2292	2279
Vehicles Exited	2270	2316	2338	2308	2340	2340	2309
Hourly Exit Rate	2270	2316	2338	2308	2340	2340	2309
Input Volume	12594	12594	12594	12594	12594	12594	12594
% of Volume	18	18	19	18	19	19	18

Total Network Performance By Run

Run Number	4	6	8	Avg
Denied Del/Veh (s)	0.9	0.9	0.9	0.9
Total Del/Veh (s)	36.6	36.1	37.2	36.0
Stop Delay (hr)	8.2	8.2	8.7	8.0
Vehicles Entered	2328	2317	2374	2308
Vehicles Exited	2318	2315	2365	2322
Hourly Exit Rate	2318	2315	2365	2322
Input Volume	12594	12594	12594	12594
% of Volume	18	18	19	18

Appendix D

Revised Conditions of Approval –
Bell Ranch, Bell Woods, and
Hawk View



Conditions of Approval for the Development Plan

1. ~~This~~ The amendments to these conditions of approval and this Tentative Subdivision Map Time Extension Request ~~is~~ are based upon and limited to compliance with the project description, the Planning Commission hearing exhibits marked Exhibits ~~A-F~~ A-O, dated ~~April 24, 2008~~ March 24, 2016, and Conditions of Approval set forth below. Any deviations from the project description, exhibits or conditions must be reviewed and approved by the County for conformity with this approval. Deviations may require approved changes to the permit and/or further environmental review. Deviations without the above-described approval will constitute a violation of permit approval.

The project description is as follows:

~~Five~~ One-Year Time Extensions to approved Tentative Subdivision Map (TM96-1321 Bell Ranch) in accordance with Section ~~46~~ 120.74.030 of the El Dorado County Subdivision Ordinance and Bass Lake Hills Specific Plan.

The grading, development, use, and maintenance of the property, the size, shape, arrangement, and location of structures, parking areas and landscape areas, and the protection and preservation of resources shall conform to the project description above and the hearing exhibits and revised conditions of approval below. The property and any portions thereof shall be sold, leased or financed in compliance with this project description and the approved hearing exhibits and conditions of approval hereto. All plans must be submitted for review and approval and shall be implemented as approved by the County.

2. In the event of any legal action instituted by a third party challenging the validity of any provision of this approval, the developer and landowner agree to be responsible for the costs of defending such suit and shall hold County harmless from any legal fees or costs County may incur as a result of such action, as provided in Section 66474.9(b) of the Government Code.

The subdivider shall defend, indemnify, and hold harmless El Dorado County and its agents, officers, and employees from any claim, action, or proceeding against El Dorado County or its agents, officers, or employees to attack, set aside, void, or annul an approval of El Dorado County concerning a subdivision, which action is brought within the time period provided for in Section 66499.37.

County shall notify the subdivider of any claim, action, or proceeding and County will cooperate fully in the defense.

3. The development plan (PD96-0006) for Bell Ranch shall consist of the following: ~~422~~ 123 total lots consisting of 113 single family lots ranging in size from 13,500 to ~~126,930~~ 91,649 square feet, with ~~76~~ landscape lots, ~~12~~ open space lots, 1 play field lot, and 1 park site on 112.14 acres.

4. The development plan (PD96-0006) for Bell Ranch (~~Exhibit E~~) shall be in substantial compliance with the Bell Ranch tentative map and the uses described in the revised Development Plan (Exhibit K).
5. The development plan (PD96-06) for Bell Ranch shall conform to the development standards of the One-family Residential-Planned Development (R1-PD) Zone District with the exceptions of a coverage limitation of 45 percent and the following revised setbacks:

Lots 1 - 11

- i. Front - 30 feet minimum
- ii. Rear - 30 feet minimum
- iii. Side - 10 feet minimum

Lots 12 - 113

- i. Front -20 feet minimum
- ii. Rear - 15 feet minimum
- iii. Side - 5 feet minimum (not height dependent)
- iv. Street Side - 15 feet minimum fronting street

Lot J (if not park)

- i. ~~Front - 30 feet minimum~~
- ii. ~~Rear - 30 feet minimum~~
- iii. ~~Side - 20 feet minimum~~

Improvement Plans and General Conditions - Development Plan/Tentative Map

6. Pursuant to Item 9.3.1 of the Bass Lake Hills Specific Plan, the applicant shall agree to reimbursement of El Dorado County for the preparation, adoption, administration, and CEQA mitigation monitoring of the Plan. Fees will be assessed prior to the recordation of the final map and must be paid in full prior to issuance of the first building permit.
7. Consistency with County Codes and Standards: The developer shall obtain approval of project improvement plans and cost estimates consistent with the Subdivision Design and Improvement Standards Manual (as may be modified by the Conditions of Approval or by approved Design Waivers) from the County ~~Department of Transportation Division,~~ and pay all applicable fees prior to commencement ~~8. of any improvements on the project facilities. All improvements shall be consistent with the approved tentative~~ filing of the final map.

Additionally, the project improvement plans and grading plans shall conform to the County Grading, Erosion and Sediment Control Ordinance, Grading Design Manual, the Drainage Manual, Off-Street Parking and Loading Ordinance, all applicable State of California Water Quality Orders, the State of California Handicapped Accessibility Standards, and the California Manual on Uniform Traffic Control Devices (MUTCD).

Curb Returns: All curb returns shall include pedestrian ramps with truncated domes conforming to Caltrans Standard Plan A88A, including a 4 foot sidewalk/landing at the back of the ramp. Alternate plans satisfying the current accessibility standards may be used, subject to review and approval by County.

8. The developer shall enter into an Improvement Agreement with the County and provide security to guarantee performance of the Improvement Agreement as set forth within the County of El Dorado Major Land Division Ordinance.
9. The final map shall show all utility, road, and drainage easements per the recommendation of the utility purveyors and the County Engineer. The County Engineer shall make the final determination of the location of said easements. Said easements shall be irrevocably offered to the County.
10. If blasting activities are to occur in conjunction with subdivision improvements, the subdivider shall ensure that such blasting activities are conducted in compliance with state and local regulations.
11. If burning activities are to occur during the construction of the subdivision improvements, the subdivider shall obtain the necessary burning permits from the California Department of Forestry and air pollution permits from the County prior to said burning activities.
12. The location of fire hydrants and systems for fire flows are to meet the requirements of the responsible Fire Protection District. The emergency vehicle circulation and the location of hydrants shall be shown on the improvement plans, which shall be subject to the approval of the Fire Protection District.
13. If human remains are discovered at any time during the subdivision improvement phase, the County Coroner and the Native American Heritage Commission shall be contacted per Section 7050.5 of the Health and Safety Code and Section 5097.89 of the Public Resources Code. If archaeological artifacts are discovered, the developer shall retain an archaeologist to make recommendations for the treatment of the artifacts. Treatment of Native American remains or archaeological artifacts shall be the responsibility of the developer and shall be subject to the review and approval of the County Planning Director.

Roads

14. This project is subject to El Dorado County traffic fee programs. Said fees shall be due upon the issuance of a building permit. If, prior to the application for a building permit for said project a revised fee is established, such revised amount shall be paid.

15. Vehicular Access Restriction: A vehicular access restriction shall be designated along ~~L~~ Way frontage of Morrison Road affecting lot 12 and lots 2533 through 5128, along M ~~Way frontage of lots 29 through 32, along R~~ Way frontage of lots 111 through 113, along ~~Tierra DE Dios frontage of corner lot 1, and also along all landscape lots, except for the~~ driveway easements crossing landscape lots, which shall also be clearly designated at ~~locations approved by the Department of Transportation; the maintenance of driveways~~ should be clearly assigned to the homeowner.

Road Design Standards: The applicant shall ~~All~~ construct all roads shall be constructed in ~~conformance with the County Design and Improvements Standards Manual (DISM) and~~ conformance with the County Design and Improvements Standards Manual (DISM) and ~~the Bass Lake Hills Specific Plan with the following widths:(BLHSP), modified as~~ shown on the Tentative Map and as presented in Table 1 (the requirements outlined in ~~Table 1 are minimums).~~ Table 1 are minimums).

ROAD NAME	REFERENCE	ROAD WIDTH	EXCEPTIONS / NOTES
Tierra De Dios Drive (Country Club Drive) <u>on-site</u>	Specific Plan Fig. 4-2, <u>Tentative Map</u> , and Standard Plan 101B	36 foot pavement width (80-foot R/W), plus utility/slope easements	Type 2 vertical curb and gutter and 6 foot sidewalk on both north side and adjacent to park site <u>6-foot sidewalk on one side</u> (See Note R-2 below)
Morrison Road -on-site, through the project <u>(Subject to Phasing Plan).</u>	Specific Plan Fig. 4-3 and Standard Plan 101B <u>approved Tentative Map</u>	36 foot curb face to curb face <u>width</u> , (60-foot R/W), plus utility/slope easements	<u>30 MPH Design Speed</u> Type 2 vertical curb and gutter, with 6 foot sidewalk on east side, and 6 foot sidewalk on west side from the most southerly "A" Drive entrance to Tierra De Dios Drive. <u>only</u>
Morrison Road – offsite <u>(Subject to Phasing Plan)</u>	Specific Plan Fig. 4-3 and Standard Plan 101B <u>approved Tentative Map</u> .	32 foot pavement width (60-foot R/W), plus utility/slope easements	<u>30 MPH Design Speed.</u> No curb, and gutter or. <u>With 6 foot sidewalk on northeast side.</u>
Tierra De Dios Drive (Country Club Drive)	Specific Plan Fig. 4-2 and Standard Plan 101B	36 foot pavement width (80-foot R/W), plus utility/slope easements	Type 2 vertical curb and gutter and 6 foot sidewalk on both north side and adjacent to park site (See Note R-2 below)

ROAD NAME	REFERENCE	ROAD WIDTH	EXCEPTIONS / NOTES
Morrison Road on-site, through the project.	Specific Plan Fig. 4-3 and Standard Plan 101B	36 foot curb face to curb face width, (60-foot R/W), plus utility/slope easements	Type 2 vertical curb and gutter, with 6 foot sidewalk on east side, and 6 foot sidewalk on west side from the most southerly "A" Drive entrance to Tierra De Dios Drive.
Morrison Road offsite	Specific Plan Fig. 4-3 and Standard Plan 101B	32 foot pavement width (60 foot R/W), plus utility/slope easements	No curb and gutter. With 6 foot sidewalk on northeast side.
A Drive	Specific Plan Fig. 4-4 (less than or equal to one acre minimum density) Standard Plan 101B and approved Tentative Map.	38 28 foot back of curb to back of curb (50-foot R/W), plus utility/slope easements	<u>25 MPH Design Speed. Caltrans Type 1 rolled curb and gutter*</u> E <u>HMA Dike</u> with 4 foot <u>no</u> sidewalks on both sides (See Note R-1 below)
B Drive, H Circle, M, L and R Way	Specific Plan Fig. 4-4 and Standard Plan 101B <u>Approved Tentative Map</u>	29 ft. back of curb to back of curb** <u>28 feet</u> minimum (50 40 -foot R/W), plus utility/slope easements	<u>25 MPH Design Speed. Caltrans Type 1 rolled curb and gutter*</u> E <u>HMA Dike**</u> with 4 foot <u>no</u> sidewalks on both sides (See Note R-1 below)
Project Cul-de-sacs (C, D, E , G and K Courts)	Specific Plan Fig. 4-4 and Standard Plans 101B and 114 <u>Approved Tentative Map</u>	29 foot back of curb to back of curb** <u>28 feet</u> minimum (50 40 -foot R/W), plus utility/slope easements	<u>25 MPH Design Speed Caltrans Type 1 rolled curb and gutter*</u> E <u>HMA Dike**</u> with 4 foot sidewalks (See Note R-1 below)
<u>Temporary EVA at G Court</u>	<u>Standard Plan 101C</u>	<u>20' wide all weather surface</u>	<u>With 30' wide EVA easement</u>

* Road widths are measured from curb face to curb face or edge of pavement to edge of payment if no curb. Where HMA Dike is used, road width is measured from flowline to flowline.

**Caltrans Type A HMA Dike or Type 2 vertical curb and gutter (as appropriate) shall be installed adjacent to back-up lots, landscape lots, open space, and park site.

**Explanation: Specific Plan Figure 4-4 shows pavement width varies from 24 to 36 foot wide. Figure 4.4 also shows a 3' width for the Type 1 rolled curb and gutter; since the County Standard Plan 104 for Type 1 rolled curb and gutter is actually 2.5 foot wide, the condition reflects a 24-

~~foot pavement width with a 2.5 foot wide rolled curb and gutter on each side resulting in a 29-foot width from back of curb to back of curb as the minimum width for secondary local roads.~~

Sidewalks may be located outside the right-of-way and meander as a means to provide interest and variety in alignment. The alignment and design of the sidewalks shall be reviewed and approved by the ~~Department of Transportation~~ Division prior to filing the final map. Sidewalks shall be connected to any walk/trail systems in the project open space areas. Pedestrian easements to be provided where necessary.

Note R-1: The following Design Waivers have been requested:

- a. ~~[Deleted.] All sidewalks on secondary local roads i.e. A and B Drive, C, D, E, and G Court, H Circle, M, L, and R Way reduced from 6 to 4 feet and meander as shown on the map. This 4 wide sidewalk is required in the Bass Lake Hills Specific Plan.~~
- b. A 40-foot roadway right of way (Lot R) for B and C, D, ~~E~~K, and G Court, H Circle, M, ~~L~~ and R Way. This requested design waiver includes the requirement that the roadways are fully contained within the road right-of-way ~~and that any sidewalk areas not in the road right of way are contained within public pedestrian easements.~~
- c. Place Caltrans Type E and El Dorado County Type A mountable dike (where applicable) in lieu of El Dorado County Type 1 rolled curb and gutter. This requested design waiver includes the requirement that the back of the mountable dike is at the same location as the back of rolled curb and gutter as shown on Figure 4-4 of the Bass Lake Hills Specific Plan.
- d. Install a short transitional ‘neck’ down ~~of~~ the secondary local roads as shown on the tentative map. This requested design waiver includes the requirement that the roadway geometry will adequately accommodate the turning movements based on the standard El Dorado Hills Fire Department turning radius requirements (56-foot outside radius and 40-foot inside radius); any modifications to this requirement must be approved by the El Dorado Hills Fire Department. The requested neck down cannot result in less roadway width than is required in Figure 4-4 of the Bass Lake Hills Specific Plan.
- e. ~~Allow~~At the option of the developer, allow enhanced raised, landscape medians in Morrison Road at the two A Drive entrances. The request for generous landscaped medians in Morrison Road, at the entrances to the project, is acceptable to the ~~Department of Transportation~~ Division subject to acceptable maintenance provisions and appropriate design and review and approval by the ~~Department of Transportation~~ Division at the plan review and permitting phase. Traffic lanes of Morrison Road next to raised medians must be a minimum of 14 feet in order to allow room for striping and separation for the vehicle wheels. The Islands must be landscaped (landscaping and irrigation plans must be submitted with the improvement plans), and the El Dorado Hills Community Services District must establish the mechanism to assume the responsibility for maintenance prior to acceptance of roadway improvements. The

design of Morrison Road and related intersections, during the plan review and permitting phase, must demonstrate that, as a minimum, the geometry will adequately accommodate both the turning movements based on the standard El Dorado Hills Fire Department turning radius requirements (56-foot outside radius and 40-foot inside radius) and based on the Caltrans Bus Design Vehicle, to the satisfaction of the ~~Department of Transportation~~ Division.

Note R-2: The design of Tierra De Dios must provide a left turn lane for eastbound traffic turning north on Morrison Road or present a traffic report that must be approved by the ~~Department of Transportation~~ Division demonstrating why a turn lane is not necessary within the General Plan horizon. An allowance must be provided in the roadway width for 14-foot traffic lanes next to any raised medians on Tierra De Dios Drive. In addition, any roadway area dedicated to turn lanes and medians must be in addition to the 36-foot pavement width indicated in the Specific Plan; this basic pavement width will assure adequate roadway area to accommodate bicycle traffic. Sidewalk may meander or be parallel to roadway – final design to be determined at the time the improvement plans are prepared.

16. ~~[Deleted.]An irrevocable offer of dedication, in fee, for the required rights of way (R/W) as indicated in the above table shall be made for all the proposed roads, with slope easements where necessary. Said offer will be rejected for internal subdivision roadways at the time of the final map, in which case, a homeowner's agreement and association, or other entity acceptable to the Department of Transportation, shall be established in order to provide for the long term maintenance of the roads and roadway landscaping.~~
17. Offer of Dedication: The project shall offer to dedicate, in fee, the rights of way for roadways, shown in Table 1 with the final map. Said offer shall include all appurtenant slope, drainage, pedestrian, public utility, or other public service easements as determined necessary by the County. The offers will be accepted by the County, provided that a County Service Area Zone of Benefit has been created and funded to provide for maintenance of the roadways.

At the option of the Subdivider, the Internal Roadways may be maintained privately by a Homeowner's Association or other entity acceptable to County. In which case, the above listed offers of dedication will be rejected by the County. This option does not apply to Morrison Road.

~~Developer shall submit complete applications for Irrevocable Offers of Dedication (IOD) for the portions of Morrison Road outside of the subdivision boundary to the Right of Way unit of the Department of Transportation. The applications will thereafter be processed and forwarded to the Board of Supervisors for action.~~

18. Bus turnouts and shelters shall be constructed at locations required by El Dorado Transit and the appropriate school district.

19. No freestanding walls, fences, or retaining walls are allowed in the road right-of-way, except at the discretion of the Transportation Division.
20. Primary and ~~emergency vehicle~~secondary roadway access to the road network shall be constructed prior to the first building permit being issued for any residential structure except where the issuance of building permits is for model homes which shall be unoccupied. Primary access shall be to either Bass Lake Road or Country Club Drive. A secondary access must be to a primary or secondary roadway in the designated alignment defined in the Specific Plan or by emergency vehicle access and to the satisfaction of the ~~Department of Transportation~~ Division and the Fire District.
21. Off-site Improvements (Acquisition): As specified elsewhere in these Conditions of Approval, the applicant is required to perform off-site improvements. If the applicant does not secure, or cannot secure sufficient title or interest for lands where said off-site improvements are required, and prior to filing of any final or parcel map, the applicant shall enter into an agreement with the County pursuant to Government Code Section 66462.5. The agreement will allow the County to acquire the title or interests necessary to complete the required off-site improvements. The Form, Terms and Conditions of the agreement are subject to review and approval by County Counsel.

The agreement requires the applicant: pay all costs incurred by County associated with the acquisition of the title or interest; provide a cash deposit, letter of credit, or other securities acceptable to the County in an amount sufficient to pay such costs, including legal costs; If the costs of construction of the off-site improvements are not already contained in a Subdivision Improvement Agreement or Road Improvement Agreement, the applicant shall provide securities sufficient to complete the required improvements, including but not limited to, direct construction costs, construction management and surveying costs, inspection costs incurred by County, and a 20% contingency; provides a legal description and exhibit map for each title or interest necessary, prepared by a licensed Civil Engineer or Land Surveyor; provides an appraisal for each title or interest to be acquired, prepared by a certified appraiser; Approved improvement plans, specifications and contract documents of the off-site improvements, prepared by a Civil Engineer.

~~This project shall comply with the Bass Lake Hills Specific Plan, the related Bass Lake Hills Development Agreement, and the Bass Lake Hills Public Facilities Financing Plan (PFFP). In addition, excepting for model homes, certificates of occupancy will not be issued for any residential structures until the PFFP Phase I improvement requirements (anticipated to be accomplished through the requirements of the Hollow Oak Subdivision) are substantially complete, as determined by the Department of Transportation.~~

22. ~~Off-site improvements consistent with Phase 1A requirements of the adopted PFFP shall be completed in compliance as set forth within the Bass Lake Hills Specific Plan (BLHSP), the Bass Lake Hills Specific Plan Public Facilities Financing Plan (PFFP), and~~

the related development agreement, including but not limited to the following. If one of the other two projects included in Phase 1A constructs the improvements, this project shall pay its fair share based on the PFFP leveling methodology. The following are the required improvements:

The applicant may enter into a reimbursement agreement with the County for providing for reimbursement of the funds provided by the applicant and used for the construction, or for construction related activities, of the improvements in items a., b., c., and j. above to the extent they are included as eligible in the applicable County and Specific Plan fee programs. Reimbursement shall be consistent with the PFFP and the *El Dorado County Department of Transportation Guidelines for Traffic Fee Program Reimbursement Projects*, including the requirement that the project is bid consistent with the State of California Public Contract Code.

Off-Site Improvements - Specific Plan Urban Collectors and Major Transportation Facilities:

- A. The Project shall be responsible for design, Plans, Specifications and Estimate (PS&E), utility relocation, right of way acquisition, and construction of improvements to Bass Lake Road from US50 to the realigned Country Club Drive (aka Tierra De Dios, aka City Lights Drive). This segment is identified as "B" to "H" on the BLHSP Area Public Facilities Financing Plan (PFFP) Exhibits, and includes the following assumptions:
- i. Is a portion of the 2015 County Capital Improvement Program (CIP) Project #66109;
 - ii. Is a BLHSP Urban Collector;
 - iii. Grading will be consistent with the ultimate 4-lane facility;
 - iv. Construct a divided two lane highway with median, 18 Feet of pavement in each direction. Typical section as shown on approved Tentative Map for Hawk View Ridge Subdivision TM 00-1371R.
 - v. It is recognized that Bass Lake Road will require improvements for some distance north of the realigned Country Club Drive Intersection to achieve conformance of the revised profile with the existing roadway. The exact distance is to be determined with the final Improvement Plans.
 - vi. The reconstruction shall generally be consistent with the alignment and profile shown on the improvement plans entitled, Bass Lake Road Reconstruction From Highway 50 to Hollow Oak Road, Project #66109, approved by the County Engineer on June 20, 2007, and modified to accomplish the anticipated work required at this time.
 - vii. The project plans shall include conduits for future landscape irrigation and electrical lines.
- B. Project shall be responsible for the design, PS&E, utility relocation, right of way acquisition, and construction of the new Country Club Drive (aka Tierra De Dios) on

an alignment substantially consistent with the BLHSP, and includes the following assumptions:

- i. Is identified in the 2015 County CIP as Project #GP126;
- ii. Is a BLHSP Urban Collector;
- iii. Is a two-lane road, 36 feet in width (plus left turn pockets);
- iv. Has a 35-40 mph design speed, and;
- v. Includes conversion of the existing segment of Country Club Drive into a Class I bike path / Multi-use trail: Approximately 100 feet of pavement will be removed at either end; A new paved trail eight (8) feet in width shall be placed at each end to provide connectivity to adjacent facilities; Bollards shall be installed to prevent motor vehicle access; striping and signing shall be provided subject to review and approval by TD.

C. Project shall be responsible for the design, PS&E, utility relocation, right of way acquisition, and construction of the realignment of Country Club Drive at its existing intersection with Tierra De Dios Drive (east end of Tierra De Dios Drive) consistent with the intent of the BLHSP, and includes the following assumptions:

- i. Is a BLHSP Urban Collector;
- ii. Is a two-lane road, 36 feet in width, and;
- iii. Has a 35-40 mph design speed.

D. Project shall be responsible for the design, PS&E, utility relocation, right of way acquisition, and construction of intersection improvements at the intersection of Bass Lake Road and the realigned Country Club Drive Intersection, and includes the following assumptions:

- i. Northbound approach to include one through lane and a 200 foot right turn lane;
- ii. Southbound approach to include one through lane and a 300 foot left turn lane;
- iii. Westbound approach to include one through lane and a 300 foot left turn lane, and;
- iv. Signalization of the intersection of Bass Lake Road and the realigned Country Club Drive.

E. Project shall be responsible for the design, PS&E, utility relocation, right of way acquisition, and construction of improvements at the intersection of Bass Lake Road and the US50 at Bass Lake Road interchange ramps and includes the following assumptions:

- i. Eastbound ramp / Bass Lake Road intersection
 - a. Widen / restripe eastbound off-ramp to provide two approach lanes for a distance of 240 feet;
 - b. Widen / restripe Bass Lake Road to provide two lanes northbound, and one lane southbound from eastbound ramp to westbound ramp, and;

c. Signalize eastbound off-ramp terminus intersection with Bass Lake Road.

ii. Westbound ramp / Bass Lake Road intersection

- a. Provide two northbound approach lanes (see item 3.E.i.b above);
- b. Provide free-right lane from westbound off-ramp to northbound Bass Lake Road (existing configuration);
- c. Provide departure merge lane northbound Bass Lake Road (merging two lanes into one);
- d. Provide one southbound approach lane, and one 300-foot right-turn lane to westbound on-ramp, and;
- e. Side Street Stop Control (existing).

iii. Timing of US50 at Bass Lake Road interchange ramp Improvements

- a. In order to ensure proper timing of the construction of the improvements identified for the US50 at Bass Lake Road interchange ramps, the subdivider shall perform a supplemental traffic analysis in conjunction with each final map application to determine Level of Service (LOS) of the interchange and ramps, to include existing traffic plus traffic generated by each final map.
- b. If the supplemental traffic analysis indicates that the County's LOS policies would be exceeded by the existing traffic plus traffic generated by that final map, the applicant shall construct the improvements prior to issuance of the first certificate of occupancy for any lot within that final map.
- c. If the County's LOS policies are not exceeded upon application for the last final map within the project, the project applicant shall pay its TIM fees toward the proposed roadway improvements. In which case, payment of TIM fees is considered to be the project's proportionate fair share towards mitigation of this impact.
- d. If the necessary improvements are constructed by the County or others prior to triggering of mitigation by the project, payment of TIM fees is considered to be the projects proportionate fair share towards mitigation of this impact.

F. Financing and Reimbursement

- i. Project may be reimbursed for the costs of any improvements listed above in items A through E, to the extent such improvements are included in the County's Traffic Impact Mitigation (TIM) Fee Program, in accordance with the County's TIM Fee Reimbursement Guidelines, and subject to a Road Improvement and Reimbursement Agreement between the Project and the County.
- ii. If any improvements are included in the County's 10-year CIP and TIM Fee Program, and agreed to by the County in a Road Improvement and Reimbursement / Credit Agreement, the Project may receive full or partial credit for the cost of the work against TIM Fees that would otherwise be paid at issuance of building permits.
- iii. If any improvements are included in the County's 10-year CIP and TIM Fee Program, and agreed to by County in a Road Improvement and Reimbursement /

Credit Agreement, the Project may provide funding and Bid-Ready PS&E to County, for bidding and construction management by County.

iv. If any improvements are included in the BLHSP PFFP, such improvements may be credited to the project or eligible for reimbursement from the PFFP funds.

G. With respect to the improvements to the public roadways required in this condition, either one of the following shall be done prior to issuance of a building permit: (a) the subdivider shall be under contract for construction of the required improvements with proper sureties in place, or (b) the subdivider shall have submitted to the County a bid-ready package (PS&E) and adequate funding for construction.

H. The following requirements apply to all traffic signals identified in this condition.

In order to ensure proper timing for the installation of traffic signal controls, the applicant shall be responsible to perform traffic signal warrants with each final map, in accordance with the Manual on Uniform Traffic Control Devices (version in effect at the time of application).

If traffic signal warrants are met at the time of application for final map (including the lots proposed by that final map), the applicant shall construct the improvements prior to issuance of the first certificate of occupancy for any lot within that final map.

If traffic signal warrants are not met upon application for the last final map within the project, the project applicant shall pay its TIM fees toward the installation of a traffic signal control at this intersection. In which case, payment of TIM fees is considered to be the project's proportionate fair share towards mitigation of this impact.

If the traffic signal control at an intersection is constructed by the County or others prior to triggering of mitigation by the project, payment of TIM fees and PFFP Fees is considered to be the projects proportionate fair share towards mitigation of this impact

23. ~~The applicant shall secure approved plans, must enter into a Road Improvement Agreement, or Subdivision Improvement Agreement, with the County, and all necessary right-of-way shall be acquired prior to approval of the first final map for the following PFFP requirements: construct Country Club Drive (G-H) with frontage improvements, and construct school infrastructure (water and sewer).~~

The applicant shall provide the County with improvement plans and all necessary right-of-way prior to the first certificate of occupancy for the school site infrastructure (water and sewer).

In the event that the eminent domain process must be implemented to acquire right-of-way, this right-of-way requirement shall be deemed satisfied by the developer entering into an agreement for condemnation proceedings with the County Counsel together with

a deposit of funds as required by County Counsel, or alternative arrangement to the satisfaction of the ~~Department of Transportation Division~~. ~~The road improvements must be determined to be substantially complete by the County Department of Transportation prior to issuance of a certificate of occupancy for any number of units greater than one half of the project units.~~

24. ~~[Deleted.] All necessary land shall be acquired prior to approval of the first final map. In the event that the eminent domain process must be implemented to acquire said land, this condition shall be deemed satisfied by the developer entering into an agreement for condemnation proceedings with the County Counsel together with a deposit of funds as required by County Counsel or make other arrangements to the satisfaction of the Department of Transportation.~~

~~The Phase IA projects, collectively, shall be responsible for design of the total park and ride lot, and the construction of no less than 35 spaces together with related facilities and standard encroachment into the County Roadway. These improvements must be substantially complete, as determined by the Department of Transportation, prior to the issuance of a certificate of occupancy for any number of units greater than one half of the units for the subdivision project advancing the construction, unless alternative arrangements have the agreement of the El Dorado County Transit Authority. The improvement plans must be approved concurrently with the approval of the improvement plans for the internal subdivision improvements. In order for these improvements to be eligible for either credit or reimbursement from the Bass Lake Hills Public Facilities Fee, the project must be publicly bid consistent with the Public Contracts Code of California.~~

25. Bass Lake Specific Plan Primary Local Roads: Morrison Road is in the BLHSP as a Primary Local Road and is subject to the provisions of the PFFP. At the option of the subdivider, on-site Morrison Road may be constructed in phases concurrently with each phased final map, or constructed at one time with the first final map. The first final map recorded shall provide a connection from Country Club Drive to the subdivision.

Morrison Road shall be constructed to minimum fire safe standards and connecting to Hollow Oak Road concurrently with the final map creating the 25th lot, unless other access arrangements are acceptable to the County Transportation Division and Fire District.

Off-site Morrison Road shall be constructed fully from Country Club Drive to Hollow Oak Road concurrently with the final map creating the 79th lot, unless other access arrangements are acceptable to the County Transportation Division and Fire District.

~~Construct Morrison Road (J-1) without off site frontage improvements. These improvements must be substantially complete, as determined by the Department of Transportation, prior to occupancy of any residential structures in the subdivision. The improvement plans must be approved concurrently with the approval of the improvement plans for the internal subdivision improvements. In order for these improvements to be~~

~~eligible for either credit or reimbursement from the Bass Lake Hills Public Facilities Fee, the project must be publicly bid consistent with the Public Contracts Code of California.~~

26. Encroachment Permit(s): The applicant shall obtain an encroachment permit from County for work connecting to existing Tierra De Dios Drive and Hollow Oak Road. The 'A' Drive connections to Morrison Road shall be constructed to County Standard Plan 103C, modified as shown on the approved Tentative Map.

~~Off-site improvements consistent with Phase IA requirements of the adopted PFFP shall be completed in compliance as set forth within the Bass Lake Hills Specific Plan, the Bass Lake Hills Specific Plan Public Facilities Financing Plan, and related Environmental Impact Reports. Construction of the improvements to the Bass Lake/U.S. Highway 50 interchange area includes:~~

- ~~1. A west bound 2 lane on-ramp;~~
- ~~2. An east bound 2 lane off-ramp;~~
- ~~3. On-ramp traffic metering;~~
- ~~4. Widening at the Bass Lake Road/Eastbound off-ramp intersection area to provide:
a) Dual eastbound left turn lanes;
b) A shared eastbound right/through lane;~~
- ~~5. Two 12 foot northbound through lanes and 1 12 foot southbound lane plus 2 foot shoulders between the eastbound and westbound ramp intersections.~~

~~The applicant shall submit bid-ready documents prior to the issuance of the first certificate of occupancy. Improvements identified must be substantially complete prior to the issuance of the 81st certificate of occupancy.~~

~~A the discretion of the Director of the Department of Transportation, rather than construct the improvements described above, applicant shall pay an in-lieu fee equivalent to the full cost of constructing, designing, and permitting the improvements.~~

~~The cost of constructing these improvements, or the in-lieu fee if that option is chosen by the Department of Transportation, shall not be reimbursable by the County through its road fee programs but is eligible for reimbursement from the Public Facilities Financing Plan (PFFP) fees.~~

27. Common Fence/Wall Maintenance: The responsibility and access rights for maintenance of any fences and walls constructed on property lines shall be included in the Covenants Codes and Restrictions (CC&Rs).

~~An executed contract to perform the Project Study Report (PSR) for the Highway 50/Bass Lake Road Interchange shall be submitted to the Department of Transportation prior to approval of the first final map. The contract will be between the applicant and a consultant acceptable to the County and will include a scope of work that is satisfactory to the County Department of Transportation. In addition, the applicant shall enter into an~~

~~agreement with the County to guarantee the completion of this PSR and shall provide security equal to the estimated cost of the PSR. At the sole discretion of the Department of Transportation, the Department of Transportation may decide to prepare this Project Study Report directly through either a consultant contract or the use of staff, in which case the Developer would be required to fund the cost of PSR preparation and processing~~

~~At the discretion of the Director of the Department of Transportation, this requirement may be deleted.~~

28. Onsite Landscape and irrigation plans shall be included in the project improvement plans and cost estimates and shall be reviewed by the El Dorado Hills Community Services District and be subject to review and approval by the El Dorado County Planning Department Development Services Division; the Department of Transportation Division will review the plans for matters concerning roadway safety and sight distance.

Drainage

29. The applicant shall construct the detention facilities as identified in the project drainage analysis prior to issuance of building permits. Detention facilities shall be designed in accordance with the County of El Dorado Drainage Manual, including provisions for maintenance and vehicular access.
30. An irrevocable offer of dedication of drainage easement shall be made for the project drainage and detention facilities. A homeowner's agreement and association, or other entity, shall be established in order to provide for responsibility and maintenance of the detention facilities.
31. Drainage Study/NPDES Compliance: The project drainage plan facilities and system shall conform to the BLHSP, County Drainage Manual and County Storm Water Management Plan (SWMP)(2003).

At the option of the subdivider, construction and/ or implementation of Site Design Measures, Source Control Measures, and/or Low Impact Development (LID) Design Standards consistent with the California State Water Resources Control Board (SWRCB) Water Quality Order No. 2013-0001-DWQ (Order) may be implemented in lieu of measures identified in the SWMP.

Water Quality Stamp: All new or reconstructed drainage inlets shall have a storm water quality message stamped into the concrete, conforming to the Storm Water Quality Design Manual for the Sacramento and South Placer Regions, Chapter 4, Fact Sheet SD-1. All stamps shall be approved by the El Dorado County inspector prior to being used.

~~A final drainage plan shall be prepared in accordance with the County of El Dorado Drainage Manual, subject to review and approval by the Department of Transportation. Drainage facilities shall be designed and shown on the project improvement plans~~

~~consistent with the final drainage plan, the Bass Lake Hills Specific Plan, and the County's Stormwater Management Plan. The developer shall install said drainage facilities with the respective phase of construction, or as specified in the final drainage plan.~~

32. Drainage (Cross-Lot): Cross lot drainage shall be avoided wherever possible. When concentrated cross lot drainage does occur or when natural sheet flow drainage is increased by the project, it shall be contained within dedicated drainage easements. This drainage shall be conveyed via closed conduit or ~~v-ditch~~open channel, to either a natural drainage course of adequate size or an appropriately sized storm drain system ~~within the public roadway.~~ The Grading and Improvement plans shall show drainage easements for all on-site drainage facilities where required.

33. The proposed project must form an entity for the maintenance of public and private roads and drainage facilities. If there is an existing entity, the property owner shall modify the document if the current document does not sufficiently address maintenance of the roads of the current project. Transportation Division shall review the document forming the entity to ensure the provisions are adequate prior to filing of the final map.

~~The subdivider shall be required to form a County Service Area Zone of Benefit (ZOB) to fund the maintenance and improvement services to assure the proper storm water conveyance of the facilities. The funding mechanism for these services must be established prior to approval of the final map and shall include a provision for future increased funding requirements. It is recommended that a special tax with an escalator clause be used as the funding mechanism.~~

34. The final map shall show all drainage easements consistent with the County of El Dorado Drainage Manual, the project final drainage plan, and the project improvement plans.
35. The subdivider shall obtain irrevocable Offers of Dedication and/or drainage easements to the County for public drainage purposes, and shall process same through the County, for offsite drainage easement rights across properties subject to the Specific Plan Development Agreement, to the satisfaction of the ~~Department of Transportation~~ Division, to accommodate any offsite storm water facilities needed to convey concentrated storm water from the project boundary downgradient to an existing established waterway. Subdivider shall design and install any offsite storm water facilities as necessary to the satisfaction of the ~~Department of Transportation~~ Division.

Grading

36. ~~[Deleted.]~~Portions of this project are proposed for mass pad grading. Section 15.14.460 of the County of El Dorado Grading, Erosion and Sedimentation Ordinance (Amended Ordinance 4170, 8/20/91) states that a mass pad grading project application shall be transmitted for comment to the Supervisor of the district where the project is located,

~~prior to the issuance. The district Supervisor will be allowed fifteen (15) calendar days to respond, before the grading permit is issued.~~

37. Subdivision improvements shall include rough grading of driveways for all lots with street cuts or fills along the frontage of six feet or more difference in elevation, or as found necessary for reasonable access by the County Engineer. Construction of said driveways shall conform to the Design and Improvements Standards Manual and the Encroachment Ordinance.
38. Grading plans shall be prepared in substantial conformance with the preliminary grading plans submitted for Bell Ranch and submitted to the El Dorado County Resource Conservation District (RCD) and the ~~Department of Transportation~~ Division. The RCD shall review and make appropriate recommendations to the County. Upon receipt of the review report by the RCD, the ~~Department of Transportation~~ Division shall consider imposition of appropriate conditions for reducing or mitigating erosion and sedimentation from the project. The County shall issue no building permits until the ~~Department of Transportation~~ Division approves the final grading and erosion control plans and the grading is completed.

Soils Report: At the time of the submittal of the grading or improvement plans, the applicant shall submit a soils and geologic hazards report (meeting the requirements for such reports provided in the El Dorado County Grading Ordinance) to, and receive approval from the Transportation Division. Grading design plans shall incorporate the findings of detailed geologic and geotechnical investigations and address, at a minimum, grading practices, compaction, slope stability of existing and proposed cuts and fills, erosion potential, ground water, pavement section based on TI and R values, and recommended design criteria for any retaining walls.

39. The timing of construction and method of revegetation shall be coordinated with the El Dorado County Resource Conservation District (RCD). If grading activities are not completed by September, the developer shall implement a temporary grading and erosion control plan. Such temporary plans shall be submitted to the RCD for review and recommendation to the ~~Department of Transportation~~ Division. The ~~Department of Transportation~~ Division shall approve or conditionally approve such plans and cause the developer to implement said plan on or before October 15.
40. Improvement Plans shall incorporate protective measures toward existing oak trees pursuant to Volume IV, Design and Improvement Standards Manual, Oak Tree and Wetlands Preservation Requirements and Specifications (County Resolution No. 199-91).
41. Erosion control and drainage design from residential areas into the open space areas shall employ natural appearing methods. The use of native plant materials is required where revegetation is proposed.

42. Should asbestos-containing rock be exposed during grading, construction of roads, excavation for underground facilities, building foundations, or any construction related activity, Section 8.44 of the County of El Dorado County Asbestos and Dust Protection Ordinance (Ord. 4548 adopted 1/4/2000, Amended by Ord. 4360 adopted 5/13/2003) shall apply.

Fire Department

43. The potable water system for the purpose of fire protection for this residential development shall provide a minimum fire flow of 1,000 gpm with a minimum residual pressure of 20 psi for two-hour duration. This requirement is based upon a single family dwelling ~~3,600~~ 6,200 square feet or less in size. All homes shall be fire sprinklered in accordance with NFPA 13D and Fire Department requirements. This fire flow rate shall be in excess of the maximum daily consumption ~~for this rate for this development.~~ A set of engineering calculations reflecting the fire flow capabilities of the system shall be supplied to the Fire Department for review and approval prior to the approval ~~of the improvement plans.~~
44. This development shall install Mueller Dry Barrel fire hydrants ~~conforming to or any hydrant approved by the~~ El Dorado Irrigation District ~~specifications~~ for the purpose of providing water for fire protection. The spacing between hydrants in this development shall not exceed 500 feet. The exact location of each fire hydrant shall be determined by the Fire Department prior to the approval of the improvement plans. Fire hydrants need to be added to Morrison Road at 500' intervals.
45. To enhance nighttime visibility, each hydrant shall be painted with safety white enamel and marked in the roadway with a blue reflective marker as specified by the Fire Department and the Fire Safe Regulations which shall be included in the improvement plans.
46. In order to provide this development with adequate fire and emergency medical response during construction, all access roadways and fire hydrant systems shall be installed and in service prior to framing of any combustible members as specified by El Dorado Hills Fire Department Standard B-003 ~~103 which shall be included in the improvement plans.~~
47. The open space Lot K between the two developments has no access for emergency personnel and equipment to suppress a wildland fire within this area. The applicant shall be required to provide not less than three (3) all-weather access roadways suitable for fire apparatus to drive on into this area in accordance with Fire Department requirements which shall be included in the improvement plans.
48. The lots that back up to Wildland Open Space shall be required to use non-combustible type fencing ~~prior to approval of the improvement plans.~~
49. This project may be phased so long as dead end roads do not exceed 800' or 24 parcels; whichever comes first, or as otherwise acceptable to the satisfaction of the fire

~~district. During any phase of construction, this development shall be required to provide two independent, non-obstructed points of access prior to approval of the improvement plans.~~

50. The driveways serving this project shall be designed to be in accordance with the El Dorado County Code prior to approval of the improvement plans. Driveways serving this project shall be designed to a maximum of 16% grade and can be increased to 20% if paved. If there are any driveways in excess of 20 percent, the design must go back to the fire district for review.
51. This development shall ~~be conditioned to develop and implement a~~ revise the Wildland Fire Safe Plan dated October 2005 to reflect the new changes to the development, lot numbering and access changes. This revised Wildland Fire Safe Plan shall be ~~that is~~ approved by the Fire Department prior to ~~recording the final map~~ approval of the improvement plans.
52. This development shall be prohibited from installing any type of traffic calming device that utilizes a raised bump/dip section of roadway ~~prior to approval of the improvement plans.~~
53. ~~[Deleted.]The construction of Morrison Road shall be deemed substantially complete by the Department of Transportation prior to issuance of building permits other than model homes that shall be left unoccupied.~~
54. The development shall provide an all-weather access roadway designed in accordance with Fire Department requirements that provide access to the open space Lot B, and pedestrian gates in any field fencing erected along the western boundary of ~~lots 1 through 11~~ Lot B to provide access for the fire-fighting personnel to the properties west of the development.

Resource Conservation District

55. The project will need to implement erosion control measures (including runoff control measures and soil stabilization measures) and sediment control measures (e.g., straw rolls, sediment fence, sediment basins). The types of practices chosen are site-specific and dependent on the time of year construction activities occur.
56. The applicant shall prepare a Stormwater Pollution Plan (SWPPP) that incorporates Best Management Practices (BMPs) to contain pollutants on the project site and prevent pollutants from entering stormwater runoff. BMPs shall be incorporated into the construction contract documents. The SWPPP shall be prepared prior to approval of the improvement plans.

Environmental Management-Air Pollution Control District

57. Project emissions of ROG, NOX, and PM-10 need to be quantified using either the URBEMIS 7G for windows 5.1.0 or similar model that is acceptable to the District. In addition, District Rule #223 addresses the regulation and mitigation measures for fugitive dust emissions - Rule 223 shall be adhered to during the construction process. In addition, prior to the issuance of any grading or construction permits for the project, the applicant shall submit, as determined by the El Dorado County Air Quality Management District (AQMD), a Fugitive Dust Plan (FDP) application and/or an Asbestos Dust Mitigation Plan (ADMP) application may be required for submittal to and approval by the District prior to beginning project construction.
58. It is the understanding of the District that this area is known to have soil bearing asbestos. Therefore compliance with "Title 17 Asbestos Airborne Toxic Control Measure for Construction, Grading, Quarrying, and Surface Mining Operations" of the California Code of Regulations will be mandatory prior to approval of the improvement plans.
59. Project construction involves road development and should adhere to District Rule 224 Cutback and Emulsified Asphalt Paving Materials and the county ordinance concerning asbestos dust prior to the approval of the improvement plans.
60. A health risk assessment shall be prepared when the project will emit toxic air contaminants. Airborne toxic pollutants expected to be generated by the project must be identified. In addition, it must be determined if a project is to be located in an area which may impact existing or planned schools or facilities with the potential to emit toxic or hazardous pollutants. A potential airborne toxic pollutant to consider is asbestos in asbestos-containing serpentine. Applicant will assist the District in preparing a public notice in which the proposed project for which an application for a permit is made is fully described and complies to Health and Safety Code 42301.6. The risk assessment must address the pollutants and potential impacts on public health prior to the approval of the improvement plans.
61. Burning of wastes that result from Land Development Clearing must be permitted through the Air Pollution Control District. Only vegetative waste materials may be disposed of using an open outdoor fire prior to approval of the improvement plans.
62. The project construction will involve the application of architectural coating, which shall adhere to District Rule 215 Architectural Coatings prior to approval of the improvement plans.
63. Prior to construction/installation of any new point source emissions units or non-permitted emission units (i.e., gasoline dispensing facility, boilers, internal combustion engines, etc.), authority to construct applications shall be submitted to the District. Submittal of applications shall include facility diagram(s), equipment specifications and emission factors prior to approval of the improvement plans.

County Surveyor

64. All survey monuments must be set prior to the presentation of the final map to the Board of Supervisors for approval, or the developer shall have surety of work to be done by bond or cash deposit. Verification of set survey monuments, or amount of bond or deposit, to be coordinated with the County Surveyor's Office.
65. The roads serving the development shall be named by filing a completed Road Name Petition with the County Surveyors Office prior to filing the final map.

Community Services District

66. The project includes a 5.77 acre park site, identified as Lot J, which will be offered for dedication to the El Dorado Hills Community Services District. If the parkland dedication is accepted, there will be a credit against Quimby fees; otherwise Quimby in-lieu fees shall be paid in accordance with County policy prior to recordation of the final map. In the event the subdivision is subject to the parkland dedication in-lieu fees based on values supplied by the Assessor's Office and calculated in accordance with Section 120.12.090 of the County Code, the subdivider shall be subject to a \$150.00 appraisal fee payable to the El Dorado County Assessor for the determination of parkland dedication in-lieu fees.

~~The EDHCSD reserves the right to select either Lot J or residential Lot 1 for the park site. A minimum of ninety (90) days prior to submitting the final map to Planning Services, the developer shall offer Lots 1 and J to the EDHCSD. The EDHCSD shall then have 90 days to accept one of the lots or reject the offer of park dedication. If no action is taken by the EDHCSD within 90 days, the decision of whether and where to locate a park site shall be determined by developer and shown on the final map submittal.~~

~~Depending on the option chosen by the EDHCSD, one of the following alternatives shall be shown on the final map submittal:~~

- a. ~~Park site on Lot J—Dedicate Lot J to the EDHCSD (access provided through Lot C with a County approved encroachment off of Tierra de Dios Drive); Lot 2 designated as a residential lot (access off of Morrison Road);~~
- b. ~~Park site on Lot 1—Dedicate Lot 1 to the EDH CSD (access off of Morrison Road); Lot J a residential Lot A (access provided through Lot C with a County approved encroachment on to Tierra de Dios Drive);~~
- c. ~~Omit Park Site—Lot 1 a residential lot (access off of Morrison Road); Lot J designated as a Neighborhood Service Zone (access provided through Lot C with a County approved access on to Tierra de Dios Drive);~~

- d. ~~Omit Park Site—Lot J a residential lot (access provided through Lot C with a County approved access on to Tierra de Dios Drive); Lot 1 reconfigured and merged into Lots 2, 3, 4, and 5; or~~
 - e. ~~Private Park on Lot J—Grant to a Homeowner's Association for ownership and maintenance (access provided through Lot C with a County approved access on to Tierra de Dios Drive).~~
67. The project is subject to the EDHCSD Park Impact Fee in place at the time the building permits are issued. Additionally, the project will be subject to the Bass Lake Hills Specific Plan (BLHSP) Public Facilities Financing Plan (PFFP).
68. EDHCSD requires that all utilities be underground. Underground drainage is also recommended to avoid the safety hazards and maintenance problems of open ditches.
69. A homeowner's association (HOA) needs to be formed to finance ongoing operation and maintenance of street lights (if any), streetscape, and for open space management, or if no HOA is formed, then a Landscape and Lighting Assessment District (LLAD) needs to be created to fund the maintenance and operation of the same. The District also recommends the creation of a shell LLAD for the project as a back-up funding mechanism to a homeowner's association, in the event the homeowner's association should fail to maintain the improvements to the District's standards.
70. Sidewalks and pedestrian/bicycle paths shall comply with the BLHSP. The proper shoulder widths, bikeway widths, striping and signage will be required and should be noted on the plans.
71. Cable television access should be made available to all homes and the development should allow for joint trenching.
72. The El Dorado Hills CSD will provide mandatory waste management services for the residences, including recycling services.
73. Prior to final map approval, a streetscape plan for projects located on all primary local roads shall be submitted for review and approval by the El Dorado Hills CSD.
74. The streetscape is a component of the future Landscape and Lighting Assessment District and would need to be detailed, approved, and have a related maintenance budget prior to the final map.
75. The homebuilders will install the front yard landscaping.
76. ~~Pursuant to Section 4.13 #10 of the Bass Lake Hills Specific Plan, no parking is allowed on Tierra De Dios or Morrison Road. Therefore, to~~ gain access to the park site, a driveway encroachment must be constructed to ~~Department of Transportation~~ Division

requirements and on-site parking on the park site must be provided, allowing for vehicles to exit the site in a forward direction, to the satisfaction of the El Dorado Hills Community Services District and Planning Services at the time of park site improvement. ~~These improvements must be substantially complete, as determined by the Department of Transportation, prior to occupancy of any residential structures in the subdivision. The improvement plans must be approved concurrently with the approval of the improvement plans for the internal subdivision improvements.~~

Other

77. Regulatory Permits and Documents: All regulatory permits or agreements between the Project and any State or Federal Agency shall be provided to the Transportation Division with the Project Improvement Plans. These project conditions of approval and all regulatory permits shall be incorporated into the Project Improvement Plans.
78. Electronic Documentation: Upon completion of the improvements required, and prior to acceptance of the improvements by the County, the developer will provide a CD to TD with the drainage report, structural wall calculations, and geotechnical reports in PDF format and the record drawings in TIF format.
79. Prior to issuance of the first building permit, the developer shall submit to the County a proposed update to the Bass Lake Hills Public Facilities Financing Plan, including an update to the plan area fee program.
80. Prior to recordation of a final map, a valid facility improvement letter (FIL) shall be issued by the El Dorado Irrigation District (EID) for the subdivision, a new Facility Plan Report (FPR) shall be reviewed and approved by the EID, and improvement plans shall be reviewed and approved by EID. Previously approved and expired plans and reports may be used as templates for new submittals to EID.

Mitigation Monitoring and Reporting Program

- ~~81.~~ 77. The applicant shall comply with the Mitigation Monitoring and Reporting Program (MMRP) as a condition of project approval. Implementation of the MMRP shall be enacted as set forth by Table 3.0-1 of the MMRP prepared for the project and attached hereto.

Subdivision Requirements of Law

NOTE: The subdivision requirements as noted herein are provisions of County law either by Ordinance or Resolution and typically apply to all subdivisions. They do not represent all laws - which may be applicable to the subdivision, but do reflect obligations for which the subdivider should be aware of as the project proceeds toward final map submittal.

1. Improvement plans for on-site and off-site road improvements shall be prepared by a registered civil engineer and shall be subject to County ~~Department of Transportation~~ Division approval.
2. The final map shall show all utility, road and drainage easements per the recommendation of the utility purveyors and the County Engineer. Final determination of the location of said easements shall be made by the County Engineer. Said easements shall be irrevocably offered to the County.
3. The developer shall obtain approval of construction drawings and project improvement plans consistent with the Subdivision Design and Improvement Standards Manual and cost estimates from the County ~~Department of Transportation~~ Division and pay all applicable fees prior to commencement of any improvements on the public street and service facilities. All improvements shall be consistent with the approved tentative map.
4. The construction of all required improvements shall be completed with the presentation of the final map to the Planning Director before presentation of the final map to the Board of Supervisors for its approval. For improvements not completed, the subdivider shall provide a 100 percent performance surety and a 50 percent labor and materialmen surety by separate bond, cash deposit, assignment, or letter of credit from a financial institution. For improvements which have been completed, the subdivider shall provide a ten percent maintenance surety in any of the above-mentioned forms. Verification of construction, or partial construction, and cost of completion shall be determined by the County ~~Department of Transportation~~ Division.
5. Subdivision improvements shall include driveways for all lots with street cuts or fills along the frontage of six feet or more difference in elevation, or as found necessary for reasonable access by the County Transportation Director. Driveways shall be installed in a manner and location acceptable to the County ~~Department of Transportation~~ Division and shall meet standard County driveway requirements.
6. All grading plans shall be prepared and submitted to the El Dorado County Resource Conservation District (RCD) and the ~~Department of Transportation~~ Division. The RCD shall review and make appropriate recommendations to the County. Upon receipt of the review report by the RCD, the ~~Department of Transportation~~ Division shall consider imposition of appropriate conditions for reducing or mitigating erosion and sedimentation from the project. No building permit shall be issued by the County until final grading plans and erosion control plans are approved by the ~~Department of Transportation~~ Division and the grading is completed.
7. The timing of construction and method of revegetation shall be coordinated by the El Dorado County Resource Conservation District (RCD). If grading activities are not completed by September, the developer shall implement a temporary grading and erosion control plan. Such temporary plans shall be submitted to the RCD for review and recommendation to the ~~Department of Transportation~~ Division. The ~~Department~~

~~of~~ Transportation Division shall approve or conditionally approve such plans and cause the developer to implement said plan on or before October 15.

8. Improvement plans shall incorporate protective measures toward existing oak trees per Volume IV, Design and Improvement Standards Manual, Oak Tree and Wetlands Preservation Requirements and Specifications (County Resolution No. 199-91).
9. All survey monuments shall be set prior to the presentation of the Final Map to the Board of Supervisors for approval; or the developer shall have a surety of work to be done by bond or cash deposit and shall provide 50 percent labor and materials bond. Verification of set monuments, work completed, or work to be completed, and cost of completion is to be determined by the County Surveyor.
10. All roads shall be named by filing a completed road naming petition for each proposed road with the county Surveyor's office prior to filing the final map.
11. The location of fire hydrants and systems for fire flows are to meet the requirements of the responsible fire protection district. The location of hydrants shall be shown on the improvement plans which shall be subject to the approval of the fire protection district.
12. If blasting activities are to occur in conjunction with subdivision improvements, the subdivider shall ensure that such blasting activities are conducted in compliance with state and local regulations.
13. If burning activities are to occur during the construction of the subdivision improvements, the subdivider shall obtain the necessary burning permits from the California Department of Forestry and air pollution permits from the County prior to said burning activities.
14. Prior to filing a final map, if the subject property is subject to liens for assessment or bonds, pursuant to the provisions of Government Code Section 66493, the owner or subdivider shall either: (a) Pay the assessment or bond in full, or (b) File security with the Clerk of the Board of Supervisors, or (c) File with the Clerk of the Board of Supervisors the necessary certificate indicating provisions have been made for segregation of bond assessment responsibility pursuant to Government Code Section 66493 (d).
15. If human remains are discovered at any time during the subdivision improvement phase, the County Coroner and Native American Heritage Commission shall be contacted per Section 7050.5 of the Health and Safety Code and Section 5097.89 of the Public Resources Code. The procedures set forth in Supplementary Document J, Section VIII, of the California Environmental Quality Act (CEQA) Guidelines concerning treatment of the remains shall be followed.
16. If archaeological sites or artifacts are discovered, the subdivider shall retain an archaeologist to evaluate the resource. If the resource is determined to be important, as

defined in Section 15064.5 of the CEQA Guidelines, mitigation measures, as agreed to by the subdivider, archaeologist, and ~~Planning Department~~ Development Services Division shall be implemented. Treatment of Native American remains and/or archaeological artifacts shall be the responsibility of the subdivider and shall be subject to review and approval by the County Planning Director.

Conditions

1. ~~This~~ The amendments to these conditions of approval and this tentative subdivision map time extension is based upon and limited to compliance with the project description, the Planning Commission hearing exhibits marked Exhibits ~~A-FA-O~~, dated ~~April 24, 2008~~ March 24, 2016, and conditions of approval set forth below. Any deviations from the project description, exhibits or conditions must be reviewed and approved by the County for conformity with this approval. Deviations may require approved changes to the permit and/or further environmental review. Deviations without the above-described approval will constitute a violation of permit approval.

The project description is as follows:

~~Five one~~ One-year time extensions to approved tentative subdivision map (TM01-1380 Bell Woods) in accordance with Section ~~46120~~.74.030 of the El Dorado County Subdivision Ordinance and Bass Lake Hills Specific Plan.

The grading, development, use, and maintenance of the property, the size, shape, arrangement, and location of structures, parking areas and landscape areas, and the protection and preservation of resources shall conform to the project description above and the hearing exhibits and revised conditions of approval below. The property and any portions thereof shall be sold, leased or financed in compliance with this project description and the approved hearing exhibits and conditions of approval hereto. All plans must be submitted for review and approval and shall be implemented as approved by the County.

2. In the event of any legal action instituted by a third party challenging the validity of any provision of this approval, the developer and landowner agree to be responsible for the costs of defending such suit and shall hold County harmless from any legal fees or costs County may incur as a result of such action, as provided in Section 66474.9(b) of the Government Code.

The subdivider shall defend, indemnify, and hold harmless El Dorado County and its agents, officers, and employees from any claim, action, or proceeding against El Dorado County or its agents, officers, or employees to attack, set aside, void, or annul an approval of El Dorado County concerning a subdivision, which action is brought within the time period provided for in Section 66499.37.

County shall notify the subdivider of any claim, action, or proceeding and County will cooperate fully in the defense.

3. The Development Plan PD 01-0008 for Bell Woods shall consist of the following : 54 single family lots ranging in size from 1 1,004 to 26,080 square feet, ~~with five (5) landscape lots~~ and 2 open space lots on 34.28 acres.

4. The Development Plan PD 01 -08 for Bell Woods (Exhibit ~~E~~K) shall be in substantial compliance with the Bell Woods tentative map.
5. The Development Plan PD 01-0008 for Bell Woods shall conform to the development standards of the R1-PD zoning district with the exception of a coverage limitation of 45 percent and the following revised setbacks: Front – 20 feet minimum; Rear – 15 feet minimum; Side – 5 feet minimum (not height dependent); and Street Side – 15 feet minimum fronting street.

IMPROVEMENT PLANS AND GENERAL CONDITIONS – Development Plan/Tentative Map

6. Pursuant to Item 9.3.1 of the Bass Lake Hills Specific Plan, the applicant shall agree to reimburse El Dorado County for the preparation, adoption, administration, and CEQA mitigation monitoring of the Plan. Fees will be assessed prior to the recordation of the final map and must be paid in full prior to issuance of the first building permit.
7. Consistency with County Codes and Standards: The developer shall obtain approval of project improvement plans and cost estimates consistent with the Subdivision Design and Improvement Standards Manual (as may be modified by the Conditions of Approval or by approved Design Waivers) from the County ~~Department of Transportation Division~~ and pay all applicable fees prior to filing of the final tentative map ~~commencement of any improvements on the project facilities. All improvements shall be consistent with the approved tentative map.~~

Additionally, the project improvement plans and grading plans shall conform to the County Grading, Erosion and Sediment Control Ordinance, Grading Design Manual, the Drainage Manual, Off-Street Parking and Loading Ordinance, all applicable State of California Water Quality Orders, the State of California Handicapped Accessibility Standards, and the California Manual on Uniform Traffic Control Devices (MUTCD).

Curb Returns: All curb returns shall include pedestrian ramps with truncated domes conforming to Caltrans Standard Plan A88A, including a 4 foot sidewalk/landing at the back of the ramp. Alternate plans satisfying the current accessibility standards may be used, subject to review and approval by County.

8. The developer shall enter into an Improvement Agreement with the County and provide security to guarantee performance of the Improvement Agreement as set forth within the County of El Dorado Major Land Division Ordinance.
9. The final map shall show all utility, road, and drainage easements per the recommendation of the utility purveyors and the County Engineer. Final determination of the location of said easements shall be made by the County Engineer and shall be irrevocably offered to the County.

10. If blasting activities are to occur in conjunction with subdivision improvements, the subdivider shall ensure that such blasting activities are conducted in compliance with state and local regulations.
11. If burning activities are to occur during the construction of the subdivision improvements, the subdivider shall obtain the necessary burning permits from the California Department of Forestry and air pollution permits from the County prior to said burning activities.
12. The location of fire hydrants and systems for fire flows are to meet the requirements of the responsible Fire Protection District. The emergency vehicle circulation and the location of hydrants shall be shown on the improvement plans, which shall be subject to the approval of the Fire Protection District.
13. If human remains are discovered at any time during the subdivision improvement phase, the County Coroner and the Native American Heritage Commission shall be contacted per Section 7050.5 of the Health and Safety Code and Section 5097.89 of the Public Resources Code. If archaeological artifacts are discovered, the developer shall retain an archaeologist to make recommendations for the treatment of the artifacts. Treatment of Native American remains or archaeological artifacts shall be the responsibility of the developer and shall be subject to the review and approval of the County Planning Director.

Roads

14. This project is subject to El Dorado County traffic fee programs. Said fees shall be due upon the issuance of a building permit. If, prior to the application for a building permit for said project, a revised fee is established, such revised amount shall be paid.
15. Vehicular Access Restriction: A vehicular access restriction shall be designated along Covello Circle for the frontage of lots 1 and 31.
16. Road Design Standards: The applicant shall construct ~~All~~ roads ~~shall be constructed in~~ conformance with the County Design and Improvements Standards Manual (DISM) and the Bass Lake Hills Specific Plan ~~with~~ (BLHSP), ~~modified as shown on the following~~ Tentative Map and as presented in Table 1 (the requirements outlined in Table 1 are minimums).

ROAD NAME	REFERENCE	ROAD WIDTH	EXCEPTIONS / NOTES
Covello Circle	Specific Plan & Std Plan 101B	32 ft. (50 feet (50 foot R/W), plus utility/ slope easements	25 MPH Design Speed Type 2 vertical curb & gutter, with 4 ft. foot sidewalks <u>on one side</u> (see Note R-1 below)

ROAD NAME	REFERENCE	ROAD WIDTH	EXCEPTIONS / NOTES
Nicole Drive and A, B, C and D Court	Specific Plan & Std Plan 101B	28 ft. (50 feet (50 foot R/W), plus utility/ slope easements	25 MPH Design Speed Type 1 rolled curb & gutter [‡] with 4 ft. foot sidewalks (see Note R-1 below)
Project Cul-de-sacs (A, B, C and D Courts)	Specific Plan & Std Plans 1018 & 114 101B	28 ft. (50 feet (50 foot R/W), plus utility/ slope easements	Type I 1 rolled curb & gutter [‡] with 4 ft. no sidewalks (see note I below)

**Road widths in the preceding table are measured from curb face to curb face or edge of pavement if no curb. Curb face for rolled curb and gutter is 6" from the back of the curb.*

‡Type 2 vertical eCurb and gutter shall be installed. Gutter required adjacent to lot 8 and lot A open space, park, and non-frontage lots.

Sidewalks may be located outside the right-of-way and meander as a means to provide interest and variety in alignment. The alignment and design of the sidewalks shall be reviewed and approved by the Department of Transportation prior to filing the final map. Sidewalks shall be connected to any walk/trail systems in the project open space areas. Pedestrian easements are to be provided where necessary.

Note 1: Cul-de-sacs shall be ~~per Std Plan 114~~ to the satisfaction of the Fire District and shall have no landscaping within the cul-de-sacs.

Note R-1: the following Design Waivers have been requested:

1. All sidewalks on the local roads reduced from 6 to 4 feet and may meander ~~as shown~~. This 4-wide sidewalk is required in the Bass Lake Hills Specific Plan. This Department recommends approval of the above requested design waiver.
2. The proposed lengths of C and D Court exceed 500 feet and the applicant requests lengths of approximately 600 feet and 750 feet respectively. The proposed lengths of A and B Court exceed 500' when the length of Nicole Drive is added. The ~~Department of Transportation~~ Division recommends approval of the above requested design waiver.

17. ~~[Deleted.] All offsite roadways necessary for access from Bass Lake Road to Nicole Drive must be substantially complete, as determined by the Department of Transportation, prior to issuance of building permits for lots 32 through 54.~~

18. Offer of Dedication: The project shall offer to dedicate, in fee, the rights of way for roadways shown in Table 1 with the final map. Said offer shall include all appurtenant slope, drainage, pedestrian, public utility, or other public service easements as determined necessary by the County.

The offer(s) will be accepted by the County, provided that a County Service Area Zone of Benefit has been created and funded to provide for maintenance of the roadways.

At the option of the subdivider, the roadways may be private, except that emergency access shall be public. In the event of the private roadways option, a Homeowners Association (or other mechanism approved by County) shall be formed for the purpose of

maintaining the private roads and drainage facilities, in which case the above listed offers of dedication will be rejected by the County.

~~An irrevocable offer of dedication, in fee, for the required rights-of-way (R/W) as indicated in the above table shall be made for all the proposed roads, with slope easements where necessary. Said offer may be accepted by the County at the time of the final map subject to improvements and subject to inclusion in a County Service Area Zone of Benefit (ZOB) for road maintenance purposes and a Landscape and Lighting Assessment District (LLA-D) for roadway landscaping maintenance purposes. Said offer may be rejected at the time of the final map, in which case, a homeowner's agreement and association, or other entity, shall be established in order to provide for the long-term maintenance of the roads and roadway landscaping.~~

19. Bus turnouts and shelters shall be constructed at locations required by El Dorado Transit and the appropriate school district.
20. No freestanding walls, fences, or retaining walls are allowed in the road right-of-way, except at the discretion of the Transportation Division.
21. A slope easement shall be recorded on Lot 7, sufficient to accommodate road-side slope for Knollwood Drive.
22. The emergency access road through Lot A shall be constructed to link Covello Circle and Nicole Drive prior to the first building permit being issued for any residential structure except where the issuance of building permits is for model homes, which shall be unoccupied. This emergency access road shall be gated at its entrance to the public roads and is subject to the approval of, or may be modified by, the appropriate Fire District.
23. ~~[Deleted.] Primary and secondary roadway access shall be constructed prior to the first building permit being issued for any residential structure except where the issuance of building permits is for model homes, which shall be unoccupied. Primary access for Lots 1 through 31 shall be Country Club Drive. Primary access for Lots 32 through 54 shall be Bass Lake Road. A secondary access must be to a primary or secondary roadway in the designated alignment defined as in the Specific Plan and to the satisfaction of the Department of Transportation and the Fire District.~~
24. Off-site Improvements (Acquisition): As specified elsewhere in these Conditions of Approval, the applicant is required to perform off-site improvements. If the applicant does not secure, or cannot secure sufficient title or interest for lands where said off-site improvements are required, and prior to filing of any final or parcel map, the applicant shall enter into an agreement with the County pursuant to Government Code Section 66462.5. The agreement will allow the County to acquire the title or interests necessary to complete the required off-site improvements. The Form, Terms and Conditions of the agreement are subject to review and approval by County Counsel.

The agreement requires the applicant: pay all costs incurred by County associated with

the acquisition of the title or interest, provide a cash deposit, letter of credit, or other securities acceptable to the County in an amount sufficient to pay such costs, including legal costs; If the costs of construction of the off-site improvements are not already contained in a Subdivision Improvement Agreement or Road Improvement Agreement, the applicant shall provide securities sufficient to complete the required improvements, including but not limited to, direct construction costs, construction management and surveying costs, inspection costs incurred by County, and a 20% contingency; provides a legal description and exhibit map for each title or interest necessary, prepared by a licensed Civil Engineer or Land Surveyor; provides an appraisal for each title or interest to be acquired, prepared by a certified appraiser; Approved improvement plans, specifications and contract documents of the off-site improvements, prepared by a Civil Engineer.

~~This project shall comply with the Bass Lake Hills Specific Plan, the related Bass Lake Hills development agreement, and the Bass Lake Hills Public Facilities Financing Plan (PFFP). In addition, excepting for model homes, certificates of occupancy will not be issued for any residential structures until the PFFP Phase I improvement requirements (anticipated to be accomplished through the requirements of the Hollow Oak subdivision) are substantially complete, as determined by the Department of Transportation.~~

25. Off-site Improvements - Specific Urban Collectors and Major Transportation Facilities:

A. The Project shall be responsible for design, Plans, Specifications and Estimate (PS&E), utility relocation, right of way acquisition, and construction of improvements to Bass Lake Road from US50 to the realigned Country Club Drive (aka Tierra De Dios, aka City Lights Drive). This segment is identified as "B" to "H" on the BLHSP Area Public Facilities Financing Plan (PFFP) Exhibits, and includes the following assumptions:

- i. Is a portion of the 2015 County Capital Improvement Program (CIP) Project #66109;
- ii. Is a BLHSP Urban Collector;
- iii. Grading will be consistent with the ultimate 4-lane facility;
- iv. Construct a divided two lane highway with median, 18 Feet of pavement in each direction. Typical section as shown on approved Tentative Map for Hawk View Ridge Subdivision TM 00-1371R.
- v. It is recognized that Bass Lake Road will require improvements for some distance north of the realigned Country Club Drive Intersection to achieve conformance of the revised profile with the existing roadway. The exact distance is to be determined with the final Improvement Plans.
- vi. The reconstruction shall generally be consistent with the alignment and profile shown on the improvement plans entitled, Bass Lake Road Reconstruction From Highway 50 to Hollow Oak Road, Project #66109, approved by the County Engineer on June 20, 2007, and modified to accomplish the anticipated work required at this time.

- vii. The project plans shall include conduits for future landscape irrigation and electrical lines.
- B. Project shall be responsible for the design, PS&E, utility relocation, right of way acquisition, and construction of the new Country Club Drive (aka Tierra De Dios) on an alignment substantially consistent with the BLHSP, and includes the following assumptions:
 - i. Is identified in the 2015 County CIP as Project #GP126;
 - ii. Is a BLHSP Urban Collector;
 - iii. Is a two-lane road, 36 feet in width (plus left turn pockets);
 - iv. Has a 35-40 mph design speed, and;
 - v. Includes conversion of the existing segment of Country Club Drive into a Class I bike path / Multi-use trail: Approximately 100 feet of pavement will be removed at either end; A new paved trail eight (8) feet in width shall be placed at each end to provide connectivity to adjacent facilities; Bollards shall be installed to prevent motor vehicle access; striping and signing shall be provided subject to review and approval by TD.
- C. Project shall be responsible for the design, PS&E, utility relocation, right of way acquisition, and construction of the realignment of Country Club Drive at its existing intersection with Tierra De Dios Drive (east end of Tierra De Dios Drive) consistent with the intent of the BLHSP, and includes the following assumptions:
 - i. Is a BLHSP Urban Collector;
 - ii. Is a two-lane road, 36 feet in width, and;
 - iii. Has a 35-40 mph design speed.
- D. Project shall be responsible for the design, PS&E, utility relocation, right of way acquisition, and construction of intersection improvements at the intersection of Bass Lake Road and the realigned Country Club Drive Intersection, and includes the following assumptions:
 - i. Northbound approach to include one through lane and a 200 foot right turn lane;
 - ii. Southbound approach to include one through lane and a 300 foot left turn lane;
 - iii. Westbound approach to include one through lane and a 300 foot left turn lane, and;
 - iv. Signalization of the intersection of Bass Lake Road and the realigned Country Club Drive.
- E. Project shall be responsible for the design, PS&E, utility relocation, right of way acquisition, and construction of improvements at the intersection of Bass Lake Road and the US50 at Bass Lake Road interchange ramps and includes the following assumptions:

- i. Eastbound ramp / Bass Lake Road intersection
 - a. Widen / restripe eastbound off-ramp to provide two approach lanes for a distance of 240 feet;
 - b. Widen / restripe Bass Lake Road to provide two lanes northbound, and one lane southbound from eastbound ramp to westbound ramp, and;
 - c. Signalize eastbound off-ramp terminus intersection with Bass Lake Road.
- ii. Westbound ramp / Bass Lake Road intersection
 - a. Provide two northbound approach lanes (see item 3.E.i.b above);
 - b. Provide free-right lane from westbound off-ramp to northbound Bass Lake Road (existing configuration);
 - c. Provide departure merge lane northbound Bass Lake Road (merging two lanes into one);
 - d. Provide one southbound approach lane, and one 300-foot right-turn lane to westbound on-ramp, and;
 - e. Side Street Stop Control (existing).
- iii. Timing of US50 at Bass Lake Road interchange ramp Improvements
 - a. In order to ensure proper timing of the construction of the improvements identified for the US50 at Bass Lake Road interchange ramps, the subdivider shall perform a supplemental traffic analysis in conjunction with each final map application to determine Level of Service (LOS) of the interchange and ramps, to include existing traffic plus traffic generated by each final map.
 - b. If the supplemental traffic analysis indicates that the County's LOS policies would be exceeded by the existing traffic plus traffic generated by that final map, the applicant shall construct the improvements prior to issuance of the first certificate of occupancy for any lot within that final map.
 - c. If the County's LOS policies are not exceeded upon application for the last final map within the project, the project applicant shall pay its TIM fees toward the installation of proposed roadway improvements. In which case, payment of TIM fees is considered to be the project's proportionate fair share towards mitigation of this impact.
 - d. If the necessary improvements are constructed by the County or others prior to triggering of mitigation by the project, payment of TIM fees is considered to be the projects proportionate fair share towards mitigation of this impact.

F. Financing and Reimbursement

- i. Project may be reimbursed for the costs of any improvements listed above in items A through E, to the extent such improvements are included in the County's Traffic Impact Mitigation (TIM) Fee Program, in accordance with the County's TIM Fee Reimbursement Guidelines, and subject to a Road Improvement and Reimbursement Agreement between the Project and the County.
- ii. If any improvements are included in the County's 10-year CIP and TIM Fee Program, and agreed to by the County in a Road Improvement and Reimbursement / Credit Agreement, the Project may receive full or partial credit

for the cost of the work against TIM Fees that would otherwise be paid at issuance of building permits.

- iii. If any improvements are included in the County's 10-year CIP and TIM Fee Program, and agreed to by County in a Road Improvement and Reimbursement / Credit Agreement, the Project may provide funding and Bid-Ready PS&E to County, for bidding and construction management by County.
- iv. If any improvements are included in the BLHSP PFFP, such improvements may be credited to the project or eligible for reimbursement from the PFFP funds.

G. With respect to the improvements to the public roadways required in this condition, either one of the following shall be done prior to issuance of a building permit: (a) the subdivider shall be under contract for construction of the required improvements with proper sureties in place, or (b) the subdivider shall have submitted to the County a bid-ready package (PS&E) and adequate funding for construction.

H. The following requirements apply to all traffic signals identified in this condition.

In order to ensure proper timing for the installation of traffic signal controls, the applicant shall be responsible to perform traffic signal warrants with each final map at intersections identified for potential signalization in D and E above, in accordance with the Manual on Uniform Traffic Control Devices (version in effect at the time of application).

If traffic signal warrants are met at the time of application for final map (including the lots proposed by that final map), the applicant shall construct the improvements prior to issuance of the first certificate of occupancy for any lot within that final map.

If traffic signal warrants are not met upon application for the last final map within the project, the project applicant shall pay its TIM fees toward the installation of a traffic signal control at this intersection. In which case, payment of TIM fees is considered to be the project's proportionate fair share towards mitigation of this impact.

If the traffic signal control at an intersection is constructed by the County or others prior to triggering of mitigation by the project, payment of TIM fees and PFFP Fees is considered to be the projects proportionate fair share towards mitigation of this impact.

~~Off-site road improvements consistent with Phase I A requirements of the adopted PFFP shall be completed in compliance as set forth within the Bass Lake Hills Specific Plan (BU-ISP), the Bass Lake Hills Specific Plan Public Facilities Financing Plan (PFFP), and the related Development Agreement, including but not limited to the following. If one of the other two projects included in Phase I A constructs the improvement, this project shall pay its fair share based on the PFFP leveling methodology. The following are the required improvements:~~

- A. ~~Reconstruct Bass Lake Road with full improvements as required in the BLHSP from Hollow Oak Road to Highway 50. Provide underground utilities as required.~~
- B. ~~Construct bike lane and sidewalks along Bass Lake Road from Hollow Oak Road to Highway 50.~~
- C. ~~Finish median and other improvements on Bass Lake Road from Hollow Oak Road to Serrano Parkway as required by the BLHSP. Provide underground utilities as required.~~
- D. ~~Construct Country Club Drive (G-H) with frontage improvements.~~
- E. ~~Construct Silver Dove Way to school site (Q-G) with frontage improvements.~~
- F. ~~Construct Silver Dove Way (C-D) if Hawk View is included in the critical mass projects.~~
- G. ~~Construct school infrastructure (water and sewer).~~
- H. ~~Construct Morrison Road (J-1) without off-site frontage improvements if Bell Ranch is in the critical mass projects.~~
- I. ~~Construct traffic signals on Bass Lake Road if required by Traffic Warrants. If signals are not yet warranted, the initial design will incorporate underground facilities (such as conduits) to minimize disturbance of new pavement.~~
- J. ~~Acquire approximately two acres for the park and ride lot to the satisfaction of the El Dorado County Transit Authority. Construct a portion of the lot, the number of parking spaces shall be proportionate to the number of subdivision lots developed. The proposed construction shall be shown appropriately in the improvement plans.~~
- K. ~~Acquire land for an 8.7-acre sports park.~~
- L. ~~Planning and design of Sports Park.~~

26. ~~[Deleted.] Funding and a bid ready package for Bass Lake Road improvements, including reconstruction with full improvements from Hollow Oak Road to approximately Highway 50, bike lane and sidewalks from Hollow Oak Road to approximately Highway 50, and finish median and other improvements on Bass Lake Road from Hollow Oak Road to Serrano Parkway as required by the BLHSP including underground utilities as required, together with a road improvement agreement, shall be submitted to the County Department of Transportation at a time sufficient to allow award of public construction contract prior to issuance of the first residential building permit.~~

~~The County will only assure award of the public contract between March 1 and September 1, and the Department of Transportation will schedule the bidding process for a bid opening date to occur within 70 days of receipt of the funding and bid ready package if the package is received between January 1 and July 1. The term bid ready presumes that the improvement plans and all other documents and processes have been thoroughly reviewed and approved by Department of Transportation staff prior to the submittal of the bid ready package. The County Engineer, County Counsel, and the County Board of Supervisors are the final authority regarding the completeness of any bid ready package.~~

~~Excepting for model homes, certificates of occupancy will not be issued for any residential building until the improvements are substantially complete as determined by the Department of Transportation.~~

~~A complete bid ready package shall include plans, specifications, right of way acquisition (if necessary), utility agreements executed with all impacted utility, relocation work completed/scheduled, environ-mental clearance for both on-site and off-site work complete, all necessary regulatory/encroachment permits secured, and all documents for bidding the contract signed and sealed by a registered civil engineer. If the funding and the complete bid ready package for the improvements are provided to the County by the applicant prior to final map processing, the final maps can record without need for additional security for these improvements. The County will award and administer public contract(s) for this work.~~

~~The road improvement agreement or subdivision improvement agreement shall include provisions that the applicant provides supplemental funds to the County as necessary to pay for any change orders generated through the construction phase, that the developer's engineer be available to provide engineering services in support of the project during construction, and that said designer will indemnify the County per the County's standard indemnification language.~~

~~Bass Lake Road shall be improved with 2, 18 foot widths of pavement to accommodate the north bound and south bound traffic together with a nominal 8 foot wide median area that varies to 16 feet wide to accommodate turn lanes at appropriate intersections. The design shall include reconstruction of a portion Bass Lake Road with full improvements consistent with Phase I A requirements of the adopted PFFP, including but not limited to;~~

~~underground utilities, bike lane, sidewalks, the finished median with landscaping and irrigation and other improvements as outlined in the PFFP. This requirement is made pursuant to the Bass Lake Hills Specific Plan and related Development Agreement and Public Facilities Financing Plan. Landscaping and irrigation plans shall be reviewed by the El Dorado Hills Community Services District and shall be reviewed and approved by the Department of Transportation.~~

~~The applicant may enter into a reimbursement agreement with the County for providing for reimbursement of the funds provided by the applicant and used for the construction, or for construction related activities, of the improvements to the extent they are included as eligible in the applicable County and Specific Plan fee programs. Reimbursement shall be consistent with the PFFP and the *El Dorado County Department of Transportation Guidelines for Traffic Fee Program Reimbursement Projects*, including the requirement that the project is bid consistent with the State of California Public Contract Code.~~

~~In the event that the eminent domain process must be implemented to acquire right of way, this right of way requirement shall be deemed satisfied by developer entering into an agreement for condemnation proceedings with the County Counsel together with a deposit of funds as required by County Counsel or alternative arrangement to the satisfaction of the Department of Transportation.~~

27. The applicant shall provide the County with improvement plans and all necessary right-of-way prior to the first certificate of occupancy for the school site access along Country Club Drive (G-H) and Silver Dove Way (Q-G).

~~The applicant shall secure approved plans, must enter into a road improvement agreement, or subdivision improvement agreement, with the County, and all necessary right of way shall be acquired prior to approval of the first final map for the following project PFFP requirements: construct Country Club Drive (G-H) with frontage improvements, construct Silver Dove Way to school site (Q-G) with frontage improvements, and construct school infrastructure (water and sewer).~~

~~In the event that the eminent domain process must be implemented to acquire right-of way, this right-of-way requirement shall be deemed satisfied by the developer entering into an agreement for condemnation proceedings with County Counsel together with a deposit of funds as required by County Counsel, or alternative arrangement to the satisfaction of the Department of Transportation. The road improvements must be determined to be substantially complete by the County Department of Transportation prior to issuance of a certificate of occupancy for any number of units greater than one half of the project units.~~Transportation Division.

28. [Deleted.] All necessary land shall be acquired prior to approval of the first final map for the approximately two acres for the park and ride lot and also for the 8.7-acre sports

~~park. In the event that the eminent domain process must be implemented to acquire said land, this condition shall be deemed satisfied by developer entering into an agreement for condemnation proceedings with the County Counsel together with a deposit of funds as required by County Counsel, or make other arrangements to the satisfaction of the Department of Transportation.~~

~~The Phase I A projects, collectively, shall be responsible for design of the total park and ride lot (100 spaces), and the construction of no less than 35 spaces together with related on-site travel ways, facilities, and standard encroachment into the County roadway all to the satisfaction of the El Dorado County Transit Authority. These improvements must be substantially complete, as determined by the Department of Transportation, prior to issuance of a certificate of occupancy for any number of units greater than one half of the units for the subdivision project advancing the construction, unless alternative arrangements have the agreement of the El Dorado County Transit Authority and the Department of Transportation. The improvement plans must be approved concurrently with the approval of the improvement plans for the internal subdivision improvements. In order for these improvements to be eligible for either credit or reimbursement from the Bass Lake Hills Public Facilities Fee, the project must be publicly bid consistent with the Public Contracts Code of California~~

29. Encroachment Permit(s): The applicant shall obtain an encroachment permit from County for work connecting to existing Covello Circle and Salt Wash Way.

~~Off-site road improvements consistent with Phase I A requirements of the adopted PFFP shall be completed in compliance as set forth within the Bass Lake Hills Specific Plan, the Bass Lake Hills Specific Plan Public Facilities Financing Plan, and related Environmental Impact Reports. Construction of the improvements to the Bass Lake/U.S. Highway 50 interchange area includes:~~

- ~~1. A west bound 2-lane on-ramp;~~
- ~~2. An east bound 2-lane off-ramp;~~
- ~~3. On-ramp traffic metering;~~
- ~~4. Widening at the Bass Lake Road/Eastbound off-ramp intersection area to provide:
a) Dual eastbound left turn lanes;
b) A shared eastbound right/through lane;~~
- ~~5. Two 12-foot northbound through lanes and 12-foot southbound lane plus 2-foot shoulders between the eastbound and westbound ramp intersections.~~

~~The applicant shall submit bid-ready documents prior to the issuance of the first certificate of occupancy. Improvements identified must be substantially complete prior to the issuance of the 41 certificate of occupancy.~~

~~At the discretion of the Director of the Department of Transportation, rather than construct the improvements described above, applicant shall pay an in-lieu fee equivalent to the full cost of constructing, designing, and permitting the improvements.~~

~~The cost of constructing these improvements, or the in-lieu fee if that option is chosen by the Department of Transportation, shall not be reimbursable by the County through its road fee programs but is eligible for reimbursement from the Public Facilities Financing Plan (PFFP) fees.~~

30. Common Fence/Wall Maintenance: The responsibility and access rights for maintenance of any fences and walls constructed on property lines shall be included in the Covenants Codes and Restrictions (CC&Rs).

~~An executed contract to perform the Project Study Report (PSR) for the Highway 50/Bass Lake Road Interchange shall be submitted to the Department of Transportation prior to approval of the first final map. The contract will be between the applicant and a consultant acceptable to the County and will include a scope of work that is satisfactory to the County Department of Transportation. In addition, the applicant shall enter into an agreement with the County to guarantee the completion of this PSR and shall provide security equal to the estimated cost of the PSR. At the sole discretion of the Department of Transportation, the Department of Transportation may decide to prepare this Project Study Report directly through either a consultant contract or the use of staff, in which case the developer would be required to fund the cost of PSR preparation and processing.~~

~~At the discretion of the Director of the Department of Transportation, this requirement may be deleted.~~

31. Onsite landscape~~Landscape~~ and irrigation plans shall be included in the project improvement plans and cost estimates and shall be reviewed by the ~~El Dorado Hills~~Cameron Park Community Services District and be subject to review and approval by El Dorado County ~~Planning Services~~Development Services Division; the ~~Department of Transportation Division~~ will review the plans for matters concerning roadway safety and sight distance.

Drainage

32. The applicant shall construct the detention facilities as identified in the project drainage analysis prior to issuance of building permits. Detention facilities shall be designed in accordance with the County of El Dorado Drainage Manual, including provisions for maintenance and vehicular access. Vehicular access shall be provided from C Court to the basin in Lot B with security provisions or alternative access shall be provided if determined to be satisfactory by the ~~Department of Transportation~~ Division.
33. An irrevocable offer of dedication of drainage easement shall be made for the project detention facilities. A homeowner's agreement and association, or other entity, shall be established in order to provide for ownership in fee title to the detention facility.

34. Drainage Study/NPDES Compliance: The project drainage plan facilities and systems shall conform to the BLHSP, County Drainage Manual and County Storm Water Management Plan (SWMP)(2003).

At the option of the subdivider, construction and/ or implementation of Site Design Measures, Source Control Measures, and/or Low Impact Development (LID) Design Standards consistent with the California State Water Resources Control Board (SWRCB) Water Quality Order No. 2013-0001-DWQ (Order) may be implemented in lieu of measures identified in the SWMP.

Water Quality Stamp: All new or reconstructed drainage inlets shall have a storm water quality message stamped into the concrete, conforming to the Storm Water Quality Design Manual for the Sacramento and South Placer Regions, Chapter 4, Fact Sheet SD-1. All stamps shall be approved by the El Dorado County inspector prior to being used.

~~A final drainage plan shall be prepared in accordance with the County of El Dorado Drainage Manual subject to review and approval by the Department of Transportation. Drainage facilities shall be designed and shown on the project improvement plans consistent with the final drainage plan, the Bass Lake Hills Specific Plan, and the County's Storm water Management Plan. The developer shall install said drainage facilities with the respective phase of construction or as specified in the final drainage plan.~~

35. Drainage (Cross Lot): Cross lot drainage shall be avoided wherever possible. When concentrated cross lot drainage does occur or when the natural sheet flow drainage is increased by the project, it shall be contained within dedicated drainage easements. This drainage shall be conveyed via closed conduit or ~~v ditch~~ open channel, to either a natural drainage course of adequate size or an appropriately sized storm drain system within the public roadway. The Grading and Improvement plans shall show drainage easements for all on-site drainage facilities where required.

36. The proposed project must form an entity for the maintenance of public and private roads and drainage facilities. If there is an existing entity, the property owner shall modify the document if the current document does not sufficiently address maintenance of the roads of the current project. Transportation Division shall review the document forming the entity to ensure the provisions are adequate prior to filing of the final map.

Bass Lake Road and Country Club Drive are existing County maintained roads shown on General Plan Exhibit TC-1 and will be accepted by County without a Maintenance Entity.

~~The subdivider shall be required to form a County Service Area Zone of Benefit (ZOB) to fund the drainage facility maintenance and maintenance of the flows through the detention facility, and any replacement of the flow related facilities, together with maintenance vehicle access to the detention facility. The funding mechanism for these services must be established prior to approval of the final map and shall include a~~

~~provision for future increased funding requirements. It is recommended that a special tax with an escalator clause be used as the funding mechanism.~~

37. The final map shall show all drainage easements consistent with the County of El Dorado Drainage Manual, the project final drainage plan, and the project improvement plans.
38. The subdivider shall obtain irrevocable Offers of Dedication and/or drainage easements to the County for public drainage purposes, and shall process same through the County, for offsite easement rights across properties subject to the Specific Plan Development Agreement, to the satisfaction of the ~~Department of Transportation~~ Division, to accommodate any offsite storm water facilities needed to convey concentrated storm water from the project boundary downgradient to an existing established waterway. Subdivider shall design and install ~~said~~ any offsite storm water facilities as necessary to the satisfaction ion of the ~~Department of Transportation~~ Division.

Grading

39. ~~[Deleted.] This project is proposing mass pad grading. Section 15.14.460 of the County of El Dorado Grading, Erosion and Sedimentation Ordinance (Amended Ordinance No. 4170, 8/20/91) states that a mass pad grading project application shall be transmitted for comment to the supervisor of the district where the project is located, prior to the issuance. The district supervisor will be allowed fifteen (15) calendar days to respond, before the grading permit is issued.~~
40. Subdivision improvements shall include rough grading of driveways for all lots with street cuts or fills along the frontage of six feet or more difference in elevation or as found necessary for reasonable access by the County Engineer. Construction of said driveways shall conform to the Design and Improvements Standards Manual and the Encroachment Ordinance.
41. Grading plans shall be prepared in substantial conformance with the preliminary grading plans submitted for Bell Woods and submitted to the El Dorado County Resource Conservation District (RCD) and the ~~Department of Transportation~~ Division. The RCD shall review and make appropriate recommendations to the County. Upon receipt of the review report by the RCD, the ~~Department of Transportation~~ Division shall consider imposition of appropriate conditions for reducing or mitigating erosion and sedimentation from the project. The County shall issue no building permits until the ~~Department of Transportation~~ Division approves the final grading and erosion control plans and the grading is completed.

Soils Report: At the time of the submittal of the grading or improvement plans, the applicant shall submit a soils and geologic hazards report (meeting the requirements for such reports provided in the El Dorado County Grading Ordinance) to, and receive approval from the Transportation Division. Grading design plans shall incorporate the findings of detailed geologic and geotechnical investigations and address, at a minimum,

grading practices, compaction, slope stability of existing and proposed cuts and fills, erosion potential, ground water, pavement section based on TI and R values, and recommended design criteria for any retaining walls.

42. The timing of construction and method of revegetation shall be coordinated with the El Dorado County Resource Conservation District (RCD). If grading activities are not completed by September, the developer shall implement a temporary grading and erosion control plan. Such temporary plans shall be submitted to the RCD for review and recommendation to the ~~Department of Transportation Division~~. The ~~Department of Transportation Division~~ shall approve or conditionally approve such plans and cause the developer to implement said plan on or before October 15.
43. Improvement Plans shall incorporate protective measures toward existing oak trees pursuant to Volume IV, Design and Improvement Standards Manual, Oak Tree and Wetlands Preservation Requirements and Specifications (County Resolution No. 199-91).
44. Erosion control and drainage design from residential areas into the open space areas shall employ natural appearing methods. The use of native plant materials is required where revegetation is proposed.
45. Should asbestos-containing rock be exposed during grading, construction of roads, excavation for underground facilities, building foundations, or any construction related activity, Section 8.44 of the County of El Dorado County Asbestos and Dust Protection Ordinance (Ordinance No. 4548 adopted 1/4/2000, Amended by Ordinance No. 4360 adopted 5/13/2003) shall apply.

Fire Department

46. That portion of the project that is not within the fire district boundary would have to annex into a District and shall pay all fees associated with that annexation.
47. The potable water system for the purpose of fire protection for this residual development shall provide a minimum fire flow of 1,000 gpm with a minimum residual pressure of 20 psi for two-hour duration~~as determined by the fire district in accordance with the Uniform Fire Code~~. This requirement is based upon a single family dwelling ~~3,600~~6,200 square feet or less in size. All homes shall be fire sprinklered in accordance with NFPA 13D and Fire Department requirements. This fire flow rate shall be in excess of the maximum daily consumption for this rate for this development. A set of engineering calculations reflecting the fire flow capabilities of the system shall be supplied to the ~~Fire Department~~ Fire Department for review and approval ~~prior to approval of the improvement plans.~~
48. This development shall install Mueller Dry Barrel fire hydrants ~~conforming to or any~~ hydrant approved by the El Dorado Irrigation District specifications for the purpose of providing water for fire protection. The spacing between hydrants in this development

shall not exceed 500 feet. The exact location of each fire hydrant shall be determined by the fire department prior to approval of the improvement plans.

49. To enhance nighttime visibility, each hydrant shall be painted with safety white enamel and marked in the roadway with a blue reflective marker as specified by the Fire Department and the Fire Safe Regulations shall be included in the improvement plans.
50. In order to provide this development with adequate fire and emergency medical response during construction, all access roadways and fire hydrant systems shall be installed and in service prior to framing of any combustible members as specified by the applicable fire district ~~shall be included in the improvement plans.~~
51. The applicant shall have a Wild land Fire Safety Plan developed for this project prior to approval of the final map.
52. If the phasing of this development creates any dead-end access roadways in excess of 150 feet, the roadway shall be provided with a turnaround in accordance with applicable Fire District specifications prior to approval of the improvement plans.
53. The driveways serving this project shall be designed to be in accordance with the El Dorado County Code prior to approval of the improvement plans. Driveways serving the project shall be designed to a maximum of 16% grade and can be increased to 20% if paved. If there are any driveways in excess of 20 percent, the design must go back to the fire district for review.
54. This development shall be prohibited from installing any type of traffic calming device that utilizes a raised bump/dip section of roadway.

Resource Conservation

- ~~53.~~55. The project will need to implement erosion control measures (including runoff control measures and soil stabilization measures) and sediment control measures (e.g., straw rolls, sediment fence, sediment basins). The types of practices chosen are site-specific and ~~dependant~~dependent on the time of year construction activities occur.
- ~~54.~~56. The applicant shall prepare a Stormwater Pollution Plan (SWPPP) that incorporates Best Management Practices (BMPs) to contain pollutants on the project site and prevent pollutants from entering stormwater runoff. BMPs shall be incorporated into the construction contract documents. The SWPPP shall be prepared prior to approval of the improvement plans.

Environmental Management/Air Pollution Control District

- ~~55.~~57. Project emissions of ROG, NOX, and PM-10 need to be quantified using either the URBEMIS 7G for windows 5.1.O or similar model that is acceptable to the District. In

addition, District Rule #223 addresses the regulation and mitigation measures for fugitive dust emissions - Rule 223 shall be adhered to during the construction process. In addition, prior to the issuance of any grading or construction permits for the project, the applicant shall submit, as determined by the El Dorado County Air Quality Management District (AQMD), a Fugitive Dust Prevention Plan (FDP) and/or an Asbestos and Contingent Asbestos Hazard Dust Mitigation Plan (ADMP) application may be required for submittal to and approval by the District prior to beginning project construction ~~shall be submitted to and approved by the District prior to beginning project construction prior to approval of the improvement plans.~~

- ~~56.~~58. It is the understanding of the District that this area is known to have soil bearing asbestos. Therefore compliance with *Title 17 Asbestos Airborne Toxic Control Measure for Construction, Grading, Quarrying, and Surface Mining Operations* of the California Code of Regulations will be mandatory prior to approval of the improvement plans.
- ~~57.~~59. Project construction involves road development and should adhere to District Rule 224 Cutback and Emulsified Asphalt Paving Materials and the county ordinance concerning asbestos dust prior to approval of the improvement plans.
- ~~58.~~60. A health risk assessment shall be prepared when the project will emit toxic air contaminants. Airborne toxic pollutants expected to be generated by the project must be identified. In addition, it must be determined if a project is to be located in an area which may impact existing or planned schools or facilities with the potential to emit toxic or hazardous pollutants. A potential airborne toxic pollutant to consider is asbestos in asbestos-containing serpentine. Applicant will assist the District in preparing a public notice in which the proposed project for which an application for a permit is made is fully described and complies to Health and Safety Code 42301.6. The risk assessment must address the pollutants and potential impacts on public health prior to approval of the improvement plans.
- ~~59.~~61. Burning of wastes that result from Land Development Clearing must be permitted through the Air Pollution Control District. Only vegetative waste materials may be disposed of using an open outdoor fire prior to approval of the improvement plans.
- ~~60.~~62. The project construction will involve the application of architectural coating, which shall adhere to District Rule 215 Architectural Coatings prior to approval of the improvement plans.
- ~~61.~~63. Prior to construction/installation of any new point source emissions units or non-permitted emission units (i.e., gasoline dispensing facility, boilers, internal combustion engines, etc.), authority to construct applications shall be submitted to the District. Submittal of applications shall include facility diagram(s), equipment specifications and emission factors prior to approval of the improvement plans.

County Surveyor

- ~~62.~~64. All survey monuments must be set prior to the presentation of the final map to the Board of Supervisors for approval, or the developer shall have surety of work to be done by bond or cash deposit. Verification of set survey monuments, or amount of bond or deposit, to be coordinated with the County Surveyor's Office.
- ~~63.~~65. The interior roads of the project will be named ~~thorough~~through the Road Naming Process established by the County Surveyor.

Community Services District

The project has been annexed in to the Cameron Park Community Services District ("CP CSD") and the following apply:

- ~~66.~~ The project is subject to the Quimby Act and dedication requirements for parkland based on the CP CSD standards. The subdivision is subject to parkland dedication in-lieu fees based on values supplied by the Assessor's Office and calculated in accordance with Section 120.12.090 of the County Code. The subdivider shall be subject to a \$150.00 appraisal fee payable to the El Dorado County Assessor for the determination of parkland dedication in-lieu fees. The required in-lieu fees, payable to El Dorado County, shall be remitted prior to Final Map recordation. A proof of payment shall be submitted to Planning Services.
- ~~67.~~ The project is subject to the CP CSD Park Impact Fee in place at the time the building permits are issued.
- ~~68.~~ The project shall be subject to the CP CSD general obligation bond or other facility financing mechanism applicable to the CP CSD.
- ~~69.~~ A homeowner's association (HOA) needs to be formed to finance ongoing operation and maintenance of street lights (if any), streetscape, and for open space management, or if no HOA is formed, then a Landscape and Lighting Assessment District (LLAD) needs to be created to fund the maintenance and operation of the same. The District also recommends the creation of a shell LLAD for the project as a back-up funding mechanism to a homeowner's association, in the event the homeowner's association should fail to maintain the improvements to the District's standards.

~~These conditions would apply if the project were annexed in part or in entirety by the CSD.~~

- ~~64.~~ The project is subject to the Quimby Act and dedication requirements for parkland based on EDH standards of 5 acres per 1,000 residents population. Population density is based on 3.3 persons per home, which works out to 0.89 acres of parkland to be dedicated to the District before the filing of the final map. As no park site is indicated on this tentative map, but is indicated in the Bass Lake Hills Specific Plan, the District shall be paid in-

lieu fees by the developer prior to recording the final map.

65. ~~The project is subject to the EDHCSD Park Impact Fee in place at the time the building permits are issued. Additionally, the project will be subject to the Bass Lake Hills Specific Plan (BLHSP) Public Facilities Financing Plan (PFFP) Phase I A requirements and shall participate in the acquisition and dedication of the 8.7-acre park site, along with adequate water supply, to the EDHCSD prior to recording of the first map.~~
66. ~~The EDHCSD requires that all utilities be underground. Underground drainage is also recommended to avoid the safety hazards and maintenance problems of open ditches.~~
67. ~~A Homeowner's Association (HOA) needs to be formed to finance ongoing operation and maintenance of street lights (if any), streetscape, and for open space management. The District recommends the creation of a shell Landscape and Lighting Assessment District for the 54 lot development as a back up funding mechanism to a Homeowner's Association, in the event the Homeowner's Association should fail to maintain the improvements to the District's standards.~~
68. ~~Prior to final map approval, a streetscape plan for projects which front Bass Lake Road and all primary local roads shall be submitted for review and approval by the El Dorado Hills CSD.~~
69. ~~The streetscape is a component of the future Landscape and Lighting Assessment District and would need to be detailed, approved, and have a related maintenance budget prior to the final map.~~
70. ~~The development should allow for joint trenching for cable television services.~~
71. ~~The District will provide mandatory waste management services for the residences, including recycling services.~~
- 72.70. ~~The EDHCSD-Cameron Park CSD will review and approve the following items prior to final maps being recorded :~~
- a. ~~Phasing Plan~~
 - b. ~~Open Space and Tree Preservation Management Plan; and~~
 - c. ~~CC&Rs need to be reviewed and approved by the CSD Board of Directors prior to recording the final map and include any conditions that are specific to any lots or areas, such as oak tree preservation and vegetation management.~~

Other

71. Regulatory Permits and Documents: All regulatory permits or agreements between the Project and any State or Federal Agency shall be provided to the Transportation Division with the Project Improvement Plans. These project conditions of approval and all regulatory permits shall be incorporated into the Project Improvement Plans.

72. Electronic Documentation: Upon completion of the improvements required, and prior to acceptance of the improvements by the County, the developer will provide a CD to the Transportation Division with the drainage report, structural wall calculations, and geotechnical reports in PDF format and the record drawings in TIF format.
73. Prior to issuance of the first building permit, the developer shall submit to the County a proposed update to the Bass Lake Hills Public Facilities Financing Plan, including an update to the plan area fee program.
74. Prior to recordation of a final map, a valid facility improvement letter (FIL) shall be issued by the El Dorado Irrigation District (EID) for the subdivision, a new Facility Plan Report (FPR) shall be reviewed and approved by the EID, and improvement plans shall be reviewed and approved by EID. Previously approved and expired plans and reports may be used as templates for new submittals to EID.

Mitigation Monitoring and Reporting Program

- ~~73.~~75. The applicant shall comply with the Mitigation Monitoring and Reporting Program (MMRP) as a condition of project approval. Implementation of the MMRP shall be enacted as set forth by Table 3.0-1 of the MMRP prepared for the project and attached hereto.

Subdivision Requirements Of Law

NOTE: The subdivision requirements as noted herein are provisions of County law either by Ordinance or Resolution and typically apply to all subdivisions. They do not represent all laws - which may be applicable to the subdivision, but do reflect obligations for which the subdivider should be aware of as the project proceeds toward final map submittal.

1. Improvement plans for on-site and off-site road improvements shall be prepared by a registered civil engineer and shall be subject to County ~~Department of~~ Transportation Division approval.
2. The final map shall show all utility, road and drainage easements per the recommendation of the utility purveyors and the County Engineer. Final determination of the location of said easements shall be made by the County Engineer. Said easements shall be irrevocably offered to the County.
3. The developer shall obtain approval of construction drawings and project improvement plans consistent with the Subdivision Design and Improvement Standards Manual and cost estimates from the County ~~Department of~~ Transportation Division and pay all applicable fees prior to commencement of any improvements on the public street and service facilities. All improvements shall be consistent with the approved tentative map.

4. The construction of all required improvements shall be completed with the presentation of the final map to the Planning Director before presentation of the final map to the Board of Supervisors for its approval. For improvements not completed, the subdivider shall provide a 100 percent performance surety and a 50 percent labor and materialmen surety by separate bond, cash deposit, assignment, or letter of credit from a financial institution. For improvements which have been completed, the subdivider shall provide a ten percent maintenance surety in any of the above-mentioned forms. Verification of construction, or partial construction, and cost of completion shall be determined by the County ~~Department of Transportation~~ Division.
5. Subdivision improvements shall include driveways for all lots with street cuts or fills along the frontage of six feet or more difference in elevation, or as found necessary for reasonable access by the County Transportation Director. Driveways shall be installed in a manner and location acceptable to the County ~~Department of Transportation~~ Division and shall meet standard County driveway requirements.
6. All grading plans shall be prepared and submitted to the El Dorado County Resource Conservation District (RCD) and the ~~Department of Transportation~~ Division. The RCD shall review and make appropriate recommendations to the County. Upon receipt of the review report by the RCD, the ~~Department of Transportation~~ Division shall consider imposition of appropriate conditions for reducing or mitigating erosion and sedimentation from the project.
7. No building permit shall be issued by the County until final grading plans and erosion control plans are approved by the ~~Department of Transportation~~ Division and the grading is completed.
8. The timing of construction and method of revegetation shall be coordinated by the El Dorado County Resource Conservation District (RCD). If grading activities are not completed by September, the developer shall implement a temporary grading and erosion control plan. Such temporary plans shall be submitted to the RCD for review and recommendation to the ~~Department of Transportation~~ Division. The ~~Department of Transportation~~ Division shall approve or conditionally approve such plans and cause the developer to implement said plan on or before October 15.
9. Improvement plans shall incorporate protective measures toward existing oak trees per Volume IV, Design and Improvement Standards Manual, Oak Tree and Wetlands Preservation Requirements and Specifications (County Resolution No. 199-91).
10. All survey monuments shall be set prior to the presentation of the Final Map to the Board of Supervisors for approval; or the developer shall have a surety of work to be done by bond or cash deposit and shall provide 50 percent labor and materials bond. Verification of set monuments, work completed, or work to be completed, and cost of completion is to be determined by the County Surveyor.

11. All roads shall be named by filing a completed road naming petition for each proposed road with the county Surveyor's office prior to filing the Final Map.
12. The location of fire hydrants and systems for fire flows are to meet the requirements of the responsible fire Protection district. The location of hydrants shall be shown on the improvement plans which shall be subject to the approval of the fire protection district.
13. If blasting activities are to occur in conjunction with subdivision improvements, the subdivider shall ensure that such blasting activities are conducted in compliance with state and local regulations.
14. If burning activities are to occur during the construction of the subdivision improvements, the subdivider shall obtain the necessary burning permits from the California Department of Forestry and air pollution permits from the County prior to said burning activities.
15. Prior to filing a Final Map, if the subject property is subject to liens for assessment or bonds, pursuant to the provisions of Government Code Section 66493, the owner or subdivider shall either: (a) Pay the assessment or bond in full, or (b) File security with the Clerk of the Board of Supervisors, or (c) File with the Clerk of the Board of Supervisors the necessary certificate indicating provisions have been made for segregation of bond assessment responsibility pursuant to Government Code Section 66493 (d).
16. If human remains are discovered at any time during the subdivision improvement phase, the County Coroner and Native American Heritage Commission shall be contacted per Section 7050.5 of the Health and Safety Code and Section 5097.89 of the Public Resources Code. The procedures set forth in Supplementary Document J, Section VIII, of the California Environmental Quality Act (CEQA) Guidelines concerning treatment of the remains shall be followed.
17. If archaeological sites or artifacts are discovered, the subdivider shall retain an archaeologist to evaluate the resource. If the resource is determined to be important, as defined in Section 15064.5 of the CEQA Guidelines, mitigation measures, as agreed to by the subdivider, archaeologist, and Planning Department shall be implemented. Treatment of Native American remains and/or archaeological artifacts shall be the responsibility of the subdivider and shall be subject to review and approval by the County Planning Director.

Conditions

1. ~~This~~The amendments to these conditions of approval and this tentative subdivision map time extension ~~is~~are based upon and limited to compliance with the project description, the Planning Commission hearing exhibits marked Exhibits ~~A-FA-O~~, dated ~~April 24, 2008~~March 24, 2016, and conditions of approval set forth below. Any deviations from the project description, exhibits or conditions must be reviewed and approved by the County for conformity with this approval. Deviations may require approved changes to the permit and/or further environmental review. Deviations without the above-described approval will constitute a violation of permit approval.

The project description is as follows:

~~Five~~Amendments to the conditions of approval as listed below and one one-year time extensions to approved tentative subdivision map (TM00-1371 Hawk View) in accordance with Section ~~46120~~74.030 of the El Dorado County Subdivision Ordinance and Bass Lake Hills Specific Plan.

The grading, development, use, and maintenance of the property, the size, shape, arrangement, and location of structures, parking areas and landscape areas, and the protection and preservation of resources shall conform to the project description above and the hearing exhibits and conditions of approval below. The property and any portions thereof shall be sold, leased or financed in compliance with this project description and the approved hearing exhibits and conditions of approval hereto. All plans must be submitted for review and approval and shall be implemented as approved by the County.

2. In the event of any legal action instituted by a third party challenging the validity of any provision of this approval, the developer and landowner agree to be responsible for the costs of defending such suit and shall hold County harmless from any legal fees or costs County may incur as a result of such action, as provided in Section 66474.9(b) of the Government Code.

The subdivider shall defend, indemnify, and hold harmless El Dorado County and its agents, officers, and employees from any claim, action, or proceeding against El Dorado County or its agents, officers, or employees to attack, set aside, void, or annul an approval of El Dorado County concerning a subdivision, which action is brought within the time period provided for in Section 66499.37.

County shall notify the subdivider of any claim, action, or proceeding and County will cooperate fully in the defense.

Development Plan

3. Development Plan PD00-0007 for Hawk View shall consist of the following: 114 single family lots ranging in size from 6,476 to 29,789 square feet, with 5 landscape lots and 2 open space lots on 40.10 acres.
4. Development Plan PD00-0007 for Hawk View (Exhibit ~~BK~~) shall be in substantial compliance with the Hawk View tentative map and shall conform to the development standards of the R1-PD zoning district with the exception of a 45 percent coverage limitation and the following revised setbacks: Side – 5 feet minimum (not height dependent), Street Side – 15 feet minimum fronting street.

Improvement Plans and General Conditions for the Development Plan and the Tentative Map

5. Pursuant to Item 9.3.1 of the Bass Lake Hills Specific Plan, the applicant shall agree to reimbursement of El Dorado County for the preparation, adoption, administration, and CEQA mitigation monitoring of the Plan. Fees will be assessed prior to the recordation of the final map and must be paid in full prior to issuance of the first building permit.
6. Consistency with County Codes and Standards: The developer shall obtain approval of project improvement plans and cost estimates consistent with the Subdivision Design and Improvement Standards Manual (as may be modified by these Conditions of Approval or by approved Design Waivers) from the County ~~Department of Transportation Division,~~ and pay all applicable fees prior to filing of the final map ~~and commencement of any improvements on the project facilities. All improvements shall be consistent with the approved tentative map.~~

Additionally, the project improvement plans and grading plans shall conform to the County Grading, Erosion and Sediment Control Ordinance, Grading Design Manual, the Drainage Manual, Off-Street Parking and Loading Ordinance, all applicable State of California Water Quality Orders, the State of California Handicapped Accessibility Standards, and the California Manual on Uniform Traffic Control Devices (MUTCD).

Curb Returns: All curb returns shall include pedestrian ramps with truncated domes conforming to Caltrans Standard Plan A88A, including a 4 foot sidewalk/landing at the back of the ramp. Alternate plans satisfying the current accessibility standards may be used, subject to review and approval by County.

7. The developer shall enter into an Improvement Agreement with the County and provide security to guarantee performance of the Improvement Agreement as set forth within the County of El Dorado Major Land Division Ordinance.
8. The final map shall show all utility, road, and drainage easements per the recommendation of the utility purveyors and the County Engineer. Final determination of

the location of said easements shall be made by the County Engineer. Said easements shall be irrevocably offered to the County.

9. If blasting activities are to occur in conjunction with subdivision improvements, the subdivider shall ensure that such blasting activities are conducted in compliance with state and local regulations.
10. If burning activities are to occur during the construction of the subdivision improvements, the subdivider shall obtain the necessary burning permits from the California Department of Forestry and air pollution permits from the County prior to said burning activities.
11. The location of fire hydrants and systems for fire flows are to meet the requirements of the responsible Fire Protection District. The emergency vehicle circulation and the location of hydrants shall be shown on the improvement plans, which shall be subject to the approval of the Fire Protection District.
12. If human remains are discovered at any time during the subdivision improvement phase, the County Coroner and the Native American Heritage Commission shall be contacted per Section 7050.5 of the Health and Safety Code and Section 5097.89 of the Public Resources Code. If archaeological artifacts are discovered, the developer shall retain an archaeologist to make recommendations for the treatment of the artifacts. Treatment of Native American remains or archaeological artifacts shall be the responsibility of the developer and shall be subject to the review and approval of the County ~~Planning~~ Development Services Director.

Roads

13. This project is subject to El Dorado County fee programs. Said fee shall be due upon the issuance of a building permit. If prior to the application for a building permit for said project a revised fee is established, such revised amount shall be paid.
14. Encroachment Permit(s): The applicant shall obtain an encroachment permit from the County and shall construct the project roadway encroachments to the following Standards:

“B-Road” access to Bass Lake Road – Construct to Standard Plan 103D.
“A-Road” access to Silver Dove Way – Construct to Standard Plan 103C.
“E-Road” access to Silver Dove Way – Construct to Standard Plan 103C.

~~The encroachment onto realigned Bass Lake Road shall be constructed to El Dorado County Standard Plan 103F, or an alternative design approved by the County Engineer~~
15. Off-site Improvements (Acquisition): As specified elsewhere in these Conditions of Approval, the applicant is required to perform off-site improvements. If the applicant

does not secure, or cannot secure sufficient title or interest for lands where said off-site improvements are required, and prior to filing of any final or parcel map, the applicant shall enter into an-agreement with the County pursuant to Government Code Section 66462.5. The agreement will allow the County to acquire the title or interests necessary to complete the required off-site improvements. The Form, Terms and Conditions of the agreement are subject to review and approval by County Counsel.

The agreement requires the applicant: pay all costs incurred by County associated with the acquisition of the title or interest; provide a cash deposit, letter of credit, or other securities acceptable to the County in an amount sufficient to pay such costs, including legal costs; If the costs of construction of the off-site improvements are not already contained in a Subdivision Improvement Agreement or Road Improvement Agreement, the applicant shall provide securities sufficient to complete the required improvements, including but not limited to, direct construction costs, construction management and surveying costs, inspection costs incurred by County, and a 20% contingency; provides a legal description and exhibit map for each title or interest necessary, prepared by a licensed Civil Engineer or Land Surveyor; provides an appraisal for each title or interest to be acquired, prepared by a certified appraiser; Approved improvement plans, specifications and contract documents of the off-site improvements, prepared by a Civil Engineer.

The encroachment onto Silver Dove Way shall be constructed to El Dorado County Standard Plan 103E, or an alternative design approved by the County Engineer.

16. Vehicular Access Restriction: A vehicular access restriction shall be designated along Bass Lake Road and Silver Dove Way for the frontage of the project except ~~at for~~ the ~~projectproposed~~ roadway access points~~encroachments onto Bass Lake Road and Silver Dove Way.~~
17. ~~All~~Road Design Standards: The applicant shall construct all roads ~~shall be constructed in~~ conformance with the County Design and Improvements Standards Manual with (DISM) and the ~~following widths:~~Bass Lake Hills Specific Plan (BLHSP), modified as shown on the Tentative Map and as presented in Table 1 (the requirements outlined in Table 1 are minimums):

ROAD NAME	REFERENCE	ROAD WIDTH	EXCEPTIONS/NOTES
<u>Bass Lake Road</u> <u>(project frontage)</u>	<u>Specific Plan and</u> <u>approved TM</u>	<u>18' in each direction</u> <u>with 8' nominal median</u>	<u>Typical section as shown on</u> <u>Tentative Map, with</u> <u>Landscape Berm,</u> <u>meandering PCC walk and</u> <u>privacy fence.</u> <u>Section may be modified at</u> <u>the discretion of the County</u> <u>Engineer.</u>
Silver Dove Way	Spee <u>Specific Plan</u>	<u>36 ft. (56'30 feet (55-</u>	<u>Construct ½ width</u>

ROAD NAME	REFERENCE	ROAD WIDTH	EXCEPTIONS/NOTES
(Hawk View Road)	and Std. Plan <u>401B Approved</u> <u>Tentative Map,</u> <u>Modified per this</u> <u>condition.</u>	<u>foot R/W- 30 feet on</u> <u>project frontage, 25 feet</u> <u>on opposite side of</u> <u>centerline), plus utility/</u> <u>slope easements</u>	<u>improvements (18 feet from</u> <u>centerline to face of curb on</u> <u>project side (westbound)) -</u> <u>Type 2 vertical curb and</u> <u>gutter, with 6</u> <u>ft. meandering sidewalks.</u> <u>Construct eastbound side to</u> <u>12 foot lane plus 2 foot AB</u> <u>shoulder.</u>
Project Secondary Local Roads(A, B, D, and E Roads)	Spec. Specific Plan and Std. Plan <u>401B Approved</u> <u>Tentative Map,</u> <u>Modified per this</u> <u>condition.</u>	32 ft. (50'feet (50 foot <u>R/W), plus utility/ slope</u> <u>easements</u>	Type 1 rolled curb and gutter with 4 ft. <u>foot</u> sidewalks
Project Cul-de-sacs (A, B, C, and E Courts)	Spec. Specific Plan and Std. Plans 4018 and <u>44101B</u>	28 ft. (50'feet (50 foot <u>R/W), plus utility/ slope</u> <u>easements</u>	Type 1 rolled curb and gutter with 4 ft. <u>foot</u> sidewalks (see note R-1 below)

*~~Type 2 vertical curb & gutter adjacent to Lot A detention basin.~~

*~~Road widths in the preceding table are measured from curb face to curb face. Sidewalks may be located outside the right- or edge of-way pavement to edge of pavement if no curb. Curb face for rolled curb and meander as a means to provide interest and variety in alignment. The alignment and design of the sidewalks shall be reviewed and approved by the Department gutter is 6" from the back of Transportation prior to filing the final map. Sidewalks shall be connected to any walk/trail systems in the project curb. Curbs adjacent to open space areas. Pedestrian easements to be provided where necessary. lots shall be Type 2 Vertical curb and gutter.~~

Note R-1: The following Design Waivers ~~have been requested~~ were included in the prior approved Tentative Map:

1. All sidewalks on the local roads reduced from 6 feet to 4 feet and meander as shown. ~~This 4 wide sidewalk is required in the Bass Lake Hills Specific Plan. This Department recommends approval of the above requested design waiver.~~
2. The proposed centerline radii for A and B Court and F Drive are to be modified to 120-feet, 185-feet and 63-feet respectively. ~~This Department recommends approval of the above requested design waiver.~~

18. Offer of Dedication: The project shall offer to dedicate, in fee, for the required rights of way shown in Table 1 with the final map. Said offer shall include all appurtenant slope, drainage, pedestrian, public utility, or other public service easements as determined necessary by the County.

The offer(s) will be accepted by the County, provided that a County Service Area Zone of Benefit has been created and funded to provide for maintenance of the roadways. At the option of the Subdivider, the Internal Roadways may be maintained privately by a Homeowner's Association or other entity acceptable to County and may be gated. In which case, the above listed offers of dedication will be rejected by the County. Bass Lake Road is an existing County maintained road, shown on General Plan Exhibit TC-1,

and will be accepted by County without a maintenance entity.

Rights of way for off-site improvements on Silver Dove Way may be obtained as an easement for road, drainage, pedestrian and public utility services in lieu of fee, if approved by the County Engineer (land south of centerline on adjacent parcel).

~~An irrevocable offer of dedication, in fee, for the required rights of way (R/W) as indicated in the above table shall be made for all the proposed roads, with slope easements where necessary. Said offer may be accepted by the County at the time of the final map subject to improvements and subject to inclusion in a Zone of Benefit for road maintenance purposes. Said offer may be rejected at the time of the final map, in which case, a homeowner's agreement and association, or other entity, shall be established in order to provide for the long term maintenance of the roads.~~

19. Bus turnouts and shelters shall be constructed at locations required by El Dorado Transit and the appropriate school district.
20. A secondary access road, providing permanent or temporary looped circulation for each phase of development, shall be constructed prior to the first building permit being issued for any residential structure except where the issuance of building permits is for model homes, which shall be unoccupied. Such looped circulation shall be subject to the approval of, or may be modified by, the El Dorado Hills Fire District.
21. Bass Lake Specific Plan Primary Local Roads: Silver Dove Way shall be constructed from "E-Road" to Bass Lake Road adjacent to the project. Silver Dove Way is identified in the BLHSP as a Primary Local Road, and is subject to the provisions of the PFFP.

~~The applicant shall construct Silver Dove Way adjacent to the project and extending southwesterly approximately 300 linear feet to conform to an existing private roadway. All improvements shall be designed and constructed to the applicable County standards and requirements and meet with the approval of the Department of Transportation. The applicant may enter into a reimbursement agreement with the County providing for reimbursements of the funds provided by the applicant and used for the construction, or for construction related activities, of these improvements to the extent they are included in the Bass Lake Hills Specific Plan Fee Account.~~

22. The Project shall construct a left turn pocket on Bass Lake Road at the "B-Road" access, subject to review and approval of the Transportation Division. At the option of the developer, this access may be constructed as a right-in, right-out only access, in which case no left turn pocket shall be required.

~~A left turn pocket shall be constructed on Bass Lake Road, at the entrance to the project and is subject to the review and approval by the Department of Transportation at the improvement plan stage.~~

23. Maintenance Entity: The proposed project must form an entity for the maintenance of public and private roads and drainage facilities. If there is an existing entity, the property owner shall modify the document if the current document does not sufficiently address maintenance of the roads of the current project. Transportation Division shall review the document forming the entity to ensure the provisions are adequate prior to filing of the final map.

Bass Lake Road and Country Club Drive are existing County maintained roads shown on General Plan Exhibit TC-1 and will be accepted by County without a Maintenance Entity.

Common Fence/Wall Maintenance: The responsibility and access rights for maintenance of any fences and walls constructed on property lines shall be included in the Covenants Codes and Restrictions (CC&Rs).

~~This project shall comply with the Bass Lake Hills Specific Plan, the related Bass Lake Hills Development Agreement, and the Bass Lake Hills Public Facilities Financing Plan (PFFP). In addition, excepting for model homes, certificates of occupancy will not be issued for any residential structures until the PFFP Phase 1 improvement requirements (anticipated to be accomplished through the requirements of the Hollow Oak Subdivision) are substantially complete, as determined by the Department of Transportation.~~

24. Off-Site Improvements - Specific Plan Urban Collectors and Major Transportation Facilities:

A. The Project shall be responsible for design, Plans, Specifications and Estimate (PS&E), utility relocation, right of way acquisition, and construction of improvements to Bass Lake Road from US50 to the realigned Country Club Drive (aka Tierra De Dios, aka City Lights Drive). This segment is identified as "B" to "H" on the BLHSP Area Public Facilities Financing Plan (PFFP) Exhibits, and includes the following assumptions:

- i. Is a portion of the 2015 County Capital Improvement Program (CIP) Project #66109;
- ii. Is a BLHSP Urban Collector;
- iii. Grading will be consistent with the ultimate 4-lane facility;
- iv. Construct a divided two lane highway with median, 18 Feet of pavement in each direction. Typical section as shown on approved Tentative Map.
- v. It is recognized that Bass Lake Road will require improvements for some distance north of the realigned Country Club Drive Intersection to achieve conformance of the revised profile with the existing roadway. The exact distance is to be determined with the final Improvement Plans.
- vi. The reconstruction shall generally be consistent with the alignment and profile shown on the improvement plans entitled, Bass Lake Road Reconstruction From Highway 50 to Hollow Oak Road, Project #66109, approved by the County

- Engineer on June 20, 2007, and modified to accomplish the anticipated work required at this time.
- vii. The project plans shall include conduits for future landscape irrigation and electrical lines.
- B. Project shall be responsible for the design, PS&E, utility relocation, right of way acquisition, and construction of the new Country Club Drive (aka Tierra De Dios) on an alignment substantially consistent with the BLHSP, and includes the following assumptions:
- i. Is identified in the 2015 County CIP as Project #GP126;
 - ii. Is a BLHSP Urban Collector;
 - iii. Is a two-lane road, 36 feet in width (plus left turn pockets);
 - iv. Has a 35-40 mph design speed, and;
 - v. Includes conversion of the existing segment of Country Club Drive into a Class I bike path / Multi-use trail: Approximately 100 feet of pavement will be removed at either end; A new paved trail eight (8) feet in width shall be placed at each end to provide connectivity to adjacent facilities; Bollards shall be installed to prevent motor vehicle access; striping and signing shall be provided subject to review and approval by TD.
- C. Project shall be responsible for the design, PS&E, utility relocation, right of way acquisition, and construction of the realignment of Country Club Drive at its existing intersection with Tierra De Dios Drive (east end of Tierra De Dios Drive) consistent with the intent of the BLHSP, and includes the following assumptions:
- i. Is a BLHSP Urban Collector;
 - ii. Is a two-lane road, 36 feet in width, and;
 - iii. Has a 35-40 mph design speed.
- D. Project shall be responsible for the design, PS&E, utility relocation, right of way acquisition, and construction of intersection improvements at the intersection of Bass Lake Road and the realigned Country Club Drive Intersection, and includes the following assumptions:
- i. Northbound approach to include one through lane and a 200 foot right turn lane;
 - ii. Southbound approach to include one through lane and a 300 foot left turn lane;
 - iii. Westbound approach to include one through lane and a 300 foot left turn lane, and;
 - iv. Signalization of the intersection of Bass Lake Road and the realigned Country Club Drive.
- E. Project shall be responsible for the design, PS&E, utility relocation, right of way acquisition, and construction of improvements at the intersection of Bass Lake Road and the US50 at Bass Lake Road interchange ramps. and includes the following

assumptions:

i. Eastbound ramp / Bass Lake Road intersection

- a. Widen / restripe eastbound off-ramp to provide two approach lanes for a distance of 240 feet;
- b. Widen / restripe Bass Lake Road to provide two lanes northbound, and one lane southbound from eastbound ramp to westbound ramp, and;
- c. Signalize eastbound off-ramp terminus intersection with Bass Lake Road.

ii. Westbound ramp / Bass Lake Road intersection

- a. Provide two northbound approach lanes (see item 3.E.i.b above);
- b. Provide free-right lane from westbound off-ramp to northbound Bass Lake Road (existing configuration);
- c. Provide departure merge lane northbound Bass Lake Road (merging two lanes into one);
- d. Provide one southbound approach lane, and one 300-foot right-turn lane to westbound on-ramp, and;
- e. Side Street Stop Control (existing).

iii. Timing of US50 at Bass Lake Road interchange ramp Improvements

- a. In order to ensure proper timing of the construction of the improvements identified for the US50 at Bass Lake Road interchange ramps, the subdivider shall perform a supplemental traffic analysis in conjunction with each final map application to determine Level of Service (LOS) of the interchange and ramps, to include existing traffic plus traffic generated by each final map.
- b. If the supplemental traffic analysis indicates that the County's LOS policies would be exceeded by the existing traffic plus traffic generated by that final map, the applicant shall construct the improvements prior to issuance of the first certificate of occupancy for any lot within that final map.
- c. If the County's LOS policies are not exceeded upon application for the last final map within the project, the project applicant shall pay its TIM fees toward the installation of proposed roadway improvements. In which case, payment of TIM fees is considered to be the project's proportionate fair share towards mitigation of this impact.
- d. If the necessary improvements are constructed by the County or others prior to triggering of mitigation by the project, payment of TIM fees is considered to be the projects proportionate fair share towards mitigation of this impact.

F. Financing and Reimbursement

- i. Project may be reimbursed for the costs of any improvements listed above in items A through E, to the extent such improvements are included in the County's Traffic Impact Mitigation (TIM) Fee Program, in accordance with the County's TIM Fee Reimbursement Guidelines, and subject to a Road Improvement and Reimbursement Agreement between the Project and the County.
- ii. If any improvements are included in the County's 10-year CIP and TIM Fee

Program, and agreed to by the County in a Road Improvement and Reimbursement / Credit Agreement, the Project may receive full or partial credit for the cost of the work against TIM Fees that would otherwise be paid at issuance of building permits.

- iii. If any improvements are included in the County's 10-year CIP and TIM Fee Program, and agreed to by County in a Road Improvement and Reimbursement / Credit Agreement, the Project may provide funding and Bid-Ready PS&E to County, for bidding and construction management by County.
- iv. If any improvements are included in the BLHSP PFFP, such improvements may be credited to the project or eligible for reimbursement from the PFFP funds.

G. With respect to the improvements to the public roadways required in this condition, either one of the following shall be done prior to issuance of a building permit: (a) the subdivider shall be under contract for construction of the required improvements with proper sureties in place, or (b) the subdivider shall have submitted to the County a bid-ready package (PS&E) and adequate funding for construction.

H. The following requirements apply to all traffic signals identified in this condition.

In order to ensure proper timing for the installation of traffic signal controls, the applicant shall be responsible to perform traffic signal warrants with each final map at intersections identified for potential signalization in D and E above, in accordance with the Manual on Uniform Traffic Control Devices (version in effect at the time of application).

If traffic signal warrants are met at the time of application for final map (including the lots proposed by that final map), the applicant shall construct the improvements prior to issuance of the first certificate of occupancy for any lot within that final map.

If traffic signal warrants are not met upon application for the last final map within the project, the project applicant shall pay its TIM fees toward the installation of a traffic signal control at this intersection. In which case, payment of TIM fees is considered to be the project's proportionate fair share towards mitigation of this impact.

If the traffic signal control at an intersection is constructed by the County or others prior to triggering of mitigation by the project, payment of TIM fees and PFFP Fees is considered to be the projects proportionate fair share towards mitigation of this impact.

~~Off site road improvements consistent with Phase IA requirements of the adopted PFFP shall be completed in compliance as set forth within the Bass Lake Hills Specific Plan (BLHSP), the Bass Lake Hills Specific Plan Public Facilities Financing Plan (PFFP), and the related development agreement, including but not limited to the following:~~

- ~~A. Reconstruct Bass Lake Road with full improvements as required in the BLHSP~~

from Hollow Oak Road to Highway 50. Provide underground utilities as required (see following Note 1).

- B. Construct bike lane and sidewalks along Bass Lake Road from Hollow Oak Road to Highway 50 (see following Note 1).
- C. Finish median and other improvements on Bass Lake Road from Hollow Oak Road to Serrano Parkway as required by the BLHSP. Provide underground utilities as required (see following Note 1).
- D. Construct Country Club Drive (G-H) with frontage improvements (see following Note 2).
- E. Construct Silver Dove Way to school site (Q-G) with frontage improvements (see following Note 2).
- F. Construct Silver Dove Way (C-D) if Hawk View is included in the critical mass projects (see following Note 5).
- G. Construct school infrastructure (water and sewer) (see following Note 2).
- H. Construct Morrison Road (J-I) without off-site frontage improvements if Bell Ranch is in the critical mass projects (see following Note 5).
- I. Construct traffic signals on Bass Lake Road if required by traffic warrants. If signals are not yet warranted, the initial design will incorporate underground facilities (such as conduits) to minimize disturbance of new pavement.
- J. Construct or complete funding for Hwy 50/Bass Lake Road Interchange ramp improvements and ramp metering (see following Note 3 and Note 1).
- K. Acquire approximately two acres for the park and ride lot (see following Note 4). Construct a portion of the lot, the number of parking spaces shall be proportionate to the number of lots developed. The proposed construction shall be shown appropriately in the improvement plans.
- L. Acquire land for an 8.7-acre sports park (see following Note 4).
- M. Planning and design of Sports Park

Note 1: Funding and a bid-ready package for items A, B, and C above (Bass Lake Road improvements), together with a road improvement agreement, shall be submitted to the County Department of Transportation at a time sufficient to allow award of public construction contract prior to issuance of the first residential building permit.

Funding and a bid ready package for item J. above (interchange ramp improvements), together with a road improvement agreement, shall be submitted to the County Department of Transportation at a time sufficient to allow award of public construction contract prior to issuance of the first residential building permit. The Department of Transportation may, at its sole discretion, alter the timing of the bid award for this project if the Department determines the alteration is in the public interest.

The County will only assure award of the public contract between March 1 and September 1 and the Department of Transportation will schedule the bidding process for a bid opening date to occur within 70 days of receipt of the funding and bid ready package if the package is received between January 1 and July 1. The term bid ready presumes that the improvement plans and all other documents and processes have been thoroughly reviewed and approved by Department of Transportation staff prior to the submittal of the bid ready package. The County Engineer, County Counsel, and the County Board of Supervisors are the final authority regarding the completeness of any bid ready package.

Excepting for model homes, certificates of occupancy will not be issued for any residential building permit in excess of 19 for the subdivision project that submits the funding and bid ready package to the County, until the improvements in items A, C, and J above are substantially complete as determined by the Department of Transportation. For the remaining projects in the Phase IA portion of the PFFP, excepting for model homes, certificates of occupancy will not be issued for any residential building permit until the improvements in items A, C, and J above are substantially complete as determined by the Department of Transportation.

A complete bid ready package shall include plans, specifications, right of way acquisition (if necessary), utility agreements executed with all impacted utility relocation work completed/scheduled, environmental clearance for both on-site and off-site work complete, all necessary regulatory/encroachment permits secured, and all documents for bidding the contract signed and sealed by a registered civil engineer. If the funding and the complete bid ready package for the improvements are provided to the County by the applicant prior to final map processing, the final maps can record without need for additional security for these improvements. The County will award and administer public contract(s) for this work.

The road improvement agreement or subdivision improvement agreement shall include provisions that the applicant provides supplemental funds to the County as necessary to pay for any change orders generated through the construction phase, that the developer's engineer be available to provide engineering services in support of the project during construction, and that said designer will indemnify the County per the County's standard indemnification language.

Bass Lake Road shall be improved with 2, 18-foot widths of pavement to accommodate the north bound and south bound traffic together with a nominal 8-foot wide median area that varies to 16-foot wide to accommodate turn lanes at appropriate intersections. The

design shall include reconstruction of a portion Bass Lake Road with full improvements consistent with Phase IA requirements of the adopted PFFP, including but not limited to underground utilities, bike lane, sidewalks, the finished median with landscaping and irrigation and other improvements as outlined in the PFFP. This requirement is made pursuant to the Bass Lake Hills Specific Plan and related Development Agreement and Public Facilities Financing Plan. Landscaping and irrigation plans shall be reviewed by the El Dorado Hills Community Services District (EDH CSD) and shall be reviewed and approved by the Department of Transportation.

The applicant may enter into a reimbursement agreement with the County for providing for reimbursement of the funds provided by the applicant and used for the construction, or for construction related activities, of the improvements in items A, B, C, and J above to the extent they are included as eligible in the applicable County and Specific Plan fee programs. Reimbursement shall be consistent with the PFFP and the EL DORADO COUNTY DEPARTMENT OF TRANSPORTATION GUIDELINES FOR TRAFFIC FEE PROGRAM REIMBURSEMENT PROJECTS, including the requirement that the project is bid consistent with the State of California Public Contract Code.

In the event that the eminent domain process must be implemented to acquire right of way, this right of way requirement shall be deemed satisfied by developer entering into an agreement for condemnation proceedings with the County Counsel together with a deposit of funds as required by County Counsel or alternative arrangement to the satisfaction of the Department of Transportation.

Note 2: (Items D, E, and G above) — The applicant shall secure approved plans, must enter into a road improvement agreement, or subdivision improvement agreement, with the County, and all necessary right of way shall be acquired prior to approval of the first final map. In the event that the eminent domain process must be implemented to acquire right of way, this right of way requirement shall be deemed satisfied by the developer entering into an agreement for condemnation proceedings with County Counsel together with a deposit of funds as required by County Counsel, or alternative arrangement to the satisfaction of the Department of Transportation. The road improvements must be determined to be substantially complete by the County Department of Transportation prior to issuance of a certificate of occupancy for any number of units greater than one half of the project units.

Note 3: (Item J above) — An executed contract to perform the Project Study Report (PSR) for the Highway 50/Bass Lake Road Interchange shall be submitted to the Department of Transportation prior to approval of the first final map. The contract will be between the applicant and a consultant acceptable to the County and will include a scope of work that is satisfactory to the County Department of Transportation. In addition, the applicant shall enter into an agreement with the County to guarantee the completion of this PSR and shall provide security equal to the estimated cost of the PSR. At the sole discretion of the Department of Transportation, the Department of Transportation may decide to prepare this Project Study Report directly through either a consultant contract or the use

~~of staff, in which case the Developer would be required to fund the cost of PSR preparation and processing.~~

~~Note 4: (Items K and L above) — All necessary land shall be acquired prior to approval of the first final map. In the event that the eminent domain process must be implemented to acquire said land, this condition shall be deemed satisfied by Developer entering into an agreement for condemnation proceedings with the County Counsel together with a deposit of funds as required by County Counsel, or make other arrangements to the satisfaction of the Department of Transportation.~~

~~The Phase 1A projects, collectively, shall be responsible for design of the total park and ride lot, and the construction of no less than 35 spaces together with related onsite travel ways, facilities and standard encroachment into the County roadway. These improvements must be substantially complete, as determined by the Department of Transportation, prior to issuance of a certificate of occupancy for any number of units greater than one half of the units for the subdivision project advancing the construction, unless alternative arrangements have the agreement of the El Dorado County Transit Authority and the Department of Transportation. The improvement plans must be approved concurrently with the approval of the improvement plans for the internal subdivision improvements. In order for these improvements to be eligible for either credit or reimbursement from the Bass Lake Hills Public Facilities Fee, the project must be publicly bid consistent with the Public Contracts Code of California~~

~~Note 5: (Items F and H above) — These improvements must be substantially complete, as determined by the Department of Transportation, prior to occupancy of any residential structures in the respective, named subdivision. The improvement plans must be approved concurrently with the approval of the improvement plans for the internal subdivision improvements. In order for these improvements to be eligible for either credit or reimbursement from the Bass Lake Hills Public Facilities Fee, the project must be publicly bid consistent with the Public Contracts Code of California.~~

25. ~~Onsite landscape~~Landscape and irrigation plans shall be included in the project improvement plans and cost estimates, and shall be reviewed by the El Dorado Hills Community Services District and be subject to review and approval by the El Dorado County ~~Planning Department~~Development Services Division; the ~~Department of Transportation Division~~ will review the plans for matters concerning roadway safety and sight distance.

DrainageRAINAGE

26. Drainage Study / NPDES Compliance: The project drainage facilities and system shall conform to the BLHSP, County Drainage Manual and County Storm Water Management Plan (SWMP)(2003). At the option of the subdivider, construction and/ or implementation of Site Design Measures, Source Control Measures, and/or Low Impact Development (LID) Design Standards consistent with the California State Water

Resources Control Board (SWRCB) Water Quality Order No. 2013-0001-DWQ (Order) may be implemented in lieu of measures identified in the SWMP.

Water Quality Stamp: All new or reconstructed drainage inlets shall have a storm water quality message stamped into the concrete, conforming to the Storm Water Quality Design Manual for the Sacramento and South Placer Regions, Chapter 4, Fact Sheet SD-1. All stamps shall be approved by the El Dorado County inspector prior to being used. A final drainage plan shall be prepared in accordance with the County of El Dorado Drainage Manual, subject to review and approval by the Department of Transportation. Drainage facilities shall be designed and shown on the project improvement plans consistent with the final drainage plan, the Bass Lake Hills Specific Plan, and the County's Storm Water management Plan. The developer shall install said drainage facilities with the respective phase of construction, or as specified in the final drainage plan.

27. Drainage (Cross-Lot): Cross lot drainage shall be avoided wherever possible. When concentrated cross lot drainage does occur or when the natural sheet flow drainage is increased by the project, it shall be contained within dedicated drainage easements. This drainage shall be conveyed via closed conduit or ~~v-ditch~~ open channel, to either a natural drainage course of adequate size or an appropriately sized storm drain system within the public roadway. The Grading and Improvement plans shall show drainage easement for all on-site facilities where required.
28. The edge condition and grading along the Bass Lake Road frontage shall be completed in substantial conformance with the proposed tentative map revisions as shown on the Hawk View Bass Lake Road Frontage Modification exhibit dated January 2015. The subdivider shall be required to form a County Service Area Zone of Benefit (ZOB) to fund the drainage facility maintenance and improvement services. The funding mechanism for these services must be established prior to approval of the final map and shall include a provision for future increased funding requirements. It is recommended that a special tax with an escalator clause be used as the funding mechanism.
29. The final map shall show all drainage easements consistent with the County of El Dorado Drainage Manual, the project final drainage plan, and the project improvement plans.
30. The subdivider shall obtain irrevocable Offers of Dedication and/or drainage easements to the County for public drainage purposes, and shall process same through the County, for offsite easement rights across properties subject to the Specific Plan Development Agreement, to the Satisfaction of the ~~Department of Transportation~~ Division, to accommodate any offsite storm water facilities needed to convey concentrated storm water from the project boundary downgradient to an existing established waterway. Subdivider shall design and install said offsite storm water facilities as necessary to the satisfaction of the ~~Department of Transportation~~ Division.

Grading

31. ~~[Deleted.] This project is proposing mass pad grading. Section 15.14.460 of the County of El Dorado Grading, Erosion and Sedimentation Ordinance (Amended Ordinance 4170, 8/20/91) states that a mass pad grading project application shall be transmitted for comment to the supervisor of the district where the project is located, prior to the issuance. The district supervisor will be allowed 15 calendar days to respond, before the grading permit is issued.~~

32. Grading plans shall be prepared in substantial conformance with the preliminary grading plans submitted for Hawk View and submitted to the El Dorado County Resource Conservation District (RCD) and the ~~Department of Transportation~~ Division. The RCD shall review and make appropriate recommendations to the County. Upon receipt of the review report by the RCD, the ~~Department of Transportation~~ Division shall consider imposition of appropriate conditions for reducing or mitigating erosion and sedimentation from the project. The County shall issue no building permits until the ~~Department of Transportation~~ Division approves the final grading and erosion control plans and the grading is completed.

Soils Report: At the time of the submittal of the grading or improvement plans, the applicant shall submit a soils and geologic hazards report (meeting the requirements for such reports provided in the El Dorado County Grading Ordinance) to, and receive approval from the Transportation Division. Grading design plans shall incorporate the findings of detailed geologic and geotechnical investigations and address, at a minimum, grading practices, compaction, slope stability of existing and proposed cuts and fills, erosion potential, ground water, pavement section based on TI and R values, and recommended design criteria for any retaining walls.

33. The timing of construction and method of revegetation shall be coordinated with the El Dorado County Resource Conservation District (RCD). If grading activities are not completed by September, the developer shall implement a temporary grading and erosion control plan. Such temporary plans shall be submitted to the RCD for review and recommendation to the ~~Department of Transportation~~ Division. The ~~Department of Transportation~~ Division shall approve or conditionally approve such plans and cause the developer to implement said plan on or before October 15.

34. Improvement Plans shall incorporate protective measures toward existing oak trees pursuant to Volume IV, Design and Improvement Standards Manual, Oak Tree and Wetlands Preservation Requirements and Specifications (County Resolution No. 199-91).

35. Erosion control and drainage design from residential areas into the open space areas shall employ natural appearing methods. The use of native plant materials is required where revegetation is proposed.

36. Should asbestos-containing rock be exposed during grading, construction of roads,

excavation for underground facilities, building foundations, or any construction related activity, Section 8.44 of the County of El Dorado County Asbestos and Dust Protection Ordinance (Ord. 4548 adopted 1/4/2000, Amended by Ord. 4360 adopted 5/ 13/2003) shall apply.

Fire Department

37. The potable water system for the purpose of fire protection for this residential development shall provide a minimum fire flow of 1,000 gpm with a minimum residential pressure of 20 psi for two-hour duration. This requirement is based upon a ~~side lot setback of 10 feet or greater~~ greater single family dwelling 6,200 square feet or less in size. All homes shall be fire sprinklered in accordance with NFPA 13D and Fire Department requirements. This fire flow rate shall be in excess of the maximum daily consumption for this rate for this development. A set of engineering calculations reflecting the fire flow capabilities of the system shall ~~be~~ supplied to the Fire Department for review and approval.
38. This development shall install Mueller Dry Barrel fire hydrants ~~conforming to or any hydrant approved by the El Dorado Irrigation District specifications~~ for the purpose of providing water for fire protection. The spacing between hydrants in this development shall not exceed 500 feet. The exact location of each fire hydrant shall be determined by the Fire Department prior to the approval of the improvement plans.
39. To enhance nighttime visibility, each hydrant shall be painted with safety white enamel and marked in the roadway with a blue reflective marker as specified by the Fire Department and the Fire Safe Regulations which shall be included on the improvement plans.
40. In order to provide this development with adequate fire and emergency medical response during construction, all access roadways and fire hydrant systems shall be installed and in service prior to framing of any combustible members as specified by El Dorado Hills Fire Department Standard ~~403B-003~~ 403B-003.
41. All streets within this project shall be constructed in accordance with El Dorado County and Fire Department requirements.
42. During each phase of this project, a minimum of two independent access roadways shall be provided for each phase of the project, where required by the Fire Department.
43. The applicant shall have a wildland fire safety plan developed for this project.
44. If phasing of development creates any dead-end access roadways in excess of 150 feet, the roadway shall be provided with a turnaround in accordance with Fire Department specifications.

45. This development shall be prohibited from installing any type of traffic calming device that utilizes a raised bump/dip section of roadway.

46. Any gate shall meet the El Dorado Hills Fire Department Gate Standard B-002.

Resource Conservation

45.47. The project will need to implement erosion control measures (including runoff control measures and soil stabilization measures) and sediment control measures (e.g., straw rolls, sediment fence, sediment basins). The types of practices chosen are site-specific and dependent on the time of year construction activities occur.

46.48. The applicant shall prepare a Stormwater Pollution Plan (SWPPP) that incorporates Best Management Practices (BMPs) to contain pollutants on the project site and prevent pollutants from entering stormwater runoff. BMPs shall be incorporated into the construction contract documents. The SWPPP shall be prepared prior to approval of the improvement plans. The applicant will need to control non-storm water discharges (e.g., wash water), potentially hazardous materials such as hydraulic fluid from construction vehicles and paint materials, and all potential pollutants on the construction site.

Environmental Management - Air Pollution Control District

47.49. Project emissions of ROG, NOX, and PM-10 need to be quantified using either the URBEMIS 7G for windows 5.1.0 or similar model that is acceptable to the District. In addition, District Rule 223 addresses the regulation and mitigation measures for fugitive dust emissions - Rule 223 shall be adhered to during the construction process. In addition, prior to issuance of any grading or construction permits for the project, the applicant shall submit, as determined by the El Dorado County Air Quality Management District (AQMD), a Fugitive Dust Plan (FDP) application and/or an Prevention and Control Plan and Contingent Asbestos Hazard Dust Mitigation Plan (ADMP) application may be required for submittal to and approval by the District prior to beginning project construction shall be submitted to and approved by the District prior to beginning project construction.

48.50. It is the understanding of the District that this area is known to have soil bearing asbestos. Therefore compliance with Title 17 Asbestos Airborne Toxic Control Measure for Construction, Grading, Quarrying, and Surface Mining Operations of the California Code of Regulations will be mandatory prior to approval of the improvement plans.

49.51. Project construction involves road development and should adhere to District Rule 224 Cutback and Emulsified Asphalt Paving Materials and the county ordinance concerning asbestos dust prior to the approval of the improvement plans.

50.52. A health risk assessment shall be prepared when the project will emit toxic air contaminants. Airborne toxic pollutants expected to be generated by the project must be

identified. In addition, it must be determined if a project is to be located in an area which may impact existing or planned schools or facilities with the potential to emit toxic or hazardous pollutants. A potential airborne toxic pollutant to consider is asbestos in asbestos-containing serpentine. Applicant will assist the District in preparing a public notice in which the proposed project for which an application for a permit is made is fully described and complies to Health and Safety Code 42301.6. The risk assessment must address the pollutants and potential impacts on public health prior to approval of the improvement plans.

~~51.53.~~ Burning of wastes that result from "Land Development Clearing" must be permitted through the Air Pollution Control District. Only vegetative waste materials may be disposed of using an open outdoor fire prior to approval of the improvement plans.

~~52.54.~~ The project construction will involve the application of architectural coating, which shall adhere to District Rule 215 Architectural Coatings prior to approval of the improvement plans.

~~53.55.~~ Prior to construction/installation of any new point source emissions units or non-permitted emission units (i.e., gasoline dispensing facility, boilers, internal combustion engines, etc.), authority to construct applications shall be submitted to the District. Submittal of applications shall include facility diagram(s), equipment specifications and emission factors prior to approval of the improvement plans.

~~County Surveyor~~ **County Surveyor**

~~54.56.~~ The interior roads of the project will be named ~~thorough~~ through the Road Naming Process established by the County Surveyor.

~~Community Services District~~ **Community Services District**

~~55.57.~~ The project is subject to the Quimby Act and dedication requirements for parkland based on El Dorado Hills standards of 5 acres per 1,000 residents population. Population density is based on 3.3 persons per home, which works out to 1.9-acres of parkland to be dedicated to the District before the filing of the final map. ~~As no park site is indicated on this tentative map, nor indicated in the Bass Lake Hills Specific Plan, the District will negotiate in-lieu fees with the developer. The subdivision is subject to parkland~~ dedication in-lieu fees based on values supplied by the Assessor's Office and calculated in accordance with Section 120.12.090 of the County Code. The subdivider shall be subject to a \$150.00 appraisal fee payable to the El Dorado County Assessor for the determination of parkland dedication in-lieu fees. The required in-lieu fees, payable to El Dorado County, shall be remitted prior to Final Map recordation. A proof of payment shall be submitted to Planning Services.

~~56.58.~~ The project is subject to the El Dorado Hills CSD Park Impact Fee in place at the time the building permits are issued. Additionally, the project will be subject to the Bass Lake

Hills Specific Plan (BLHSP) Public Facilities Financing Plan (PFFP).

- ~~57.~~59. The El Dorado Hills CSD requires that all utilities be underground. Underground drainage is also recommended to avoid the safety hazards and maintenance problems of open ditches.
- ~~58.~~60. A Homeowner's Association (HOA) needs to be formed to finance ongoing operation and maintenance of street lights (if any), streetscape, and for open space management, or if no HOA is formed, then a Landscape and Lighting Assessment District (LLAD) needs to be created to fund the maintenance and operation of the same. The District also recommends the creation of a shell LLAD for the project as a back-up funding mechanism to a Homeowner's Association, in the event the Homeowner's Association should fail to maintain the improvements to the District's standards.
- ~~59.~~61. Sidewalks and pedestrian/bicycle paths shall comply with the BLHSP which calls for a Class II Bikeway along the proposed Silver Dove Way and a Class I bikeway along Bass Lake Road (realigned). The proper shoulder widths, bikeway widths, striping and signage will be required and should be noted on the plans.
- ~~60.~~62. Cable television access should be made available to all homes and the development should allow for joint trenching.
- ~~61.~~63. The El Dorado Hills CSD will provide mandatory waste management services for the residences, including recycling services.
- ~~62.~~64. Prior to final map approval, a streetscape plan for projects which front Bass Lake Road and all primary local roads shall be submitted for review and approval by the El Dorado Hills CSD.
- ~~63.~~65. The streetscape is a component of the future Landscape and Lighting Assessment District and would need to be detailed, approved, and have a related maintenance budget prior to the final map.
- ~~64.~~66. The home builders will install the front yard landscaping.
- ~~65.~~67. The El Dorado Hills CSD will review and approve the following items prior to final maps being recorded :
- a. Open Space and Tree Preservation Management Plan;
 - b. CC&Rs need to be reviewed and approved by the El Dorado Hills CSD Board of Directors prior to recording the final map and include any conditions that are specific to any lots or areas, such as oak tree preservation and vegetation management.

68. The applicant shall acquire approximately two acres for the park-and-ride lot. The land shall be acquired prior to approval of the first final map. In the event that the eminent domain process must be implemented to acquire said land, this condition shall be deemed satisfied by applicant entering into an agreement for condemnation proceedings with the County Counsel together with a deposit of funds as required by County Counsel, or make other arrangements to the satisfaction of the Transportation Division.

Other

69. Regulatory Permits and Documents: All regulatory permits or agreements between the Project and any State or Federal Agency shall be provided to the Transportation Division with the Project Improvement Plans. These project conditions of approval and all regulatory permits shall be incorporated into the Project Improvement Plans.
70. Electronic Documentation: Upon completion of the improvements required, and prior to acceptance of the improvements by the County, the developer will provide a CD to the Transportation Division with the drainage report, structural wall calculations, and geotechnical reports in PDF format and the record drawings in TIF format.
71. Prior to issuance of the first building permit, the developer shall submit to the County a proposed update to the Bass Lake Hills Public Facilities Financing Plan, including an update to the plan area fee program.
72. Prior to recordation of a final map, a valid facility improvement letter (FIL) shall be issued by the El Dorado Irrigation District (EID) for the subdivision, a new Facility Plan Report (FPR) shall be reviewed and approved by the EID, and improvement plans shall be reviewed and approved by EID. Previously approved and expired plans and reports may be used as templates for new submittals to EID.

Mitigation Monitoring and Reporting Program

73. The applicant shall comply with the Mitigation Monitoring and Reporting Program (MMRP) as a condition of project approval. Implementation of the MMRP shall be enacted as set forth by Table 3.0-1 of the MMRP prepared for the project and attached hereto.

Subdivision Requirements Of Law

NOTE: The subdivision requirements as noted herein are provisions of County law either by Ordinance or Resolution and typically apply to all subdivisions. They do not represent all laws - which may be applicable to the subdivision, but do reflect obligations for which the subdivider should be aware of as the project proceeds toward final map submittal.

1. Improvement plans for on-site and off-site road improvements shall be prepared by a registered civil engineer and shall be subject to County ~~Department~~ of Transportation Division approval.
2. The final map shall show all utility, road and drainage easements per the recommendation of the utility purveyors and the County Engineer. Final determination of the location of said easements shall be made by the County Engineer. Said easements shall be irrevocably offered to the County.
3. The developer shall obtain approval of construction drawings and project improvement plans consistent with the Subdivision Design and Improvement Standards Manual and cost estimates from the County ~~Department of Transportation~~ Division and pay all applicable fees prior to commencement of any improvements on the public streets and service facilities. All improvements shall be consistent with the approved tentative map.
4. The construction of all required improvements shall be completed with the presentation of the final map to the ~~Planning Development Services~~ Director before presentation of the final map to the Board of Supervisors for its approval. For improvements not completed, the subdivider shall provide a 100 percent performance surety and a 50 percent labor and materialmen surety by separate bond, cash deposit, assignment, or letter of credit from a financial institution. For improvements which have been completed, the subdivider shall provide a ten percent maintenance surety in any of the above-mentioned forms. Verification of construction, or partial construction, and cost of completion shall be determined by the County ~~Department of Transportation~~ Division.
5. Subdivision improvements shall include driveways for all lots with street cuts or fills along the frontage of six feet or more difference in elevation, or as found necessary for reasonable access by the County Transportation Director. Driveways shall be installed in a manner and location acceptable to the County ~~Department of Transportation~~ Division and shall meet standard County driveway requirements.
6. All grading plans shall be prepared and submitted to the EL Dorado County Resource Conservation District (RCD) and the ~~Department of Transportation~~ Division. The RCD shall review and make appropriate recommendations to the County. Upon receipt of the review report by the RCD, the ~~Department of Transportation~~ Division shall consider imposition of appropriate conditions for reducing or mitigating erosion and sedimentation from the project. No building permit shall be issued by the County until final grading plans and erosion control plans are approved by the ~~Department~~ of Transportation Division and the grading is completed.
7. The timing of construction and method of revegetation shall be coordinated by the EL Dorado County Resource Conservation District (RCD). If grading activities are not completed by September, the developer shall implement a temporary grading and erosion control plan. Such temporary plans shall be submitted to the RCD for review and recommendation to the ~~Department of Transportation~~ Division. The ~~Department~~

~~of~~ Transportation Division shall approve or conditionally approve such plans and cause the developer to implement said plan on or before October 15.

8. Improvement plans shall incorporate protective measures toward existing oak trees per Volume IV, Design and Improvement Standards Manual, Oak Tree and Wetlands Preservation Requirements and Specifications (County Resolution No. 199-91).
9. All survey monuments shall be set prior to the presentation of the Final Map to the Board of Supervisors for approval; or the developer shall have a surety of work to be done by bond or cash deposit and shall provide 50 percent labor and materials bond. Verification of set monuments, work completed, or work to be completed, and cost of completion is to be determined by the County Surveyor.
10. All roads shall be named by, filing a completed road naming petition for each proposed road with the county Surveyor's office prior to filing the final map.
11. The location of fire hydrants and systems for fire flows are to meet the requirements of the responsible fire Protection district. The location of hydrants shall be shown on the improvement plans which shall be subject to the approval of the fire protection district.
12. If blasting activities are to occur in conjunction with subdivision improvements, the subdivider shall ensure that such blasting activities are conducted in compliance with state and local regulations.
13. If burning activities are to occur during the construction of the subdivision improvements, the subdivider shall obtain the necessary burning permits from the California Department of Forestry and air pollution permits from the County prior to said burning activities.
14. Prior to filing a final map, if the subject property is subject to liens for assessment or bonds, pursuant to the provisions of Government Code Section 66493, the owner or subdivider shall either: (a) Pay the assessment or bond in full, or (b) File security with the Clerk of the Board of Supervisors, or (c) File with the Clerk of the Board of Supervisors the necessary certificate indicating provisions have been made for segregation of bond assessment responsibility pursuant to Government Code Section 66493 (d).
15. If human remains are discovered at any time during the subdivision improvement phase, the County Coroner and Native American Heritage Commission shall be contacted per Section 7050.5 of the Health and Safety Code and Section 5097.89 of the Public Resources Code. The procedures set forth in Supplementary Document J, Section VIII, of the California Environmental Quality Act (CEQA) Guidelines concerning treatment of the remains shall be followed.
16. If archaeological sites or artifacts are discovered, the subdivider shall retain an archaeologist to evaluate the resource. If the resource is determined to be important, as

defined in Section 15064.5 of the CEQA Guidelines, mitigation measures, as agreed to by the subdivider, archaeologist, and Development Services Division shall be implemented. Treatment of. Native American remains and/or archaeological artifacts shall be the responsibility of the subdivider and shall be subject to review and approval by the County ~~Planning~~ Development Services Director.

Appendix E

Mitigation Monitoring and Reporting Plan



Bass Lake Hills Specific Plan Conditions of Approval Amendments Mitigation Monitoring and Reporting Plan

Project Title Bass Lake Hills Specific Plan – Hawk View, Bell Woods, and Bell Ranch Conditions of Approval Amendments

File Numbers: Hawk View TM00-1371-R
Bell Woods TM01-1380-R
Bell Ranch TM96-1321-R-3

Site Address North of U.S. Highway 50 / Bass Lake Road Interchange

APN 115-040-16 (Hawk View), 119-020-050 (Bell Woods), 119-020-52 (Bell Ranch)

Project Applicant BL Road, LLC
3001 I Street, Suite 300
Sacramento, CA 95816
(916) 343-2401

Previously Prepared Environmental Documents:

- Bass Lake Road Study Area Program Environmental Impact Report, **SCH #: 1990020375** (certified March 17, 1992);
- Bass Lake Hills Specific Plan EIR Addendum (approved November 7, 1995);
- Hawk View Mitigated Negative Declaration, **SCH #: 2005012107** (certified May 24, 2005);
- Bell Woods Mitigated Negative Declaration, **SCH #:2005032044** (certified May 24, 2005); and
- Bell Ranch Mitigated Negative Declaration, **SCH #: 2005022144** (certified January 12, 2006).

MITIGATION MONITORING AND REPORTING PLAN FOR Bass Lake Hills Specific Plan COA Amendments

Mitigation Measure	Reporting Milestone	Reporting / Responsible Party	VERIFICATION OF COMPLIANCE	
			Initials	Date
AIR QUALITY				
<p>Mitigation Measure 3-1: The project proponent shall test soils at the project site to determine whether ultramafic rock is present. Due to the potential for ultramafic soils within the BLHSP area, and for the possible unexpected discovery of ultramafic rock during construction, the project proponent shall ensure that its construction contracts are written so that, if ultramafic soils are discovered, the construction contractor(s) will implement asbestos dust mitigation measures consistent with the CARB's Final Regulation Order for Asbestos Airborne Toxic Control Measure for Construction, Grading, Quarrying, and Surface Mining Operations. The contractor shall also adhere to El Dorado County's Naturally Occurring Asbestos & Dust Protection Ordinance No. 4548. Finally, the project proponent shall ensure that the project complies with the El Dorado County Air Pollution Control District's (El Dorado County APCD's) Rule 223 – Fugitive Dust.</p> <p>If ultramafic rock is discovered, prior to the start of construction, the project proponent shall prepare an Asbestos Hazard Dust Mitigation Plan that shall be designed to eliminate, to the greatest extent possible, the emissions of fugitive dust from grading, excavation, and other soil disturbing construction activity. This plan shall be prepared in coordination with the County's Air Quality Engineer, assigned to monitor and control airborne asbestos in the County. At a minimum, the Asbestos Hazard Dust Mitigation Plan shall include the following components, which are in addition to the standard fugitive dust mitigation measures:</p> <ul style="list-style-type: none">• Limit vehicle access and speed on exposed serpentine and rock containing asbestos material areas to reduce fiber releases;• Cover area exposed to vehicle travel with non-asbestos cover material;• Maintain a high moisture condition of the disturbed surface or treat the disturbed surface of the work area with an approved “palliative” material to seal loose fibers to the parent rock particle;	Prior to approval of site disturbance	Project Applicant		

Mitigation Measure	Reporting Milestone	Reporting / Responsible Party	VERIFICATION OF COMPLIANCE	
			Initials	Date
<ul style="list-style-type: none"> Provide employee notification of the potential health risk of airborne asbestos and requirements of the plan; and Clean visible track-out onto paved roads using wet sweeping or a HEPA filter-equipped vacuum device within 24 hours. 				
<p>Mitigation Measure 3-2: Prior to any construction or earthworks, each contractor shall submit a list of all diesel equipment to be used during construction to the El Dorado County Air Pollution Control District (El Dorado County APCD) for review and approval. The project applicant shall ensure that toxics best available control technology (T-BACT) is applied to reduce emissions of Toxic Air Contaminant (TAC) from off-road diesel equipment used during project construction. TBACT is defined as the use of 1996 or later model year engines in all diesel equipment. Consequently, the project applicant must ensure that all diesel powered equipment used on-site during construction is equipped with engines of 1996 or later model year.</p>	Prior to approval of site disturbance	Project Applicant's Contractor		
<p>Mitigation Measure 3-3: Prior to approval of site work, the project applicant shall provide a report showing the location, size, and health of trees that would be impacted or removed by construction activities. If any of the trees that would be removed are native oaks, the project applicant shall mitigate for the loss by planting replacement trees on site using a 2:1 mitigation ratio. The following Tree Replacement Mitigation Guidelines shall be implemented:</p> <ul style="list-style-type: none"> Re-seed with quality acorns harvested from the various species within the general area where the mitigation is to be performed. If it is not possible to collect acorns on site then they must be purchased from a wholesale distributor such as the CDF nursery in Davis, California. Seeds must be ordered a year in advance. Each planting site will be prepared and receive five acorns. Each site will include a protective device to discourage damage from birds, rodents, and deer brows. This device must remain in place for the first two years after planting. No more than one inch of organic mulch will be spread over the soil surface within the fenced enclosure. No organics except natural humus that may contain Mycorrhiza will be allowed inside the protective device. 	Prior to approval of site disturbance	Project Applicant		

Mitigation Measure	Reporting Milestone	Reporting / Responsible Party	VERIFICATION OF COMPLIANCE	
			Initials	Date
<ul style="list-style-type: none"> An application for an approved pre-emergent for weed control will be necessary once the groups have been planted and the cones are in place. No pre-emergent can be used inside the cones. Future weed control will be determined on an as-needed basis. The planting will be done in groups of ten to thirty planting sites of mixed species. Environments where only valley oaks can grow will be the only exception to planting a mix of species. Each planting site within the group must not be closer than six feet to any adjacent site. To promote normal root development, no irrigating or fertilizing will be allowed. Commercial Mycorrhiza is okay. When the tree's crown emerges from the top of the cone it will be necessary to spray it at least three times a season to control deer brows. The first application shall be made when the foliage is over fifty percent developed. Reapply if there has been heavy rain. The year after the foliage has emerged from the protective cone it must be pulled. Arrangements shall be made in the contract for the disposal of these devices. This is a good time to thin out the weaker trees if more than one seedling survives. The tree replacement mitigation shall comply with General Plan Policy 7.4.4.4 regarding canopy coverage standards by retaining or replacing 70 percent of the existing oak tree canopy. As an alternative to acorn planting as described above, the project proponent may mitigate for tree loss by reverting to the measures identified in the Bass Lake Hills Specific Plan or preservation of existing offsite oak woodlands, or a combination of both. The tree replacement mitigation guidelines shall include maintenance and inspection of tree replanting areas, including a schedule for inspection and maintenance over a five-year period and an annual reporting program to the County on the progress of the mitigation. Tree plantings shall have a minimum survival rate of 80 percent at the end of the five-year monitoring and maintenance period. If this rate is not met, the program will require replanting and continual monitoring for five additional years. 				

Mitigation Measure	Reporting Milestone	Reporting / Responsible Party	VERIFICATION OF COMPLIANCE	
			Initials	Date
<p><u>Mitigation Measure 3-4:</u> The project applicant shall comply with the following tree protection requirements and employ best management practices and measures (established in the BLHSP and County ordinances and design and improvement standards) to minimize for potential impacts to any protected trees. In addition, the following measures shall be incorporated into the project improvement plans and implemented during construction:</p> <ul style="list-style-type: none"> • Construction within 50 feet of an oak tree requires placement of a 6 foot tall temporary fence (chain link, ski fencing, or other suitable material) to serve as a physical barrier to alert construction workers and property owners of the protection. The fencing shall be installed one foot outside the dripline of any single tree or grove (defined as the root protection zone or RPZ) that is within 50 feet of any potential construction. A sign shall be posted which describes the trees as protected and subject to forfeiture of a security deposit. • Perform a field inspection prior to site grading to ensure that trees to be preserved in areas affected by grading activities are fenced at the dripline. • Any activities within the RPZ, either above or below the soil surface, must be supervised by a qualified arborist. • Underground utilities installed within the temporary fence must be hand dug so not to cut any roots over 2 inches. Roots 2 inches or larger must be cleanly cut with pruning equipment. While working around roots they must be protected by wrapping with foam or burlap to prevent drying. • Only dead or weakened branches may be removed by a licensed arborist. • Oak tree foliage must be hosed off weekly during construction. • If root loss is extensive it may be necessary to establish a supplemental irrigation program to provide the tree with adequate moisture during summer months. 	Measures shall appear on project improvement plans and adhered to throughout construction.	Project Applicant		

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<ul style="list-style-type: none"> Avoid stripping of the surface of natural organic layers if it is not necessary. If the natural organic layer has been removed within the RPZ, each injured tree must have three to four inches of quality organic mulch reinstalled. If it is necessary to cross over the RPZ of a protected tree with a vehicle, a road can be constructed using eight to ten inches of shredded mulch as a driving surface. When the project is completed that material can be used as a top dressing where needed. Loss or damage of protected trees shall be compensated for in the form of a cash settlement based on the diameter at diameter breast height (DBH) of the lost or damaged trees. A replacement bond of \$40,000.00 (equal to twice the compensation rate for a 40-inch diameter tree) for the cost of current mitigation work or remedial tree care shall be submitted to El Dorado County. All trees to be preserved shall be numbered and tagged. Care shall be taken when performing soil cuts, fills, alteration of existing grades, soil compaction and mechanical injuries in tree areas. 				
BIOLOGICAL RESOURCES				
<p><u>Mitigation Measure 4-1:</u> Prior to approval of site work, the project applicant shall provide a report showing the location, size, and health of trees that would be impacted or removed by construction activities. If any of the trees that would be removed are native oaks, the project applicant shall mitigate for the loss by planting replacement trees on site using a 2:1 mitigation ratio. The following Tree Replacement Mitigation Guidelines shall be implemented:</p> <ul style="list-style-type: none"> Re-seed with quality acorns harvested from the various species within the general area where the mitigation is to be performed. If it is not possible to collect acorns on site then they must be purchased from a wholesale distributor such as the CDF nursery in Davis, California. Seeds must be ordered a year in advance. 	Prior to approval of site disturbance	Project Applicant		

Mitigation Measure	Reporting Milestone	Reporting / Responsible Party	VERIFICATION OF COMPLIANCE	
			Initials	Date
<ul style="list-style-type: none"> Each planting site will be prepared and receive five acorns. Each site will include a protective device to discourage damage from birds, rodents, and deer brows. This device must remain in place for the first two years after planting. No more than one inch of organic mulch will be spread over the soil surface within the fenced enclosure. No organic except natural humus that may contain Mycorrhiza will be allowed inside the protective device. An application for an approved pre-emergent for weed control will be necessary once the groups have been planted and the cones are in place. No pre-emergent can be used inside the cones. Future weed control will be determined on an as-needed basis. The planting will be done in groups of ten to thirty planting sites of mixed species. Environments where only valley oaks can grow will be the only exception to planting a mix of species. Each planting site within the group must not be closer than six feet to any adjacent site. To promote normal root development, no irrigating or fertilizing will be allowed. Commercial Mycorrhiza is okay. When the tree's crown emerges from the top of the cone it will be necessary to spray it at least three times a season to control deer brows. The first application shall be made when the foliage is over fifty percent developed. Reapply if there has been heavy rain. The year after the foliage has emerged from the protective cone it must be pulled. Arrangements shall be made in the contract for the disposal of these devices. This is a good time to thin out the weaker trees if more than one seedling survives. The tree replacement mitigation shall comply with General Plan Policy 7.4.4.4 regarding canopy coverage standards by retaining or replacing 70 percent of the existing oak tree canopy. As an alternative to acorn planting as described above, the project proponent may mitigate for tree loss by reverting to the measures identified in the Bass Lake Hills Specific Plan or preservation of existing offsite oak woodlands, or a combination of both. 				

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<ul style="list-style-type: none"> The tree replacement mitigation guidelines shall include maintenance and inspection of tree replanting areas, including a schedule for inspection and maintenance over a five-year period and an annual reporting program to the County on the progress of the mitigation. Tree plantings shall have a minimum survival rate of 80 percent at the end of the five-year monitoring and maintenance period. If this rate is not met, the program will require replanting and continual monitoring for five additional years. 				
<p>Mitigation Measure 4-2: The project applicant shall comply with the following tree protection requirements and employ best management practices and measures (established in the BLHSP and County ordinances and design and improvement standards) to minimize for potential impacts to any protected trees. In addition, the following measures shall be incorporated into the project improvement plans and implemented during construction:</p> <ul style="list-style-type: none"> Construction within 50 feet of an oak tree requires placement of a 6 foot tall temporary fence (chain link, ski fencing, or other suitable material) to serve as a physical barrier to alert construction workers and property owners of the protection. The fencing shall be installed one foot outside the dripline of any single tree or grove (defined as the root protection zone or RPZ) that is within 50 feet of any potential construction. A sign shall be posted which describes the trees as protected and subject to forfeiture of a security deposit. Perform a field inspection prior to site grading to ensure that trees to be preserved in areas affected by grading activities are fenced at the dripline. Any activities within the RPZ, either above or below the soil surface, must be supervised by a qualified arborist. Underground utilities installed within the temporary fence must be hand dug so not to cut any roots over 2 inches. Roots 2 inches or larger must be cleanly cut with pruning equipment. While working around roots they must be protected by wrapping with foam or burlap to prevent drying. Only dead or weakened branches may be removed by a licensed arborist. 	Measures shall appear on project improvement plans and adhered to throughout construction.	Project Applicant		

Mitigation Measure	Reporting Milestone	Reporting / Responsible Party	VERIFICATION OF COMPLIANCE	
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<ul style="list-style-type: none"> • Oak tree foliage must be hosed off weekly during construction. • If root loss is extensive it may be necessary to establish a supplemental irrigation program to provide the tree with adequate moisture during summer months. • Avoid stripping of the surface of natural organic layers if it is not necessary. If the natural organic layer has been removed within the RPZ, each injured tree must have three to four inches of quality organic mulch reinstalled. • If it is necessary to cross over the RPZ of a protected tree with a vehicle a road can be constructed using eight to ten inches of shredded mulch as a driving surface. When the project is completed that material can be used as a top dressing where needed. • Loss or damage of protected trees shall be compensated for in the form of a cash settlement based on the diameter at diameter breast height (DBH) of the lost or damaged trees. • A replacement bond of \$40,000.00 (equal to twice the compensation rate for a 40-inch diameter tree) for the cost of current mitigation work or remedial tree care shall be submitted to El Dorado County. • All trees to be preserved shall be numbered and tagged. Care shall be taken when performing soil cuts, fills, alteration of existing grades, soil compaction and mechanical injuries in tree areas. 				

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<p>Mitigation Measure 4-3: If construction is expected to occur during the nesting season (February-August) for raptors and (March to August) for songbirds, the applicant shall submit to the El Dorado County Development Services Division a pre-construction raptor survey to determine if any active nests occur on the project site. The survey shall be conducted by a qualified biologist no more than 5 days prior to the initiation of construction. If nests are found and considered to be active, construction activities shall not occur within 500 feet of the nests until the young have fledged or until a biologist determines that the nests are no longer active. If construction activities are proposed to occur during non-breeding season (August-January) for raptors and (August to February) for songbirds, a survey for raptors is not required and no further studies are necessary.</p>	Prior to approval of site disturbance	Project Applicant		
<p>Mitigation Measure 4-4: The applicant shall submit to the El Dorado County Development Services Division a burrowing owl survey conducted no more than 30 days prior to the onset of construction. Burrowing owls can be present during all times of the year in California, so this survey is recommended regardless of the time construction activities occur.</p> <p>If active burrows are located during the preconstruction survey, a 250-foot buffer zone shall be established around each burrow until the young have fledged and are able to exit the burrow. If occupied burrows are found without nesting activity or active burrows are found after the young have fledged, or if development commences after the breeding season (typically February-August), relocation of the birds shall be performed. The California Department of Fish and Wildlife (CDFW) shall be consulted for guidelines for relocation of any owls found onsite. Mitigation acreage may be required for project impacts that result in impacts to active owl burrows and foraging habitat. CDFW recommends 6.5 acres of foraging habitat be preserved for each active burrow impacted by project activities.</p>	Prior to approval of site disturbance	Project Applicant		
<p>Mitigation Measure 4-5: The project applicant shall design the project to avoid impacts to potential habitat for VELB, if feasible. If project development is required in areas that may impact elderberry shrubs containing stems measuring 1.0 inch or greater in diameter at ground level (development within 100 feet of shrub dripline), the project applicant shall perform one of the following measures:</p>	Prior to approval of site disturbance	Project Applicant		

Mitigation Measure	Reporting Milestone	Reporting / Responsible Party	VERIFICATION OF COMPLIANCE	
			Initials	Date
<p>1. Fence and flag all areas to be avoided during construction activities. In areas where encroachment on the 100-foot buffer has been approved by the USFWS, provide a minimum setback of at least 20 feet from the dripline of each elderberry plant.</p> <p>2. Brief contractors on the need to avoid damaging the elderberry plants and the possible penalties for not complying with these requirements.</p> <p>3. Erect signs every 50 feet along the edge of the avoidance area with the following information: "This area is habitat of the valley elderberry longhorn beetle, a threatened species, and must not be disturbed. This species is protected by the Endangered Species Act of 1973, as amended. Violators are subject to prosecution, fines and imprisonment." The signs should be clearly readable from a distance of 20 feet and must be maintained for the duration of construction.</p> <p>4. Instruct work crews about the status of the beetle and the need to protect its elderberry host plant.</p> <p>Restoration and Maintenance</p> <p>1. Restore any damage done to the buffer area (area within 100 feet of elderberry plants) during construction. Provide erosion control and re-vegetate with appropriate native plants.</p> <p>2. Buffer areas must continue to be protected after construction from adverse effects of the project. Measures such as fencing, signs, weeding and trash removal are usually appropriate.</p> <p>3. No insecticides, herbicides, fertilizers or other chemicals that might harm the beetle or its host plant should be used in the buffer areas, or within 100 feet of any elderberry plant with one or more stems measuring 1.0 inch or greater in diameter at ground level.</p> <p>4. The applicant must provide a written description of how the buffer areas are to be restored, protected and maintained after construction is completed.</p> <p>5. Mowing of grasses/ground cover may occur from July through April to reduce fire hazard. No mowing should occur within five feet of elderberry plant stems. Mowing must be done in a manner that avoids damaging plants (e.g., stripping away bark through careless use of mowing/trimming equipment).</p>				

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<p>If the shrub cannot be avoided, then a mitigation plan shall be developed and implemented in consultation with USFWS consistent with the conservation guidelines for the valley elderberry longhorn beetle, which likely includes one or more of the following:</p> <ul style="list-style-type: none"> • Obtain credits at an approved mitigation bank; or • Implement an onsite mitigation and monitoring plan that includes transplantation of the shrub and planting of elderberry seedlings. <p>The mitigation plan shall be approved by the USFWS prior to acceptance by the County. Any required onsite mitigation shall be incorporated into subsequent improvement and construction plans.</p>				
<p>Mitigation Measure 4-6: The Applicant shall retain qualified personnel to perform a formal wetland delineation following published Corps guidelines to establish actual acreage of potential impacts to jurisdictional wetlands and other Waters of the United States. This delineation shall then be submitted to the Corps for verification prior to issuance of the Final Map. This measure is in accordance with County policy 7.3.3.1.</p>	Prior to issuance of Final Map	Project Applicant		
<p>Mitigation Measure 4-7: If impacts to "waters of the U. S." are not avoidable, and onsite preservation is not possible, then habitat compensation shall be required at a 1:1 impact preservation ratio. This measure is in accordance with County policy 7.3.3.2.</p>	Prior to approval of site disturbance	Project Applicant		
<p>Mitigation Measure 4-8: In order to comply with federal regulations regarding impacts to "waters of the United States" (as defined in the Clean Water Act Section 404) the Applicant shall comply with required Army Corps of Engineers Section 404 permit conditions including maintenance of minimum protective buffer/set back areas surrounding wetlands. A mitigation and monitoring plan shall be required that will identify impacts on all jurisdictional features and mitigation measures that will be implemented to achieve the "no net loss" policy. Evidence of compliance shall be submitted to El Dorado County prior to site disturbance.</p>	Prior to approval of site disturbance	Project Applicant		

Mitigation Measure	Reporting Milestone	Reporting / Responsible Party	VERIFICATION OF COMPLIANCE	
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Mitigation Measure 4-9: The Applicant shall also comply with required Section 1602 Streambed Alteration Agreement issued by CDFW for projects that substantially divert, obstruct natural flow or substantially change the bed, channel, or bank of river, stream, or lake designated by CDFW. Evidence of compliance shall be submitted to El Dorado County prior to site disturbance.	Prior to approval of site disturbance	Project Applicant		
CULTURAL RESOURCES				
<p>Mitigation Measure 5-1: Survey Specific Resources for Eligibility for the NRHP or CRHR. Prior to any earthmoving activities within areas adjacent to known sensitive cultural resources, evaluate the following resources for NRHP and/or CRHR eligibility:</p> <ul style="list-style-type: none"> • P-09-1695 (Bass Lake Road). • Segments of P-09-0809 (Placerville-Sacramento Road) in Country Club Drive (G-H) and Church Street. • Elements of P-09-1670 (Mormon Hill Historic District) and P-09-688 (CA-ELD-600/H) which would be impacted by the Gravity Sewer and Silver Dove Way components. This would include documentation on DPR523 forms, and possible subsurface testing. <p>If specific resources are determined to be eligible for NRHP/CRHR eligible then the proposed project activities should avoid disturbing the resource. If avoidance is not feasible, the resource should be preserved in place. If preservation is not feasible, the resource should be recorded consistent with CRHR and/or NRHP guidelines.</p>	Prior to approval of site disturbance	Project Applicant		

Mitigation Measure	Reporting Milestone	Reporting / Responsible Party	VERIFICATION OF COMPLIANCE	
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<p><u>Mitigation Measure 5-2:</u> Paleontological Mitigation Program. Prior to earthmoving activities associated with mass grading, a qualified supervising paleontologist shall be contracted to conduct a field survey of the proposed construction area to identify areas of likely sensitivity for paleontological resources. The supervising paleontologist shall also conduct construction crew training in identification of paleontological resources that may be discovered during the course of excavation. The paleontologist will also conduct paleontological monitoring during ground disturbing activities in areas identified through survey and archival review as sensitive for paleontological resources. In the event of discovery of vertebrate, plant, or invertebrate fossils, the paleontologist shall have the authority to halt or redirect excavation operations until the probable significance of the find can be assessed, and the resource salvaged as appropriate. Any significant fossils recovered during monitoring and salvage shall be cleaned, repaired, and hardened, and then donated to a repository institution.</p> <p>In the event of the discovery of buried paleontological deposits it is recommended that project activities in the vicinity of the find should be temporarily halted and a qualified paleontologist consulted to assess the resource and provide proper management recommendations. Possible management recommendations for important resources could include resource avoidance or data recovery excavations.</p>	Prior to approval of site disturbance	Project Applicant		