MITIGATED NEGATIVE DECLARATION

FILES: TM07-1458-R/BLA13-0015

PROJECT NAME: Migianella

NAME OF APPLICANTS: Shan Nejatian and Marie Mitchell

ASSESSOR'S PARCEL NO.: 110-020-45 **SECTION:** 14 **T:** 10N **R:** 8E

LOCATION: West side of Kaila Way, 580 feet north of the intersection with Salmon Falls Road in the north El Dorado Hills area

☐ **GENERAL PLAN AMENDMENT:** **FROM:** **TO:**

☐ **REZONING:** **FROM:** **TO:**

☐ **TENTATIVE PARCEL MAP**

☒ **SUBDIVISION** Boundary Line Adjustment and Tentative Subdivision Map with phasing plan to create eight single-family residential lots ranging in size from 3 to 4.5 acres.

SUBDIVISION (NAME): Migianella

☐ **SPECIAL USE PERMIT TO ALLOW:**

☐ **OTHER:**

REASONS THE PROJECT WILL NOT HAVE A SIGNIFICANT ENVIRONMENTAL IMPACT:

☐ **NO SIGNIFICANT ENVIRONMENTAL CONCERNS WERE IDENTIFIED DURING THE INITIAL STUDY.**

☒ **MITIGATION HAS BEEN IDENTIFIED WHICH WOULD REDUCE POTENTIALLY SIGNIFICANT IMPACTS.**

☐ **OTHER:**

In accordance with the authority and criteria contained in the California Environmental Quality Act (CEQA), State Guidelines, and El Dorado County Guidelines for the Implementation of CEQA, the County Environmental Agent analyzed the project and determined that the project will not have a significant impact on the environment. Based on this finding, the Planning Department hereby prepares this MITIGATED NEGATIVE DECLARATION. A period of thirty (30) days from the date of filing this mitigated negative declaration will be provided to enable public review of the project specifications and this document prior to action on the project by COUNTY OF EL DORADO. A copy of the project specifications is on file at the County of El Dorado Planning Services, 2850 Fairlane Court, Placerville, CA 95667.

This Mitigated Negative Declaration was adopted by the Planning Commission on_____.

_____

Executive Secretary

Exhibit L

EL DORADO COUNTY PLANNING SERVICES
2850 FAIRLANE COURT
PLACERVILLE, CA 95667

INITIAL STUDY
ENVIRONMENTAL CHECKLIST

Project Title: TM07-1458-R/ Migianella Subdivision Revision

Lead Agency Name and Address: El Dorado County, 2850 Fairlane Court, Placerville, CA 95667

Contact Person: Tom Dougherty | **Phone Number:** (530) 621-5355

Property Owners/Applicants' Name and Address: Shan Nejatian and Marie Mitchell, 2020 Kaila Way. El Dorado Hills, CA 95762.

Project Engineer Name and Address: CTA Engineering, Olga Sciorelli, 3233 Monier Circle, Rancho Cordova, CA 95742

Project Location: West side of Kaila Way, 580 feet north of the intersection with Salmon Falls Road in the north El Dorado Hills area, El Dorado County.

Assessor's Parcel Numbers: 110-020-45 **Acres:** 26

Zoning: Single-Family Three-Acre Residential (R3A)

Section: 14 **T:** 10N **R:** 8E

General Plan Designation: Medium Density Residential (MDR)

Description of Project: Boundary Line Adjustment and Tentative Subdivision Map with phasing plan to create eight single-family residential lots ranging in size from 3 to 4.5 acres.

Surrounding Land Uses and Setting:

	Zoning	General Plan	Land Use/Improvements
Site	R3A	MDR	Existing single-family residence
North	R3A/RE-5	MDR	Single-family residences and vacant parcel
South	RE-10	MDR	Single-family residences and vacant parcel
East	RE-5/RE-10	MDR	Single-family residences and vacant parcel
West	R3A/RE-5/RE-10	MDR	Single-family residences and vacant parcel

Briefly describe the environmental setting: The site contains a gated driveway entrance to a graveled driveway leading to the existing single-family dwelling. Vegetation on-site consists of native grasslands and blue oak canopy, with very few native shrubs. Slopes are generally mild and uphill from Kaila Way, with the majority of slope falling within a 0-20 percent range. Most of the cleared areas are covered with rows of grape plants in a vineyard fashion.

Other public agencies whose approval is required (e.g., permits, financing approval, or participation agreement)
1. Transportation Division-Grading Permits
2. El Dorado County Air Quality Management District-AQMD Rules, Fugitive Dust Plan
3. El Dorado County Resource Conservation District-Review of Grading Permits
4. El Dorado Hills Fire Department-Review of applicable Conditions of Approval
5. El Dorado Hills Community Services District-Park Fees, CC&R review
5. El Dorado County Surveyor- Review of applicable Conditions of Approval, certification of final maps.

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

	Aesthetics		Agriculture and Forestry Resources		Air Quality
X	Biological Resources		Cultural Resources		Geology / Soils
	Greenhouse Gas Emissions		Hazards & Hazardous Materials		Hydrology / Water Quality
	Land Use / Planning		Mineral Resources		Noise
	Population / Housing		Public Services		Recreation
	Transportation/Traffic		Utilities / Service Systems	X	Mandatory Findings of Significance

DETERMINATION

On the basis of this initial evaluation:

☐ I find that the proposed project **COULD NOT** have a significant effect on the environment, and a **NEGATIVE DECLARATION** will be prepared.

☒ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A **MITIGATED NEGATIVE DECLARATION** will be prepared.

☐ I find that the proposed project **MAY** have a significant effect on the environment, and an **ENVIRONMENTAL IMPACT REPORT** is required.

☐ I find that the proposed project **MAY** have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect: 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards; and 2) has been addressed by Mitigation Measures based on the earlier analysis as described in attached sheets. An **ENVIRONMENTAL IMPACT REPORT** is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects: a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION, pursuant to applicable standards; and b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or Mitigation Measures that are imposed upon the proposed project, nothing further is required.

Signature: Tom Dougherty Date: 12-20-13

Printed Name: Tom Dougherty, Project Planner For: El Dorado County

Signature: Peter N. Maurer Date: 19 Dec. 2017

Printed Name: Peter N. Maurer, Principal Planner For: El Dorado County

PROJECT DESCRIPTION

Introduction

This Initial Study has been prepared in accordance with the California Environmental Quality Act (CEQA) to evaluate the potential environmental impacts resulting from the proposed residential project. The project would allow the creation of eight residential parcels.

Project Description

Boundary Line Adjustment and Tentative Subdivision Map with phasing plan to create eight single-family residential lots ranging in size from 3 to 4.5 acres.

Project Location and Surrounding Land Uses

The project site is located within the north El Dorado Hills Area and is surrounded by existing and undeveloped residential parcels.

Project Characteristics

1. Transportation/Circulation/Parking

   Access to the project site would be provided via Kaila Way which is currently a paved cul-de-sac road. The existing Kaila Way would be extended for access to seven of the lots. The road improvements would be constructed to a modified 101B Standard to allow for a 20-foot wide travel lanes with 2-foot shoulders. Access to Lot 2 would be provided by a driveway from the existing Kaila Way cul-de-sac. All parking would be provided on-site by the individual parcels.

2. Utilities and Infrastructure

   The project site is located within the El Dorado Irrigation District (EID) Boundaries and would connect to their existing facilities for public water services. EID has determined that adequate water is available to serve the project. Each of the proposed lots would be served by private individual septic systems.

3. Construction Considerations

   Construction of the project would consist of on and off-site road improvements, including grading and paving. The project applicant would be required to obtain permits for grading from the Department of Transportation and obtain an approved fugitive dust mitigation plan from the Air Quality Management District.

Project Schedule and Approvals

This Initial Study is being circulated for public and agency review for a 30-day period. Written comments on the Initial Study should be submitted to the project planner indicated in the Summary section, above.

Following the close of the written comment period, the Initial Study will be considered by the Lead Agency in a public meeting and will be certified if it is determined to be in compliance with CEQA. The Lead Agency will also determine whether to approve the project.

EVALUATION OF ENVIRONMENTAL IMPACTS

1. A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).

2. All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.

3. Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is a fair argument that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.

4. "Negative Declaration: Less Than Significant With Mitigation Incorporated" applies where the incorporation of Mitigation Measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact." The lead agency must describe the Mitigation Measures, and briefly explain how they reduce the effect to a less than significant level.

5. Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063(c)(3)(D). In this case, a brief discussion should identify the following:

   a. Earlier Analysis Used. Identify and state where they are available for review.

   b. Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.

   c. Mitigation Measures. For effects that are "Less Than Significant With Mitigation Incorporated," describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.

6. Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.

7. Supporting Information Sources: A source list should be attached, and other sources used, or individuals contacted should be cited in the discussion.

8. This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.

9. The explanation of each issue should identify:

a. the significance criteria or threshold, if any, used to evaluate each question; and
b. the mitigation measure identified, if any, to reduce the impact to less than significant.

ENVIRONMENTAL IMPACTS

I. AESTHETICS. *Would the project:*	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporation	Less Than Significant Impact	No Impact
a. Have a substantial adverse effect on a scenic vista?				X
b. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?				X
c. Substantially degrade the existing visual character quality of the site and its surroundings?			X	
d. Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?			X	

Discussion: A substantial adverse effect to Visual Resources would result in the introduction of physical features that are not characteristic of the surrounding development, substantially change the natural landscape, or obstruct an identified public scenic vista.

a. **Scenic Vista:** The project site and vicinity is not identified by the County as a scenic view or resource (El Dorado County Planning Services, El Dorado County General Plan Draft EIR (SCH #2001082030), May 2003, Exhibit 5.3-1 and Table 5.3-1). There would be no impacts.

b. **Scenic Resources:** The project site is not within a State Scenic Highway. There are no trees or historic buildings that have been identified by the County as contributing to exceptional aesthetic value at the project site (California Department of Transportation, California Scenic Highway Program, Officially Designated State Scenic Highways, p.2 (http://www.dot.ca.gov/hq/LandArch/scenic/schwy1.html)). There would be no impacts.

c. **Visual Character:** The project would not affect the visual character of Kaila Way, or the project vicinity, in ways not anticipated for lands designated by the General Plan for Medium Density Residential uses. Impacts would be less than significant.

d. **Light and Glare:** The project would create eight residential parcels. Potential sources of light and glare would result from the residential development. Kaila Court contains parcels which have residential development. Future sources of lighting as a result of the project would be typical of residential development. The project would not result in new sources of light that would significantly impact the neighborhood. Therefore, the impacts of existing light and glare created by the project would be less than significant.

FINDING: No impacts to aesthetics are expected with the project either directly or indirectly. For this "Aesthetics" category, the impacts would be less than significant.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporation	Less Than Significant Impact	No Impact
II. AGRICULTURE AND FOREST 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 Dept. 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 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 Forrest Protocols adopted by the California Air Resources Board. Would the project:				
a. Convert Prime Farmland, Unique Farmland, Farmland of Statewide Importance, or Locally Important Farmland (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?				X
b. Conflict with existing zoning for agricultural use, or a Williamson Act Contract?				X
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))?				X
d. Result in the loss of forest land or conversion of forest land to non-forest use?				X
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?				X

Discussion: A substantial adverse effect to Agricultural Resources would occur if:

- There is a conversion of choice agricultural land to nonagricultural use, or impairment of the agricultural productivity of agricultural land;
- The amount of agricultural land in the County is substantially reduced; or
- Agricultural uses are subjected to impacts from adjacent incompatible land uses.

a. **Farmland Mapping and Monitoring Program:** Review of the Important Farmland GIS map layer for El Dorado County, developed under the Farmland Mapping and Monitoring Program, indicates that the project site contains AxD (Auburn very rocky silt loam with 2 to 30 percent slopes) soils. This soil type is not classified as unique and soils of local importance, or as Prime Farmland or Statewide Important Farmland. El Dorado County has established the Agricultural (A) General Plan land use overlay district and included this overlay on the General Plan Land Use Maps. Review of the General Plan land use map for the project area indicates that the project site is not within an Agricultural zone or Agricultural overlay. There would be no impact.

Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporation	Less Than Significant Impact	No Impact

b. **Williamson Act Contract and Agricultural Zoning:** The project does not adjoin any parcels zoned for agricultural use or designated as agricultural land uses by the General Plan. The property is not located within a Williamson Act Contract, would not conflict with existing zoning for agricultural use, and would not affect any properties under a Williamson Act Contract. There would be no impacts.

c. **Non-Agricultural Use:** The project does not adjoin any parcels zoned for agricultural use or designated as agricultural land uses by the General Plan. No conversion of agriculture land would occur as a result of the project. There would be no impacts.

d, e. **Loss of Forest land or Conversion of Forest land, Conversion of Prime Farmland or Forest Land:** Neither the General Plan nor the Zoning Ordinance designate the site as an important Timberland Preserve Zone, and the underlying soil types are not those known to support timber production. As discussed above in Section a, there would be no loss or conversion of prime farmland as well. There would be no impacts.

FINDING: This project would not impact properties subject to a Williamson Act Contract. The location within a Community Region and land use designation of Medium Density Residential diminish the importance of preserving the land for agricultural purposes. For this "Agriculture" category, there would be no impacts.

III. AIR QUALITY. *Would the project:*				
a. Conflict with or obstruct implementation of the applicable air quality plan?			X	
b. Violate any air quality standard or contribute substantially to an existing or projected air quality violation?			X	
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)?			X	
d. Expose sensitive receptors to substantial pollutant concentrations?			X	
e. Create objectionable odors affecting a substantial number of people?			X	

Discussion: A substantial adverse effect on Air Quality would occur if:

- Emissions of ROG and No_x, will result in construction or operation emissions greater than 82lbs/day (See Table 5.2, of the El Dorado County Air Pollution Control District – CEQA Guide);

- Emissions of PM_{10}, CO, SO_2 and No_x, as a result of construction or operation emissions, will result in ambient pollutant concentrations in excess of the applicable National or State Ambient Air Quality Standard (AAQS). Special standards for ozone, CO, and visibility apply in the Lake Tahoe Air Basin portion of the County; or

- Emissions of toxic air contaminants cause cancer risk greater than 1 in 1 million (10 in 1 million if best available control technology for toxics is used) or a non-cancer Hazard Index greater than 1. In addition, the project must demonstrate compliance with all applicable District, State and U.S. EPA regulations governing toxic and hazardous emissions.

Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporation	Less Than Significant Impact	No Impact

a. **Air Quality Plan:** El Dorado County has adopted the *Rules and Regulations of the El Dorado County Air Pollution Control District* (February 15, 2000) establishing rules and standards for the reduction of stationary source air pollutants (ROG/VOC, NOx, and O3). Any activities associated to the grading and construction of this project would pose a less than significant impact on air quality because the El Dorado County Air Quality Management District (AQMD) would require that the project implement a Fugitive Dust-Asbestos Hazard Mitigation Plan during grading and construction activities. Such a plan would address grading measures and operation of equipment to minimize and reduce the level of defined particulate matter exposure and/or emissions, anticipated to be below a level of significance.

b. **Air Quality Standards:** The project would create air quality impacts which may contribute to an existing or projected air quality violation during construction. Construction activities, project related and those anticipated in the future, include grading and site improvements, for roadway expansion, utilities, driveway, home, and building pad construction, and associated on-site activities. These activities are typically intermittent and for short time frames in days. Construction related activities would generate PM10 dust emissions that would exceed either the state or federal ambient air quality standards for PM10. This is a temporary but potentially significant effect. With the implementation of standard County measures, including requiring a Fugitive Dust Plan during grading and construction activities, the project would be anticipated to have less than significant impacts on the air quality.

   Operational air quality impacts would be minor, and would cause an insignificant contribution to existing or projected air quality violations. Source emissions would be from vehicle trip emissions, natural gas and wood combustion for space and water heating, landscape equipment, and consumer products. Those effects would be typical of residential uses for lands designated and anticipated by the General Plan for medium density residential uses. Impacts would be anticipated to be less than significant as measured with current air quality standards.

c. **Cumulative Impacts:** The AQMD reviewed the project and recommended the implementation of standard conditions of approval for air quality to reduce potential impacts to a less than significant level.

d. **Sensitive Receptors:** The proposed residential use would not be considered a use which would expose sensitive receptors to substantial pollutant concentrations. Impacts would be less than significant.

e. **Objectionable Odors.** Table 3-1 of the El Dorado County APCD CEQA Guide (February, 2002) does not list residential use as a use known to create objectionable odors. Impacts would be anticipated to be less than significant.

FINDING: The project would not affect the implementation of regional air quality regulations or management plans. The project would result in increased emissions due to construction and operation; however existing regulations would reduce these impacts to a less-than-significant level. The project would not cause substantial adverse effects to air quality, nor exceed established significance thresholds for air quality impacts, that were not anticipated by the General Plan for areas designated for medium density residential uses. Standard conditions of approval, as required by the AQMD, are included as part of the project permit. These conditions are typical for most projects throughout the County. As such, the proposed residential development of eight lots would have a less than significant impact in this category.

IV. BIOLOGICAL RESOURCES. *Would the project:*	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporation	Less Than Significant Impact	No Impact
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?		X		
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 U.S. Fish and Wildlife Service?			X	
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?			X	
d. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?			X	
e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?			X	
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?			X	

Discussion: A substantial adverse effect on Biological Resources would occur if the implementation of the project would:

- Substantially reduce or diminish habitat for native fish, wildlife or plants;
- Cause a fish or wildlife population to drop below self-sustaining levels;
- Threaten to eliminate a native plant or animal community;
- Reduce the number or restrict the range of a rare or endangered plant or animal;
- Substantially affect a rare or endangered species of animal or plant or the habitat of the species; or
- Interfere substantially with the movement of any resident or migratory fish or wildlife species.

a. **Special Status Species.** The project site is located within Rare Plant Mitigation Area 2 which is defined as lands not known to contain special status plant species but within the EID service area. Neither the Biological Resource Assessment dated June 2007; nor the Biological Resources Update dated July 2008 identified any special status plant species on the site.

A field study was done to determine the presence of special status animal species on the site. The study determined that the onsite woodland habit and existing vegetation would provide a suitable nesting habitat for birds of prey, birds listed under the federal Migratory Bird Treaty Act, and white-tailed kite. The removal of suitable habitat onsite for access roads/driveway, and utility extensions would be a potentially significant impact unless the following mitigation measure is implemented to reduce the impacts to a less than significant level:

Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporation	Less Than Significant Impact	No Impact

BIO-1: If construction begins outside the 1 February to 31 August breeding season, there will be no need to conduct a preconstruction survey for active nests. If construction is scheduled to begin between 1 February and 31 August then a qualified biologist shall conduct a preconstruction survey for active nests at the construction site. In order to avoid take (FGC § 86) of protected birds and raptors (FGC § 3503, 3503.5, 3511, and 3513), a pre-construction bird and raptor nest survey shall be conducted within 10 days prior to the beginning of construction activities by a California Department of Fish and Wildlife (CDFW) approved biologist in order to identify active nests in the project site vicinity. The results of the survey shall be submitted to CDFW. If active raptor nests are found, a quarter-mile (1320 feet) initial temporary nest disturbance buffer shall be established. If active passerine nests are found, a two hundred foot (500 feet for special status species) initial temporary nest disturbance buffer shall be established. If project related activities within the temporary nest disturbance buffer are determined to be necessary during the nesting season, then an on-site biologist/monitor experienced with the species' behavior shall be retained by the project proponent to monitor the nest, and shall along with the project proponent, consult with the CDFW to determine the best course of action necessary to avoid nest abandonment or take of individuals. Work may be allowed to proceed within the temporary nest disturbance buffer if birds/raptors are not exhibiting agitated behavior such as defensive flights at intruders, getting up from a brooding position, or flying off the nest. The designated on-site biologist/monitor shall be on-site daily if necessary while construction related activities are taking place and shall have the authority to stop work if birds/raptors are exhibiting agitated behavior. In consultation with the CDFW and depending on the behavior of the birds/raptors, over time it may be determined that the on-site biologist/monitor may no longer be necessary due to the birds/raptors' acclimation to construction related activities.

Monitoring Responsibility: Planning Services.

Monitoring Requirement: The applicant shall conduct all construction activities outside the nesting season or perform a pre-construction survey and obtain all necessary permits prior to initiation of construction activities. This requirement shall be placed on all grading plans. Planning Services shall review the surveys prior to issuance of a grading permit and/or removal of any trees within the entire project parcel.

Implementation of the mitigation measure identified above would avoid construction-related impacts to nesting birds within the project site area. The mitigation measure would reduce potentially significant impacts to a less than significant level.

b-c. **Riparian habitat and Wetlands.** A preliminary Jurisdictional Delineation Report was prepared for the dated August 2007. The report related that the site was surveyed to identify potential wetlands and other riparian areas subject to regulations of the U.S. Army Corps of Engineers (USACOE). The Report identified two drainage channels and one seep totaling 0.012-acres and determined that none of the features would be jurisdictional waters of the U.S. subject to the USACOE. Channel CH1 is located at the southwestern corner of the project site. No riparian vegetation was identified within CH1. Channel CH2 and the seep are a result of the construction of Kaila Way and the existing driveway.

The existing features would not be subject to additional permitting through applicable state and federal agencies. Adherence to Transportation Division conditions of approval and compliance with the El Dorado

Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporation	Less Than Significant Impact	No Impact

County Grading, Erosion and Sedimentation Ordinance would ensure reduced impacts to the riparian features. Impacts would be less than significant.

d. **Migration Corridors.** The Biological Assessment determined that the habitat onsite would not be suitable for a migration corridor. The ability of wildlife to move across the site would not be unique to the other undeveloped areas in the project area. Impacts would be less than significant.

e. **Local Policies.** Biological Resources: El Dorado County Code and General Plan Policies pertaining to the protection of biological resources would include protection of rare plants, setbacks to riparian areas, and mitigation of impacted oak woodlands.

Policy 7.4.4.4 establishes the native oak tree canopy retention and replacement standards. Impacts to oak woodlands have been addressed in the El Dorado County General Plan EIR, available for review online at http://co.el-dorado.ca.us/Planning/GeneralPlanEIR.htm or at El Dorado County Planning Services offices located at 2850 Fairlane Court, Placerville, CA, 95667. Mitigation in the form of General Plan policies has been developed to mitigate impacts to less than significant levels. In this instance, adherence to General Plan Policy 7.4.4.4 and measures contained within the Oak Woodlands Management Plan would mitigate impacts to oak woodland to less than significant levels.

Pursuant to the Arborist Report for the Migianella Project Tree Canopy Mitigation Plan dated July 25, 2013, and the Tree Preservation Plan map dated July 2013, grading for the roads and infrastructure would require the removal of 0.72 acres. The future lot development is anticipated to remove 3.90 acres of canopy for a total planned oak canopy removal of 4.62 acres. Policy 7.4.4.4 establishes the native oak tree canopy retention and replacement standards.

The Report determined the mapped project site has an existing oak canopy of 61 percent of the 26 acre parcel (16 acres) and is required to retain 70 percent in accordance with the standards under Option A. This allows up to 4.80 acres of canopy removal. The project proposes to remove 4.62 of the existing oak canopy and would retain over 70 percent. The Preservation Plan (Attachment 6) provides the planting requirements, the recommended planting areas which upon compliance, demonstrates consistency with the standards under Option A of General Plan Policy 7.4.4.4 and the Interim Interpretive Guidelines of this policy. As conditioned for oak tree planting, the project would be in compliance with General Plan Policy 7.4.4.4 Option A and impacts would be anticipated to be less than significant.

FINDING: This site is not located within the USFWS Recovery Plan boundaries. No jurisdictional wetlands are present at the project site. Implementation of Mitigation Measure **BIO-1** would reduce impacts to birds of prey and migratory birds. For this 'Biological Resources' category, the above Mitigation Measure would be required to reduce potentially significant impacts to less than significant

V. **CULTURAL RESOURCES.** *Would the project:*				
a. Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5?			X	
b. Cause a substantial adverse change in the significance of archaeological resource pursuant to Section 15064.5?			X	
c. Directly or indirectly destroy a unique paleontological resource or site or			X	

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporation	Less Than Significant Impact	No Impact
V. CULTURAL RESOURCES. *Would the project:*				
unique geologic feature?				
d. Disturb any human remains, including those interred outside of formal cemeteries?			X	

Discussion: In general, significant impacts are those that diminish the integrity, research potential, or other characteristics that make a historical or cultural resource significant or important. A substantial adverse effect on Cultural Resources would occur if the implementation of the project would:

- Disrupt, alter, or adversely affect a prehistoric or historic archaeological site or a property or historic or cultural significant to a community or ethnic or social group; or a paleontological site except as a part of a scientific study;
- Affect a landmark of cultural/historical importance;
- Conflict with established recreational, educational, religious or scientific uses of the area; or
- Conflict with adopted environmental plans and goals of the community where it is located.

a-b. **Historic or Archeological Resources.** A Cultural Resource Study was performed on the project site by Historic Resources Associates and the results are summarized in their letter dated July 26, 2005, copy attached to this document. No cultural resources were found as part of the study. Standard conditions of approval would be required to protect any resources that may be found during project construction. Impacts would be less than significant.

c. **Paleontological Resource.** The site does not contain any known paleontolgical sites or known fossil strata. No such resources were identified in the Cultural Resource Study. Impacts would be less than significant.

d. **Human Remains.** There is a small likelihood of human remain discovery on the project site. During all grading activities, standard conditions of approval would be required that address accidental discovery of human remains. Impacts would be less than significant.

FINDING: No significant cultural resources were identified on the project site. Standard conditions of approval would be required with requirements for accidental discovery during project construction. This project would have a less than significant impact within the Cultural Resources category.

VI. 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:				
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.			X	
ii) Strong seismic ground shaking?			X	
iii) Seismic-related ground failure, including liquefaction?			X	

VI. GEOLOGY AND SOILS. *Would the project:*	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporation	Less Than Significant Impact	No Impact
iv) Landslides?			X	
b. Result in substantial soil erosion or the loss of topsoil?			X	
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?			X	
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?			X	
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?			X	

Discussion: A substantial adverse effect on Geologic Resources would occur if the implementation of the project would:

- Allow substantial development of structures or features in areas susceptible to seismically induced hazards such as groundshaking, liquefaction, seiche, and/or slope failure where the risk to people and property resulting from earthquakes could not be reduced through engineering and construction measures in accordance with regulations, codes, and professional standards;

- Allow substantial development in areas subject to landslides, slope failure, erosion, subsidence, settlement, and/or expansive soils where the risk to people and property resulting from such geologic hazards could not be reduced through engineering and construction measures in accordance with regulations, codes, and professional standards; or

- Allow substantial grading and construction activities in areas of known soil instability, steep slopes, or shallow depth to bedrock where such activities could result in accelerated erosion and sedimentation or exposure of people, property, and/or wildlife to hazardous conditions (e.g., blasting) that could not be mitigated through engineering and construction measures in accordance with regulations, codes, and professional standards.

a. Seismic Hazards.

i) According to the California Department of Conservation, Division of Mines and Geology, there are no Alquist- Priolo fault zones within El Dorado County. The nearest such faults are located in Alpine and Butte Counties. There would be no impact.

ii) The potential for seismic ground shaking in the project area would be considered less than significant. Any potential impacts due to seismic impacts would be address through compliance with the Uniform Building Code. All structures would be built to meet the construction standards of the UBC for the appropriate seismic zone.

iii) El Dorado County is considered an area with low potential for seismic activity. The potential areas for liquefaction on the project site would be the wetlands which would be filled as part of the project. Impacts would be less than significant.

Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporation	Less Than Significant Impact	No Impact

iv) Slopes exceeding 30 percent on the project site are predominately located near the southeastern property line of the project site. These slopes comprise approximately four percent of the site area. All grading activities onsite would be required to comply with the El Dorado County Grading, Erosion Control and Sediment Ordinance. Compliance with the Ordinance would reduce potential landslide impacts to less than significant.

b. **Soil Erosion.** According to the Soil Survey for El Dorado County, the AxD (Auburn very rocky silt loam with 2 to 30 percent slopes) soils have a moderate erosion hazard. All grading activities onsite would comply with the El Dorado County Grading, Erosion Control and Sediment Ordinance. Impacts would be less than significant.

c. **Geologic Hazards.** The onsite soil types have a slow to medium runoff potential with medium to moderate erosion potentials. All grading activities would comply with the El Dorado County Grading, Erosion Control and Sediment Ordinance. Impacts would be less than significant.

d. **Expansive Soils.** The Soil Survey for El Dorado County list AxD soils as having a low shrink-swell capacity. The project would be required to comply with the El Dorado County Grading, Erosion and Sediment Control Ordinance and the development plans for the proposed buildings would be required to implement the Uniform Building Code Seismic construction standards. As such, impacts would be reduced to a less than significant level. Impacts would be less than significant.

e. **Septic Capability.** The applicants would construct private on-site septic systems for each of the proposed lots. The project submittal included a preliminary septic test trench report and soil survey, (copy included as an attachment to this document), which were reviewed by the El Dorado County Environmental Health Division. The study demonstrated the lots had adequate ability to support septic systems. Prior to issuance of any permits for septic systems, they would review the systems for compliance with County Standards. Impacts would be less than significant.

FINDING: A review of the soils and geologic conditions on the project site determined that the soil types are suitable for the proposed development. All grading activities would be required to comply with the El Dorado County Grading, Erosion Control and Sediment Ordinance which would address potential impacts related to soil erosion, landslides and other geologic impacts. Future development would be required to comply with the Uniform Building Code which would address potential seismic related impacts. For this 'Geology and Soils' impacts would be less than significant.

VII. GREENHOUSE GAS EMISSIONS. *Would the project:*				
a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?			X	
b. Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?			X	

a-b. **Generate Greenhouse Gas Emissions and Policy:**

The prominent GHGs contributing to the greenhouse effect as specifically listed in Assembly Bill AB 32, the California Global Warming Solutions Act of 2006, are carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. Emissions of GHGs contributing to global climate change are attributable

Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporation	Less Than Significant Impact	No Impact

in large part to human activities associated with the industrial/manufacturing, utility, transportation, residential, and agricultural sectors; in California, the transportation sector is the largest emitter of GHGs, followed by electricity generation. California Energy Commission. 2006. *Inventory of California Greenhouse Gas Emissions and Sinks: 1990 to 2004*. (Staff Final Report). Publication CEC-600-2006-013-SF.

GHGs are global pollutants, unlike criteria for air pollutants and toxic air contaminants, which are pollutants of regional and local concern. Carbon dioxide equivalents are a measurement used to account for the fact that different GHGs have different potential to retain infrared radiation in the atmosphere and contribute to the greenhouse effect.

Emitting CO_2 into the atmosphere is not itself an adverse environmental affect. It is the increased concentration of CO_2 in the atmosphere potentially resulting in global climate change and the associated consequences of such climate change that results in adverse environmental affects (e.g., sea level rise, loss of snowpack, severe weather events). Although it is possible to generally estimate a project's incremental contribution of CO_2 into the atmosphere, it is typically not possible to determine whether or how an individual project's relatively small incremental contribution might translate into physical effects on the environment.

In June 2008, the Office of Planning and Research's (OPR) issued a technical advisory (*CEQA and Climate Change)* to provide interim guidance regarding the basis for determining the proposed project's contribution of greenhouse gas emissions and the project's contribution to global climate change. In the absence of adopted local or statewide thresholds, OPR recommends the following approach for analyzing greenhouse gas emissions:

Identify and quantify the project's greenhouse gas emissions;
Assess the significance of the impact on climate change; and
If the impact is found to be significant, identify alternatives and/or Mitigation Measures that would reduce the impact to less-than-significant levels.

The project proposes eight residential lots, which comprises a small percentage of housing in the region in an area containing both existing and planned residential uses. Vehicular trips are also minimal therefore its emission would also be minor. The project would incorporate modern construction and design features as well as applicable current building and construction standards in the California Building Code that reduce energy consumption to the extent feasible. Adherence to these features and standard would assist in reducing potential GHG emissions resulting from the development of the proposed project. Based on these factors and the minimal amount of lots proposed, impacts related to the project's expected contribution to GHG emissions would not be considered significant, either on a project-level or cumulative basis. Impacts would be anticipated to be less than significant.

FINDING: Given the project is for eight lots, and along with requirements for adherence to applicable standards, it is determined that implementation of the project would result in less than significant impacts to greenhouse gas emissions. For this "Greenhouse Gas Emissions" category, as conditioned, mitigated, and with conformance with Greenhouse Gas standards in the California Building Code, impacts would be anticipated to be less than significant.

VIII. 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?			X	
b. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous			X	

VIII. HAZARDS AND HAZARDOUS MATERIALS. *Would the project:*	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporation	Less Than Significant Impact	No Impact
materials into the environment?				
c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?			X	
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?				X
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?				X
f. For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?				X
g. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?			X	
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?			X	

Discussion: A substantial adverse effect due to Hazards or Hazardous Materials would occur if implementation of the project would:

- Expose people and property to hazards associated with the use, storage, transport, and disposal of hazardous materials where the risk of such exposure could not be reduced through implementation of Federal, State, and local laws and regulations;
- Expose people and property to risks associated with wildland fires where such risks could not be reduced through implementation of proper fuel management techniques, buffers and landscape setbacks, structural design features, and emergency access; or
- Expose people to safety hazards as a result of former on-site mining operations.

a-b. **Hazardous Materials.** The project may involve transportation, use, and disposal of hazardous materials such as construction materials, paints, fuels, landscaping materials, and household cleaning supplies. The use of these hazardous materials would only occur during construction. Any uses of hazardous materials would be required to comply with all applicable federal, state, and local standards associated with the handling and storage of hazardous materials. Prior to any use of hazardous materials, the applicant would be required to obtain a Hazardous Materials Business Plan through Environmental Health- Hazardous Waste Division. The impact would be less than significant.

c. **Hazardous Materials near Schools.** The project site is located approximately 0.75 mile from Marina Village School and the Lake Forest School. As discussed in (a-b) above, the project may utilize hazardous

materials during project construction. Adherence to the required Hazardous Materials Business Plan would reduce impacts to less than significant.

d. **Hazardous Sites.** No parcels within El Dorado County are included on the Cortese List. There would be no impact.

e-f. **Aircraft Hazards.** The project site is not located in the vicinity of any public or private airstrip. The project would not violate any airport land use plan in the area. There would be no impact.

g. **Emergency Plan.** As discussed in the Traffic category, the project would impact the existing road systems. The project would be required to make road improvements which would address the additional impacts to the road systems. Impacts would be less than significant.

h. **Wildfire Hazards.** The project has a Wildland Fire Safe Plan approved by Cal Fire and the El Dorado Hills Fire Department, dated July 21, 2013. In addition, the Fire Department has recommended other conditions of approval for the project to meet Fire Safe standards. The project has been conditioned to meet the requirements of the Department and adhere to the approved Fire Safe Plan. A copy of the Fire Safe Plan is included as an attachment to this document. Adherence to the requirements of the Fire Safe Regulations would reduce impacts to a less than significant level.

FINDING: The proposed project would not expose the area to hazards relating to the use, storage, transport, or disposal of hazardous materials. Any proposed use of hazardous materials would be subject to review and approval of a Hazardous Materials Business Plan issued by the Environmental Management, Hazardous Materials Division. The Fire Department would require conditions of approval, and adherence to the Fire Safe Plan to reduce potential hazards relating to wild fires. For this 'Hazards and Hazardous Materials' category, impacts would be less than significant.

IX. HYDROLOGY AND WATER QUALITY. *Would the project:*	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporation	Less Than Significant Impact	No Impact
a. Violate any water quality standards or waste discharge requirements?			X	
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)?			X	
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?			X	
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?			X	
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?			X	

IX. HYDROLOGY AND WATER QUALITY. *Would the project:*	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporation	Less Than Significant Impact	No Impact
f. Otherwise substantially degrade water quality?			X	
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?				X
h. Place within a 100-year flood hazard area structures which would impede or redirect flood flows?				X
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?				X
j. Inundation by seiche, tsunami, or mudflow?				X

Discussion: A substantial adverse effect on Hydrology and Water Quality would occur if the implementation of the project would:

- Expose residents to flood hazards by being located within the 100-year floodplain as defined by the Federal Emergency Management Agency;
- Cause substantial change in the rate and amount of surface runoff leaving the project site ultimately causing a substantial change in the amount of water in a stream, river or other waterway;
- Substantially interfere with groundwater recharge;
- Cause degradation of water quality (temperature, dissolved oxygen, turbidity and/or other typical stormwater pollutants) in the project area; or
- Cause degradation of groundwater quality in the vicinity of the project site.

a. **Water Quality Standards:** No wetlands or other riparian features would be impacted. The project would require the construction of a new access roads/driveway that would cross a drainage swale but it has an existing culvert which would not be significantly impacted. Project related construction activities would be required to adhere to the El Dorado County Grading, Erosion Control and Sediment Ordinance which would require the implementation and execution of Best Management Practices (BMPs) to minimize degradation of water quality during implementation of the Best Management Practices. Adherence to County requirements would reduce potentially significant impacts to less than significant.

b. **Groundwater Supplies.** The project would connect to public water and would not utilize any groundwater as part of the project. The Environmental Health Division reviewed the project proposal and did not report evidence that the project would substantially reduce or alter the quantity of groundwater in the vicinity, or materially interfere with groundwater recharge. Impacts would be less than significant.

c-f. **Drainage Pattern.** The Preliminary Drainage Report for Miginella Subdivision, (copy attached), was reviewed by the Transportation Division and conditions of approval have been recommended to require that the project conform to the El Dorado County Grading, Erosion Control and Sediment Ordinance. The re-surfacing of the existing roadbeds, as well as the construction/grading of the new roads/driveway is not anticipated to significantly alter existing drainages patterns. The three-acre plus lot sizes would allow

Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporation	Less Than Significant Impact	No Impact

future residential development typical of medium density residential uses not anticipated to significantly alter drainage patterns as well. Impacts are anticipated to be less than significant.

g-j. **Flood-related Hazards.** The project site is not located within any mapped 100-year flood areas and would not result in the construction of any structures that would impede or redirect flood flows. No dams are located in the project area which would result in potential hazards related to dam failures. The risk of exposure to seiche, tsunami, or mudflows would be remote. There would be no impacts.

FINDING: No significant impacts to water quality or drainage features would result as part of the project. Adherence to the Grading, Erosion Control and Sediment Ordinance would reduce impacts to less than significant. For this 'Hydrology and Water Quality' category, the project would not exceed the thresholds of significance and related impacts would be less than significant.

X. **LAND USE PLANNING.** *Would the project:*				
a. Physically divide an established community?			X	
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?			X	
c. Conflict with any applicable habitat conservation plan or natural community conservation plan?				X

Discussion: A substantial adverse effect on Land Use would occur if the implementation of the project would:

- Result in the conversion of Prime Farmland as defined by the State Department of Conservation;
- Result in conversion of land that either contains choice soils or which the County Agricultural Commission has identified as suitable for sustained grazing, provided that such lands were not assigned urban or other nonagricultural use in the Land Use Map;
- Result in conversion of undeveloped open space to more intensive land uses;
- Result in a use substantially incompatible with the existing surrounding land uses; or
- Conflict with adopted environmental plans, policies, and goals of the community.

a. **Established Community:** The project would not create any physical divisions of an established community. The project area is part of the El Dorado Hills Community Region and is designated by the General Plan for Medium Density Residential (MDR) land uses. By creating eight single-family residential lots ranging in size from 3 to 4.5 acres, the project would provide an appropriate density of single-family residential development in an area intended for MDR land uses. The density and pattern of parcel development for the project vicinity has been established and this project is consistent and compatible with other established areas similarly designated MDR by the General Plan within the El Dorado Hills Community Region. Impacts would be less than significant.

b. **Land Use Consistency:** The proposed project would be consistent with the specific, fundamental, and mandatory land use development goals, objectives, and policies of the 2004 General Plan, and would be consistent with the development standards contained within the El Dorado County Zoning Ordinance. The

Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporation	Less Than Significant Impact	No Impact

project proposes densities and parcel sizes consistent with the project site's General Plan LDR land use designation, and the RE-10 Zone District. Impacts are anticipated to be less than significant.

c. **Habitat Conservation Plan:** The project site is not located within the boundaries of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or any other conservation plan. As such, there is no possibility of the proposed project conflicting with an adopted conservation plan. There would be no impacts.

FINDING: The proposed use of the land would be consistent with the zoning and the General Plan. No significant impacts from the project due to a conflict with the General Plan or zoning designations for use of the property are anticipated. As conditioned, mitigated, and with adherence to County Code, no significant impacts are anticipated.

XI. 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?				X
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?				X

Discussion: A substantial adverse effect on Mineral Resources would occur if the implementation of the project would:

- Result in obstruction of access to, and extraction of mineral resources classified MRZ-2x, or result in land use compatibility conflicts with mineral extraction operations.

a. **Mineral Resource Loss-Region, State:** The project site is not mapped as being within a Mineral Resource Zone (MRZ) by the State of California Division of Mines and Geology or in the El Dorado County General Plan. No impacts would occur.

b. **Mineral Resource Loss-Locally:** The Western portion of El Dorado county is divided into four, 15 minute quadrangles (Folsom, Placerville, Georgetown, and Auburn) mapped by the State of California Division of Mines and Geology showing the location of Mineral and Resource Zones (MRZ). Those areas which are designated MRZ-2a contain discovered mineral deposits that have been measured or indicate reserves calculated. Land in this category is considered to contain mineral resources of known economic importance to the County and/or State. Review of the mapped areas of the County indicates that this site does not contain any mineral resources of known local or statewide economic value. No impacts would occur.

FINDING: No impacts to any known mineral resources would occur as a result of the project. Therefore, no mitigation is required. For the 'Mineral Resources' category, the project would not exceed the identified thresholds of significance.

XII. NOISE. *Would the project result in:*	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporation	Less Than Significant Impact	No Impact
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?			X	
b. Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?			X	
c. A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?			X	
d. A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?			X	
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 level?				X
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?				X

Discussion: A substantial adverse effect due to Noise would occur if the implementation of the project would:

- Result in short-term construction noise that creates noise exposures to surrounding noise sensitive land uses in excess of 60dBA CNEL;
- Result in long-term operational noise that creates noise exposures in excess of 60 dBA CNEL at the adjoining property line of a noise sensitive land use and the background noise level is increased by 3dBA, or more; or
- Results in noise levels inconsistent with the performance standards contained in Table 6-1 and Table 6-2 in the El Dorado County General Plan.

a. **Noise Exposures.** The project is located along Salmon Falls Road and Kaila Court which is located within the El Dorado Hills Community Region. The project would be surrounded by existing residential development and in the vicinity of Salmon Falls Road which is identified in the El Dorado County General Plan EIR as a potentially significant noise source. The EIR estimates that land uses along Salmon Falls Road in the project area would be subjected to a noise level of 60 dB at a distance of 64 feet from the centerline of the road. Table 6-1 of the Noise Element of the General Plan establishes a maximum outdoor noise limit of 60 dB for residences. The nearest lot to Salmon Falls Road would be Lot 6 which, because of slope considerations, would have a buildable area distance located over 300 feet from the centerline of Salmon Falls Road. The project would not be subject to significant sources of noise. Impacts would be less than significant.

b. **Ground borne Shaking:** The project may generate ground borne vibration or shaking events during project construction. These potential impacts would be limited to project construction. Adherence to the time limitations of construction activities to 7:00am to 7:00pm Monday through Friday and 8:00am to 5:00pm on weekends and federally recognized holidays would limit the ground shaking effects in the project area. Impacts would be less than significant.

Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporation	Less Than Significant Impact	No Impact

c. **Short-term Noise Increases:** The project would include construction activities for the grading of the site and construction of residential units. The short-term noise increases would potentially exceed the thresholds established by the General Plan. This is a potentially significant impact. Standard Conditions of Approval would limit the hours of construction activities to 7:00am to 7:00pm Monday through Friday and 8:00am to 5:00pm on weekends and federally recognized holidays. Adherence to the limitations of construction are anticipated to reduce potentially significant impacts to a less than significant level.

d. **Long-term Noise Increases:** The project would not increase the ambient noise levels in the area in excess of the established noise thresholds. No development is proposed as part of the project but an approval would allow additional residential uses on three additional parcels where there is presently one. Residential uses would not be anticipated to exceed the established General Plan noise thresholds. Impacts are anticipated to be less than significant.

e-f. **Aircraft Noise:** The project site is not located within an airport land use plan or, where such a plan has not been adopted, or is it within two miles of a public airport or public use airport. There would be no impacts.

FINDING: For the 'Noise' category, impacts would be anticipated to be less than significant.

XIII. POPULATION AND HOUSING. *Would the project:*				
a. Induce substantial population growth in an area, either directly (i.e., by proposing new homes and businesses) or indirectly (i.e., through extension of roads or other infrastructure)?			X	
b. Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?				X
c. Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?				X

Discussion: A substantial adverse effect on Population and Housing would occur if the implementation of the project would:

- Create substantial growth or concentration in population;
- Create a more substantial imbalance in the County's current jobs to housing ratio; or
- Conflict with adopted goals and policies set forth in applicable planning documents.

a. **Population Growth:** Using the 2000 U.S. Census figures which established that, in the unincorporated areas of the County, the average household size was 2.70 persons/occupied unit. The approval of the application would potentially add, at a minimum, seven new primary single-family units (there is one existing unit) at 2.70 persons/occupied unit this could add approximately 18.9 persons to the neighborhood. Assuming all eight residential units include a primary and secondary unit, the population could increase to approximately 40.5 persons. Each of those could potentially have second dwelling units, however pursuant to El Dorado County Building Permit data, out of 10,597 building permits issued between the years of 2001 to 2006, 323 were second dwelling units which is three percent which could lead to the conclusion that they are an insignificant factor when looking at population impacts. The proposed eight residential parcels would result in an increase of population in the El Dorado Hills Community Region Planning Concept Area

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporation	Less Than Significant Impact	No Impact

but would be consistent with the anticipated residential density of the Medium Density Residential (MDR) land use designation. The project would not add significantly to the population in the vicinity.

b. **Housing Displacement:** No existing housing stock would be displaced by the proposed project. No impacts would occur.

c. **Replacement Housing:** No persons would be displaced necessitating the construction of replacement housing elsewhere. No impacts would occur.

FINDING: It has been determined that there would be less than significant impacts anticipated to population growth and no impacts anticipated to population or housing displacement. For this "Population and Housing" category, impacts would be less than significant.

XIV. **PUBLIC SERVICES.** *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:*				
a. Fire protection?			X	
b. Police protection?			X	
c. Schools?			X	
d. Parks?			X	
e. Other government services?			X	

Discussion: A substantial adverse effect on Public Services would occur if the implementation of the project would:

- Substantially increase or expand the demand for fire protection and emergency medical services without increasing staffing and equipment to meet the Department's/District's goal of 1.5 firefighters per 1,000 residents and 2 firefighters per 1,000 residents, respectively;
- Substantially increase or expand the demand for public law enforcement protection without increasing staffing and equipment to maintain the Sheriff's Department goal of one sworn officer per 1,000 residents;
- Substantially increase the public school student population exceeding current school capacity without also including provisions to adequately accommodate the increased demand in services;
- Place a demand for library services in excess of available resources;
- Substantially increase the local population without dedicating a minimum of 5 acres of developed parklands for every 1,000 residents; or
- Be inconsistent with County adopted goals, objectives or policies.

a. **Fire Protection:** The El Dorado Hills Fire Department and Cal Fire currently provide fire protection services to the project area. Development of the project would result in a minor increase in the demand for fire protection services, but would not prevent either agency from meeting its response times for the project or its designated service area any more than exists today. Both agencies have required access improvements designed to improve emergency ingress/egress capabilities. The Fire District and Cal Fire would review the project improvement plans, and conformance with their conditions of approval must be

Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporation	Less Than Significant Impact	No Impact

proven prior to filing the final map. Upon fulfillment of the conditions of approval, and with adherence to the approved Fire Safe Plan, impacts are anticipated to be less than significant.

b. **Police Protection:** Police services would continue to be provided by the El Dorado County Sheriff's Department. Due to the size and scope of the project, the demand for additional police protection would not be required. Impacts would be less than significant.

c. **Schools:** School services would be provided by the Pollock Pines School District. The proposed residences would be required to pay the impact fees adopted by the District. Impacts would be less than significant.

d. **Parks.** As discussed in the 'Recreation' category below, the project would be required to pay park in-lieu fees. Impacts would be less than significant.

e. **Government Services:** No other public facilities or services would be directly substantially impacted by the project. Any future potential impacts would be further analyzed in the in any future development application process. The impacts would be less than significant.

FINDING: Adequate public services are available to serve the project. Increased demands to services would be addressed through the payment of established impact fees. For this 'Public Services' category, impacts would be anticipated to be less than significant.

XV. RECREATION.				
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?			X	
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?			X	

Discussion: A substantial adverse effect on Recreational Resources would occur if the implementation of the project would:

- Substantially increase the local population without dedicating a minimum of 5 acres of developed parklands for every 1,000 residents; or
- Substantially increase the use of neighborhood or regional parks in the area such that substantial physical deterioration of the facility would occur.

a. **Parks.** The project would result in an increase the usage of parks and recreational facilities. Payment of in-lieu fees to the El Dorado Hills Community Services District would be sufficient to ensure the impacts from the new development would be mitigated. Impacts would be less than significant.

b. **Recreational Services.** The project would not include additional recreation services or sites as part of the project. The increased demand for any services would be mitigated by the payment of the in-lieu fees as discussed above. Impacts would be less than significant.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporation	Less Than Significant Impact	No Impact

FINDING: No anticipated significant impacts to open space or park facilities would result as part of the project. For this 'Recreation' category, impacts would be less than significant.

XVI. 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?			X	
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?			X	
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?				X
d. Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?			X	
e. Result in inadequate emergency access?			X	
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?				X

Discussion: A substantial adverse effect on Traffic would occur if the implementation of the project would:

- Result in an increase in traffic, which is substantial in relation to the existing traffic load and capacity of the street system;
- Generate traffic volumes which cause violations of adopted level of service standards (project and cumulative); or
- Result in, or worsen, Level of Service "F" traffic congestion during weekday, peak-hour periods on any highway, road, interchange or intersection in the unincorporated areas of the county as a result of a residential development project of 5 or more units.

a. **Traffic Increases.** The project would create 8 residential lots. The projected traffic increases would not exceed the thresholds established by General Plan Policy TC-Xe and therefore no traffic study would be required. The additional traffic increases resulting from development would be offset through the required road improvements and payment of Traffic Impact Mitigation Fees prior to building permit issuance. The project would not significantly increase traffic in the project area therefore impacts would be less than significant.

b. **Levels of Service Standards.** The proposed subdivision would not exceed the thresholds established by the General Plan and no traffic study would be necessary. The additional traffic resulting from the development would not reduce the level of service on the surrounding roads. The project would include

road widening as a condition of approval and payment of Traffic Impact Mitigation Fees prior to building permit issuance. The required road improvements and payment of impact fees would offset the impacts on the roads in the project area. Impacts would be less than significant.

c. **Air traffic.** The project is not located adjacent to or within the Safety Zone of a public or private airstrip. There would be no impact.

d. **Design Hazards.** The project would not create any significant traffic hazards. The proposed encroachments would be designed and constructed to County standards. The Transportation Division did not identify any hazards associated with the design of the project. Impacts would be less than significant.

e. **Emergency Access.** The project would be required to improve the primary access road surfaces to County Design Standards and Fire Safe standards. A Fire Safe Plan that has been approved by Cal Fire and the El Dorado Hills Fire Department that addresses emergency access. The Fire Department has also recommended conditions for the unobstructed widths of the access roads and to assure they would be designed and maintained to support the imposed loads of fire apparatus and to provide all-weather driving capabilities. With the inclusion of the recommended conditions of approval, and with compliance with the Fire Safe Plan, neither Cal Fire nor the Fire Department has outstanding concerns with the emergency accesses. As conditioned, impacts would be anticipated to be less than significant.

f. **Alternative Transportation:** The project would not conflict with adopted plans, polices or programs relating to alternative transportation. There would be no impacts.

FINDING: The project would not exceed the threshold of the General Plan for projects that would worsen traffic in the project area. The project would be conditioned to perform road improvements including the construction of a new on-site roadway. The required road improvements and payment of Traffic Impact Mitigation Fees would offsite potential traffic impacts associated with the project. For this 'Transportation/ Traffic" category, impacts would be less than significant.

XVII. UTILITIES AND SERVICE SYSTEMS. *Would the project:*	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporation	Less Than Significant Impact	No Impact
a. Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?			X	
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?			X	
c. Require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?			X	
d. Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?			X	
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?			X	

XVII. UTILITIES AND SERVICE SYSTEMS. *Would the project:*	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporation	Less Than Significant Impact	No Impact
f. Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?			X	
g. Comply with federal, state, and local statutes and regulations related to solid waste?			X	

Discussion: A substantial adverse effect on Utilities and Service Systems would occur if the implementation of the project would:

- Breach published national, state, or local standards relating to solid waste or litter control;
- Substantially increase the demand for potable water in excess of available supplies or distribution capacity without also including provisions to adequately accommodate the increased demand, or is unable to provide an adequate on-site water supply, including treatment, storage and distribution;
- Substantially increase the demand for the public collection, treatment, and disposal of wastewater without also including provisions to adequately accommodate the increased demand, or is unable to provide for adequate on-site wastewater system; or
- Result in demand for expansion of power or telecommunications service facilities without also including provisions to adequately accommodate the increased or expanded demand.

a. **Wastewater Requirements.** The project is required to comply with requirements for the treatment, collection, processing, and disposal of waste as established by the Regional Water Quality Control Board (RWQCB). Project improvement plans are required to be submitted to the Transportation Division for the road surfacing and width improvements. Those plans are analyzed prior to issuance of a grading permit. The future residential improvements, require building and and/or grading plans that are reviewed by the Building Services Division. All grading activities are required to comply with the El Dorado County Grading, Erosion Control and Sediment Ordinance including the implementation of pre- and post-construction Best Management Practices (BMPs) to eliminate run-off and erosion and sediment controls. This would reduce any potential significant impacts of soil erosion or the loss of topsoil to a less than significant level. With adherence to County Code, no significant wastewater discharge would be anticipated to result from the creation of the eight lots. Impacts are anticipated to be less than significant.

b. **Construction of New Facilities.** The Facilities Improvement Letter submitted by EID indicated that adequate water lines exist along the northeastern portion of the project site. No expansion to the existing system, except for extensions, would be necessary to service the project. Impacts would be less than significant.

c. **New Stormwater Facilities.** According to the submitted preliminary grading plan, overall existing drainage patterns would not be significantly modified and pre- and post-development drainage conditions would not change significantly. All project grading must be in compliance with the All grading activities exceeding 250 cubic yards of graded material or grading completed for the purpose of supporting a structure must meet the provisions contained in the *County of El Dorado - Grading, Erosion, and Sediment Control Ordinance* and all drainage facilities must be in compliance with standards contained in the County of El Dorado Drainage Manual. As such, impacts are anticipated to be less than significant.

d. **Sufficient Water Supply.** The Facilities Improvement Letter (FIL) dated April 27, 2010, (copy attached), stated that there would be adequate services be available for the project. There is an existing ten-inch water

Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporation	Less Than Significant Impact	No Impact

line stub located in Lakehills Court and it was determined that the current system had the capacity to deliver the seven additional equivalent dwelling units required by the project, as well as the Fire Department required water pressure. EID staff determined in May of 2013 that for the revision request, an updated FIL would not be required as it "would not contain significantly different information regarding the available capacity or potential connection points, and that the requirement for a valid FIL will be evaluated at such time as Improvement Plans are submitted." Impacts would be less than significant.

e. **Adequate Capacity.** As stated above, EID has indicated that the existing water system in the area would be sufficient to service the project. Impacts would be less than significant

f. **Solid Waste Disposal:** In December of 1996, direct public disposal into the Union Mine Disposal Site was discontinued and the Material Recovery Facility/Transfer Station was opened. Only certain inert waste materials (e.g., concrete, asphalt, etc.) may be dumped at the Union Mine Waste Disposal Site. All other materials that cannot be recycled are exported to the Lockwood Regional Landfill near Sparks, Nevada. In 1997, El Dorado County signed a 30-year contract with the Lockwood Landfill Facility for continued waste disposal services. The Lockwood Landfill has a remaining capacity of 43 million tons over the 655-acre site. Approximately six million tons of waste was deposited between 1979 and 1993. This equates to approximately 46,000 tons of waste per year for this period.

After July of 2006, El Dorado Disposal began distributing municipal solid waste to Forward Landfill in Stockton and Kiefer Landfill in Sacramento. Pursuant to El Dorado County Environmental Management Solid Waste Division staff, both facilities have sufficient capacity to serve the County. Recyclable materials are distributed to a facility in Benicia and green wastes are sent to a processing facility in Sacramento. Impacts would be less than significant.
County Ordinance No. 4319 requires that new development provide areas for adequate, accessible, and convenient storing, collecting, and loading of solid waste and recyclables. On-site solid waste collection for the proposed lots would be handled through the local waste management contractor. Adequate space would be available at the site for solid waste collection. Impacts would be anticipated to be less than significant.

g. **Solid Waste Requirements:** County Ordinance No. 4319 requires that new development provide areas for adequate, accessible, and convenient storing, collecting and loading of solid waste and recyclables. Onsite solid waste collection would be handled through the local waste management contractor. Adequate space would be available onsite. All containers would be located within the garage area or within fenced enclosure areas. Impacts would be anticipated to be less than significant.

FINDING: The applicant has demonstrated there would be adequate water and septic system capability to serve the project, and there is adequate available capacity in the County refuse and recycling system, and associate collection areas that are available for this project. For this 'Utilities and Service Systems' category, impacts would be less than significant.

XVIII. MANDATORY FINDINGS OF SIGNIFICANCE. *Does the project:*	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporation	Less Than Significant Impact	No Impact
a. 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, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?		X		
b. 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)?			X	
c. Have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?			X	

Discussion:

a. The project would include a Mitigation Measures requiring surveys to reduce impacts to suitable nesting habitat for birds of prey, birds listed under the federal Migratory Bird Treaty Act, and white-tailed kite during project construction. Implementation of this Mitigation Measure would reduce potentially significant impacts to less than significant. No substantial evidence contained in the project record has been found that would indicate that this project would have the potential to significantly degrade the quality of the environment, with the exception of potential impacts on nesting raptors or other migratory birds. As conditioned, and with adherence to County permit requirements, this project and the typical residential uses expected to follow, would not be anticipated to have the potential to 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, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of California history or pre-history. Any impacts from the project would be anticipated to be less than significant due to the design of the project and required standards that would be implemented with the process of filing the final map and/or any required project specific improvements on or off the property.

b. Cumulative impacts are defined in Section 15355 of the California Environmental Quality Act (CEQA) Guidelines as two or more individual effects, which when considered together, would be considerable or which would compound or increase other environmental impacts.

The project would not involve development or changes in land use that would result in an excessive increase in population growth not anticipated for lands designated by the General Plan for medium density residential uses. Impacts due to increased demand for public services associated with the project would be offset by the payment of fees as required by service providers to extend the necessary infrastructure services. The project is not anticipated to contribute substantially to increased traffic in the area and the project would not require an increase in the wastewater treatment capacity of the County.

Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporation	Less Than Significant Impact	No Impact

The project would result in the generation of greenhouse gasses, which could contribute to global climate change. However, the amount of greenhouse gases generated by the project would be negligible compared to global emissions or emissions in the county, so the project would not substantially contribute cumulatively to global climate change. Further, as discussed throughout this environmental document, the project is not anticipated to contribute to a substantial decline in water quality, air quality, noise, biological resources, agricultural resources, or cultural resources under cumulative conditions not anticipated by the General Plan for medium density residential uses.

As outlined and discussed in this document, as conditioned and with compliance with County Codes, this project would be anticipated to have a less than significant chance of having project-related environmental effects which would cause substantial adverse effects on human beings, either directly or indirectly. Based on the analysis in this study, it has been determined that the project is anticipated to have a less than significant impact based on the issue of cumulative impacts.

c. All impacts identified in this Negative Declaration would be anticipated to be less than significant and would not require mitigation, other than that stated above in Section a, over and above those provided currently by County Code. Therefore, the proposed project would not be anticipated to result in environmental effects that cause substantial adverse effects on human beings either directly or indirectly. Impacts would be anticipated to be less than significant.

FINDINGS: It has been determined that the proposed project would not be anticipated to result in significant environmental impacts. The project is not anticipated to exceed applicable environmental standards, nor significantly contribute to cumulative environmental impacts.

INITIAL STUDY ATTACHMENTS

Attachment 1..... Location Map
Attachment 2..... Clarksville U.S.G.S. 7.5 Minute Quadrangle
Attachment 3..... Tentative Map, dated July 2013
Attachment 4..... Biological Resources Evaluation for the Miginella Subdivision, August 2007.
Attachment 5..... Biological Resources Update for the Miginella Subdivision Project, July 2008.
Attachment 6..... Preliminary Jurisdictional Delineation Report, August 2007.
Attachment 7..... Arborist Report for Migianella Project Tree Mitigation Plan, Mann Made Resources, July 25, 2013
Attachment 8..... Cultural Resources Study for APN 110-020-32 and 30, July 2005, Historic Resource Associates; Archeological Survey Report of Assessors Parcel No. 110:020:10 & 11, Historic Resource Associates. December 1992; and Archeological Investigation Report of the Historic Thomas Ranch Site. APN 110:430:04 & 110:430:03 and 04,Historic Resource Associate, January 2004.
Attachment 9..... Migianella Wildland Fire Safe Plan, CDS Fire Prevention Planning, Bill Draper, July 21, 2013.
Attachment 10..... El Dorado Irrigation District Facilities Improvement Letter, April 27, 2010; Email-EID to Olga Scorelli, May 16, 2013.
Attachment 11..... Preliminary Drainage Report for Miginella Subdivision, August 2007.
Attachment 12..... Percolation and Soil Mantle Test

SUPPORTING INFORMATION SOURCE LIST

The following documents are available at El Dorado County Planning Services in Placerville.

El Dorado County General Plan Draft Environmental Impact Report
Volume 1 of 3 – EIR Text, Chapter 1 through Section 5.6
Volume 2 of 3 – EIR Text, Section 5.7 through Chapter 9
Appendix A
Volume 3 of 3 – Technical Appendices B through H

El Dorado County General Plan – A Plan for Managed Growth and Open Roads; A Plan for Quality Neighborhoods and Traffic Relief (Adopted July 19, 2004)

Findings of Fact of the El Dorado County Board of Supervisors for the General Plan

El Dorado County Zoning Ordinance (Title 17 - County Code)

County of El Dorado Drainage Manual (Resolution No. 67-97, Adopted March 14, 1995)

County of El Dorado - Grading, Erosion, and Sediment Control Ordinance Adopted by the County of El Dorado Board of Supervisors, August 10, 2010 (Ordinance #4949)

El Dorado County Design and Improvement Standards Manual

El Dorado County Subdivision Ordinances (Title 16 - County Code)

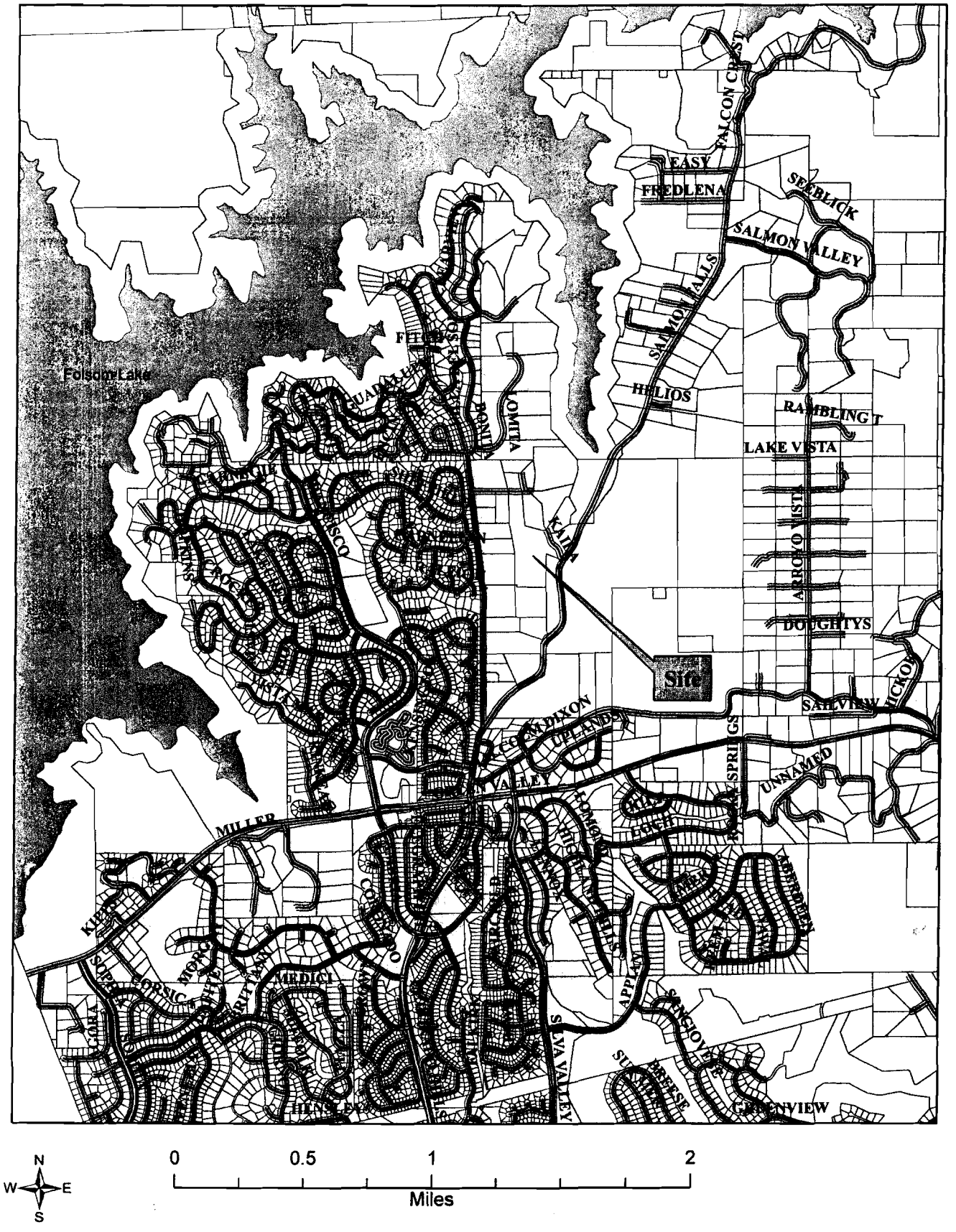
Soil Survey of El Dorado Area, California

California Environmental Quality Act (CEQA) Statutes (Public Resources Code Section 21000, et seq.)

Title 14, California Code of Regulations, Chapter 3, Guidelines for Implementation of the California Environmental Quality Act (Section 15000, et seq.)

Title 14, California Code of Regulations, Chapter 3, Guidelines for Implementation of the California Environmental Quality Act (Section 15000, et seq.)

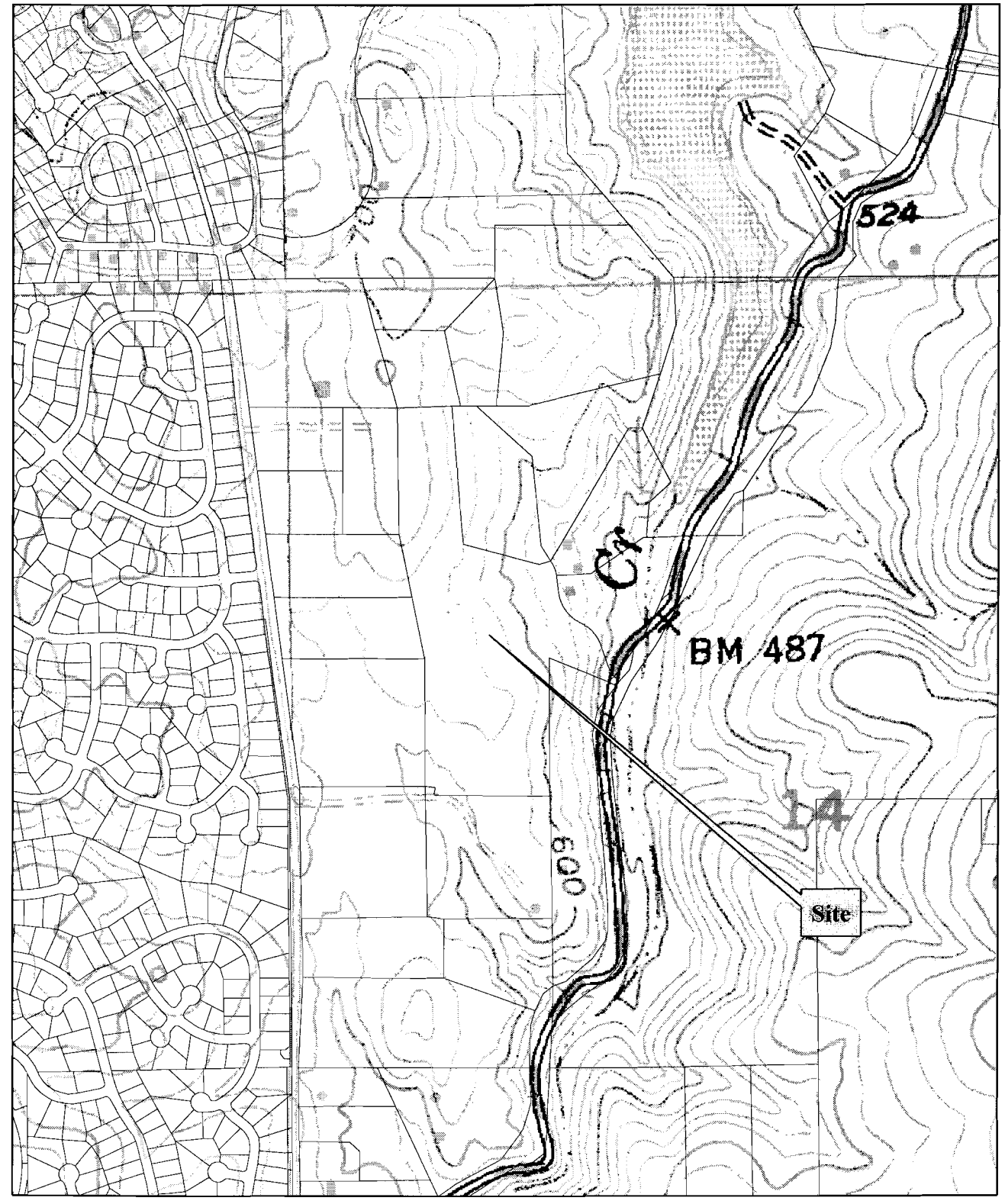
Location Map



File Numbers TM07-1458-R/BLA13-0015

Attachment 1

Clarksville U.S.G.S. Quadrangle with El Dorado County Parcels Overlayed



File Numbers TM07-1458-R/BLA13-0015

Attachment 2

TENTATIVE SUBDIVISION MAP

TM 07-1458 MIGIANELLA

PROPOSED TM REVISIONS & PHASING

COUNTY OF EL DORADO | JULY, 2013 | STATE OF CALIFORNIA

OWNERS OF RECORD
MARIE MITCHELL
1000 MASON STREET, #205
SAN FRANCISCO, CA 94108

APPLICANT
MARIE MITCHELL & SHAN MEJATIAN
2020 KAILA WAY
EL DORADO HILLS, CA 95762
(916) 847-9178

ENGINEER
cta Engineering & Surveying
Civil Engineering - Land Surveying - Land Planning

MAP SCALE
1" = 100'

CONTOUR INTERVAL
CONTOUR INTERVAL = 2 FEET

SOURCE OF TOPOGRAPHY
TOPOGRAPHIC SURVEY

SECTION, TOWNSHIP and RANGE
SECTIONS 10, T.10 (N)., R.8 (E). M.D.M.

ASSESSOR'S PARCEL NUMBERS
A.P.N. 110-020-45 / PM 44/91/1
A.P.N. 110-430-01 (BLA)

PROPOSED ZONING
RJA

PRESENT ZONING
RJA

TOTAL AREA
26.05 ACRES

TOTAL NUMBER OF PARCELS
8 - RESIDENTIAL LOTS

MINIMUM LOT AREA
3 AC.

WATER SUPPLY and SEWAGE DISPOSAL
WATER - EL DORADO IRRIGATION DISTRICT (E.I.D.)
SEWER - PRIVATE SEPTIC SYSTEM

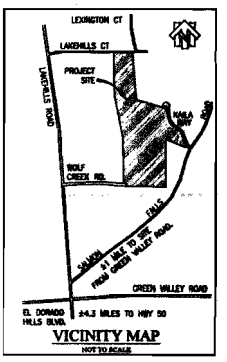
PROPOSED STRUCTURAL FIRE PROTECTION
EL DORADO HILLS COUNTY WATER DISTRICT

DATE OF PREPARATION
JULY, 2013

PHASING PLAN NOTICE
THE SUBDIVIDER MAY FILE MULTIPLE FINAL MAPS FOR THIS PROJECT. THE SUBDIVIDER SHALL NOT BE REQUIRED TO DEFINE THE NUMBER OR CONFIGURATION OF THE PROPOSED MULTIPLE FINAL MAPS. (PER THE SUBDIVISION MAP ACT, SECTION 66456.1)

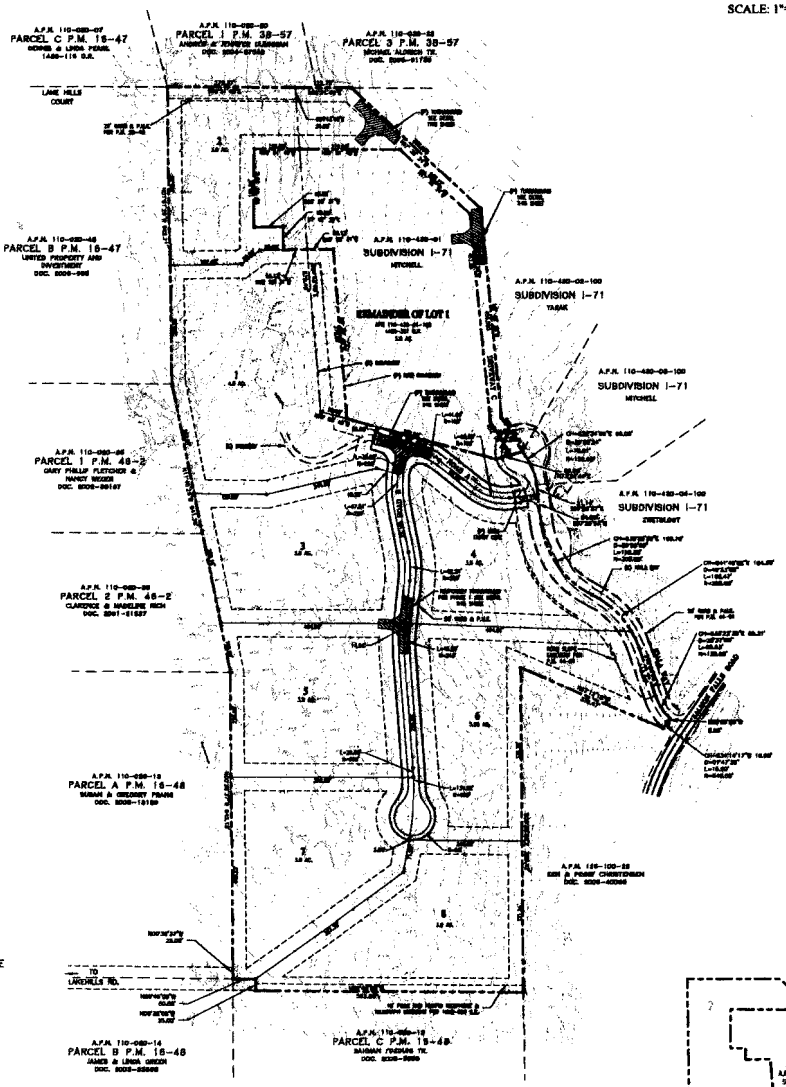
ENGINEER'S CERTIFICATE
I HEREBY CERTIFY THAT TO THE BEST OF MY KNOWLEDGE THE LAND DEVELOPMENT KNOWN AS "MAGIANELLA" HAS BEEN DESIGNED IN ACCORDANCE WITH THE SPECIFICATIONS AND GUIDELINES ESTABLISHED BY THE COUNTY OF EL DORADO.

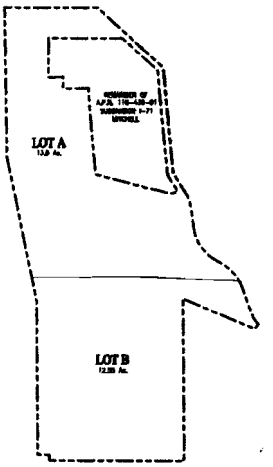
OLGA SCIORELLI R.C.E. 71204 DATE



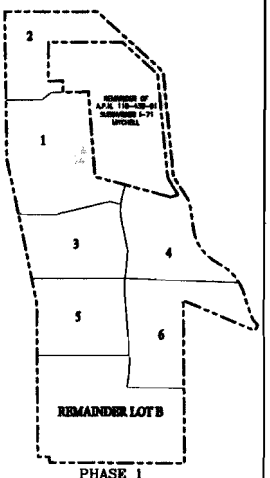
VICINITY MAP
NOT TO SCALE

SCALE: 1"=100'

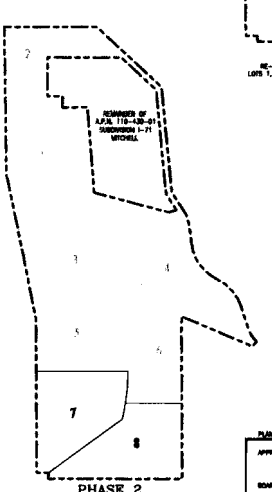




PHASE 0

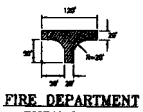


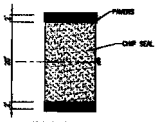
PHASE 1



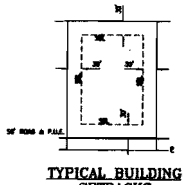
PHASE 2

LEGEND
- BOUNDARY
- LOT LINE
- ROAD EASEMENT & P.U.E.
- SETBACK LINE
- (E) EASEMENT
- (E) LOT LINES
- (E) RW


FIRE DEPARTMENT TURNAROUND

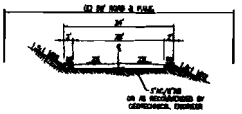


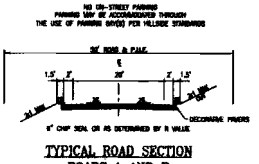
PLAN VIEW FOR ROADS A & B


TYPICAL BUILDING SETBACKS
NOT TO SCALE

Lot No.	Gross Area (S.F.)	Net Area (S.F.)
1	130,680	124,700
2	130,680	66,540
3	130,680	65,300
4	130,680	65,107
5	130,680	65,300
6	134,438	64,023
7	130,680	65,853
8	130,680	94,300

GROSS AND NET LOT AREAS


KAILA WAY RECONSTRUCTION



TYPICAL ROAD SECTION ROADS A AND B

PLANNING COMMISSION
APPROVAL/SIGNOFF DATE: _____
BOARD OF SUPERVISORS _____
APPROVAL/SIGNOFF DATE: _____

Attachment 3

Biological Resources Evaluation
for the
Miginella Subdivision

El Dorado County, CA

Prepared by:

Sycamore Environmental Consultants, Inc.
6355 Riverside Blvd., Suite C
Sacramento, CA 95831-1143
Phone: 916/ 427-0703
Fax: 916/ 427-2175
Contact: R. John Little, Ph.D.

Prepared for:

Ms. Marie Mitchell
c/o Shan Nejatian
601 Blue Oak Court
El Dorado Hills, CA 95762-3926
Phone: 916/ 847-9178

14 August 2007

Biological Resources Evaluation Report
for the
Miginella Subdivision

El Dorado County, CA

Table of Contents

Figures

Tables

Appendices

I. SUMMARY OF FINDINGS AND CONCLUSIONS

The project study area (PSA) does not contain habitat for species listed under the federal or state endangered species acts. The PSA contains potential habitat for three other special-status species: white-tailed kite, big-scale balsamroot, and Brandegee's clarkia. Potential impacts to these species may be considered for projects subject to the California Environmental Quality Act (CEQA). The PSA contains potential nesting habitat for birds of prey and birds listed under the Migratory Bird Treaty Act.

The PSA contains oak woodlands subject to California Public Resources Code (PRC) §21083.4. Oak canopy is protected by El Dorado County General Plan Policy 7.3.3.4. Potential impacts to oak woodlands may be considered for projects subject to CEQA.

II. INTRODUCTION

A. Purpose of Report

This report documents baseline biological resources in the Miginella Subdivision PSA. Project impacts and mitigation may be identified once project design has been completed. A summary of applicable laws and regulations is in Appendix F. A preliminary jurisdictional delineation was conducted concurrently with the biological resources evaluation and is documented in a separate report (Sycamore Environmental 2007).

B. Project Location

The 25.04 ac PSA consists of assessors parcel numbers (APNs) 110-020-32 and -30 in the community of El Dorado Hills in El Dorado County, CA. The PSA is located on the Clarksville USGS topographic quad (T10N, R8E, Section 14). The PSA is in the South Fork American River Watershed (hydrologic unit code 18020129), and its centroid is 38° 43' 26.6" north, 121° 4' 27.8" west (1983 NAD, CA State Plane Zone 2). Figure 1 is a project location map and Figure 2 is an aerial photograph of the PSA.

The County parcel data website indicates that the PSA is in County rare plant mitigation zone 2, which is defined as the El Dorado Irrigation District service area (El Dorado County 2006). The PSA is not in the U.S. Fish and Wildlife Service Recovery Plan boundary for Pine Hill plants (2002b), or in a County Important Biological Corridor (IBC) or ecological preserve (EP) overlay.

C. Project Applicant and Engineer

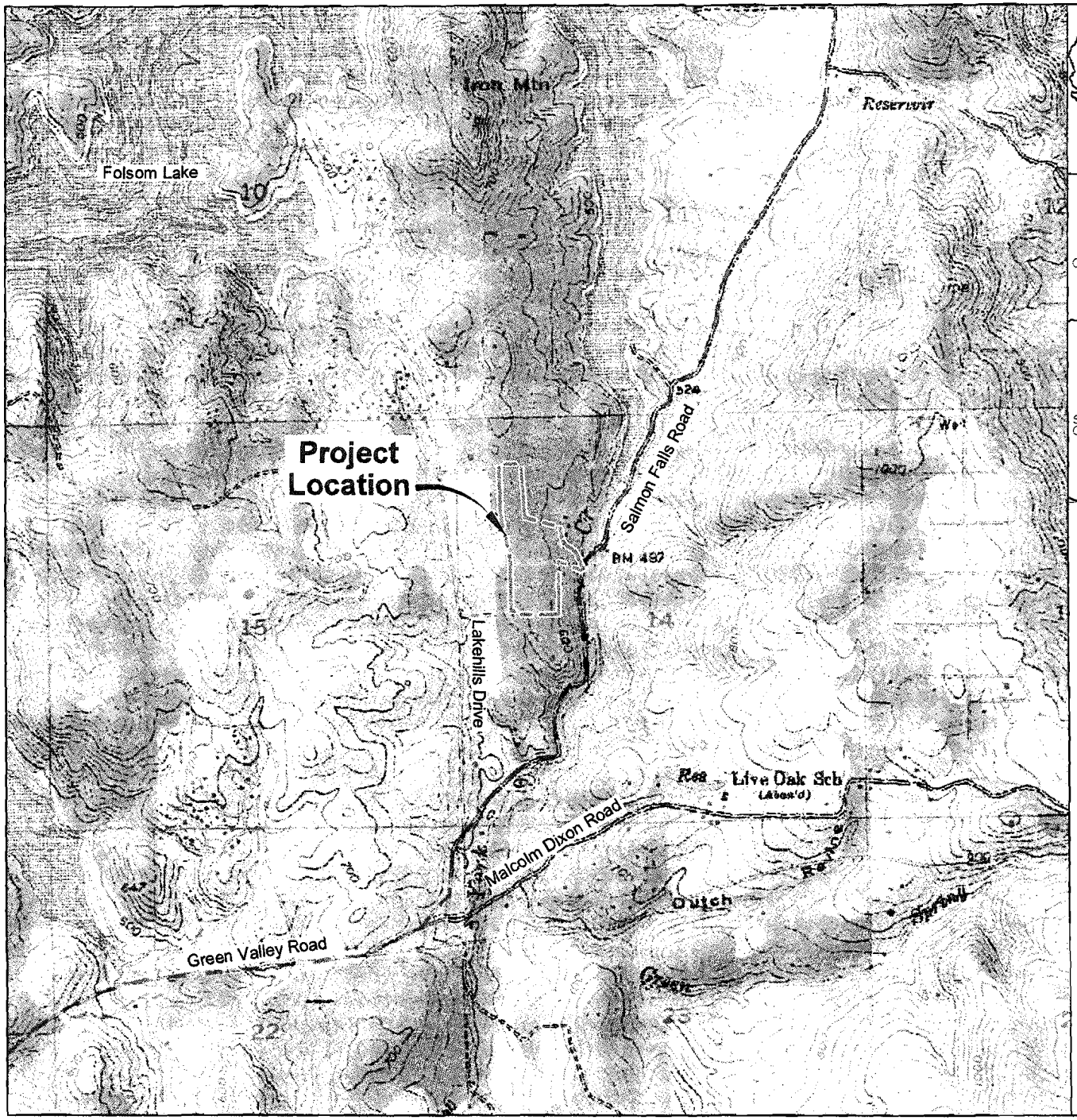
Applicant:
Ms. Marie Mitchell
c/o Shan Nejatian
601 Blue Oak Court
El Dorado Hills, CA 95762-3926
Phone: 916/ 847-9178

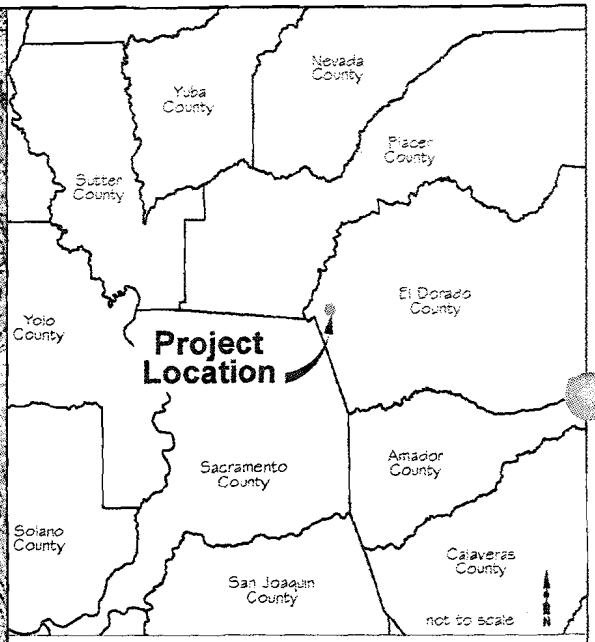
Engineer:
Gene E. Thorne & Associates, Inc.
4080 Plaza Goldorado Circle
Cameron Park, CA 95682
Phone: 530/ 677-1747
Fax: 530/ 676-4205
Contact: Mr. Gene E. Thorne, P.E.

D. Project Description

The Applicant intends to subdivide the PSA into eight parcels for residential development. Project design has not been finalized.

[This page intentionally blank]





Miginella Subdivision
El Dorado County, CA
14 August 2007

Figure 1. Location Map

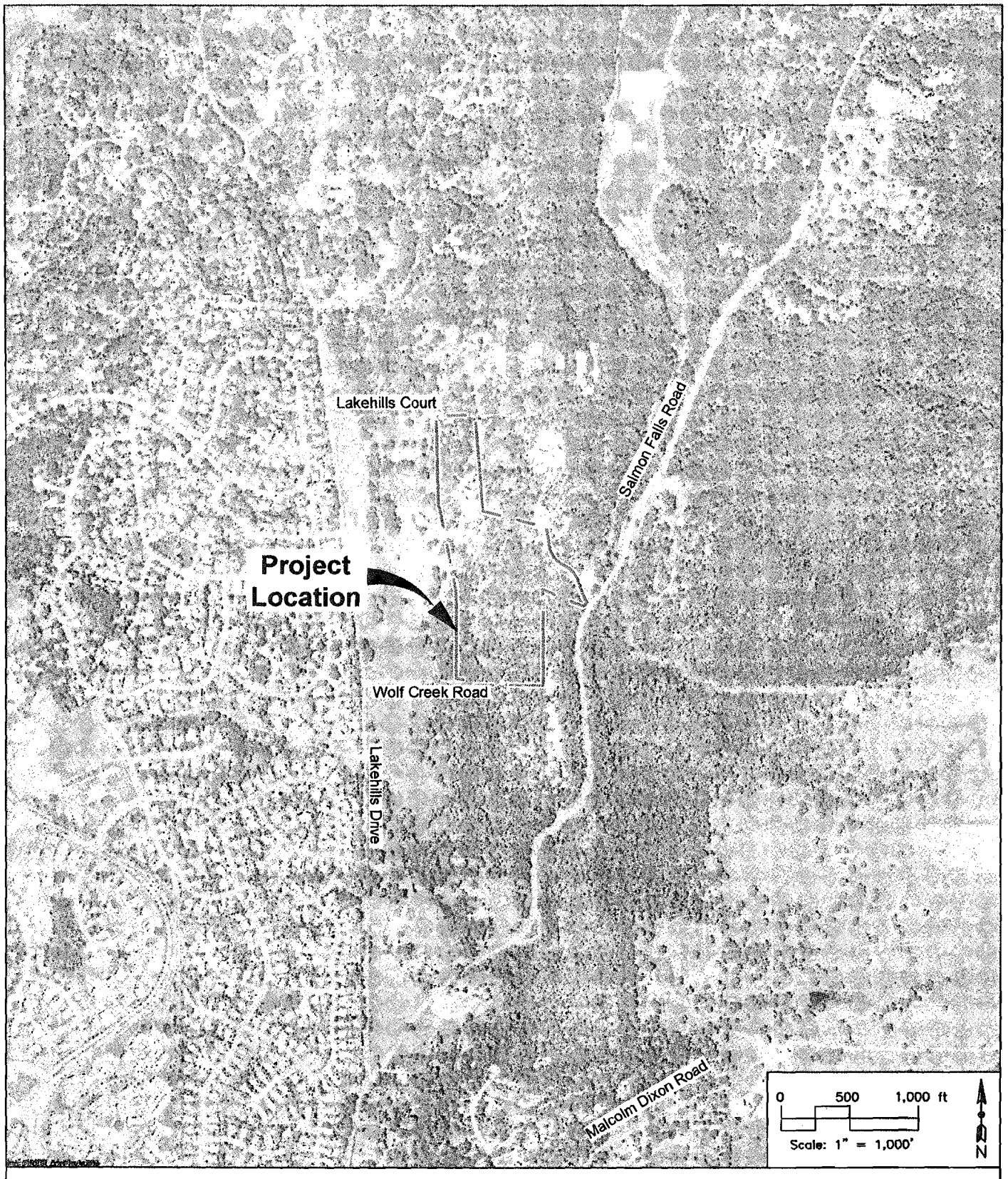
Project Boundary

0 1,000 2,000 ft
Scale: 1" = 2,000'
N

SYCAMORE
Environmental
Consultants, Inc.

Basemap:
Clarksville, CA, Photorevised (1980)
USGS 7.5' Quad.

06148Miginella SubdivisionFig1_2_Soils.dwg



Miginella Subdivision
El Dorado County, CA
14 August 2007

Project Boundary

SYCAMORE Environmental Consultants, Inc.

Figure 2. Aerial Photograph

Aerial Photograph
1 May 2006

06148Miginella SubdivisionFig1 2 Soils.dwg

III. STUDY METHODS

A. Studies Conducted

Studies included conducting field surveys; obtaining and analyzing data from state and federal agencies; and reviewing maps, aerial photographs, and published and unpublished literature. An evaluation of biological resources was conducted to determine if any special-status plant or wildlife species or their habitat occurs in the PSA. Special-status species are those listed under the federal or state endangered species acts, under the California Native Plant Protection Act, as a California species of special concern or fully protected by the Department of Fish and Game (DFG), or that are on List 1 or 2 of the California Native Plant Society's Inventory of Rare and Endangered Plants of California (CNPS 2006).

B. Survey Dates and Personnel

A biological field survey was conducted by Chuck Hughes, M.S., and Leane Scott on 5 January 2007.

C. Problems Encountered and Limitations That May Influence Results

The fieldwork was conducted outside the evident and identifiable period for special-status plant species with the potential to occur in the PSA. If special-status plants occur in the PSA, they would not have been detected. No other problems or limitations were encountered that may influence the results.

D. Literature Search

Information on the biology, distribution, taxonomy, legal status, and other aspects of the special-status species was obtained from documents on file in the library of Sycamore Environmental. Standard references used for the biology and taxonomy of plants included Abrams (1923-1960); California Department of Fish and Game (2003, 2007a, b); California Native Plant Society (2007); Hickman, ed. (1993); Mason (1957); Munz (1959); and Sawyer and Keeler-Wolf (1995). Standard references used for the biology and taxonomy of wildlife included Behler and King (1979); California Department of Fish and Game (2006a, b); Ehrlich et al. (1988); Jameson and Peeters (2004); Jennings and Hayes (1994); Mayer and Laudenslayer, eds. (1988); McGinnis (1984); Peterson (1990); Sibley (2003); Stebbins (2003); Udvardy (1977); Verner and Boss (1980); Whitaker (1980); and Zeiner et al. (1988; 1990a, b).

The California Natural Diversity Database (CNDDB, data dated 4 August 2007) was queried for the Clarksville USGS quad and eight surrounding quads to determine known occurrences of special-status species in the vicinity of the PSA. A summary list of the CNDDB records for the Clarksville quad and eight surrounding quads is in Appendix A.

Sycamore Environmental obtained a letter from the U.S. Fish and Wildlife Service (USFWS), Sacramento Field Office that identifies federal listed, candidate, or proposed species that potentially occur in or could be affected by projects on the Clarksville USGS quad. The letter, and updated species list (data dated 9 June 2007), is in Appendix B.

E. Field Survey Methods

Biological surveys consisted of walking through the PSA to assess potential habitat for special-status species and sensitive communities. Plant and animal species and vegetative communities were identified and recorded. A list of plant and wildlife species observed in the PSA is in Appendix D. Photographs of the PSA are in Appendix E.

F. Mapping

Biological features observed by Sycamore Environmental were mapped using a Trimble GeoXT™ sub-meter accurate GPS. The data was exported to AutoCAD® and placed on the base map provided by Gene E. Thorne & Associates, Inc. The resulting digital AutoCAD® map shows biological features in the PSA (Figure 3). The aerial photo in Figure 2 was downloaded using the ImageConnect Service (GlobeXplorer© 2007). Biological communities were mapped in part based on the aerial photo.

IV. ENVIRONMENTAL SETTING

The PSA is located in the northern area of the community of El Dorado Hills in El Dorado County, CA. The PSA is bound by undeveloped land and rural residential housing to the south and west, by Kaila Way, undeveloped land, and rural residential housing to the east, and by Lakehills Court to the north. Salmon Falls Road occurs east of the PSA, and Wolf Creek Road occurs at the southwest corner of the PSA. Elevation in the PSA ranges between approximately 500 to 694 feet above sea level. Topography in the PSA consists gentle to steep slopes of varying aspect.

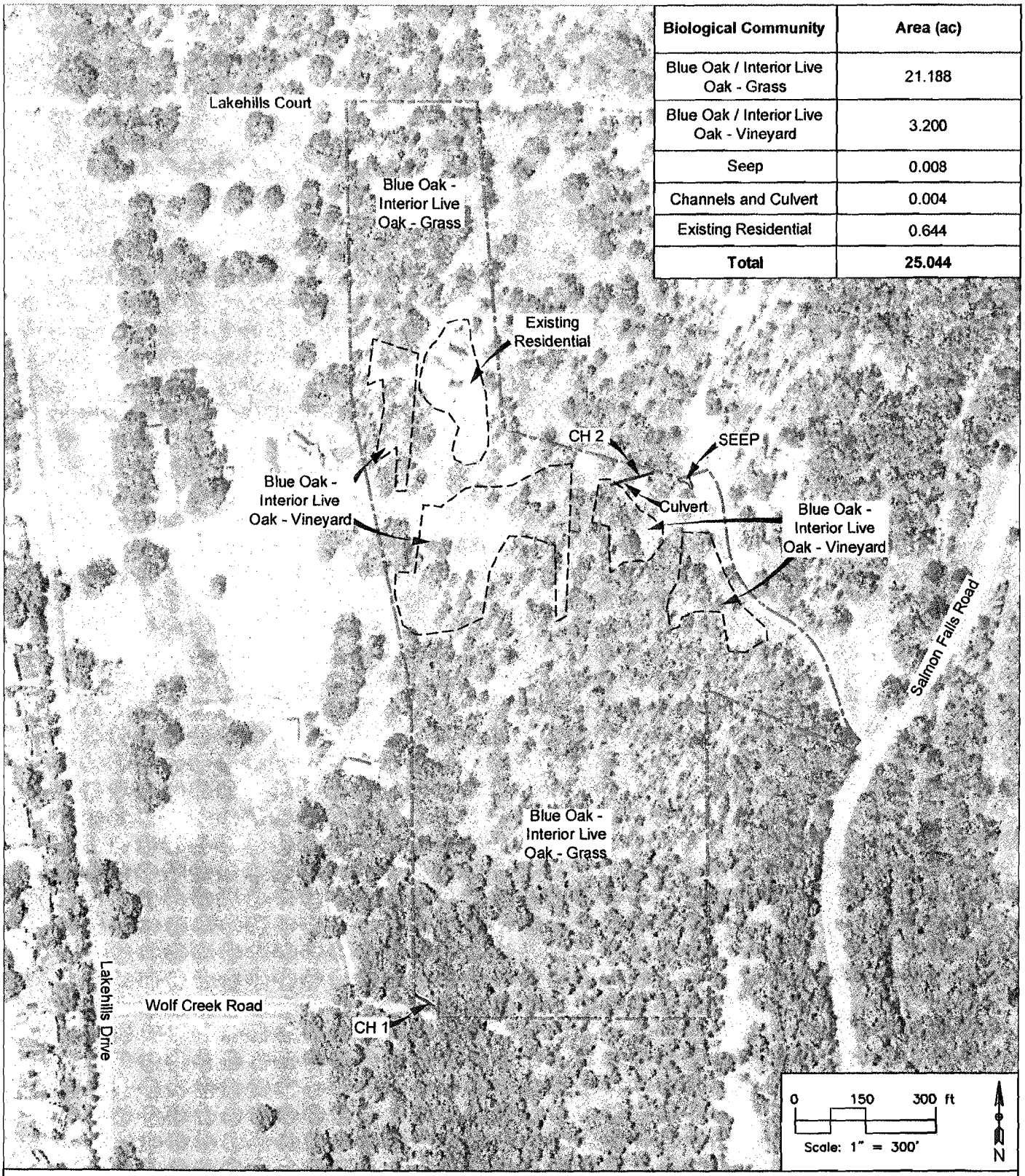
A. Biological Communities

Biological communities are defined by species composition and relative abundance. The biological communities described below correlate where applicable with the list of California terrestrial natural communities recognized by the California Natural Diversity Database (DFG 2003) and the El Dorado County General Plan EIR (2004). Biological communities are mapped on Figure 3 and their acreages are in Table 1.

Table 1. Biological Communities

Biological Community	DFG Code [1]	El Dorado County Major Habitat Type [2]	Acreage [3]
Blue oak-Interior live oak/ Grass	71.020.06	Blue Oak Woodland	21.188
Blue oak-Interior live oak/ Vineyard	--	Blue Oak Woodland	3.200
Existing Residential	--	--	0.644
Seep	--	--	0.008
Ephemeral Channels	--	--	0.004
		Total:	**25.044**

[1] DFG 2003.
[2] El Dorado County 2004.
[3] Acreages were calculated with AutoCAD® functions.



Biological Community	Area (ac)
Blue Oak / Interior Live Oak - Grass	21.188
Blue Oak / Interior Live Oak - Vineyard	3.200
Seep	0.008
Channels and Culvert	0.004
Existing Residential	0.644
Total	**25.044**

Miginella Subdivision
El Dorado County, CA
14 August 2007

Project Boundary
Ephemeral Channel
Community Boundary

SYCAMORE Environmental Consultants, Inc.

Figure 3. Biological Resources Map

06148MiginellaSubdivision_BioRes_DelinFig.dwg

1. Blue Oak-Interior Live Oak/ Grass

This biological community is dominated by blue oak (*Quercus douglasii*) with scattered interior live oak (*Q. wislizenii* var. *wislizenii*). The shrub layer is mostly absent. The herb layer is composed of mostly nonnative annual grasses and both native and nonnative annual forbs. Common species include spreading hedgeparsley *(Torilis arvensis)*, rose clover (*Trifolium hirtum*), vetch (*Vicia* sp.), filaree (*Erodium botrys, E. cicutarium*), cranesbill (*Geranium dissectum, G. molle*), soft brome (*Bromus hordeaceus*), hedgehog dogtail (*Cynosurus echinatus*), and medusa head (*Taeniatherum caput-medusae*). Small rock outcrops are scattered throughout this community. Blue Oak-Interior Live Oak/ Grass is given no special designation by DFG (2003). Oak woodlands under County jurisdiction are subject to California Public Resources Code (PRC) §21083.4.

2. Blue Oak-Interior Live Oak/ Vineyard

This biological community is similar to Blue oak-Interior live oak/ grass, except a vineyard has been planted beneath the oak canopy. Oak woodlands under County jurisdiction are subject to California Public Resources Code (PRC) §21083.4.

3. Existing Residential

This area consists of an existing home and adjacent landscaping.

4. Seep

The seep is located on the roadcut of the Kaila Way cul-de-sac (Appendix E, Photo 4). Hydrophytic species present include nutsedge (*Cyperus* sp.), centaury (*Centaurium muehlenbergii*), buttercup (*Ranunculus muricatus*), and Italian ryegrass (*Lolium multiflorum*). The roadcut is in a concave landscape position that naturally directs runoff (surface or subsurface) to the area. The construction of the cul-de-sac and roadcut apparently has caused formerly subsurface runoff to daylight, resulting in saturation at the ground surface and hydrophytic vegetation. Topsoil in the seep has been removed and only weathered rock exists as a substrate.

5. Ephemeral Channels

There are two ephemeral channels in the PSA. One ephemeral channel is located in the southwest corner of the PSA next to the east end of Wolf Creek Road (Appendix E, Photo 3). The channel originates west of and outside the PSA. The bed is composed of scoured gravel. Water was flowing during the delineation and several shallow pools (1 to 3 inches deep) were present. There is no riparian vegetation associated with the channel. The channel exits the PSA at the southeast boundary and drains to New York Creek.

The other ephemeral channel is located in the vineyard uphill of the seep (Appendix E, Photo 5). The channel is in a naturally concave landscape position. The construction of the driveway, and the resulting increased runoff along the driveway margins, has increased the volume of flow the channel experiences during precipitation events. The channel dissipates prior to reaching the seep or the roadcut of the Kaila Way cul-de-sac. The channel was not flowing during the delineation and has no associated riparian vegetation.

B. The Existing Level of Disturbance

A vineyard planted underneath the oak canopy covers approximately 12.8% of the PSA. A ten-foot high mesh deer fence surrounds the vineyard. There is an existing house and adjacent landscaping in the PSA. A gravel driveway provides access from the Kaila Way cul-de-sac to the house.

V. BIOLOGICAL RESOURCES IN THE PROJECT STUDY AREA

A. Determination of Special-Status Species in the Project Study Area

Fieldwork and file data from USFWS and CNDDB were used to determine the special-status species that could occur in the PSA. A CNDDB Summary Report for the nine quads centered on the Clarksville quad is in Appendix A. The USFWS list of federal listed species that could occur in the project area is in Appendix B. Field surveys were conducted to determine if habitat for special-status species identified in the file data is present in the PSA. Special-status species for which suitable habitat is present in the PSA are listed in Table 2.

Table 2. Special-Status Species and Natural Communities

Special-Status Species	Common Name	Federal Status [a]	State Status [a]	Source [c]	Habitat Present? / Species Observed?
Birds					
Elanus leucurus	White-tailed kite	--	FP	2	Yes/No
Plants			**/ CNPS [b]**		
Balsamorhiza macrolepis var. *macrolepis*	Big-scale balsamroot	--	--/ 1B.2	2	Yes/ No
Clarkia biloba ssp. *brandegeeae*	Brandegee's clarkia	--	--/ 1B.2	2	Yes/ No
Natural communities					
Oak Woodland		--	--	3	Yes/ Yes

[a] **Status:** **E** = Endangered; **T** = Threatened; **P** = Proposed; **C** = Candidate; **R** = California Rare; ***** = Possibly extinct; **CSC** = DFG Species of Special Concern; **FP** = DFG Fully Protected; **Prot** = DFG Protected; **CH** = Critical habitat designated.

[b] **CNPS: (plants)** **1A** = Presumed Extinct in CA; **1B** = Rare or Endangered (R/E) in CA and elsewhere; **2** = R/E in CA and more common elsewhere; **3** = Need more information; **4** = Plants of limited distribution; **0.1** = Seriously endangered in CA; **0.2** = Fairly endangered in CA; **0.3** = Not very endangered in CA.

[c] **Source:** **1** = USFWS letter. **2** = CNDDB. **3** = Observed or included by Sycamore Environmental.

B. Special-Status Species not in the Project Study Area

Special-status species for which suitable habitat is not present, or whose distributional limits preclude the possibility of their occurrence in the PSA, are not discussed further in this report. An evaluation of these species is in Appendix C.

C. Evaluation of Special-Status Wildlife Species

1. Birds

White-tailed kite (*Elanus leucurus*)

HABITAT AND BIOLOGY: Feeds on small diurnal mammals, birds, insects, reptiles, and amphibians in open grasslands, wetlands, and farmlands. White-tailed kites builds nests in trees near foraging areas. Nests are usually constructed 20-100 ft above the ground. It is a year round resident of CA. It breeds from February to October (Zeiner et al. 1990a). Nesting habitats are of concern to DFG (2006a).

RANGE: Most open habitats in coastal and valley lowlands in California (Zeiner et al. 1990a).

KNOWN RECORDS: The closest CNDDB record for this species is 4.42 miles southeast of the PSA on the Clarksville quad.

HABITAT PRESENT IN THE PSA: The oak woodland provides potential nesting habitat for white-tailed kite.

DISCUSSION: White-tailed kite was not observed in the PSA. White-tailed kite could nest in the blue oak woodland.

Birds of prey and migratory birds

HABITAT PRESENT IN THE PSA: The PSA provides nesting and foraging habitat for birds of prey and migratory birds.

DISCUSSION: Fish and Game Code 3503.5 protects all birds in the orders Falconiformes and Strigiformes (collectively known as birds of prey). Migratory birds are protected under the federal Migratory Bird Treaty Act (MBTA) of 1918 (16 U.S.C. 703-711). The MBTA makes it unlawful to take, possess, buy, sell, purchase, or barter any migratory bird listed in 50 CFR Part 10 including feathers or other parts, nests, eggs, or products, except as allowed by implementing regulations (50 CFR 21). Migratory bird species are protected by the MBTA.

D. Evaluation of Special-Status Plants

Big-scale balsamroot (*Balsamorhiza macrolepis* var. *macrolepis*)

HABITAT AND BIOLOGY: Perennial herb found in chaparral, cismontane woodland, and valley and foothill grassland from 295 to 4,600 ft in elevation. Sometimes found on serpentine soil. Blooms March through June (CNPS 2007).

RANGE: Known from Alameda, Butte, Colusa, Lake, Mariposa, Napa, Placer, Santa Clara, Solano, Sonoma, and Tehama cos. (CNPS 2007).

KNOWN RECORDS: The nearest CNDDB record is 6.2 miles north of the PSA on the Pilot Hill Quad.

HABITAT PRESENT IN THE PSA: Oak woodland in the PSA provides potential habitat for big-scale balsamroot.

DISCUSSION: The general biological survey was conducted at a time of year when big-scale balsamroot was not evident and identifiable. Although this species was not observed in the PSA during the biological survey, its potential to occur in the PSA cannot be excluded.

Brandegee's clarkia (*Clarkia biloba* ssp. *brandegeeae*)

HABITAT AND BIOLOGY: Brandegee's clarkia is an annual herb found in chaparral and cismontane woodland, often in road cuts, from 960 to 2,900 ft in elevation. Blooms May through July (CNPS 2007).

RANGE: Known from Butte, El Dorado, Nevada, Placer, Sierra, and Yuba counties (CNPS 2007).

KNOWN RECORDS: The nearest CNDDB record is approximately 1.05 miles southwest of the PSA on the Clarksville quad.

HABITAT PRESENT IN THE PSA: Oak woodland in the PSA provides potential habitat for Brandegee's clarkia.

DISCUSSION: The general biological survey was conducted at a time of year when Brandegee's clarkia was not evident and identifiable. Although this species was not observed in the PSA during the biological survey, its potential to occur in the PSA cannot be excluded.

E. Evaluation of Special-Status Natural Communities

Oak Woodland

HABITAT PRESENT IN THE PSA: There are 24.388 ac of oak woodland in the PSA (Figure 3).

DISCUSSION: Oak woodlands under the jurisdiction of the County are regulated by PRC §21083.4. El Dorado County General Plan policy 7.4.4.4, Option A (2004) requires retention or replacement of removed oak canopy.

VI. LITERATURE CITED

Abrams, L. 1923, 1944, 1951, 1960. Illustrated flora of the Pacific states. Stanford University Press, Stanford, CA.

Ayres, D. R. and F. J. Ryan. 1999. Genetic diversity and structure of the narrow endemic *Wyethia reticulata* and its congener *W. bolanderi* (Asteraceae) using RAPD and allozyme techniques. American Journal of Botany 86(3):344-353.

Bat Conservation International, Inc (BCI). 2006. All about bats: Species profiles: Lasionycteris noctivagans. <http://www.batcon.org/SPprofiles/detail.asp?articleID=100>

Behler, J. L. and W. King. 1979. The Audubon Society field guide to North American reptiles and amphibians. Alfred Knopf, New York, NY.

Busby, P. J., T. C Wainwright, and G. J. Bryant. 1996. Status review of West Coast steelhead from Washington, Oregon and California. NOAA Technical Memorandum NMFS-NWFSC-27. National Marine Fisheries Service, Seattle, WA.

California Department of Fish and Game (DFG). September 2003 (2003). List of California terrestrial natural communities recognized by the Natural Diversity Database. Natural Heritage Division, CNDDB, Sacramento, CA

California Department of Fish and Game (DFG). February 2006 (2006a). Special animals. Habitat Conservation Division, CNDDB, Sacramento, CA.

California Department of Fish and Game (DFG). April 2007 (2007a). Special vascular plants, bryophytes, and lichens list. Habitat Conservation Division, CNDDB, Sacramento, CA. <http://www.dfg.ca.gov/whdab/pdfs/SPPlants.pdf>

California Department of Fish and Game (DFG). October 2006 (2006b). State and federally listed endangered and threatened animals of California. Habitat Conservation Division, CNDDB, Sacramento, CA.

California Department of Fish and Game (DFG). April 2007 (2007b). State and federally listed endangered, threatened, and rare plants of California. Habitat Conservation Division, CNDDB, Sacramento, CA. <http://www.dfg.ca.gov/whdab/pdfs/TEPlants.pdf>

California Native Plant Society (CNPS). Accessed 15 January 2007 (2007). Inventory of rare and endangered plants (online edition, v7-06a 1-24-06). California Native Plant Society, Sacramento, CA. <http://www.cnps.org/inventory>

Ehrlich, P., D. Dobkin, and D. Wheye. 1988. The birder's handbook. Simon and Schuster, New York, NY.

El Dorado County. January 2004, Certified 19 July 2004. El Dorado County general plan, final environmental impact report (EIR). Resolution No. 234-2004, State Clearinghouse No. 2001082030. Prepared by EDAW.

El Dorado County. Data date 27 December 2006. Parcel data information system. Development Services Department, Planning Services, El Dorado Co., CA. <http://www.co.el-dorado.ca.us/Planning/ParcelData.html>

Hickman, J., ed. 1993. The Jepson manual: Higher plants of California. University of California Press, Berkeley, CA.

Holland, R. 1986. Preliminary descriptions of the terrestrial natural communities of California. California Department of Fish and Game, Sacramento, CA.

Jameson, E. W. Jr. and H. J. Peeters. 2004. Mammals of California. Revised Edition. University of California Press, Berkeley, CA.

Jennings, M. R. and M. P. Hayes. 1994. Amphibian and reptile species of special concern in California. California Department of Fish and Game, Rancho Cordova, CA.

Mason, H. 1957. A flora of the marshes of California. University of California Press, Berkeley, CA.

Mayer, K. E. and W. F. Laudenslayer, Jr., eds. 1988. A guide to wildlife habitats of California. California Department of Forestry and Fire Protection, Sacramento, CA.

McGinnis, S. M. 1984. Freshwater fishes of California. University of California Press, Berkeley, CA.

Moyle, P. B. 2002. Inland Fishes of California. University of California Press, Berkeley and Los Angeles, CA.

Munz, P. 1959. A California flora. University of California Press, Berkeley, CA.

National Marine Fisheries Service (NMFS). February 1998. Status review of Chinook salmon from Washington, Idaho, Oregon, and California. NOAA Technical Memorandum NMFS-NWFSC-35.

Peterson, R. T. 1990. A field guide to western birds. Houghton Mifflin Company, Boston, MA.

Sawyer, J. O. and T. Keeler-Wolf. 1995. A manual of California vegetation. California Native Plant Society, Sacramento, CA.

Sibley, D. A. 2003. The Sibley field guide to birds of Western North America. Alfred A. Knopf, New York, NY.

Stebbins, R. C. 2003. A field guide to western reptiles and amphibians. Houghton Mifflin Company, Boston, MA.

Sycamore Environmental. 2007. Preliminary jurisdictional delineation for Miginella Subdivision. Prepared for Ms. Marie Mitchell, El Dorado Hills, CA.

Udvardy, M. 1977. The Audubon Society field guide to North American birds. Alfred Knopf, New York, NY.

U.S. Fish and Wildlife Service (USFWS). 1994a. Endangered and threatened wildlife and plants; critical habitat determination for the Delta smelt. Sacramento Fish and Wildlife Office, Sacramento, CA.

U.S. Fish and Wildlife Service (USFWS). (19 September) 1994b. Endangered and threatened wildlife and plants; Determination of endangered status for the conservancy fairy shrimp, longhorn fairy shrimp, and the vernal pool tadpole shrimp; and threatened status for the vernal pool fairy shrimp. Federal Register 59:48136.

U.S. Fish and Wildlife Service (USFWS). 1994c. Lahontan cutthroat trout (*Oncorhynchus clarki henshawi*) Recovery Plan. Portland, OR. Pp. 147.

U.S. Fish and Wildlife Service (USFWS). 9 July 1999 (1999). Conservation guidelines for the Valley elderberry longhorn beetle. U.S. Fish and Wildlife Service, Sacramento, CA.

U.S. Fish and Wildlife Service (USFWS). 2002. Recovery plan for Gabbro soil plants of the Central Sierra Nevada Foothills. Portland, OR.

Verner, J. and A. Boss. 1980. California wildlife and their habitats: Western Sierra Nevada. General Technical Report PSW-37. Pacific Southwest Forest and Range Exp. Station, Forest Service, USDA, Berkeley, CA.

Whitaker, Jr. J. 1980. The Audubon Society field guide to North American mammals. Alfred Knopf, New York, NY.

Zeiner, D., K. Mayer, and W. Laudenslayer, Jr., eds. 1988. California's wildlife, Volume I, Amphibians and Reptiles. California Department of Fish and Game, Sacramento, CA.

Zeiner, D., K. Mayer, M. White, and W. Laudenslayer, Jr., eds. 1990a. California's wildlife, Volume II, Birds. California Department of Fish and Game, Sacramento, CA.

Zeiner, D., K. Mayer, M. White, and W. Laudenslayer, Jr., eds. 1990b. California's wildlife, Volume III, Mammals. California Department of Fish and Game, Sacramento, CA.

VII. PREPARERS

R. John Little, Ph.D., Botany, Claremont Graduate School, Claremont, CA. Over 25 years experience managing and conducting environmental projects involving impact assessment and preparation of numerous NEPA/CEQA compliance documents, Biological Assessments, and Caltrans Natural Environmental Studies. Experience includes conducting special-status plant and wildlife species surveys, jurisdictional wetland delineations, general biological surveys, permitting and biological report preparation.
Responsibilities: Senior technical lead.

Jeffery Little, A.A., Sacramento City College, Sacramento, CA. Fourteen years experience with preparation of NES, BA, and NEPA/CEQA compliance documents, impact analysis, agency formal and informal consultations and permitting. Project management, conducts special-status species surveys, jurisdictional delineations, and prepares mitigation and monitoring plans. CAD/ GIS Manager responsible for data collection, map creation, impact analyses, and report preparation.
Responsibilities: Project Manager.

Chuck Hughes, M.S., Plant Biology, Michigan State University, East Lansing, MI. Prepares biological/botanical resource evaluations, jurisdictional delineations, arborist reports, impact analyses, and mitigation and restoration plans. Serves as assistant project manager. Authorized to conduct protocol field surveys for federal-listed vernal pool invertebrates. ISA Certified Arborist #WE-6885A.
Responsibilities: Biological surveys and report preparation.

Leane Scott, B.S., Ecology and Systematic Biology (emphasis in entomology), California Polytechnic State University, San Luis Obispo, CA. Conducts plant and wildlife surveys, arborist surveys, provides technical support for wetland delineations, biological resource evaluations, certified arborist reports, mitigation plans, and other documents used in the CEQA/NEPA process, queries the California Natural Diversity Database (CNDDB/ RareFind), and researches special-status species for projects. Certified arborist #WE-7368A.
Responsibilities: Biological surveys and report preparation.

Stephanie Brown Trafton, B.S., Industrial Engineering, California Polytechnic State University, San Luis Obispo, CA. Prepares CAD/ GIS and ArcView® figures, assists with general project planning, and assists with the maintenance of project performance feedback.
Responsibilities: Figure preparation.

Cynthia Little, Principal, Sycamore Environmental.
Responsibilities: Senior editor, quality control.

[This page intentionally blank]

APPENDIX A.

CNDDB Summary Report

Miginella Subdivision

El Dorado County, CA

California Department of Fish and Game
Natural Diversity Database
CNDDB Summary List for Clarksville and 8 Adjacent Quads

	Scientific Name	Common Name	Element Code	Federal Status	State Status	Global Rank	State Rank	CNPS	CDFG
1	***Accipiter cooperii***	Cooper's hawk	ABNKC12040			G5	S3		SC
2	***Actinemys marmorata marmorata***	northwestern pond turtle	ARAAD02031			G3G4T3	S3		SC
3	***Agelaius tricolor***	tricolored blackbird	ABPBXB0020			G2G3	S2		SC
4	***Allium jepsonii***	Jepson's onion	PMLIL022V0			G1	S1.2	1B.2	
5	***Ammodramus savannarum***	grasshopper sparrow	ABPBXA0020			G5	S2		
6	***Andrena blennospermatis***	A vernal pool andrenid bee	IIHYM35030			G2	S2		
7	***Antrozous pallidus***	pallid bat	AMACC10010			G5	S3		SC
8	***Ardea alba***	great egret	ABNGA04040			G5	S4		
9	***Ardea herodias***	great blue heron	ABNGA04010			G5	S4		
10	***Athene cunicularia***	burrowing owl	ABNSB10010			G4	S2		SC
11	***Balsamorhiza macrolepis var. macrolepis***	big-scale balsamroot	PDAST11061			G3G4T2	S2.2	1B.2	
12	***Banksula californica***	A cave-obligate harvestman	ILARA14020			GH	SH		
13	***Branchinecta lynchi***	vernal pool fairy shrimp	ICBRA03030	Threatened		G3	S2S3		
14	***Branchinecta mesovallensis***	midvalley fairy shrimp	ICBRA03150			G2	S2		
15	***Buteo swainsoni***	Swainson's hawk	ABNKC19070		Threatened	G5	S2		
16	***Calystegia stebbinsii***	Stebbins' morning-glory	PDCON040H0	Endangered	Endangered	G1	S1.1	1B.1	
17	***Ceanothus roderickii***	Pine Hill ceanothus	PDRHA04190	Endangered	Rare	G2	S2.1	1B.2	
18	***Central Valley Drainage Hardhead/Squawfish Stream***	Central Valley Drainage Hardhead/Squawfish Stream	CARA2443CA			G?	SNR		
19	***Chlorogalum grandiflorum***	Red Hills soaproot	PMLIL0G020			G2	S2.2	1B.2	
20	***Clarkia biloba ssp. brandegeeae***	Brandegee's clarkia	PDONA05053			G4G5T2	S2.2	1B.2	
21	***Desmocerus californicus dimorphus***	valley elderberry longhorn beetle	IICOL48011	Threatened		G3T2	S2		
22	***Dumontia oregonensis***	A water flea	ICBRA23010			G1G3	S1		
23	***Elanus leucurus***	white-tailed kite	ABNKC06010			G5	S3		
24	***Eryngium pinnatisectum***	Tuolumne button-celery	PDAPI0Z0P0			G3	S3.2	1B.2	
25	***Fremontodendron decumbens***	Pine Hill flannelbush	PDSTE03030	Endangered	Rare	G1	S1.2	1B.2	
26	***Galium californicum ssp. sierrae***	El Dorado bedstraw	PDRUB0N0E7	Endangered	Rare	G5T1	S1.2	1B.2	
27	***Gratiola heterosepala***	Boggs Lake hedge-hyssop	PDSCR0R060		Endangered	G3	S3.1	1B.2	
28	***Haliaeetus leucocephalus***	bald eagle	ABNKC10010	Delisted	Endangered	G5	S2		
29	***Helianthemum suffrutescens***	Bisbee Peak rush-rose	PDCIS020F0			G2Q	S2.2	3.2	
30	***Hydrochara rickseckeri***	Ricksecker's water scavenger beetle	IICOL5V010			G1G2	S1S2		
31	***Juncus leiospermus var. ahartii***	Ahart's dwarf rush	PMJUN011L1			G2T1	S1.2	1B.2	
32	***Lasionycteris noctivagans***	silver-haired bat	AMACC02010			G5	S3S4		SC
33	***Laterallus jamaicensis coturniculus***	California black rail	ABNME03041		Threatened	G4T1	S1		

	Scientific Name	Common Name	Element Code	Federal Status	State Status	Global Rank	State Rank	CNPS	CDFG
34	***Legenere limosa***	legenere	PDCAM0C010			G2	S2.2	1B.1	
35	***Lepidurus packardi***	vernal pool tadpole shrimp	ICBRA10010	Endangered		G3	S2S3		
36	***Linderiella occidentalis***	California linderiella	ICBRA06010			G3	S2S3		
37	***Navarretia myersii ssp. myersii***	pincushion navarretia	PDPLM0C0X1			G1T1	S1.1	1B.1	
38	***Northern Hardpan Vernal Pool***	Northern Hardpan Vernal Pool	CTT44110CA			G3	S3.1		
39	***Northern Volcanic Mud Flow Vernal Pool***	Northern Volcanic Mud Flow Vernal Pool	CTT44132CA			G1	S1.1		
40	***Orcuttia tenuis***	slender orcutt grass	PMPOA4G050	Threatened	Endangered	G3	S3.1	1B.1	
41	***Orcuttia viscida***	Sacramento orcutt grass	PMPOA4G070	Endangered	Endangered	G1	S1.1	1B.1	
42	***Packera layneae***	Layne's ragwort	PDAST8H1V0	Threatened	Rare	G2	S2.1	1B.2	
43	***Phalacrocorax auritus***	double-crested cormorant	ABNFD01020			G5	S3		SC
44	***Phrynosoma coronatum (frontale population)***	Coast (California) horned lizard	ARACF12022			G4G5	S3S4		SC
45	***Pseudobahia bahiifolia***	Hartweg's golden sunburst	PDAST7P010	Endangered	Endangered	G2	S2.1	1B.1	
46	***Rana aurora draytonii***	California red-legged frog	AAABH01022	Threatened		G4T2T3	S2S3		SC
47	***Rana boylii***	foothill yellow-legged frog	AAABH01050			G3	S2S3		SC
48	***Spea hammondii***	western spadefoot	AAABF02020			G3	S3		SC
49	***Taxidea taxus***	American badger	AMAJF04010			G5	S4		SC
50	***Valley Needlegrass Grassland***	Valley Needlegrass Grassland	CTT42110CA			G1	S3.1		
51	***Wyethia reticulata***	El Dorado County mule ears	PDAST9X0D0			G2	S2.2	1B.2	

APPENDIX B.

USFWS Letter

Miginella Subdivision

El Dorado County, CA

United States Department of the Interior
FISH AND WILDLIFE SERVICE
Sacramento Fish and Wildlife Office
2800 Cottage Way, Room W-2605
Sacramento, California 95825

December 27, 2006

Document Number: 061227104524

R. John Little, Ph.D.
Sycamore Environmental Consultants, Inc.
6355 Riverside Blvd, Suite C
Sacramento, CA 95831

Subject: Species List for Mitchell/ Nejatian Subdivision

Dear: Dr. Little

We are sending this official species list in response to your December 27, 2006 request for information about endangered and threatened species. The list covers the California counties and/or U.S. Geological Survey 7½ minute quad or quads you requested.

Our database was developed primarily to assist Federal agencies that are consulting with us. Therefore, our lists include all of the sensitive species that have been found in a certain area *and also ones that may be affected by projects in the area*. For example, a fish may be on the list for a quad if it lives somewhere downstream from that quad. Birds are included even if they only migrate through an area. In other words, we include all of the species we want people to consider when they do something that affects the environment.

Please read Important Information About Your Species List (below). It explains how we made the list and describes your responsibilities under the Endangered Species Act.

Our database is constantly updated as species are proposed, listed and delisted. If you address proposed and candidate species in your planning, this should not be a problem. However, we recommend that you get an updated list every 90 days. That would be March 27, 2007.

Please contact us if your project may affect endangered or threatened species or if you have any questions about the attached list or your responsibilities under the Endangered Species Act. A list of Endangered Species Program contacts can be found at www.fws.gov/sacramento/es/branches.htm.

Endangered Species Division

Federal Endangered and Threatened Species that Occur in or may be Affected by Projects in the Counties and/or U.S.G.S. 7 1/2 Minute Quads you requested

Document Number: 070814095924

Database Last Updated: June 9, 2007

Quad Lists

Listed Species

Invertebrates

Branchinecta lynchi

vernal pool fairy shrimp (T)

Desmocerus californicus dimorphus

valley elderberry longhorn beetle (T)

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 aurora draytonii

California red-legged frog (T)

Reptiles

Thamnophis gigas

giant garter snake (T)

Plants

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)

Candidate Species

Fish

Oncorhynchus tshawytscha

Central Valley fall/late fall-run chinook salmon (C) (NMFS)

Quads Containing Listed, Proposed or Candidate Species:

CLARKSVILLE (511A)

County Lists

El Dorado County

Listed Species

Invertebrates

Desmocerus californicus dimorphus
valley elderberry longhorn beetle (T)

Lepidurus packardi
vernal pool tadpole shrimp (E)

Fish

Oncorhynchus (=Salmo) clarki henshawi
Lahontan cutthroat trout (T)

Oncorhynchus mykiss
Central Valley steelhead (T) (NMFS)

Oncorhynchus tshawytscha
Central Valley spring-run chinook salmon (T) (NMFS)

Amphibians

Ambystoma californiense
California tiger salamander, central population (T)

Rana aurora draytonii
California red-legged frog (T)
Critical habitat, California red-legged frog (X)

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)

Candidate Species

Amphibians

Bufo canorus

Yosemite toad (C)

Rana muscosa

mountain yellow-legged frog (C)

Mammals

Martes pennanti

fisher (C)

Plants

Rorippa subumbellata

Tahoe yellow-cress (C)

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

Important Information About Your Species List

How We Make Species Lists

We store information about endangered and threatened species lists by U.S. Geological Survey 7½ minute quads. The United States is divided into these quads, which are about the size of San Francisco.

The animals on your species list are ones that occur within, or **may be affected by** projects within, the quads covered by the list.

- Fish and other aquatic species appear on your list if they are in the same watershed as your quad or if water use in your quad might affect them.
- Amphibians will be on the list for a quad or county if pesticides applied in that area may be carried to their habitat by air currents.
- Birds are shown regardless of whether they are resident or migratory. Relevant birds on the county list should be considered regardless of whether they appear on a quad list.

Plants

Any plants on your list are ones that have actually been observed in the area covered by the list. Plants may exist in an area without ever having been detected there. You can find out what's in the surrounding quads through the California Native Plant Society's online Inventory of Rare and Endangered Plants.

Surveying

Some of the species on your list may not be affected by your project. A trained biologist or botanist, familiar with the habitat requirements of the species on your list, should determine whether they or habitats suitable for them may be affected by your project. We recommend that your surveys include any proposed and candidate species on your list.

For plant surveys, we recommend using the Guidelines for Conducting and Reporting Botanical Inventories. The results of your surveys should be published in any environmental documents prepared for your project.

Your Responsibilities Under the Endangered Species Act

All animals identified as listed above are fully protected under the Endangered Species Act of 1973, as amended. Section 9 of the Act and its implementing regulations prohibit the take of a federally listed wildlife species. Take is defined by the Act as "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect" any such animal.

> Take may include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding, or shelter (50 CFR §17.3).

Take incidental to an otherwise lawful activity may be authorized by one of two procedures:

- If a Federal agency is involved with the permitting, funding, or carrying out of a project that may result in take, then that agency must engage in a formal consultation with the Service.

  During formal consultation, the Federal agency, the applicant and the Service work together to avoid or minimize the impact on listed species and their habitat. Such consultation would result in a biological opinion by the Service addressing the anticipated effect of the project on listed and proposed species. The opinion may authorize a limited level of incidental take.

- If no Federal agency is involved with the project, and federally listed species may be taken as part of the project, then you, the applicant, should apply for an incidental take permit. The Service may issue such a permit if you submit a satisfactory conservation plan for the species that would be affected by your project.

  Should your survey determine that federally listed or proposed species occur in the area and are likely to be affected by the project, we recommend that you work with this office and the California Department of Fish and Game to develop a plan that minimizes the project's direct and indirect impacts to listed species and compensates for project-related loss of habitat. You should include the plan in any environmental documents you file.

Critical Habitat

When a species is listed as endangered or threatened, areas of habitat considered essential to its conservation may be designated as critical habitat. These areas may require special management considerations or protection. They provide needed

space for growth and normal behavior; food, water, air, light, other nutritional or physiological requirements; cover or shelter; and sites for breeding, reproduction, rearing of offspring, germination or seed dispersal.

Although critical habitat may be designated on private or State lands, activities on these lands are not restricted unless there is Federal involvement in the activities or direct harm to listed wildlife.

If any species has proposed or designated critical habitat within a quad, there will be a separate line for this on the species list. Boundary descriptions of the critical habitat may be found in the Federal Register. The information is also reprinted in the Code of Federal Regulations (50 CFR 17.95). See our critical habitat page for maps.

Candidate Species

We recommend that you address impacts to candidate species. We put plants and animals on our candidate list when we have enough scientific information to eventually propose them for listing as threatened or endangered. By considering these species early in your planning process you may be able to avoid the problems that could develop if one of these candidates was listed before the end of your project.

Species of Concern

The Sacramento Fish & Wildlife Office no longer maintains a list of species of concern. However, various other agencies and organizations maintain lists of at-risk species. These lists provide essential information for land management planning and conservation efforts. More info

Wetlands

If your project will impact wetlands, riparian habitat, or other jurisdictional waters as defined by section 404 of the Clean Water Act and/or section 10 of the Rivers and Harbors Act, you will need to obtain a permit from the U.S. Army Corps of Engineers. Impacts to wetland habitats require site specific mitigation and monitoring. For questions regarding wetlands, please contact Mark Littlefield of this office at (916) 414-6580.

Updates

Our database is constantly updated as species are proposed, listed and delisted. If you address proposed and candidate species in your planning, this should not be a problem. However, we recommend that you get an updated list every 90 days. That would be November 12, 2007.

APPENDIX C.

Species Evaluated Table

Miginella Subdivision

El Dorado County, CA

Special-Status Species from USFWS Letter and CNDDB RareFind Data

Special-Status Species/ Common Name	Federal Status [a]	State Status [a]	Source [c]	Habitat Requirements	Potential to occur in the PSA
Invertebrates					
Branchinecta lynchi Vernal pool fairy shrimp	T	--	1, 2	Occurs in grassy (occasionally mud-bottomed), swale, earth slump, or basalt-flow depression pools in unplowed grasslands (USFWS 1994b).	No. There is no habitat in the PSA.
Desmocerus californicus dimorphus Valley elderberry longhorn beetle	T	--	1, 2	Requires an elderberry shrub (*Sambucus mexicana* or *Sambucus racemosa* var. *microbotrys*) as a host plant (USFWS 1999).	No. There are no elderberry shrubs in the PSA.
Lepidurus packardi Vernal pool tadpole shrimp	E	--	1, 2	Occurs in a variety of vernal pool habitats (USFWS 1994b).	No. There is no habitat in the PSA.
Fish					
Hypomesus transpacificus Delta smelt	T	T	1	Euryhaline (tolerant of a wide salinity range) species that spawns in freshwater dead-end sloughs and shallow edge-waters of channels of the Delta (USFWS 1994a).	No. There is no habitat in the PSA. The PSA is outside the range.
Oncorhynchus (=Salmo) clarki henshawi Lahontan cutthroat trout	T	--	1	There are three populations of this species known: 1) Western Lahontan basin comprised of Truckee, Carson, and Walker river basins; 2) Northwestern Lahontan basin comprised of Quinn River, Black Rock Desert, and Coyote Lake basins; and 3) Humboldt River basin (USFWS 1994c).	No. There is no habitat in the PSA. The PSA is outside the range.
Oncorhynchus mykiss Central Valley steelhead ESU	T	--	1	Spawning occurs in small tributaries on coarse gravel beds in riffle areas (Busby 1996).	No. There is no habitat in the PSA.
Oncorhynchus tshawytscha Central Valley fall/ late fall-run chinook salmon ESU	C	CSC	1	This anadromous species enters the Sacramento/ San Joaquin Basin from July through April and spawns from October through February. Adult female chinook will prepare a spawning bed in a stream with suitable gravel composition, water depth, and velocity (McGinnis 1984).	No. There is no habitat in the PSA.
Oncorhynchus tshawytscha Central Valley spring-run chinook salmon ESU	T	T	1	Adults enter the Sacramento/ San Joaquin Basin from March through May and spawn from late August to mid-October. Adult female chinook will prepare a spawning bed in a stream with suitable gravel composition, water depth, and velocity. After hatching, fry and sub-yearlings return to the ocean and complete their development (McGinnis 1984).	No. There is no habitat in the PSA.

Special-Status Species/ Common Name	Federal Status [a]	State Status [a]	Source [c]	Habitat Requirements	Potential to occur in the PSA
Oncorhynchus tshawytscha Winter-run chinook salmon ESU	E	E	1	Once found throughout the upper Sacramento River basin, the winter-run chinook salmon ESU is now confined to the mainstem Sacramento River below Keswick Dam (Moyle 2002). Adults enter the Sacramento River from December through July and spawn from April to July. Adult female chinook will prepare a spawning bed in a stream with suitable gravel composition, water depth, and velocity (McGinnis 1984). This ESU is believed to be extirpated from the San Joaquin River Basin. However, an intermittent run has been reported in the lower Calaveras River (NMFS 1998).	No. There is no habitat in the PSA.
Amphibians					
Ambystoma californiense California tiger salamander	T	CSC	1	Frequents grassland, oak savannah, and edges of mixed woodland and lower elevation coniferous forest. Spends much time underground in mammal burrows. Usually breeds in temporary ponds such as vernal pools but may also breed in slower parts of streams and some permanent waters (Stebbins 2003). Ponds with large populations of this species' larvae usually contain very few larvae of other amphibian species (Zeiner et al. 1988).	No. There is no habitat in the PSA.
Bufo canorus Yosemite toad	C	CSC	1	Restricted to the vicinities of wet meadows in the central high Sierra. Occurs at elevations of 6,400 to 11,300 ft. Frequents montane wet meadows, but also occurs in seasonal ponds associated with lodgepole pine and sub-alpine conifer forests (Zeiner et al. 1988).	No. There is no habitat in the PSA. The PSA is outside the range.
Rana aurora draytonii California red-legged frog	T, CH	CSC	1, 2	Inhabits quiet pools of streams, marshes, and occasionally ponds. Requires permanent or nearly permanent pools for larval development (Zeiner et al. 1988).	No. There is no habitat in the PSA.
Rana boylii Foothill yellow-legged frog	--	CSC	2	Occurs in woodland and forest areas near streams and rivers, especially near riffles where there are exposed rocks. Requires permanent streams in which to reside (Zeiner et al. 1988).	No. There is no habitat in the PSA.
Rana muscosa Mountain yellow-legged frog	C	CSC	1	Occurs primarily at elevations above 5,900 ft in the Sierra Nevada. Associated with streams, lakes, and ponds in montane riparian, lodgepole pine, sub-alpine conifer, and wet meadow habitat types. Always encountered within a few feet of water (Zeiner et al. 1988).	No. There is no habitat in the PSA. The PSA is outside the range.
Spea (=Scaphiopus) hammondi Western spadefoot	--	CSC	2	Occurs primarily in grasslands, but occasionally occurs in valley-foothill hardwood woodlands (Zeiner et al. 1988). Primarily found in the lowlands frequenting washes, floodplains of rivers, alluvial fans, playas, and alkali flats. Also ranges into foothills and mountains. Prefers areas of open vegetation and short grasses with sandy or gravelly soil (Stebbins 2003). Spends most of the year in underground burrows up to 36 inches deep. Primarily breeds in areas of shallow, temporary pools that form during winter rains, such as vernal pools (Zeiner et al. 1988). Also breeds in quiet streams (Stebbins 2003).	No. There is no habitat in the PSA.

Special-Status Species/ Common Name	Federal Status [a]	State Status [a]	Source [c]	Habitat Requirements	Potential to occur in the PSA
Reptiles					
Emys (=Clemmys) marmorata marmorata Northwestern pond turtle	--	CSC	2	Prefers aquatic habitats with abundant vegetative cover and exposed basking sites such as logs. They are associated with permanent or nearly permanent water in a wide variety of habitat types, normally in ponds, lakes, streams, irrigation ditches, or permanent pools along intermittent streams (Zeiner et al. 1988).	No. There is no habitat in the PSA.
Phrynosoma coronatum frontale Coast (California) horned lizard	--	CSC	2	Prefers sandy washes, flood plains and eolian deposits in valley-foothill hardwood. conifer, juniper, and annual grassland habitats. Needs loose soil for cover and reproduction. Range includes the coast ranges from Sonoma Co. to Mexico, and the Central Valley and Sierra foothills south of Tehama Co. Found chiefly below 1,950 ft in the northern end of its range and 2,950 ft in the south. There is an isolated population in Siskiyou Co. (Zeiner et al. 1988).	No. There is no habitat in the PSA.
Thamnophis gigas Giant garter snake	T	T	1	Habitat requisites consist of 1) adequate water during the snake's active season (early spring through mid-fall) to provide food and cover; 2) emergent, herbaceous wetland vegetation, such as cattails and bulrushes, for escape cover and foraging habitat during the active season; 3) grassy banks and openings in waterside vegetation for basking; and 4) higher elevation uplands for cover and refuge from flood waters during the snake's winter dormant season (Stebbins 2003).	No. There is no habitat in the PSA. The PSA is outside the range.
Birds					
Accipiter cooperii Cooper's hawk	--	CSC	2	Prefers patchy to dense forest habitats near water. Often nests in second-growth conifer stands or deciduous riparian areas, usually near streams. Occurs from 0 - 9,000 ft in elevation (Zeiner et al. 1990a). Nesting is of concern to DFG (2006a).	No. The PSA does not provide nesting habitat for this species.
Agelaius tricolor Tricolored blackbird	--	CSC	2	Forages on the ground in cropland, grassland, and on pond edges. Nests near freshwater, preferably in emergent marsh of dense cattails or tules, but also in thickets of willow, blackberry, and wild rose. Highly colonial, nesting area must be large enough to support a minimum colony of about 50 pairs (Zeiner et al. 1990a). Nesting colonies are of concern to DFG (2006a).	No. The PSA does not provide nesting colony habitat for this species.
Athene cunicularia Burrowing owl	--	CSC	2	Forages day and night in open, dry grassland and desert habitats, and in grass, forb, and open shrub stages of pinyon-juniper and ponderosa pine habitats. Nests in old burrows of ground squirrels or other small mammals (Zeiner et al. 1990a). Burrow sites are of concern to DFG. Also, wintering observations with or without a burrow in SFO, VEN, SON, MRN, NAP and SCR counties (DFG 2006a)	No. Burrows were not observed in the PSA. There is no habitat in the PSA.

Special-Status Species/ Common Name	Federal Status [a]	State Status [a]	Source [c]	Habitat Requirements	Potential to occur in the PSA
Buteo swainsoni Swainson's hawk	--	T	2	An uncommon breeding resident and migrant in CA in the Central Valley, Klamath Basin, Northeastern Plateau, Lassen Co., and Mojave Desert. Nests in open riparian habitat, in scattered trees or in small groves in sparsely vegetated flatlands. Forages in adjacent grasslands, grain or alfalfa fields, or livestock pastures. Feeds on rodents, mammals, reptiles, large arthropods, amphibians, small birds, and, rarely, fish (Zeiner et al. 1990a). Nesting habitat is of concern to DFG (2006a).	No. There is no habitat in the PSA. The PSA is outside the range.
Elanus leucurus White-tailed kite	--	FP	2	Occurs in coastal and valley lowlands in agricultural areas, and in herbaceous and open stages of most habitats. Nests in groves of dense, broad-leafed deciduous trees (Zeiner et al. 1990a). Nesting habitat is of concern to DFG (2006a).	Yes, see text.
Haliaeetus leucocephalus Bald eagle	T	E	1, 2	Occurs along coasts, rivers, and large, deep lakes and reservoirs inland. Requires large, stoutly limbed trees, snags, broken topped trees, or high rock ledges for perches (Zeiner et al. 1990a). Nesting and wintering habitat is of concern to DFG (2006a).	No. The PSA does not provide nesting or wintering habitat for this species.
Laterallus jamaicensis coturniculus California black rail	--	T, FP	2	Occurs in tidal emergent wetlands dominated by pickleweed, or in brackish marshes supporting bulrushes in association with pickleweed. In freshwater, usually found in bulrushes, cattails, and saltgrass. Found in the immediate vicinity of tidal sloughs. They conceal their nests in dense vegetation near the upper limits of tidal flooding (Zeiner et al. 1990a).	No. The PSA does not provide habitat for this species.
Phalacrocorax auritus Double-crested cormorant	--	CSC	2	Found on lakes, fresh and saline estuaries, rivers, and along the coast. Roosts and nests near water on rocks, cliffs, snags, or man-made structures (Zeiner et al. 1990a). Rookery sites are of concern to DFG (2006a).	No. The PSA does not provide rookery site habitat for this species.
Mammals					
Antrozous pallidus Pallid bat	--	CSC	2	This species is locally common in low elevations in CA where it occupies a wide variety of habitats including grasslands, shrub lands, woodlands, and forests. It is a yearlong resident in most of CA where it feeds on a wide variety of insects and arachnids; forages over open ground. Day roosts in caves, crevices, mines, and occasionally buildings and in hollow trees. Prefers rocky outcrops, cliffs, and crevices with access to open habitats for foraging (Zeiner et al. 1990b).	No. There is no habitat in the PSA.

Special-Status Species/ Common Name	Federal Status [a]	State Status [a]	Source [c]	Habitat Requirements	Potential to occur in the PSA
Lasionycteris noctivagans Silver-haired bat	--	CSC	2	Primarily a forest dweller, feeding over streams, ponds, and open brushy areas. Summer distribution includes coastal and montane forests from Oregon border along the coast to San Francisco Bay and along the sierra Nevada and Great Basin region to Inyo County. Also in Stanislaus and Monterey Counties. Summer habitats include coastal and montane coniferous forests, valley foothill woodlands, pinyon-juniper woodlands, and valley foothill and montane riparian habitats below 9,000 ft. May be found anywhere in California during spring and fall migrations (Zeiner et al. 1990b). They are highly dependent upon old growth forest areas for roosts (BCI 2006).	No. There is no habitat in the PSA.
Martes pennanti Fisher	C	CSC	1	Permanent resident of the Sierra Nevada, Cascades, Klamath Mountains, and the North Coast Range. Occurs above 3,200 ft in the Sierra Nevada and Cascades (Jameson and Peeters 2004). Prefers coniferous or deciduous riparian habitats with intermediate to large trees and closed canopies. Dens in tree/ log cavities and brush piles. Active yearlong, mostly nocturnal. Young born February through May (Zeiner et al. 1990b).	No. There is no habitat in the PSA. The PSA is outside the range.
Taxidea taxus American badger	--	CSC	2	Found throughout most of the state, except in the North Coast area. Most abundant in drier open stages of most shrub, forest, and herbaceous habitats, with friable soils. Feeds on fossorial rodents and some reptiles, insects, earthworms, bird eggs, and carrion (Zeiner et al 1990b).	No. There are no dens in the PSA.
Plants		**/ CNPS [b]**			
Allium jepsonii Jepson's onion	--	--/ 1B.2	2	Bulbiferous perennial herb found in serpentine or volcanic soils of chaparral, cismontane woodland, and lower montane coniferous forest from 950 to 4,350 ft in elevation. Blooms May through August (CNPS 2007).	No. The PSA does not contain soils suitable for this species.
Balsamorhiza macrolepis var. *macrolepis* Big-scale balsamroot	--	--/ 1B.2	2	Perennial herb found in chaparral, cismontane woodland, and valley and foothill grassland from 300 to 4,600 ft in elevation. Sometimes found on serpentine soil. Blooms March through June (CNPS 2007).	Yes. See text.
Calystegia stebbinsii Stebbins' morning-glory	E	E/ 1B.1	1, 2	A perennial rhizomatous herb found in serpentine or gabbroic soils in chaparral openings and cismontane woodland from 600 to 2,400 ft in elevation. Known from El Dorado and Nevada cos. Blooms April through July (CNPS 2007).	No. The PSA does not contain soils suitable for this species.
Ceanothus roderickii Pine Hill Ceanothus	E	R/ 1B.2	1, 2	Evergreen shrub found in serpentine or gabbroic soils in chaparral and cismontane woodland from 850 to 2,100 ft in elevation. Blooms May through June (CNPS 2007).	No. The PSA does not contain soils suitable for this species.
Chlorogalum grandiflorum Red Hills soaproot	--	--/ 1B.2	2	Perennial bulbiferous herb found in serpentine or gabbroic soils in chaparral, cismontane woodland, and lower montane coniferous forest from 800 to 3,300 ft in elevation. Known from Amador, Calaveras, El Dorado, Placer, and Tuolumne cos. Blooms May through June (CNPS 2007).	No. The PSA does not contain soils suitable for this species.

Special-Status Species/ Common Name	Federal Status [a]	State Status [a]	Source [c]	Habitat Requirements	Potential to occur in the PSA
Clarkia biloba ssp. *brandegeeae* Brandegee's clarkia	--	--/ 1B.2	2	Annual herb found in chaparral, cismontane woodland, often roadcuts, from 968 to 2,903 ft in elevation. Known from Butte, El Dorado, Nevada, Placer, Sierra, and Yuba cos. Blooms May through July (CNPS 2007).	Yes. See text.
Eryngium pinnatisectum Tuolumne button-celery	--	--/ 1B.2	2	An annual to perennial herb found in mesic cismontane woodland, lower montane coniferous forests, and vernal pools from 220 to 3,000 ft in elevation. Blooms June through August (CNPS 2007).	No. There is no habitat in the PSA.
Fremontodendron californicum ssp. *decumbens* Pine Hill flannelbush	E	R/ 1B.2	1, 2	Evergreen shrub found in rocky areas of serpentine or gabbroic soils in chaparral and cismontane woodland from 1,400 to 2,500 ft in elevation. Known from El Dorado and Nevada cos. Blooms April through July (CNPS 2007).	No. The PSA does not contain soils suitable for this species.
Galium californicum ssp. *sierrae* El Dorado bedstraw	E	R/ 1B.2	1, 2	Perennial herb found in gabbroic soils in chaparral, cismontane woodland, and lower montane coniferous forest from 300 to 1,900 ft in elevation. Known from El Dorado Co. Blooms May through June (CNPS 2007).	No. The PSA does not contain soils suitable for this species.
Gratiola heterosepala Boggs Lake hedge-hyssop	--	E/ 1B.2	2	Annual herb found in clay soils of marshes and swamps on lake margins and vernal pools from 30 to 7,800 ft in elevation. Blooms April through August (CNPS 2007).	No. There is no habitat in the PSA.
Helianthemum suffrutescens Bisbee Peak rush-rose	--	--/ 3.2	2	Evergreen shrub found in chaparral from 150 to 2,750 ft in elevation. Often found on serpentine, gabbroic or Ione soils. Blooms April through June (CNPS 2007).	No. The PSA does not contain soils suitable for this species.
Juncus leiospermus var. *ahartii* Ahart's dwarf rush	--	--/ 1B.2	2	An annual herb found in mesic valley and foothill grassland from 100 to 330 ft in elevation. Known from Butte, Calaveras, Placer, Sacramento, Tehama, and Yuba cos. Blooms March through May (CNPS 2007).	No. There is no habitat in the PSA. The PSA is outside the range.
Legenere limosa Legenere	--	--/ 1B.1	2	Annual herb found in vernal pools from 3 to 2,900 ft in elevation. Known from Alameda, Lake, Napa, Placer, Sacramento, Santa Clara, Shasta, San Joaquin, San Mateo, Solano, Sonoma, Stanislaus, Tehama, and Yuba cos. Blooms April through June (CNPS 2007).	No. There is no habitat in the PSA.
Navarretia myersii ssp. *myersii* Pincushion navarretia	--	--/ 1B.1	2	Annual herb found in vernal pools from 65 to 1,085 ft in elevation. Known from Amador, Calaveras, Merced, Placer, and Sacramento cos. Blooms in May (CNPS 2007).	No. There is no habitat in the PSA.
Orcuttia tenuis Slender orcutt grass	T	E/ 1B.1	2	Annual herb found in vernal pools from 115 to 5,775 ft in elevation. Known from Butte, Lake, Lassen, Modoc, Plumas, Sacramento, Shasta, Siskiyou, and Tehama cos. Blooms May through September, and occasionally into October (CNPS 2007). Occurs primarily on substrates of volcanic origin in pools of at least 0.2 ac (68 FR 46684).	No. There is no habitat in the PSA.
Orcuttia viscida Sacramento orcutt grass	E	E/ 1B.1	2	Annual herb found in vernal pools from 98 to 328 ft in elevation. Known from seven occurrences in Sacramento Co. Blooms April through July (CNPS 2007).	No. There is no habitat in the PSA.

Special-Status Species/ Common Name	Federal Status [a]	State Status [a]	Source [c]	Habitat Requirements	Potential to occur in the PSA
Packera layneae Layne's butterweed (ragwort)	T	R/ 1B.2	1, 2	Perennial herb found in rocky areas with serpentine or gabbroic soils in chaparral and cismontane woodland from 650 to 3,300 ft in elevation. Known from El Dorado, Tuolumne, and Yuba cos. Blooms April through July (CNPS 2007).	No. The PSA does not contain soils suitable for this species.
Pseudobahia bahiifolia Hartweg's golden sunburst	E	E/ 1B.1	2	Annual herb found in clay soils of cismontane woodland, valley and foothill grassland from 49 to 492 ft in elevation. Known from Fresno, Madera, Merced, Stanislaus, Sutter, Tuolumne, and Yuba cos. Many occurrences are very small. Blooms March through April (CNPS 2007).	No. The PSA does not provide habitat for this species.
Rorippa subumbellata Tahoe yellow cress	C	E/ 1B.1	1	Rhizomatous herb found in decomposed granitic beaches of lower montane coniferous forest and meadows and seeps from 6,200 to 6,250 ft in elevation. Known only from Lake Tahoe area (El Dorado, Nevada, and Placer cos.). Blooms May through September (CNPS 2007).	No. The PSA is outside the range of this species.
Wyethia reticulata El Dorado County mule ears	--	--/ 1B.2	2	Perennial rhizomatous herb found in clay or gabbroic soils in chaparral, cismontane woodland, and lower montane coniferous forest from 600 to 2,050 ft in elevation. Known from El Dorado Co. Blooms May through July (Ayres and Ryan 1999, CNPS 2007).	No. The PSA does not contain soils suitable for this species.
Natural Communities					
Central Valley drainage hardhead/ squawfish stream	--	--	2	Hardhead occur in low- to mid-elevation streams and the mainstem Sacramento River. Sacramento pikeminnow (squawfish) occur in similar streams with clear water (Moyle 2002).	No. This community type does not occur in the PSA.
Northern hardpan vernal pool	--	--	2	A low emergent wetland community dominated by annual herbs and grasses on very acidic soils with an iron-silicon cemented hardpan. Evaporation (not runoff) dries pools in spring creating concentric bands of vegetation. Occurs primarily on old alluvial terraces on the east side of the Great Valley from Tulare or Fresno County north to Shasta County (Holland 1986).	No. This community type does not occur in the PSA.
Northern volcanic mud flow vernal pool	--	--	2	A very low, open mixture of amphibious annual herbs and grasses. Pools are typically small, covering at most a few square meters. Restricted to irregular depressions in shallow soil in tertiary pyroclastic flows. Pools form in small depressions following winter rains. Characteristic species include: *Downingia bicornuta, Lasthenia glaberrima, Limnanthes douglasii rosea, Navarretia tagetina*. Distribution is scattered on flat-topped mesas along the Sierran foothills, mostly between 500-2000 ft elevation in the Blue Oak Woodland and Digger-Pine Chaparral Woodland (Holland 1986).	No. This community type does not occur in the PSA.

Special-Status Species/ Common Name	Federal Status [a]	State Status [a]	Source [c]	Habitat Requirements	Potential to occur in the PSA
Valley needlegrass grassland	--	--	2	Dominated by the perennial tussock-forming bunchgrass *Nassella pulchra* with annuals occurring between bunches. Usually on fine-textured (often clay) soils, moist or waterlogged in winter, but very dry in summer. Often interdigitates with Oak Woodlands on moister, better-drained sites. Historically extensively occurred around Sacramento, San Joaquin, and Salinas valleys, as well as the Los Angeles Basin. Range is now greatly reduced (Holland 1986).	No. This community type does not occur in the PSA.

[a] **Status:** **E** = Endangered; **T** = Threatened; **P** = Proposed; **C** = Candidate; **R** = California Rare; ***** = Possibly extinct;
CSC = DFG Species of Special Concern; **FP** = DFG Fully Protected; **Prot** = DFG Protected; **CH** = Critical habitat designated.

[b] **CNPS (plants):** **1A** = Presumed Extinct in CA; **1B** = Rare or Endangered (R/E) in CA and elsewhere; **2** = R/E in CA and more common elsewhere; **3** = Need more information; **4** = Plants of limited distribution; **0.1** = Seriously endangered in CA; **0.2** = Fairly endangered in CA; **0.3** = Not very endangered in CA.

[c] **Source:** **1** = USFWS letter. **2** = CNDDB. **3** = Observed or included by Sycamore Environmental.

APPENDIX D.

Plant and Wildlife Species Observed

Miginella Subdivision

El Dorado County, CA

Plant Species Observed

Family	Scientific Name	Common Name	*
CONIFERS			
Pinaceae	*Pinus sabiniana*	Gray pine	N
DICOTS			
Anacardiaceae	*Toxicodendron diversilobum*	Western poison oak	N
Apiaceae	*Daucus* sp.		--
	Sanicula crassicaulis	Sanicle	N
	Torilis arvensis	Spreading hedgeparsley	I
Asteraceae	*Baccharis pilularis*	Coyote brush	N
	Carduus pycnocephalus	Italian thistle	I
	Conyza sp.		--
	Gnaphalium sp.	Cudweed	--
Caprifoliaceae	*Lonicera* sp.	Honeysuckle	N
Euphorbiaceae	*Eremocarpus setigerus*	Dove weed; Turkey mullein	N
Fabaceae	*Lupinus* sp.		--
	Medicago sp.	Burclover	I
	Trifolium hirtum	Rose clover	I
	Vicia sp.	Vetch	--
Fagaceae	*Quercus douglasii*	Blue oak	N
	Quercus wislizenii var. *wislizenii*	Interior live oak	N
Gentianaceae	*Centaurium muehlenbergii*	Centaury	N
Geraniaceae	*Erodium botrys*	Filaree	I
	Erodium cicutarium	Filaree	I
	Geranium dissectum	Cranesbill	I
	Geranium molle	Cranesbill	I
Hypericaceae	*Hypericum perforatum*	Klamathweed	I
Onagraceae	*Epilobium* sp.	Fireweed	N
	Clarkia sp.		N
Polemoniaceae	*Navarretia* sp.[1]		N
Polygonaceae	*Rumex pulcher*	Fiddle dock	I
	Rumex sp.	Dock	I
Portulacace	*Claytonia perfoliata*	Miner's lettuce	N
	Portulaca sp.		--
Ranunculaceae	*Ranunculus muricatus*	Buttercup	I
Rhamnaceae	*Ceanothus cuneatus* var. *cuneatus*	Buck brush	N
	Rhamnus sp.		--
Rosaceae	*Heteromeles arbutifolia*	Toyon	N
Rubiaceae	*Sherardia arvensis*	Field madder	I
Scrophulariaceae	*Kickxia* sp.		--

MONOCOTS			
Cyperaceae	*Cyperus* sp.	Nutsedge	--
Liliaceae	*Chlorogalum pomeridianum*	Soap plant	N
Poaceae	*Briza maxima*	Quaking grass	I
	Briza minor	Quaking grass	I
	Bromus hordeaceus	Soft brome	I
	Cynosurus echinatus	Hedgehog dogtail	I
	Hordeum marinum ssp. *gussoneanum*	Mediterranean barley	I
	Lolium multiflorum	Italian ryegrass	I
	Taeniatherum caput-medusae	Medusa head	I

* N = Native to CA; I = Introduced; -- = Undetermined

[1] An upland specimen, not *Navarretia myersii ssp. myersii.*

Wildlife Species Observed

Common Name	**Scientific Name**
BIRDS	
Acorn woodpecker	*Melanerpes formicivorus*
Red-tailed hawk	*Buteo jamaicensis*
Western scrub jay	*Aphelocoma californica*
AMPHIBIANS	
Pacific treefrog [1]	*Hyla regilla*
MAMMALS	
Mule deer/ Black – tailed Deer	*Odocoileus hemionus*

[1] Identified by vocalization

APPENDIX E.

Photographs

Miginella Subdivision

El Dorado County, CA

Photo 1. View of the Blue oak-Interior live oak/ Grass biological community.

Photo 2. View of the Blue oak-Interior live oak/ Vineyard biological community.

Photo 3. View of the channel at the southwest corner of the PSA (arrow). Wolf Creek Road is in the background.

Photo 4. View of the seep (arrow) near the Kaila Way cul-de-sac.

Photo 5. View of driveway from Kaila Way to the existing residence through the vineyard. The arrow points to the segment of an ephemeral channel above the driveway.

Photo 6. View of existing residence surrounded by vineyard.

APPENDIX F.

Applicable Laws and Regulations

Miginella Subdivision

El Dorado County, CA

A. Summary

Studies were conducted to document baseline information in support of the analyses necessary for compliance with federal and State laws, regulations, policies, and executive orders pertaining to biological and wetlands resources which include:

- National Environmental Policy Act (NEPA) (42 U.S.C. 4321 et seq.);
- Section 10 of the Rivers and Harbors Act (33 U.S.C. 401 et seq.);
- Section 404 of the Clean Water Act (33 U.S.C. 1251-1376);
- Section 401 of the Clean Water Act (33 U.S.C. 1341, administered by the State of California);
- Section 402 of the Clean Water Act (33 U.S.C. 1342, administered by the State of California);
- Federal Endangered Species Act (16 U.S.C. 1531-1543);
- Fish and Wildlife Coordination Act (16 U.S.C. 661-666);
- National Wild and Scenic Rivers Act (16 U.S.C. 1271-1287);
- Migratory Bird Treaty Act of 1918 (16 U.S.C. 703-711);
- Bald Eagle Protection Act (16 U.S.C. 668);
- Magnuson-Stevens Fishery Conservation and Management Act (as amended through 11 October 1996);
- Executive Order 11990, Protection of Wetlands (24 May 1977);
- Executive Order 13112, Invasive Species (3 February 1999);
- California Environmental Quality Act (P.R.C. 21000 et seq.);
- California Wild and Scenic Rivers Act (P.R.C. 5093.50 et seq.);
- Oak Woodlands Protection (P.R.C. 21083.4)
- California Fish and Wildlife Protection and Conservation (F.G.C. Division 2, Chapter 6 §1600-1616);
- California Endangered Species Act (F.G.C. 2050 et seq.);
- Native Plant Protection Act (F.G.C. 1900-1913);
- State Water Resources Control Board Water Quality Order 2004-0004;
- Executive Order W-59-93 California Wetlands Conservation Policy (23 August 1993).

B. Federal

1. Endangered Species Act

Provisions of the federal Endangered Species Act (FESA), as amended (16 USC 1531), protect federally listed threatened and endangered wildlife species and their habitats from unlawful take. Take under FESA includes activities that knowingly "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct." The U.S. Fish and Wildlife Service's (USFWS) regulations define harm to include some types of "significant habitat modification or degradation." The U.S. Supreme Court ruled on 29 June 1995, that "harm" may include habitat modification "...where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding or sheltering."

For projects with a federal nexus, Section 7 of the FESA requires that federal agencies, in consultation with USFWS or the National Marine Fisheries Administration (NMFS), use their authorities to further the purpose of FESA and to ensure that their actions are not likely to jeopardize the continued existence of listed plant and wildlife species or result in destruction or adverse modification of critical habitat. Section 10(a)(1)(B) allows non-federal entities to obtain permits for incidental take of threatened or endangered wildlife species through consultation with USFWS and NMFS. Federally listed plants do not require Section 10(a)(1)(B) consultation.

2. Federal Migratory Bird Treaty Act

Migratory birds are protected under the federal Migratory Bird Treaty Act (MBTA) of 1918 (16 U.S.C. 703-711). The MBTA makes it unlawful to take, possess, buy, sell, purchase, or barter any migratory bird listed in 50 CFR Part 10 including feathers or other parts, nests, eggs, or products, except as allowed by implementing regulations (50 CFR 21). All migratory bird species are protected by the MBTA. The direct injury or death of a migratory bird, due to construction activities or any construction-related disturbance that causes nest abandonment, abandonment of nestlings, or forced fledging would be considered a take under federal law.

3. Magnuson-Stevens Fishery Conservation and Management Act

Under the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act), the Pacific Fisheries Management Council (PMFC) manages salmon fisheries through the designation of essential fish habitat (EFH) and monitoring threats to that habitat from both fishing and non-fishing activities. Salmon EFH includes all those streams, lakes, ponds, wetlands, and other water bodies currently or historically accessible to salmon in Washington, Oregon, Idaho, and California. Salmon EFH excludes areas upstream of longstanding naturally impassible barriers (i.e. natural waterfalls in existence for several hundred years), but includes aquatic areas above all artificial barriers except specifically named impassible dams. Essential habitat types identified by the NMFS for salmon include: juvenile rearing areas, juvenile migration corridors, areas for growth and development into adulthood, adult migration corridors, and spawning areas (65 FR 7773). Federal agencies are required to consult with NMFS if an activity authorized by the federal lead agency has the potential to adversely affect EFH. State, local agencies, and private parties are not required to consult with NMFS if there is not a federal action, e.g., a permit or funding, involved with the project.

4. Section 404 Clean Water Act

The objective of the Clean Water Act (CWA 1977, as amended) is to restore and maintain the chemical, physical, and biological integrity of the Nation's waters. Discharge of fill material into "waters of the U.S.," including wetlands, is regulated by the U.S. Army Corps of Engineers (Corps) under Section 404 of the Clean Water Act (33 USC 1251-1376). Corps regulations implementing Section 404 define "waters of the U.S." to include intrastate waters, including lakes, rivers, streams, wetlands, and natural ponds, the use, degradation or destruction of which could affect interstate or foreign commerce.

Wetlands are defined for regulatory purposes as "areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions" (33 CFR 328.3; 40 CFR 230.3). The placement of structures in "navigable waters of the U.S." is also regulated by the Corps under Section 10 of the federal Rivers and Harbors Act (33 USC 401 et seq.).

In 1987 the Corps published a manual that standardized the manner in which wetlands were to be delineated nationwide. To determine whether areas that appear to be wetlands are in fact wetlands, a delineation must be performed in accordance with the methodology identified in the 1987 Corps

Manual. Under normal circumstances, positive indicators from three parameters, (1) wetland hydrology, (2) hydrophytic vegetation, and (3) hydric soils must be present to classify a feature as a wetland community.

The U.S. Supreme Court, in its decision in Rapanos et ux., et. al. v. United States (19 June 2006), left open the possibility that certain wetlands and waters may not be regulated under Section 404 of the Clean Water Act unless there is a "significant nexus" to traditionally navigable waters of the U.S. The Corps and U.S. Environmental Protection Agency (EPA) have not released new guidance for how to evaluate whether ephemeral or intermittent waters have a "significant nexus." The Sacramento District of the Corps is currently using the presence of a surface water connection, no matter how distant, to establish "adjacency." As a result, the District regulates most ephemeral and intermittent channels as "waters of the U.S."

Projects that discharge into federally regulated waters require a section 404 CWA permit. The amount of discharge and the type of project determine which process the Corps will use to authorize the discharge. Nationwide Permit 29 (NWP 29) authorizes residential developments that discharge into less than 0.5 acre and NWP 39 authorizes Commercial and Institutional developments. The Individual Permit process is used for projects that exceed the discharge limit identified for each specific NWP permit. The Corps requires that projects avoid discharge to the maximum extent practicable and usually requires Compensatory Mitigation to ensure that permitted projects are consistent with its "no over all net loss" policy.

5. Section 401 Clean Water Act

Section 401 CWA requires the federal permitting agency to obtain certification from the state in which the project activities occur that the action will not result in the discharge of pollutants into waters of the state. Because permits issued by the Corps authorize discharge into waters pursuant to section 404 CWA, a section 401 Water Quality Certification is required. In California, the authority to issue Water Quality Certifications has been delegated to the State Water Resources Control Board and the local Regional Water Quality Control Board (RWQCB) processes the requests for Certification.

6. Section 402 Clean Water Act

The CWA prohibits point source discharge of pollutants into waters of the U.S., unless the discharge is in compliance with a National Pollution Discharge Elimination System Permit (NPDES). Section 402(p) of CWA establishes a permit under the NPDES program for municipal discharges of storm water. Ground disturbing construction activities, such as grading, in excess of one acre requires an NPDES Phase II permit from the RWQCB. The preparation of a Stormwater Pollution Prevention Plan (SWPPP) is a requirement of the NPDES Phase II permit. Hazardous material spill prevention and spill cleanup Best management practices (BMPs), set-forth by the California Stormwater Task Force, March 1993, are included in the SWPPP. Adherence to the SWPPP minimizes erosion during construction.

7. Bald Eagle Protection Act

The bald eagle and golden eagle are federally protected under the Bald Eagle Protection Act (16 U.S.C. 668-668c). It is illegal to take, possess, sell, purchase, barter, offer to sell or purchase or barter, transport, export or import at any time or in any manner a bald or golden eagle, alive or dead; or any part, nest or egg of these eagles unless authorized by the Secretary of the Interior. Violations are subject to fines and/or imprisonment for up to one year. Active nest sites are also protected from disturbance during the breeding season.

B. State

1. California Endangered Species Act

Under the California Endangered Species Act (CESA), the California Department of Fish and Game (DFG) has the responsibility for maintaining a list of endangered and threatened species (California Fish and Game Code 2070). The DFG maintains a list of "candidate species" which are species that DFG formally notices as being under review for addition to the list of endangered or threatened species. DFG also maintains lists of "species of special concern" which serve as species "watch lists." Pursuant to the requirements of CESA, the local lead agency reviewing a discretionary project within its jurisdiction must determine whether any state listed endangered or threatened species occur on the project site and determine whether the proposed activities will result in take of the species. Take of protected species incidental to otherwise lawful management activities may be authorized under California Fish and Game Code Section 2081. Authorization from DFG would be in the form of an Incidental Take Permit.

Pursuant to CEQA, the local lead agency must evaluate the significance of impacts to CESA endangered or threatened species resulting to the physical modification of their habitat. The DFG, as the Responsible Agency, reviews the evaluation of potential impacts and may comment on whether mitigation measures required by the lead agency to reduce the significance of impacts are sufficient and recommend additional mitigation measures, if necessary.

2. Executive Order W-59-93 California Wetlands Conservation Policy

Governor Pete Wilson issued Executive Order W-59-93 California Wetlands Conservation Policy on 23 August 1993. It requires that projects that are authorized by State agencies must result in no net loss of wetlands. It also calls for the State to assume stewardship of Section 404 CWA on an incremental basis, beginning with administration of the NWP program. The three stated goals of Executive Order W-59-93:

- Ensure no overall net loss and achieve a long-term net gain in the quantity, quality, and permanence of wetlands acreage and values in California in a manner that fosters creativity, stewardship and respect for private property.
- Reduce procedural complexity in the administration of State and Federal wetlands conservation programs.
- Encourage partnerships to make landowner incentive programs and cooperative planning efforts the Primary focus of wetlands conservation and restoration.

3. Section 1600-1616 Fish and Game Code

State and local public agencies are subject to Section 1602 of the California Fish and Game Code, which governs construction activities that will substantially divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream, or lake designated by the DFG. Under Section 1602, a discretionary Stream Alteration Agreement permit must be issued by DFG prior to the initiation of construction activities within lands under DFG jurisdiction.

4. Native Plant Protection Act

The Native Plant Protection Act (California Fish and Game Code Section. 1900-1913) prohibits the taking, possessing, or sale within the state of any plants with a state designation of rare, threatened, or endangered (as defined by DFG). An exception to this prohibition in the Act allows landowners, under specified circumstances, to take listed plant species, provided that the owners first notify DFG and give that state agency at least 10 days to come and retrieve the plants before they are plowed under or otherwise destroyed. Fish and Game Code, § 1913 exempts from take prohibition "the removal of endangered or rare native plants from a canal, lateral ditch, building site, or road, or other right of way."

5. Section 3503.5 Fish and Game Code

Under Section 3503.5 of the California Fish and Game Code it is unlawful to take, possess, or destroy any birds in the orders of Falconiformes or Strigiformes (birds of prey) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or any regulation adopted pursuant thereto.

6. Section 3505 Fish and Game Code

California statutes accord "fully protected" status to a number of birds, mammals, reptiles, and amphibians specifically identified in the Fish and Game Code. These species cannot be taken, even with an incidental take permit.

7. Section 21083.4 Public Resources Code

California Public Resources Code (PRC) Section 21083.4 requires counties to evaluate if the conversion of oak woodlands will result in a significant effect on the environment. If a county determines that there may be a significant effect to oak woodlands, the county shall require one or more of the following oak woodlands mitigation alternatives:

> (1) Conserve oak woodlands, through the use of conservation easements.
>
> (2) (A) Plant an appropriate number of trees, including maintaining plantings and replacing dead or diseased trees. (B) The requirement to maintain trees pursuant to this paragraph terminates seven years after the trees are planted. (C) Mitigation pursuant to this paragraph shall not fulfill more than one-half of the mitigation requirement for the project. (D) The requirements imposed pursuant to this paragraph also may be used to restore former oak woodlands.
>
> (3) Contribute funds to the Oak Woodlands Conservation Fund, as established under subdivision (a) of Section 1363 of the Fish and Game Code, for the purpose of purchasing oak woodlands conservation easements, as specified under paragraph (1) of subdivision (d) of that section and the guidelines and criteria of the Wildlife Conservation Board. A project applicant that contributes funds under this paragraph shall not receive a grant from the Oak Woodlands Conservation Fund as part of the mitigation for the project."
>
> (4) Other mitigation measures developed by the county.

C. Other Special-Status Species Classifications

Plant or wildlife species on the California list of Species of Special Concern (CSC) as defined by DFG, plant species on lists 1B and 2 of the California Native Plant Society (CNPS 2005), and active raptor nests are included in this classification. The CEQA Guidelines (Section 15380) also provides that a plant or animal may be treated as rare or endangered even if it has not been placed on an official list provided that it meets the criteria for listing.

D. El Dorado County General Plan Conservation Policies

In addition to federal and state regulations, the 2004 El Dorado County General Plan defines certain goals, objectives, and policies that aim to protect natural resources:

- Objective 7.4.1 of the General Plan states that the County will protect state and federally recognized rare, threatened, or endangered species and their habitats consistent with federal and state laws.
- Policy 7.3.3.4 – Requires developments to have 50-foot setbacks from intermittent features and 100-foot setbacks from perennial waters.
- Policy 7.4.1.1 - The County shall continue to provide for the permanent protection of the eight sensitive plant species known as the Pine Hill endemics and their habitat through the establishment of ecological preserves consistent with County Code Chapter 17.71 and the USFWS's Gabbro Soil Plants for the Central Sierra Nevada Foothills Recovery Plan (USFWS 2002).
- Policy 7.4.1.5 - Species, habitat, and natural community preservation/conservation strategies shall be prepared to protect special status plant and animal species and natural communities and habitats when discretionary development is proposed on lands with such resources unless it is determined that the resources exist, and either are or can be protected, on public lands or private Natural Resource lands.
- Policy 7.4.1.6 – All development projects involving discretionary review shall be designed to avoid disturbance or fragmentation of important habitats to the extent reasonably feasible. Where avoidance is not possible, the development shall be required to fully mitigate the effects of important habitat loss and fragmentation. Mitigation shall be defined in the Integrated Natural Resources Management Plan.
- Policy 7.4.4.4: The County shall apply tree canopy coverage standards to discretionary permit review applicable to oak woodland habitats. Parcels having canopy cover by trees of at least 10 percent, as determined from base line aerial photography or by site survey performed by a qualified licensed arborist or botanist, are subject to canopy coverage retention or replacement standards shown in Table 1.
- Policy 7.5.1.4 - Proposed rare, threatened, or endangered species preserves, as approved by the County Board of Supervisors, shall be designated Ecological Preserve (-EP) overlay on the General Plan land use map.
- Policy 7.4.5.2 - States that it is the County's policy to preserve native oak trees whenever possible and to that end calls for the preparation and implementation of an Oak Tree Preservation Ordinance. The Ordinance would include a permit process for ministerial, discretionary, and commercial oak tree removal. The Ordinance would identify mitigation for oak tree removal and penalties for noncompliance.

SYCAMORE ENVIRONMENTAL CONSULTANTS, INC.
6355 Riverside Blvd., Suite C, Sacramento, CA 95831
916/ 427-0703 Fax 916/ 427-2175

9 July 2008

Ms. Marie Mitchell
c/o Mr. Shan Nejatian
601 Blue Oak Court
El Dorado Hills, CA 95762-3926

916/ 847-9178 phone

Subject: Biological Resources Update for the Miginella Subdivision Project, El Dorado County, CA.

Dear Ms. Mitchell:

Sycamore Environmental previously prepared a Biological Resources Evaluation (BRE; 14 August 2007) and an Oak Canopy Analysis and Tree Replacement Plan (14 August 2007) for the project. The purpose of this update letter is to report the results of a seasonal botanical survey and to revise the oak canopy analysis based on more recent project design. Also, a mitigation measure is proposed for birds of prey, birds listed under the federal Migratory Bird Treaty Act, and white-tailed kite (*Elanus leucurus*).

Botanical Survey

The BRE concluded that Brandegee's clarkia (*Clarkia biloba* ssp. *brandegeeae*) and big-scale balsamroot (*Balsamorhiza macrolepis* var. *macrolepis*) had the potential to occur in the project study area (PSA). The fieldwork for the BRE was conducted in January 2007, outside of the evident and identifiable period for the two plants. I conducted a botanical survey of the PSA, and an adjacent easement, on 18 June 2008, during the published blooming period of both plants (CNPS 2008).

The botanical survey, in conjunction with the BRE, followed the guidelines set forth by USFWS (1996) and DFG (2000). Scientific nomenclature follows Hickman, ed. (1993). A reference population of *C. biloba* was visited on 18 June 2008. The reference population is located approximately 2.1 mi northeast of the PSA at an elevation of approximately 480 ft above sea level. Some *C. biloba* plants were in bloom at the reference population.

Approximately 4 person-hours were spent in the field during the survey. The PSA is an open canopy oak woodland with an herbaceous understory containing few shrubs. Systematic transects were walked while searching for plants. The vineyard areas of the PSA were also searched. The landscaping around the existing residence was not searched as this area does not provide potential habitat for special-status plants. An additional approximately 2 hours were spent keying plant specimens collected in the field. All plants found in the PSA were identified to the taxonomic level necessary to determine legal status. A list of all plant species observed in the PSA, including plants observed in January 2007, is in Attachment B. Brandegee's clarkia was not observed in the project site. The project will have no impact on Brandegee's clarkia.

Oak Canopy Analysis Update

Revised project design dated 24 June 2008 was provided by Thorne & Associates, Inc. The revised design was aligned with the existing oak canopy layer from the 14 August 2007 analysis. The resulting map of existing and proposed removed oak canopy is in Attachment A.

The existing oak canopy at the 25.51 ac site comprises an estimated 15.39 ac. Existing oak canopy covers 60.3% of the site. General Plan policy 7.4.4.4 requires 70% oak canopy retention on sites with 60-79% existing oak canopy. The project would remove an estimated 3.78 ac of oak canopy. The project oak canopy retention rate is 75.4% ([15.39 – 3.78]/15.39). The project meets the oak canopy retention standard of policy 7.4.4.4, Option A.

The County Oak Woodland Management Plan was adopted on 6 May 2008, after the initial oak canopy analysis. The project proposes to mitigate for the removal of 3.78 ac of oak canopy by paying into the County Oak Woodland Conservation Fund. The following table calculates the estimated Option B fee. The ultimate determination of the fee calculation methods for any particular project is subject to County discretion.

Table of Option B Fee Calculation

	Removed Oak Canopy Acreage	**Mitigation Ratio**	**Option B fee per acre**	**Fee**
Within Option A 70% retention threshold (up to 4.617 ac)	3.78	1:1	$4,700	$17,766

Bird Mitigation

The BRE concluded the PSA provided potential nesting habitat for birds of prey, birds listed under the federal Migratory Bird Treaty Act, and white-tailed kite. The project could remove an active bird nest or cause an active bird nest to be abandoned. The loss of an active bird nest prior to the fledging of young is a potentially significant impact. The following mitigation measure is proposed to reduce the impact to less than significant.

> A bird of prey (orders Falconiformes and Strigiformes, including white-tailed kite) or bird listed under the MBTA could establish a nest prior to construction. The nesting season is generally 1 February through 31 August. An active nest is one which contains eggs or unfledged young.
>
> If construction begins outside the 1 February to 31 August breeding season, there will be no need to conduct a preconstruction survey for active nests. If a nest becomes active after construction has begun, then the bird is considered adapted to construction disturbance.
>
> If construction is scheduled to begin between 1 February and 31 August then a qualified biologist shall conduct a preconstruction survey for active nests at the construction site and within 250 ft of the construction site from publicly accessible areas within 30 days prior to construction. If no active nest of a bird of prey or MBTA bird is found, then no further mitigation measures are necessary.
>
> If an active nest of a bird of prey or MBTA bird is found, then the biologist shall flag a minimum 250-foot Environmentally Sensitive Area (ESA) around the nest if the nest is of a bird of prey, and a minimum 100-foot ESA around the nest if the nest is of an MBTA bird other than a bird of prey.
>
> No construction activity shall be allowed in the ESA until the biologist determines that the nest is no longer active, or unless monitoring determines that a smaller buffer will protect the active nest.
>
> The buffer may be reduced if the biologist monitors the construction activities and determines that no disturbance to the active nest is occurring. The size of suitable buffers depends on the species of bird, the location of the nest relative to the project, project activities during the time the nest is active, and other site specific conditions.
>
> *Timing/Implementation: Preconstruction survey conducted no more than 30 days prior to clearing and grubbing if construction begins during the nesting season (1 February – 31 August).*
>
> *Enforcement/Monitoring: El Dorado County Planning*

We appreciate the opportunity of assisting you with this project. If you have any questions please contact me or Jeffery Little.

Yours truly,

Chuck Hughes, M.S.
Botanist/ Biologist
(ISA Certified Arborist WE-6885A)

c: Mr. Jonathan Fong. El Dorado County Development Services Department.
Mr. Mike Smith. Thorne & Associates, Inc.

Attachment A. Oak Canopy Impacts
Attachment B. Plant Species Observed

Literature Cited

California Department of Fish and Game (DFG). May 2000. Guidelines for assessing the effects of proposed projects on rare, threatened, and endangered plants and natural communities. Sacramento, CA. http://www.dfg.ca.gov/bdb/pdfs/guideplt.pdf

California Native Plant Society (CNPS). Accessed 3 July 2008. Inventory of rare and endangered plants (online edition, v7-08b 4-2-08). California Native Plant Society, Sacramento, CA. <http://www.cnps.org/inventory>

El Dorado County. Adopted 6 May 2008. Oak woodland management plan. El Dorado County Development Services Department—Planning Services, Placerville, CA.

Hickman, J., ed. 1993. The Jepson manual: Higher plants of California. University of California Press, Berkeley, CA.

U.S. Fish and Wildlife Service (USFWS). 1996. Guidelines for conducting and reporting botanical inventories for federally listed, proposed and candidate plants. Sacramento Fish and Wildlife Office, Sacramento, CA. <http://sacramento.fws.gov/es/documents/Listed_plant_survey_guidelines.pdf>

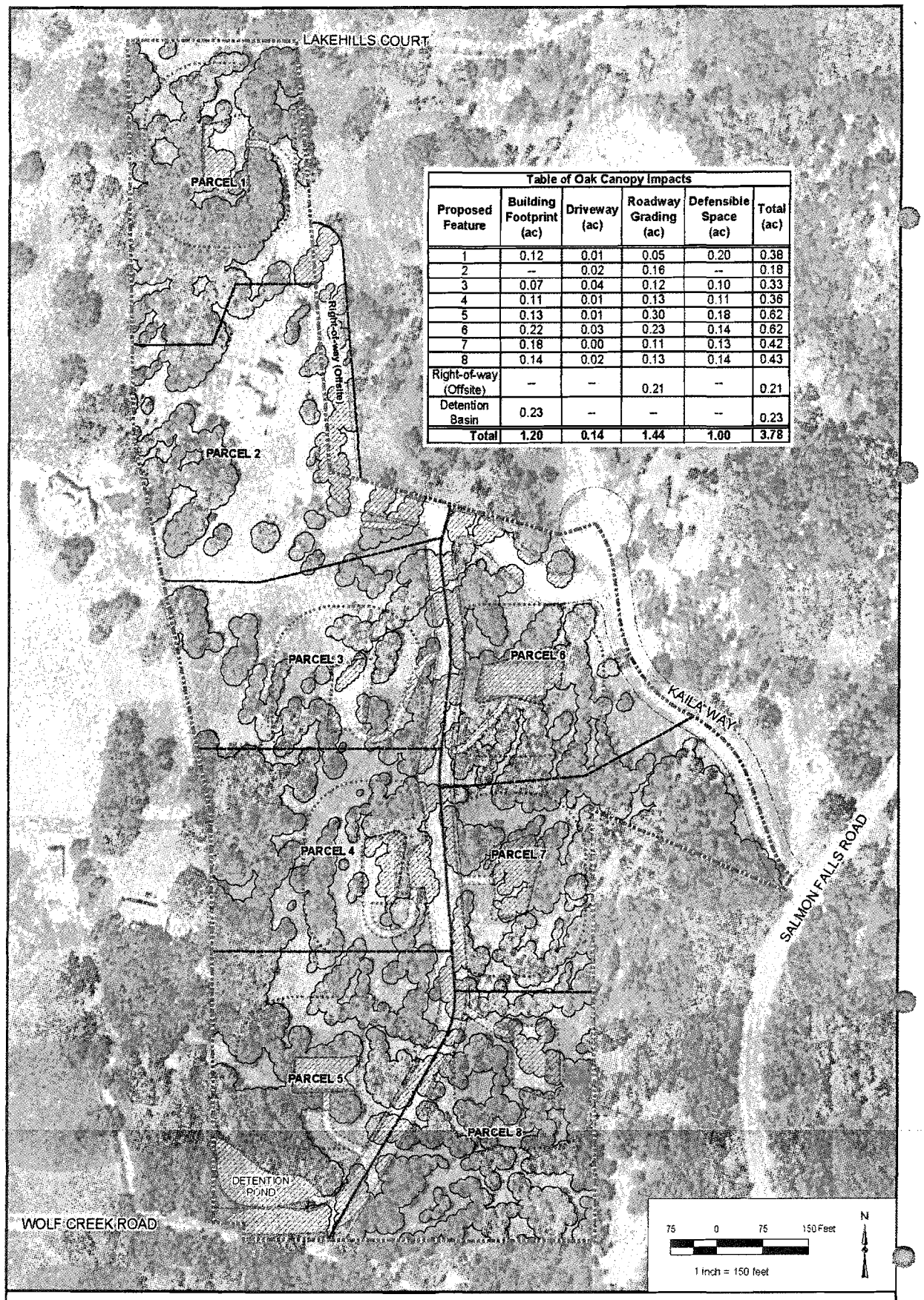


Table of Oak Canopy Impacts					
Proposed Feature	Building Footprint (ac)	Driveway (ac)	Roadway Grading (ac)	Defensible Space (ac)	Total (ac)
1	0.12	0.01	0.05	0.20	0.38
2	--	0.02	0.16	--	0.18
3	0.07	0.04	0.12	0.10	0.33
4	0.11	0.01	0.13	0.11	0.36
5	0.13	0.01	0.30	0.18	0.62
6	0.22	0.03	0.23	0.14	0.62
7	0.18	0.00	0.11	0.13	0.42
8	0.14	0.02	0.13	0.14	0.43
Right-of-way (Offsite)	--	--	0.21	--	0.21
Detention Basin	0.23	--	--	--	0.23
Total	**1.20**	**0.14**	**1.44**	**1.00**	**3.78**

Miginella Subdivision
El Dorado county, CA
9 July 2008

Attachment A.
Oak Canopy Impacts

- Project Boundary (25.51 acres)
- Proposed Parcel Boundaries
- Existing Oak Canopy (15.39 acres)
- Oak Canopy Removed by grading (2.78 acres)
- Proposed Building Footprint
- Proposed Driveway
- 100 ft Defensible Space

SYCAMORE Environmental Consultants, Inc.

Drawings:
Miginella Revised Grading G-24-08.dwg
by: Gene Thorne & Associates
Aerial Photograph:
1 May 2006
Copyright © 2006 GlobeXplorer,
A DigitalGlobe Company. All rights reserved.

OG140Miginella_CanopyAnalysis_v3.mxd

ATTACHMENT B.

Plant Species Observed

Miginella Subdivision

El Dorado County, CA

Family	Scientific Name	Common Name	*
FERNS & ALLIES			
Pteridaceae	*Pentagramma triangularis*	Goldback fern	N
CONIFERS			
Pinaceae	*Pinus sabiniana*	Gray pine	N
DICOTS			
Amaranthaceae	*Amaranthus albus*	Tumbleweed	I
Anacardiaceae	*Toxicodendron diversilobum*	Western poison oak	N
Apiaceae	*Daucus pusillus*		N
	Sanicula crassicaulis	Sanicle	N
	Torilis arvensis		I
Aristolochiaceae	*Aristolochia californica*	Dutchman's pipe	N
Asclepiadaceae	*Asclepias* sp.	Milkweed	N
Asteraceae	*Anthemis cotula*	Mayweed	I
	Baccharis pilularis	Coyote brush	N
	Carduus pycnocephalus	Italian thistle	I
	Centaurea solstitialis	Yellow star-thistle	I
	Chondrilla juncea	Skeleton weed	I
	Conyza sp.		--
	Gnaphalium stramineum	Cudweed	N
	Holocarpha sp.		N
	Lactuca serriola	Prickly lettuce	I
	Leontodon taraxacoides	Hawkbit	I
	Madia sp.	Tarweed	N
	Micropus californicus	Slender cottonweed	N
	Psilocarphus tenellus ssp. *tenellus*	Woolly-heads	N
	Sonchus sp.	Sow thistle	I
	Tragopogon sp.		I
Boraginaceae	*Plagiobothrys* sp.	Popcornflower	N
Brassicaceae	*Brassica nigra*	Black mustard	I
	Capsella bursa-pastoris	Shepherd's purse	I
	Cardamine oligosperma	Bitter cress	N
	Sisymbrium officinale	Hedge mustard	I
Campanulaceae	*Heterocodon rariflorum*		N
Caprifoliaceae	*Lonicera* sp.	Honeysuckle	N
Caryophyllaceae	*Cerastium glomeratum*	Mouse-ear chickweed	I
	Silene gallica	Catchfly	I
	Stellaria sp.	Chickweed	--
Chenopodiaceae	*Chenopodium* sp.		--
Convolvulaceae	*Calystegia* sp. [1]	Morning glory	N

	Convolvulus arvensis	Field bindweed	I
Euphorbiaceae	*Chamaesyce ocellata* ssp. *ocellata*	Prostrate spurge	N
	Eremocarpus setigerus	Dove weed; Turkey mullein	N
	Euphorbia sp.	Spurge	--
Fabaceae	*Lotus purshianus* var. *purshianus*		N
	Lupinus sp.		--
	Medicago sp.	Burclover	I
	Trifolium ciliolatum	Clover	N
	Trifolium dubium	Little hop clover	I
	Trifolium glomeratum		I
	Trifolium hirtum	Rose clover	I
	Trifolium microcephalum		N
	Trifolium subterraneum	Subterranean clover	I
	Vicia sativa	Common vetch	I
	Vicia villosa	Hairy vetch	I
Fagaceae	*Quercus douglasii*	Blue oak	N
	Quercus wislizenii var. *wislizenii*	Interior live oak	N
Gentianaceae	*Centaurium muehlenbergii*	Centaury	N
Geraniaceae	*Erodium botrys*	Filaree	I
	Erodium cicutarium	Filaree	I
	Geranium dissectum	Cranesbill	I
	Geranium molle	Cranesbill	I
Hypericaceae	*Hypericum perforatum*	Klamathweed	I
Lythraceae	*Lythrum hyssopifolium*		I
Onagraceae	*Epilobium brachycarpum*	Fireweed	N
	Epilobium ciliatum	Fireweed	N
	Clarkia purpurea	Purple clarkia	N
	Clarkia unguiculata		N
Papaveraceae	*Eschscholzia californica*	California poppy	N
Polemoniaceae	*Navarretia pubescens*		N
Polygonaceae	*Rumex pulcher*	Fiddle dock	I
	Rumex sp.	Dock	I
Portulacace	*Claytonia perfoliata*	Miner's lettuce	N
	Portulaca oleracea	Common purslane	I
Primulaceae	*Anagallis arvensis*	Scarlet pimpernel	I
Ranunculaceae	*Ranunculus muricatus*	Buttercup	I
Rhamnaceae	*Ceanothus cuneatus* var. *cuneatus*	Buck brush	N
	Rhamnus ilicifolia	Holly-leaved redberry	N
Rosaceae	*Aphanes occidentalis*		N
	Heteromeles arbutifolia	Toyon	N
	Potentilla glandulosa	Cinquefoil	N
Rubiaceae	*Galium aparine*	Goose grass	N
	Galium parisiense	Wall bedstraw	I
	Galium porrigens var. *tenue*	Climbing bedstraw	N
	Sherardia arvensis	Field madder	I
Scrophulariaceae	*Kickxia* sp.		--
Viscaceae	*Phoradendron villosum*	Oak mistletoe	N
MONOCOTS			
Cyperaceae	*Cyperus* sp.	Nutsedge	--
Juncaceae	*Juncus bufonius*	Toad rush	N

Liliaceae	*Brodiaea elegans* ssp. *elegans*	Harvest brodiaea	N
	Chlorogalum pomeridianum	Soap plant	N
	Dichelostemma volubile	Twining brodiaea	N
	Triteleia laxa	Ithuriel's spear	N
Poaceae	*Aegilops triuncialis*	Barbed goatgrass	I
	Aira caryophyllea	Silver European hairgrass	I
	Avena barbata	Slender wild oat	I
	Brachypodium distachyon		I
	Briza maxima	Quaking grass	I
	Briza minor	Quaking grass	I
	Bromus diandrus	Ripgut grass	I
	Bromus hordeaceus	Soft brome	I
	Bromus madritensis ssp. *madritensis*	Foxtail chess	I
	Bromus sterilis	Poverty brome	I
	Cynosurus echinatus	Hedgehog dogtail	I
	Elymus glaucus	Blue wildrye	N
	Hordeum marinum ssp. *gussoneanum*	Mediterranean barley	I
	Hordeum murinum ssp. *leporinum*	Foxtail	I
	Leymus triticoides		N
	Lolium multiflorum	Italian ryegrass	I
	Nassella pulchra	Purple needlegrass	N
	Poa bulbosa	Bulbous bluegrass	I
	Polypogon sp.	Beard grass	I
	Taeniatherum caput-medusae	Medusa head	I
	Vulpia bromoides		I

* N = Native to CA; I = Introduced; -- = Undetermined

[1] The specimen could not be identified conclusively to species. Specimen was not *C. stebbinsii* due to lack of distinctive linear leaf lobes.

Preliminary
Jurisdictional Delineation Report
for the
Miginella Subdivision Project

El Dorado County, CA

Prepared by:

Sycamore Environmental Consultants, Inc.
6355 Riverside Blvd., Suite C
Sacramento, CA 95831
Phone: 916/ 427-0703
Contact: R. John Little, Ph.D.

Prepared for:

Ms. Marie Mitchell
c/o Mr. Shan Nejatian
601 Blue Oak Court
El Dorado Hills, CA 95762-3926
Phone: 916/ 847-9178

13 August 2007

Attachment 6

Preliminary Jurisdictional Delineation Report for the Miginella Subdivision

El Dorado County, CA

Table of Contents

Figures

Tables

Appendices

I. INTRODUCTION

A. Purpose

Sycamore Environmental Consultants, Inc., conducted a preliminary jurisdictional delineation of the Miginella Subdivision Project in El Dorado County, CA. The purpose of the delineation was to identify potential wetlands and other waters of the U.S. in the project study area (PSA). Jurisdictional delineations are preliminary until verified by the U.S. Army Corps of Engineers (Corps). This report identifies baseline resources. Impact analysis and mitigation measures may be developed once project design is finalized.

B. Project Location

The 25.04 ac PSA is assessors parcel numbers (APNs) 110-020-32 and 30 and is located in the community of El Dorado Hills in El Dorado County, CA. The PSA is located on the Clarksville USGS topographic quadrangle (T10N, R8E, Section 14). The PSA is in the South Fork American River Watershed (hydrologic unit code 18020129), and its centroid is 38° 43' 26.6" north, 121° 4' 27.8" west (1983 NAD, CA State Plane Zone 2). Figure 1 is a project location map and Figure 2 is an aerial photograph of the PSA.

To access the PSA from Sacramento, take Highway 50 east. Take exit 30B at El Dorado Hills Boulevard and travel north. El Dorado Hills Boulevard becomes Salmon Falls Road. Proceed north on Salmon Falls Road. Turn left onto Kaila Way. The PSA borders the left (west) side of Kaila Way and extends north to Lakehills Court and south to Wolf Creek Road.

C. Project Applicant and Engineer

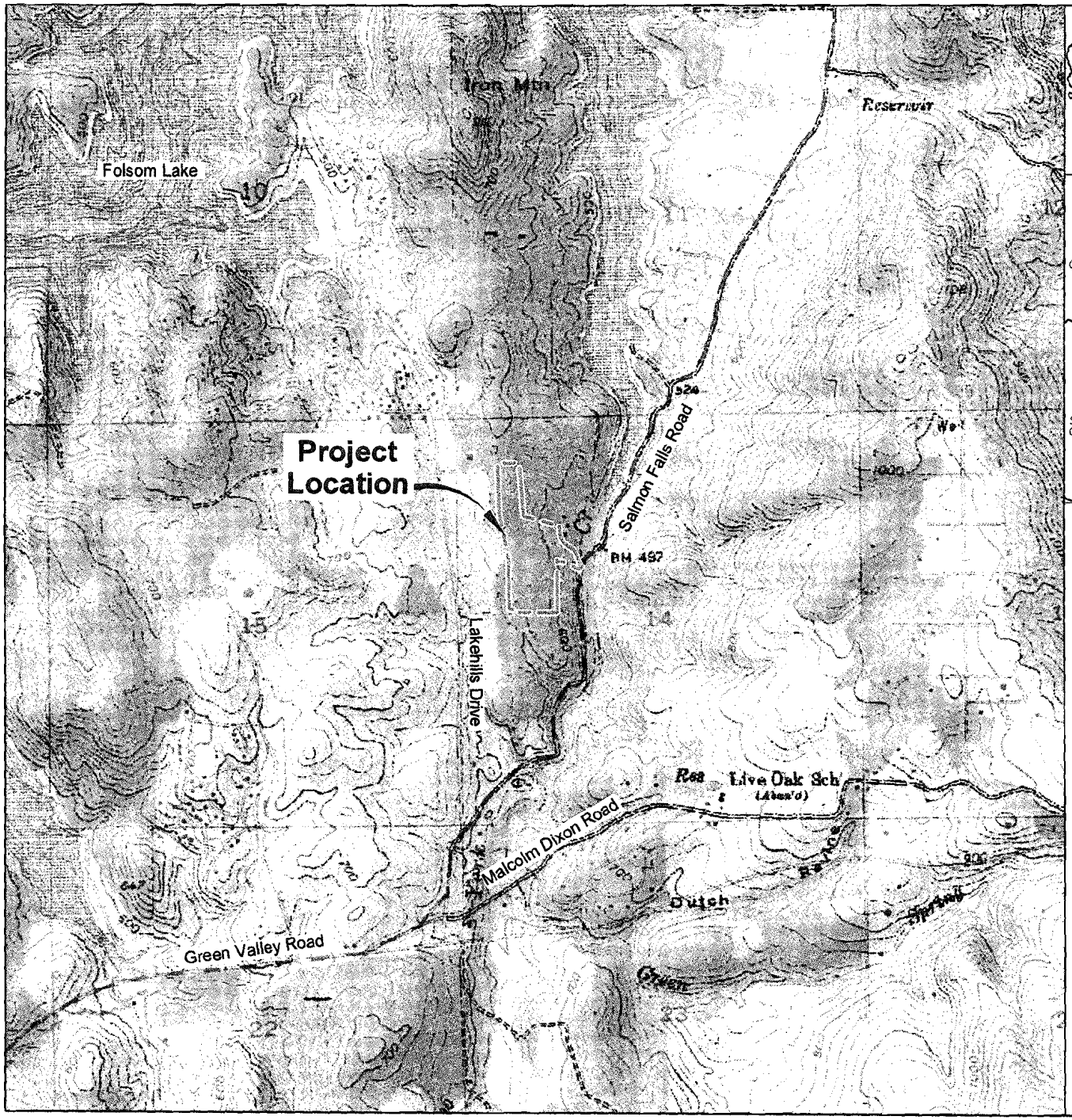
Applicant:
Ms. Marie Mitchell
c/o Mr. Shan Nejatian
601 Blue Oak Court
El Dorado Hills, CA 95762-3926
Phone: 916/ 847-9178

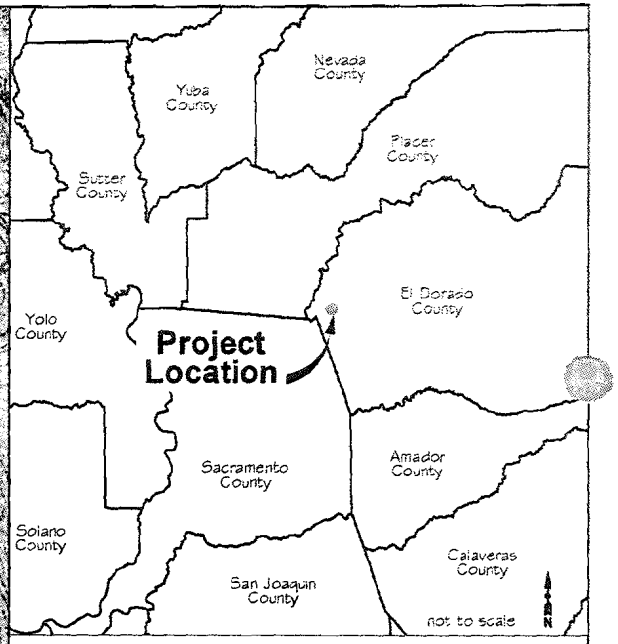
Engineer:
Gene E. Thorne & Associates, Inc.
4080 Plaza Goldorado Circle
Cameron Park, CA 95682
Phone: 530/ 677-1747
Fax: 530/ 676-4205
Contact: Mr. Gene E. Thorne, P.E.

D. Project Description

The Applicant intends to subdivide the PSA into eight parcels for residential development. Project design has not been finalized.

[This page intentionally blank]





Miginella Subdivision
El Dorado County, CA
13 August 2007

Figure 1. Location Map

Project Boundary

0 1,000 2,000 ft

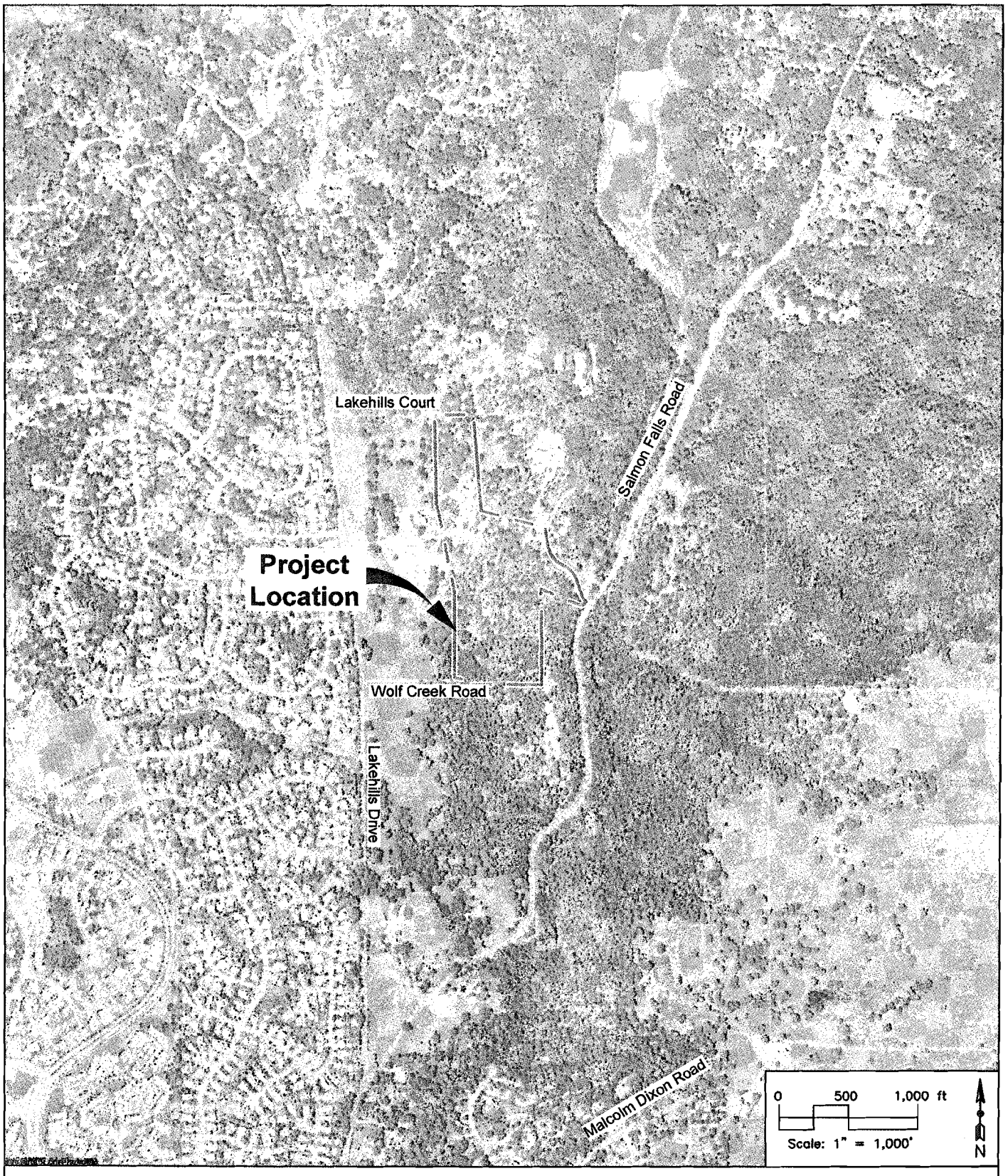
Scale: 1" = 2,000'

N

SYCAMORE
Environmental
Consultants, Inc.

Basemap:
Clarksville, CA. Photorevised (1980)
USGS 7.5' Quad.

06148Miginella SubdivisionFig1_2_Soils.dwg



Miginella Subdivision
El Dorado County, CA
13 August 2007

Project Boundary

SYCAMORE Environmental Consultants, Inc.

Figure 2. Aerial Photograph

Aerial Photograph
1 May 2006

06148Miginella SubdivisionFig1 2 Soils.dwg

II. STUDY METHODS

A. Literature Review

Standard taxonomic references included Abrams (1923-1960); Hickman (1993); Mason (1957); and Munz (1959). Plant community references included DFG (2003); Holland (1986); Sawyer and Keeler-Wolf (1995); and Warner and Hendrix (1984). Hydrophytic classifications of plants were determined from the U.S. Fish and Wildlife Service national list of plant species that occur in wetlands (USFWS 1988), except for Italian ryegrass (*Lolium multiflorum*), which does not occur on the list, but is considered FAC by the Sacramento District of the Corps.

Sycamore Environmental reviewed the Clarksville USGS quad, the National Wetlands Inventory (NWI) map for the Clarksville quad, the USFWS NWI online mapper (USFWS 2006), and the Soil Survey of El Dorado Area, CA, aerial photograph map sheets (NRCS 1974, photography taken 1962), and the online Web Soil Survey (NRCS 2006).

B. Survey Dates and Personnel

Fieldwork for the jurisdictional delineation was conducted by Chuck Hughes, M.S., and Leane Scott on 5 January 2007.

C. Survey Methods

Fieldwork for the jurisdictional delineation was conducted in accordance with the U.S. Army Corps of Engineers Wetland Delineation Manual (Corps 1987). Potential wetlands and other waters of the U.S. were identified and mapped. Fieldwork was conducted prior to the required field implementation of the Arid West Regional Supplement (Corps 2006). Sycamore Environmental has reviewed the delineation data compiled for this report in light of the Interim Arid West Supplement. The acreage of jurisdictional features in the PSA would not change as a result of the wetland indicators contained in the Arid West Supplement.

D. Jurisdictional Data

Jurisdictional data were recorded using the Routine On-Site Determination Method (Corps 1987). Four data points were taken. Soil pits were dug to observe the chroma, texture, degree of saturation, and other characteristics. Data sheets are in Appendix A. Photographs of the PSA are in Appendix B. Plant species were identified by Chuck Hughes (Appendix C).

E. Mapping of Data and Calculation of Acreages

Potential jurisdictional features observed in the PSA by Sycamore Environmental were recorded in the field with a Trimble GeoXT™ sub-meter accurate GPS. The data were exported to AutoCAD® and aligned with a base map provided by Thorne & Associates, Inc. Acreages of potential jurisdictional features were calculated using AutoCAD® functions. The aerial photo in Figure 2 was downloaded using the ImageConnect Service (GlobeXplorer© 2007).

F. Definitions

The U.S. Army Corps of Engineers (Corps) and the U.S. Environmental Protection Agency regulate the discharge of dredge and fill material into "waters of the United States" under Section 404 of the Clean Water Act (33 U.S.C. 1344). The Corps issues permits for certain dredge and fill activities in waters of the U.S. pursuant to the regulations in 33 CFR 320-330. The lateral limits of jurisdiction in those waters may be divided into three categories. The categories include the territorial seas, tidal waters, and non-tidal waters (see 33 CFR 328.4 (a), (b), and (c), respectively). The term "waters of the U.S." is defined at 33 CFR 328.3(a) as:

1. All waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;
2. All interstate waters including interstate wetlands;
3. All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use, degradation or destruction of which could affect interstate or foreign commerce including any such waters:
    i. Which are or could be used by interstate or foreign travelers for recreational or other purposes; or
    ii. From which fish or shellfish are or could be taken and sold in interstate or foreign commerce; or
    iii. Which are used or could be used for industrial purpose by industries in interstate commerce;
4. All impoundments of waters otherwise defined as waters of the United States under the definition;
5. Tributaries of waters identified in paragraphs (a)(1)-(4) of this section;
6. The territorial seas;
7. Wetlands adjacent to waters (other than waters that are themselves wetlands) identified in paragraphs (a)(1)-(6) of this section.

The term "adjacent" is defined at 33 CFR 328.3(c):

> The term *adjacent* means bordering, contiguous, or neighboring. Wetlands separated from other waters of the United States by man-made dikes or barriers, natural river berms, beach dunes and the like are "adjacent wetlands."

The limits of jurisdiction are identified in 33 CFR 328.4 as:

a. Territorial Seas. The limit of jurisdiction in the territorial seas is measured from the baseline in a seaward direction a distance of three nautical miles. (See 33 CFR 329.12)
b. Tidal Waters of the United States. The landward limits of jurisdiction in tidal waters:
    1. Extends to the high tide line, or
    2. When adjacent non-tidal waters of the United States are present, the jurisdiction extends to the limits identified in paragraph (c) of this section.
c. Non-Tidal Waters of the United States. The limits of jurisdiction in non-tidal waters:
    1. In the absence of adjacent wetlands, the jurisdiction extends to the ordinary high water mark, or
    2. When adjacent wetlands are present, the jurisdiction extends beyond the ordinary high water mark to the limit of the adjacent wetlands.
    3. When the water of the United States consists only of wetlands the jurisdiction extends to the limit of the wetland.

Wetlands, as defined by the Corps for regulatory purposes, are identified using a three-parameter test that considers whether hydrophytic vegetation, hydric soils, and hydrology are present (Corps 1987). Wetlands are "those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions." Wetlands generally include swamps, marshes, bogs, and similar areas (33 CFR 328.3, 40 CFR 230.3). Wetlands also include less conspicuous wetland types such as vernal pools and other seasonal wetlands.

An ephemeral stream 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. An intermittent stream 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 (66 FR 42099).

III. SETTING INFORMATION

The PSA is located north of the community of El Dorado Hills in El Dorado County, CA. The PSA is bound by undeveloped land and rural residential housing to the south and west, by Kaila Way, undeveloped land, and rural residential housing to the east, and by Lakehills Court to the north. Salmon Falls Road occurs east of the PSA and Wolf Creek Road occurs at the southwest corner of the PSA. Land use surrounding the PSA consists primarily of rural residential housing and undeveloped land.

A. Topography

Elevation in the PSA ranges from approximately 500 to 694 feet above sea level. Topography in the PSA consists gentle to steep slopes of a mostly eastern aspect.

B. Existing Field Conditions

Field work for the jurisdictional delineation was conducted on 5 January 2007. The U.S. National Weather Service, Folsom Dam gauge, which is approximately 6 miles west of the PSA, recorded 0.16 inches of precipitation for the 5 days preceding the delineation. The historic average precipitation for the Folsom Dan gauge through December is 8.35 inches. Prior to the delineation, the Folsom Dam gauge had received 4.23 inches of rain (CDWR 2007), or 51% of the average accumulated precipitation. The PSA had drier than normal winter conditions during the delineation.

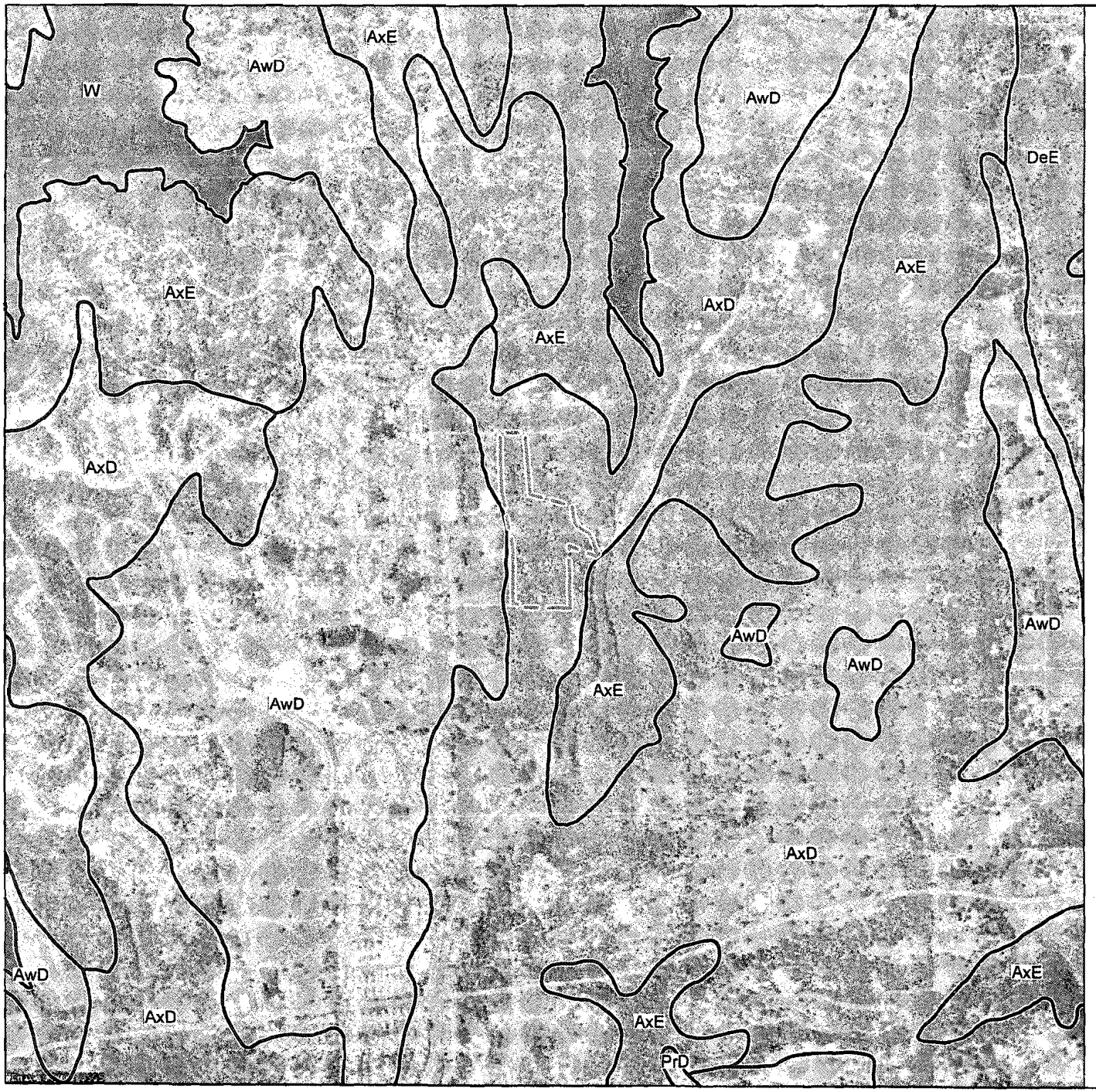
C. Vegetation

The dominant vegetative community present in the PSA is blue oak and interior live oak woodland with a grass understory. The Biological Resources Evaluation Report (Sycamore Environmental 2007) provides a further description of vegetative communities and a list of all plant species observed in the PSA.

D. Soils

Auburn very rocky silt loam (2-30% slopes) is the only mapped soil unit in the PSA (NRCS 1974). The soil is not listed as hydric, and does not have hydric inclusions (NRCS 1992). The following description is summarized from NRCS (1974). All colors reported are for moist soil.

[This page intentionally blank]



Miginella Subdivision
El Dorado County, CA
13 August 2007

Figure 3. Soils Map

Project Boundary

AxD: Auburn very rocky silt loam, 2 to 30% slopes

0 834 1,667 ft

Scale: 1" = 1,667'

N

SYCAMORE Environmental Consultants, Inc.

Soils Data:
NRCS Soil Data Mart
http://soildatamart.nrcs.usda.gov
Soil Survey of El Dorado Area, Ca. (1974)
Aerial Photograph:
9 May 1993

06148Miginella
SubdivisionFig1_2_Soils.dwg

Auburn very rocky silt loam (2-30% slopes):
The Auburn series is a well-drained soil underlain by hard metamorphic rocks at a depth of 12 to 26 inches. Outcrops of bedrock cover 5-25% of the surface. A typical profile of Auburn very rocky silt loam, 2 to 30% slopes, has dark reddish brown (5YR 3/3) slightly acidic silt loam from 0 to 3 inches, dark reddish brown (5YR 3/4) slightly acidic silt loam from 3 to 14 inches, and weathered metabasic rock at 14 inches. Permeability is moderate, surface runoff is slow to medium, and the erosion hazard is slight to moderate.

E. National Wetlands Inventory Map

There are no mapped wetlands or waters in the PSA.

F. The Existing Level of Disturbance

A vineyard planted underneath the oak canopy covers approximately 12.8% of the PSA. A ten-foot high mesh deer fence surrounds an area around the vineyard. There is an existing house and adjacent landscaping in the PSA. A gravel driveway provides access from the Kaila Way cul-de-sac to the house.

IV. WETLANDS AND WATERS

A. Wetlands

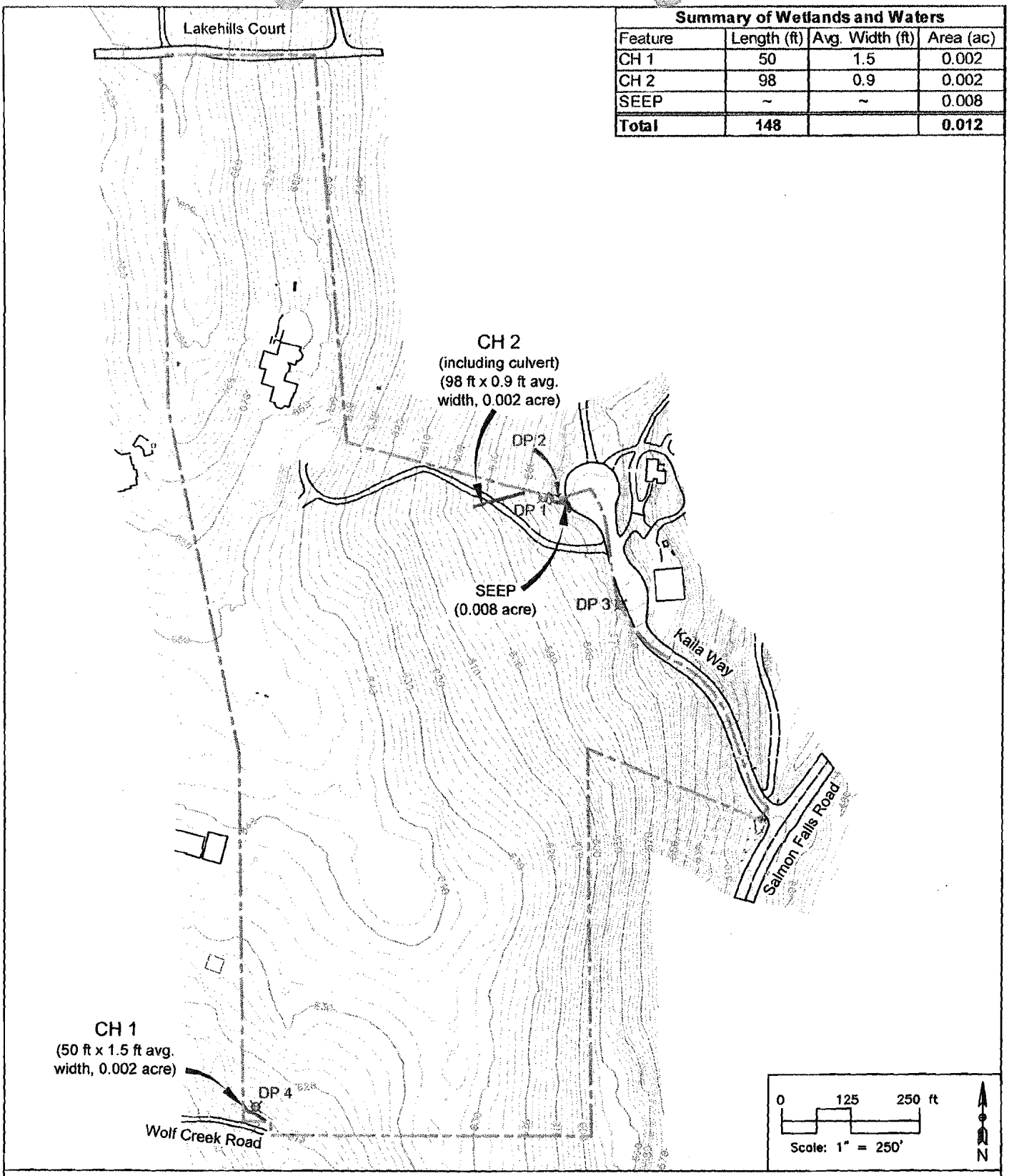
Seep: The seep is located on the roadcut of the Kaila Way cul-de-sac (Appendix B, Photo 1). Hydrophytic species present include nutsedge (*Cyperus* sp.), centaury (*Centaurium muehlenbergii*), buttercup (*Ranunculus muricatus*), and Italian ryegrass (*Lolium multiflorum*). The roadcut is in a concave landscape position that naturally directs runoff (surface or subsurface) to the area. The construction of the cul-de-sac and roadcut apparently has caused formerly subsurface runoff to daylight, resulting in saturation at the ground surface and hydrophytic vegetation. Topsoil in the seep has been removed and only weathered rock exists as a substrate. Soils were not used as a criterion since the natural topsoil has been removed.

B. Waters

Channel 1: Channel (CH) 1 is an ephemeral channel located in the southwest corner of the PSA next to the east end of Wolf Creek Road (Appendix B, Photo 2). CH 1 originates west of and outside the PSA. The bed of CH 1 is composed of scoured soil and gravel. CH 1 was flowing during the delineation and several shallow pools (1 to 3 inches deep) were present. There is no riparian vegetation associated with CH 1. CH 1 exits the PSA at the southeast boundary and drains to New York Creek.

[This page intentionally blank]

Summary of Wetlands and Waters			
Feature	Length (ft)	Avg. Width (ft)	Area (ac)
CH 1	50	1.5	0.002
CH 2	98	0.9	0.002
SEEP	~	~	0.008
Total	**148**		**0.012**



Miginella Subdivision
El Dorado County, CA
13 August 2007

Project Boundary

Ephemeral Channel (CH)

DP 1 Soil Data point and number

SYCAMORE
Environmental
Consultants, Inc.

Date	Submittal	Delineators
13 Aug 07	Original	CCH, LSS

Base Map:
Mitchell-Nejatian Base Mapping.dwg
Gene Thorne & Associates, Inc.

Figure 4. Preliminary Jurisdictional Delineation Map

06148MiginellaSubdivision_BioRes_DelinFig.dwg

Channel 2: CH 2 is an ephemeral channel located in the vineyard uphill of the seep (Appendix B, Photo 3). CH 2 is in a naturally concave landscape position. The construction of the driveway, and the resulting increased runoff along the driveway margins, has increased the volume of flow CH 2 experiences during precipitation events. The OHWM of CH 2 dissipates prior to reaching the seep or the roadcut of the Kaila Way cul-de-sac. CH 2 was not flowing during the delineation and has no associated riparian vegetation.

Table 1. Wetlands and Waters

Feature	Hydrology/ Data Points	Length (ft)	Average Width (ft)	Area (ac)[1]
Channel 1	Ephemeral	50	1.5	0.002
Channel 2	Ephemeral	98	0.9	0.002
Seep	1, 2	--	--	0.008
	Total:	**148**	**--**	**0.012**

[1] Acreages calculated with AutoCAD® functions.

C. Other Features

Roadside drainage ditches are located along the driveway (Appendix B, Photo 4) and Kaila Way (Appendix B, Photo 5). Drainage ditches excavated on dry land are not jurisdictional.

D. Summary of Wetlands and Waters

The total acreage of wetlands and waters in the PSA is 0.012 ac. A total of 148 linear feet of channel, including a culvert, occur in the PSA.

V. REGULATORY ANALYSIS AND DISCUSSION

On 5 June 2007, the Corps issued a memorandum providing guidance on implementation of the Supreme Court's decision in the consolidated cases Rapanos v. United States and Carabell v. United States (Corps 2007a). The guidance distinguishes among traditional navigable waters (TNW), relatively permanent waters (RPW), and non-relatively permanent waters (non-RPW). The Corps will routinely exercise jurisdiction over traditional navigable waters, relatively permanent waters, and wetlands adjacent to those waters. The jurisdictional determination for non-relatively permanent waters and their adjacent wetlands (if any) will be based on whether there exists a significant nexus with a traditional navigable water. Factors evaluated by the Corps during the significant nexus evaluation will include ecology, hydrology, and the influence of the water on the "chemical, physical, and biological integrity of downstream traditional navigable waters" (Corps 2007a). The Corps may exert jurisdiction if the findings of the significant nexus evaluation indicate that "the tributary and its adjacent wetlands are likely to have an effect [on downstream traditional navigable waters] that is more than speculative or insubstantial" (Corps 2007a). The Corps and EPA identified criteria that can be used to evaluate for a significant nexus but did not establish any thresholds for a significant nexus.

The Rapanos memorandum (Corps 2007a) does not affect the Court's decision in Solid Waste Agency of Northern Cook County v. U.S. Army Corps of Engineers, No. 99-1178 (January, 2001)

("SWANCC") which involved statutory and constitutional challenges to the assertion of CWA jurisdiction over isolated, non-navigable, intrastate waters used as habitat by migratory birds. Isolated wetlands and waters are not subject to Clean Water Act jurisdiction. Table 2 is applies the Rapanos status of wetlands and waters in the PSA.

A. TNWs and Adjacent Wetlands

No TNWs or wetlands adjacent to TNWs occur in the PSA.

B. RPWs that flow directly or indirectly into TNWs

No RPWs occur in the PSA.

C. Non-RPWs that flow directly or indirectly into TNWs

The two ephemeral channels are non-RPWs because they flow for less than three continuous months. Channel 1 is indirectly tributary to the American River, a TNW. Channel 1 is tributary to New York Creek, which is tributary to Folsom Lake, an impoundment of the American River. The lower 12 miles of the American River are a TNW (Corps 2007). The PSA is approximately 17.2 air miles from the upstream navigable limit of the American River. The PSA is approximately 20.8 river miles from the same point.

Table 2. Rapanos Guidance Correlation of Wetlands and Waters.

Feature	Rapanos Guidance Correlation	Jurisdictional Acreages	Non-Jurisdictional Acreages
Channel 1	Non-RPW	--	0.002
Channel 2	Non-RPW	--	0.002
Seep	Isolated Wetland	--	0.008
	Total:	**0.000**	**0.012**

To aid the evaluation of whether Channel 1 has a "significant nexus" to the American River, the percentage of the American River's watershed draining through Channel 1 where it exits the PSA was calculated. The approximate watershed of the American River encompasses 1,384,761 ac. The acreage of the Channel 1 watershed above the point where it exits the PSA is approximately 69 ac. This acreage represents approximately five one-hundred thousandths of the watershed of the American River. There is no riparian corridor linking Channel 1 to downstream features.

The same evaluation was made for Channel 2, although Channel 2 does not have a clear, unbroken OHWM that reaches the Kaila Way cul-de-sac or New York Creek. Channel 2 likely did not exist prior to the construction of the driveway and nearby vineyard which increased the volume and rate of runoff in the area. The acreage of the Channel 2 watershed above the point where its OHWM ends is approximately 6 ac. This acreage represents approximately 4 one-millionths of the watershed of the American River. There is no riparian corridor linking Channel 2 to downstream features.

It does not appear that there is a significant nexus between the PSA and the traditionally navigable segment of the American river based on the distance of the PSA from that point of the American River, the small contribution of the watershed, the lack of a connecting riparian corridor, and the lack of a relatively permanent hydrologic connection.

D. Wetlands directly abutting RPWs that flow directly or indirectly into TNWs

No RPWs or wetlands directly abutting RPWs occur in the PSA.

E. Wetlands adjacent to but not directly abutting RPWs that flow directly or indirectly into TNWs

No RPWs or wetlands adjacent to but not directly abutting RPWs occur in the PSA.

F. Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs

Seep 1 is adjacent to the ephemeral non-RPW Channel 2.

G. Impoundments of waters

There are no impoundments of waters in the PSA.

H. Isolated (interstate or intrastate) waters, including isolated wetlands

Wetlands that are isolated and lack an interstate or foreign commerce connection, but otherwise meet the 3-parameter test for wetlands, are considered "isolated wetlands" and are not regulated by the Corps. Seep 1 is approximately 1,000 ft from New York Creek and is not connected to it by a channel or other wetlands. Seep 1 also does not appear to have a significant nexus to the American River by a similar analysis as Channel 2.

I. Summary of Jurisdictional Acreages

There are no wetlands or waters in the PSA that appear to meet the "significant nexus" criteria for federal jurisdiction under the Clean Water Act.

VI. LITERATURE CITED

Abrams, L. 1923, 1944, 1951, 1960. Illustrated flora of the Pacific States. Stanford Univ. Press, Stanford, CA.

California Department of Fish and Game (DFG). September 2003. List of California terrestrial natural communities recognized by the California Natural Diversity Data Base. Natural Heritage Division, CNDDB, Sacramento, CA.

California Department of Water Resources (CDWR), Division of Flood Management. Accessed 11 January 2007. Precipitation/ Snow Information. <http://cdec.water.ca.gov/snow_rain.html>

Hickman, J., ed. 1993. The Jepson manual: higher plants of California. University of California Press, Berkeley, CA.

Holland, R. 1986. Preliminary descriptions of the terrestrial natural communities of California. California Department of Fish and Game, Sacramento, CA.

Mason, H. 1957. A flora of the marshes of California. University of California Press, Berkeley, CA.

Munz, P. 1959. A California flora. University of California Press, Berkeley, CA.

Natural Resources Conservation Service (NRCS; formerly known as Soil Conservation Service). April 1974. Soil survey of El Dorado Area, California. USDA – Soil Conservation Service.

Natural Resources Conservation Service (NRCS; formerly known as Soil Conservation Service). March 1992. Field office official list of hydric soil map units for El Dorado Area, CA. USDA – Soil Conservation Service, Davis, CA.

Natural Resource Conservation Service (NRCS). Accessed 27 December 2006. Web soil survey for El Dorado Area, CA. National Soil Survey Center, Lincoln, NE. <http://websoilsurvey.nrcs.usda.gov/app/>

Sawyer, J. O. and T. Keeler-Wolf. 1995. A manual of California vegetation. California Native Plant Society, Sacramento, CA.

U.S. Army Corps of Engineers (Corps). 1987. Corps of Engineers wetland delineation manual, Tech. Rept. Y-87-1, U.S. Army Engineer Waterways Experiment Station, Vicksburg, MS.

U.S. Army Corps of Engineers (Corps). 2006. Interim regional supplement to the Corps of Engineers wetland delineation manual: Arid West region. J. S. Wakeley, R. W. Lichvar, and C. V. Noble, eds., Technical Report ERDC/EL TR-06-16. U.S. Army Engineer Research and Development Center, Vicksburg, MS.

U.S. Army Corps of Engineers (Corps). 16 May 2007. California navigable waterways. U.S. Army Corps of Engineers Regulatory Branch, Sacramento District, Sacramento, CA. <http://www.spk.usace.army.mil/organizations/cespk-co/regulatory/waterways.html>

U.S. Fish & Wildlife Service. 1988. National list of plant species that occur in wetlands: California (Region 0), Biological Report 88(26.10).

U.S. Fish and Wildlife Service (USFWS). 1994. National wetlands inventory map for the Clarksville USGS quadrangle.

U.S. Fish & Wildlife Service (USFWS). Accessed 27 December 2006. Wetlands online mapper for the Clarksville USGS quadrangle. <http://wetlandsfws.er.usgs.gov/wtlnds/launch.html>

U.S. Supreme Court. Decided 19 June 2006. Rapanos et ux., et. al. v. United States. No. 04-1034. Syllabus prepared by the Reporter of Decisions.

Warner, R.E. and K.M. Hendrix. 1984. California riparian systems: ecology, conservation, and productive management. University of California Press, Berkeley, CA.

VII. REPORT PREPARERS

R. John Little, Ph.D., Botany, Claremont Graduate School, Claremont, CA. Over 25 years experience managing and conducting environmental projects involving impact assessment and preparation of numerous NEPA/CEQA compliance documents, Biological Assessments, and Caltrans Natural Environmental Studies. Experience includes conducting special-status plant and wildlife species surveys, jurisdictional wetland delineations, general biological surveys, permitting and biological report preparation.
Responsibilities: Senior technical lead.

Jeffery Little, A.A., Sacramento City College, Sacramento, CA. Fourteen years experience with preparation of NES, BA, and NEPA/CEQA compliance documents, impact analysis, agency formal and informal consultations and permitting. Project management, conducts special-status species surveys, jurisdictional delineations, and prepares mitigation and monitoring plans. CAD/ GIS Manager responsible for data collection, map creation, impact analyses, and report preparation.
Responsibilities: Project Manager.

Chuck Hughes, M.S., Plant Biology, Michigan State University, East Lansing, MI. Conducts jurisdictional delineations, biological resource surveys, arborist surveys, and botanical and wildlife monitoring. Prepares biological resource evaluations, jurisdictional delineation reports, certified arborist reports, and mitigation and restoration plans. Serves as assistant project manager and conducts informal consultations with regulatory agency personnel. Assists with NEPA/CEQA impact analysis. Authorized to conduct CA fairy and tadpole shrimp surveys under Sycamore Environmental's USFWS take permit. Certified arborist #WE-6885A.
Responsibilities: Wetland delineation and report preparation.

Leane Scott, B.S., Ecology and Systematic Biology (emphasis in entomology), California Polytechnic State University, San Luis Obispo, CA. Conducts plant and wildlife surveys, arborist surveys, provides technical support for wetland delineations, biological resource evaluations, certified arborist reports, mitigation plans, and other documents used in the CEQA/NEPA process, queries the California Natural Diversity Database (CNDDB/ RareFind), and researches special-status species for projects. Certified arborist #WE-7368A.
Responsibilities: Wetland delineation and report preparation.

Stephanie Brown Trafton, B.S., Industrial Engineering, California Polytechnic State University, San Luis Obispo, CA. Prepares CAD/ GIS and ArcView® figures, assists with general project planning, and assists with the maintenance of project performance feedback.
Responsibilities: Figure preparation.

Cynthia Little, Principal, Sycamore Environmental.
Responsibilities: Senior editor, quality control.

[This page intentionally blank]

Appendix A.

Wetland Data Sheets

Miginella Subdivision
El Dorado County, CA

Data Form
Routine Wetland Determination
(1987 COE Wetlands Delineation Manual)

Field Investigator(s): Chuck Hughes and Leane Scott | Date: 5-January-2007 | **DP No.: 1**
Project/Site: Mitchell Nejatian Subdivision | State: CA
Applicant/Owner: Marie Mitchell | County: El Dorado

Do Normal Circumstances exist on the site? Yes ☒ No ☐ | Community ID: Upland
Is the site significantly disturbed (Atypical Situation)? Yes ☐ No ☒ | Transect ID:
Is the site a potential Problem Area? (If needed, explain below) Yes ☐ No ☒ | Plot ID:

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. *Quercus douglasii*	T	--	5. *Cynosurus echinatus*	H	--
2. *Geranium dissectum*	H	--	6. *Lolium multiflorum*	H	FAC
3. *Rumex* sp. (at least FAC)	H	FAC			
4. *Bromus* sp.	H	--			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-): 2/6 = 33 %
Remarks:

HYDROLOGY
☐ Recorded Data (Describe in Remarks):
- ☐ Stream, Lake, or Tide Gauge
- ☐ Aerial Photographs
- ☐ Other

☒ No Recorded Data Available

Field Observations:
- Depth of Surface Water: -- (in.)
- Depth to Free Water in Pit: -- (in.)
- Depth to Saturated Soil: -- (in.)

Wetland Hydrology Indicators:
Primary Indicators:
- ☐ Inundated
- ☐ Saturated in upper 12 inches
- ☐ Water marks
- ☐ Drift lines
- ☐ Sediment deposits
- ☐ Drainage patterns in wetlands

Secondary Indicators (2 or more required):
- ☐ Oxidized root channels in upper 12 inches
- ☐ Local soil survey data
- ☐ FAC-Neutral Test
- ☐ Other (explain in remarks)
- ☐ Water-stained leaves

Remarks: No wetland hydrology indicators present.

SOILS Map Unit Name (Series and Phase): Auburn very rocky silt loam, 2 – 30% slopes
Taxonomy (Subgroup):
Drainage Class:

Field Observations Confirm Mapped Type? ☒ Yes ☐ No

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Contrast	Texture, Concretions, Structure, etc.
0-10		7.5YR 3/3	7.5YR 4/2	Abundant/Faint	Rocky loam
>10					Rock

Hydric Soil Indicators:
- ☐ Histosol
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions (>2mm in upper 7.5cm (3 inches)
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on Local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks: Not hydric.

WETLAND DETERMINATION
Hydrophytic Vegetation Present? ☐ Yes ☒ No
Wetland Hydrology Present? ☐ Yes ☒ No
Hydric Soils Present? ☐ Yes ☒ No

Is this sampling point within a wetland? ☐ Yes ☒ No

Remarks/Rationale: Criteria not met.

Data Form
Routine Wetland Determination
(1987 COE Wetlands Delineation Manual)

Field Investigator(s): Chuck Hughes and Leane Scott | Date: 5-January-2007 | **DP No.: 2**
Project/Site: Mitchell Nejatian Subdivision | State: CA
Applicant/Owner: Marie Mitchell | County: El Dorado

Do Normal Circumstances exist on the site? Yes ☒ No ☐ | Community ID: Seep
Is the site significantly disturbed (Atypical Situation)? Yes ☒ No ☐ | Transect ID:
Is the site a potential Problem Area? (If needed, explain below) Yes ☐ No ☒ | Plot ID:

VEGETATION Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. *Cyperus* sp.	H	FACW	5. *Medicago sp.*	H	--
2. *Geranium dissectum*	H	--	6. *Ranunculus muricatus*	H	FACW+
3. *Lolium multiflorum*	H	FAC			
4. *Centaurium muehlenbergii*	H	FAC			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-): 4/6 = 67 %
Remarks:

HYDROLOGY
☐ Recorded Data (Describe in Remarks):
- ☐ Stream, Lake, or Tide Gauge
- ☐ Aerial Photographs
- ☐ Other

☒ No Recorded Data Available

Field Observations:
- Depth of Surface Water: -- (in.)
- Depth to Free Water in Pit: 7 (in.)
- Depth to Saturated Soil: 0 (in.)

Wetland Hydrology Indicators:

Primary Indicators:
- ☐ Inundated
- ☒ Saturated in upper 12 inches
- ☐ Water marks
- ☐ Drift lines
- ☐ Sediment deposits
- ☐ Drainage patterns in wetlands

Secondary Indicators (2 or more required):
- ☒ Oxidized root channels in upper 12 inches
- ☐ Local soil survey data
- ☐ FAC-Neutral Test
- ☐ Other (explain in remarks)
- ☐ Water-stained leaves

Remarks: Wetland hydrology present.

SOILS Map Unit Name (Series and Phase): Auburn very rocky silt loam, 2 – 30% slopes
Taxonomy (Subgroup):
Drainage Class:

Field Observations Confirm Mapped Type? ☐ Yes ☒ No

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Contrast	Texture, Concretions, Structure, etc.
0-8			--		Weathered rock
>8					Rock

Hydric Soil Indicators:
- ☐ Histosol
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions (>2mm in upper 7.5cm (3 inches)
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on Local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks: Data point is in a road cut. Topsoil was removed and only weathered, crumbling rock remains.

WETLAND DETERMINATION
Hydrophytic Vegetation Present? ☒ Yes ☐ No
Wetland Hydrology Present? ☒ Yes ☐ No
Hydric Soils Present? ☐ Yes ☐ No

Is this sampling point within a wetland? ☒ Yes ☐ No

Remarks/Rationale: Vegetation and hydrology criteria met. Soil criteria not used due to removal of topsoil from roadcut.

Data Form
Routine Wetland Determination
(1987 COE Wetlands Delineation Manual)

Field Investigator(s): Chuck Hughes and Leane Scott | Date: 5-January-2007 | **DP No.: 3**
Project/Site: Mitchell Nejatian Subdivision | State: CA
Applicant/Owner: Marie Mitchell | County: El Dorado

Do Normal Circumstances exist on the site? Yes ☒ No ☐ | Community ID: Upland
Is the site significantly disturbed (Atypical Situation)? Yes ☐ No ☒ | Transect ID:
Is the site a potential Problem Area? (If needed, explain below) Yes ☐ No ☒ | Plot ID:

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. *Geranium dissectum*	H	--	5. *Lolium multiflorum*	H	FAC
2. *Torilis arvensis*	H	--	6. *Erodium moschatum*	H	--
3. *Claytonia perfoliata*	H	FAC	7. *Vicia sp.*	H	--
4. *Bromus sp.*	H	--	8. *Erodium botrys*	H	--

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-): 2/8 = 25 %
Remarks:

HYDROLOGY
☐ Recorded Data (Describe in Remarks):
- ☐ Stream, Lake, or Tide Gauge
- ☐ Aerial Photographs
- ☐ Other

☒ No Recorded Data Available

Field Observations:
- Depth of Surface Water: -- (in.)
- Depth to Free Water in Pit: -- (in.)
- Depth to Saturated Soil: -- (in.)

Wetland Hydrology Indicators:

Primary Indicators:
- ☐ Inundated
- ☐ Saturated in upper 12 inches
- ☐ Water marks
- ☐ Drift lines
- ☐ Sediment deposits
- ☐ Drainage patterns in wetlands

Secondary Indicators (2 or more required):
- ☐ Oxidized root channels in upper 12 inches
- ☐ Local soil survey data
- ☐ FAC-Neutral Test
- ☐ Other (explain in remarks)
- ☐ Water-stained leaves

Remarks: No wetland hydrology indicators present.

SOILS Map Unit Name (Series and Phase): Auburn very rocky silt loam, 2 – 30% slopes
Taxonomy (Subgroup):
Drainage Class:

Field Observations Confirm Mapped Type? ☐ Yes ☐ No

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Contrast	Texture, Concretions, Structure, etc.

Hydric Soil Indicators:
- ☐ Histosol
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions (>2mm in upper 7.5cm (3 inches)
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on Local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks: Soil pit unnecessary (Corp 1987 manual, Fig. 14, Step 9).

WETLAND DETERMINATION
Hydrophytic Vegetation Present? ☐ Yes ☒ No
Wetland Hydrology Present? ☐ Yes ☒ No
Hydric Soils Present? ☐ Yes ☐ No

Is this sampling point within a wetland? ☐ Yes ☒ No

Remarks/Rationale: Criteria not met.

Data Form
Routine Wetland Determination
(1987 COE Wetlands Delineation Manual)

Field Investigator(s): Chuck Hughes and Leane Scott | Date: 5-January-2007 | **DP No.: 4**
Project/Site: Mitchell Nejatian Subdivision | State: CA
Applicant/Owner: Marie Mitchell | County: El Dorado

Do Normal Circumstances exist on the site? Yes ☒ No ☐ | Community ID: Upland
Is the site significantly disturbed (Atypical Situation)? Yes ☐ No ☒ | Transect ID:
Is the site a potential Problem Area? (If needed, explain below) Yes ☐ No ☒ | Plot ID:

VEGETATION Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. *Carduus pycnocephalus*	H	--	5. *Claytonia perfoliata*	H	FAC
2. *Lolium multiflorum*	H	FAC	6. *Ranunculus muricatus*	H	FACW+
3. *Torilis arvensis*	H	--	7. *Vicia sp.*	H	--
4. *Rumex pulcher*	H	FAC+	8. *Geranium molle*	H	--

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-): 4/8 = 50 %
Remarks:

HYDROLOGY
☐ Recorded Data (Describe in Remarks):
☐ Stream, Lake, or Tide Gauge
☐ Aerial Photographs
☐ Other
☒ No Recorded Data Available

Field Observations:
Depth of Surface Water: -- (in.)
Depth to Free Water in Pit: 5 (in.)
Depth to Saturated Soil: 5 (in.)

Wetland Hydrology Indicators:
Primary Indicators:
☐ Inundated
☒ Saturated in upper 12 inches
☐ Water marks
☐ Drift lines
☐ Sediment deposits
☒ Drainage patterns in wetlands

Secondary Indicators (2 or more required):
☐ Oxidized root channels in upper 12 inches
☐ Local soil survey data
☐ FAC-Neutral Test
☐ Other (explain in remarks)
☐ Water-stained leaves

Remarks: Overflow bench along nearby channel.

SOILS Map Unit Name (Series and Phase): Auburn very rocky silt loam, 2 – 30% slopes
Taxonomy (Subgroup):
Drainage Class:

Field Observations Confirm Mapped Type? ☐ Yes ☐ No

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Contrast	Texture, Concretions, Structure, etc.
0-6		7.5YR 3/3	--		Gravelly sandy loam
>6					Gravel

Hydric Soil Indicators:
☐ Histosol
☐ Histic Epipedon
☐ Sulfidic Odor
☐ Aquic Moisture Regime
☐ Reducing Conditions
☐ Gleyed or Low-Chroma Colors
☐ Concretions (>2mm in upper 7.5cm (3 inches)
☐ High Organic Content in Surface Layer Sandy Soils
☐ Organic Streaking in Sandy Soils
☐ Listed on Local Hydric Soils List
☐ Listed on National Hydric Soils List
☐ Other (Explain in Remarks)

Remarks: Not hydric

WETLAND DETERMINATION
Hydrophytic Vegetation Present? ☐ Yes ☒ No
Wetland Hydrology Present? ☒ Yes ☐ No
Hydric Soils Present? ☐ Yes ☒ No

Is this sampling point within a wetland? ☐ Yes ☒ No

Remarks/Rationale: Criteria not met.

Appendix B.

Photographs
5 January 2007

Miginella Subdivision
El Dorado County, CA

Photo 1. View of the seep (arrow) near the Kaila Way cul-de-sac.

Photo 2. View of Channel 1 at the southwest corner of the PSA (arrow). Wolf Creek Road is in the background.

Photo 3. View of Channel 2 in the vineyard.

Photo 4. View of a drainage ditch along the driveway.

Photo 5. View of a drainage ditch along Kaila Way.

Photo 6. View north through oak woodland in the PSA. The vineyard and home are in the background.

Appendix C.

Plant species recorded at data points.

Miginella Subdivision
El Dorado County, CA

Species	Common Name	Stratum	Indicator
Bromus sp.	Brome	H	--
Carduus pycnocephalus	Italian thistle	H	--
Centaurium muehlenbergii	Centaury	H	FAC
Claytonia perfoliata	Miner's lettuce	H	FAC
Cynosurus echinatus	Hedgehog dogtail	H	--
Cyperus sp. (at least FAC)	Nutsedge	H	FAC
Erodium botrys	Filaree	H	--
Erodium moschatum	Filaree	H	--
Geranium dissectum	Cranesbill	H	--
Geranium molle	Cranesbill	H	--
Lolium multiflorum	Italian ryegrass	H	FAC
Medicago sp.	Burclover	H	--
Quercus douglasii	Blue oak	T	--
Ranunculus muricatus	Buttercup	H	FACW+
Rumex sp. (at least FAC)	Dock	H	FACW
Rumex pulcher	Fiddle dock	H	FAC+
Torilis arvensis		H	--
Vicia sp.	Vetch	H	--

Mann Made Resources

13 JUL 31 AM 9:15
RECEIVED
PLANNING DEPARTMENT

July 25, 2013

Ms. Marie Mitchell
2020 Kaila Way
El Dorado Hills, CA 95962

SUBJECT: ARBORIST REPORT FOR MIGIANELLA PROJECT TREE CANOPY MITIGATION PLAN

Dear Ms. Mitchell,

Thank you for the opportunity to provide Arborist Consulting Services. This report includes the observations and analysis of the Oak tree canopy for the Migianella project. The site was visited on June 16, 2012.

Assignment: Ms. Olga Sciorelli from CTA Engineering and Survey contacted my office on your behalf on May 31, 2013, requesting assistance with an arborist site review and evaluation of the tree canopy maps to prepare for compliance with the El Dorado County General Plan policy 7.4.4.4. Calculations and a draft report were provided.

All site information, plans, and history were provided by Ms. Sciorelli, P.E., of CTA Engineering and Surveying. Plan sheets were provided for review and use. The assignment requires the following activities: visit the site, verify the canopy cover as shown on the Migianella Project Tree Preservation Map dated June 2013, identify trees that I found to be in poor enough condition to list for tree removal and exclude from the tree canopy calculations, and complete the report. Once the final canopy cover was calculated, I met with the engineer in the office to verify the canopy cover changes, review the calculations, and complete the report.

The Migianella Tree Preservation Map June 2013 was updated to reflect the changes from the field visit. The map was again updated following discussions with the Fire Department to comply with title 14 requirements and renamed Migianella Tree Preservation Map July 2013. Those changes are included in this report.

Observations: The site was walked on Sunday, June 16, 2013. The crown shown on the Tree Preservation Plan was compared to the trees present, and where improvements are planned, the canopy was observed so for any trees to be removed, the total canopy would be reduced on the site. For trees that are retained, the canopy would be shown as remaining.

12661 Torrey Pines Drive, Auburn, CA 95602
(650) 740-3461 ♦ FAX (530) 268-0926
www.mannandtrees.com

Attachment 7

Tools used were a screwdriver as a probe, mallet for sounding, and hand mattocks for excavation. Oak trees were inspected for leaf size, color and density, branch density, and branch structure. Trunks were inspected for decay, cavities, and severe defects or weaknesses that would be subject to unplanned failure over the roadways and driveways. The trunk flares were observed, and if found to be buried, light excavation was performed to inspect.

There were some oaks on adjacent parcels that were dead or fallen. There were no Oaks that were found in poor enough condition in the road and access areas to recommend removal from the site due to health or condition concerns. There were a few larger oaks that were growing outside of the road construction and driveway construction zones and could be retained preserving the canopy.

Calculations for the site and canopy follow:

- The total site area is calculated to be 26.05 acres.
- The total existing oak canopy is calculated to be 16.0 acres, 61% (61.42) of the 26.05 acre project area.
- The allowable removal amount under Option "A" equals 30% of existing canopy, or 4.80 acres.
- The total canopy removal proposed on the plan is 4.62 acres.
- There is a total of 4.9 acres available on site for mitigation planting.

The Mitigation allocation is intended to be:

Option A tree removal for roads and grading .72 acres of canopy by developer
Option A tree removal for lots 3.90 acres of canopy
Total planned tree canopy removal: 4.62 acres

The trees observed on the property were found to be consistent with native Oak woodland trees and would not present significant risk when cared for with routine maintenance pruning to remove dead and broken branches with limited reduction to the foliar crown. This has already been performed on many trees within the vineyard areas.

On Wednesday, June 19, 2013, I visited the office of CTA Engineering and Surveying and coordinated my field observations with the canopy mapping.

Other testing or examination: No other testing or examination was requested at the time of the site inspection, or recommended as a result of the inspection.

Discussion: I observed the trees included in the canopy cover analysis to determine which trees were structurally sound, moderate risk relative to the proposed site use, and in a condition to continue to have a reasonable useful life on the site. Risk can be managed differently based on site use. In the areas to be developed, there is a higher risk associated with trees on the site where people and improvements will be present. Trees on the sites to be developed need to be in a sound and healthy enough condition to manage for future risk.

Trees in natural areas where people are not invited or not reasonably expected to have structures or activities can accommodate trees with poorer condition. These trees in

open space can fail and continue to provide habitat, canopy, and other ecological site benefits with minimal risk.

I based my assessment of tree condition on a combination of structure and health. I did not observe any trees in the canopy area with:

- The tree crown dieback greater than 50% dead that were not understory or covered by other canopy
- Decay in trunks, main crotches, and branches that appeared prone to imminent failure and were not covered by other canopy
- The base of the tree was decayed greater than 50%
- Tree roots were missing from greater than 33% of the circumference of the trunk flare.
- Heavy mistletoe infestation is causing structural or leaf competition concerns in greater than 33% of the crown.
- Combinations of the above

After installation of the road and driveways, as shown on the plans, trees with canopy over the road and showing the above conditions may require pruning to reduce risk of failure of dead or weak branches.

The field data and canopy calculations were updated on the Migianella Tree Preservation Map dated June, 2013:

- The total project site area is 26.05 acres.
- The total existing Oak Canopy Cover is 16.0 acres or 61% (61.42)
- The total proposed removal of oak canopy for the roads and grading is 0.72 acres.
- The total proposed removal of oak canopy for the lots is 3.90 acres.
- The total proposed removal oak canopy for the project is 4.62 acres, and amounts to a removal of 28.88% of the existing oak canopy, where up to 30% is allowed under option "A". The project falls within the Option "A" guidelines.

Mitigation Plan

The project proposal intends to comply with County mitigation requirements. The existing total oak canopy cover on the site is 61.0% and falls within in the 60 – 79 percent range. The required retention of canopy cover in this percent range is 70%. The developer plans to plant the mitigation acreage on the property in open space not to be developed. The mitigation may be planted as acorns, seedlings, or #5 container trees, as best suited to each individual lot to accomplish the mitigation.

The total oak tree canopy removal is proposed to be 4.62 acres. The policy allows for up to 4.80 acres of canopy removal. The total mitigation acreage can be planted on site or will be planted off site in an approved area or areas. The final proposal will be based on what conditions the County approves for this project based on the individual lot development, with preferably on site mitigation, or with an approved off-site mitigation.

Oak tree mitigation in El Dorado County is regulated by El Dorado County General Plan policy 7.4.4.4 and the Interim Interpretive Guidelines for El Dorado County General Plan Policy 7.4.4.4 (Option A) adopted November 9, 2006 and Amended October 12, 2007.

On September 24, 2012, the Board of Supervisors directed the Development Services Department to prepare a resolution of intention to amend the General Plan Policies 7.4.2.8, 7.4.2.9, 7.4.4.4, 7.4.4.5, 7.4.5.1, and 7.4.5.2 and their related implementation measures to clarify and refine the County's policies regarding oak tree protection and habitat preservation. The Board further directed staff to prepare a Request for Proposal to hire a consultant to assist the County to prepare the policies and Environmental Impact Report (EIR).

The project is submitted based on the expectation to meet the existing Option "A" guidelines. The project may require the removal of additional trees if found to be in poor condition. These trees are not subject to the replacement standards per the interim guidelines approved for Policy 7.444 if the project arborist finds the trees to be dead or dying. If trees are found to be unexpectedly impacted by the development process, these trees may be removed and would be covered in a revised mitigation plan.

Tree Protection: Prior to clearing or grubbing or site construction, tree protection fencing shall be installed as far towards the driplines of protected trees as far as the project plans and staging areas allow. The fencing is designed to keep away from trees. When approved work must take place within a protected area, efforts and practices to reduce compaction and the reduce the removal of roots shall be followed.

If any trees are found to be in the way of utilities or excavation, a qualified arborist shall be present to oversee the potential impacts and necessary mitigation for the subject tree or trees.

If any trees are found to require root pruning, roots less than 2 inches in diameter shall be cut prior to excavation to limit the extent of injury to the roots towards the tree. If roots from two to four inches diameter are encountered that need to be pruned, a qualified arborist shall be present to direct the cutting, and determine if mitigation is necessary. If roots larger than 4 inches are encountered, a qualified arborist shall be present to advise about the place to cut, and any mitigation to reduce impact to the tree's health and stability.

If trees are to be pruned, all pruning shall be performed to specifications written in accordance with ANSI A300 Pruning standards, with the objective to reduce risk, improve structure, and retain as large a canopy as possible.

Please contact me at 650-740-3461, or gordon@mannandtrees.com, if you have any questions about this report or desire any other services for this project.

I reviewed the canopy calculation images, and map, and compared with conditions on the site. I am confident they are accurate as presented. The calculations are valid based on my field survey and map review.

I certify that all the statements in this report are true, complete, and correct to the best of my knowledge, and that all statements were made in good faith.

Sincerely,

Gordon Mann
Consulting Arborist and Urban Forester
Registered Consulting Arborist #480
ISA Certified Arborist and Municipal Specialist #WE-0151AM
CaUFC Certified Urban Forester #127
Certified Tree Risk Assessor #1005
Nevada County Fire Safe Council Defensible Space Advisory Training
Mann Made Resources
Auburn, CA
650-740-3461
Fax 530-268-0926
gordon@mannandtrees.com
www.mannandtrees.com

Attachment: Migianella Tree Preservation Plan, July 2013

Assumptions and Limitations: This report provides information about the subject trees at the times of the inspection. Trees and conditions may change over time. This report is only valid for the trees with the conditions present at the times of the inspections. All observations were made while standing on the ground. The inspection consisted of visual observations, using probe to gain additional information about decay and hollow portions of the tree, and light excavation was performed to observe shallow depth areas below grade at the base of the tree. No further examinations were requested or performed. The time of year the assignment was performed limits some of the observations of health and dieback as most of the leaves were emerging and buds were showing activity.

The site lacked many clear topographic and structural landmarks. Sincere attempts were made to accurately locate the trees and show the trees on the Tree Preservation Map. Some dense stand areas may not have the exact tree numbers calculated. All tree canopies were attempted to be shown as observed in the field. The relative canopy changes are realistically and accurately reflected on the Tree Preservation Map to the best of my ability.

Arborists are tree specialists who use their education, knowledge, training and experience to examine trees, recommend measures to enhance the beauty and health of trees, and attempt to reduce the risk of living near trees. Clients may choose to accept or disregard the recommendations of the arborist, or seek additional advice.

Arborists cannot detect every condition that could possibly lead to the structural failure of a tree. Trees are living organisms that can fail in ways we do not fully understand. Conditions are often hidden within trees and below ground. Arborists cannot guarantee that a tree will be healthy or safe under all circumstances, or for a specified period of time. Likewise, remedial treatments, like any medicine, cannot be guaranteed.

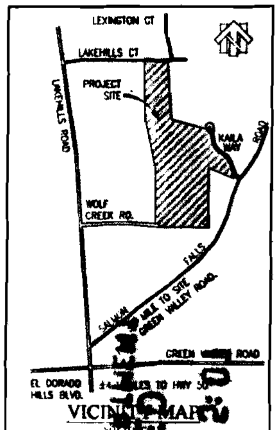
Treatments, pruning, and removal of trees may involve considerations beyond the scope of the arborist's services such as property boundaries, property ownership, site lines, disputes between neighbors, landlord-tenant matters, etc. Arborists cannot take such issues into account unless complete and accurate information is given to the arborist. The person hiring the arborist accepts full responsibility for authorizing the recommended treatment or remedial measures.

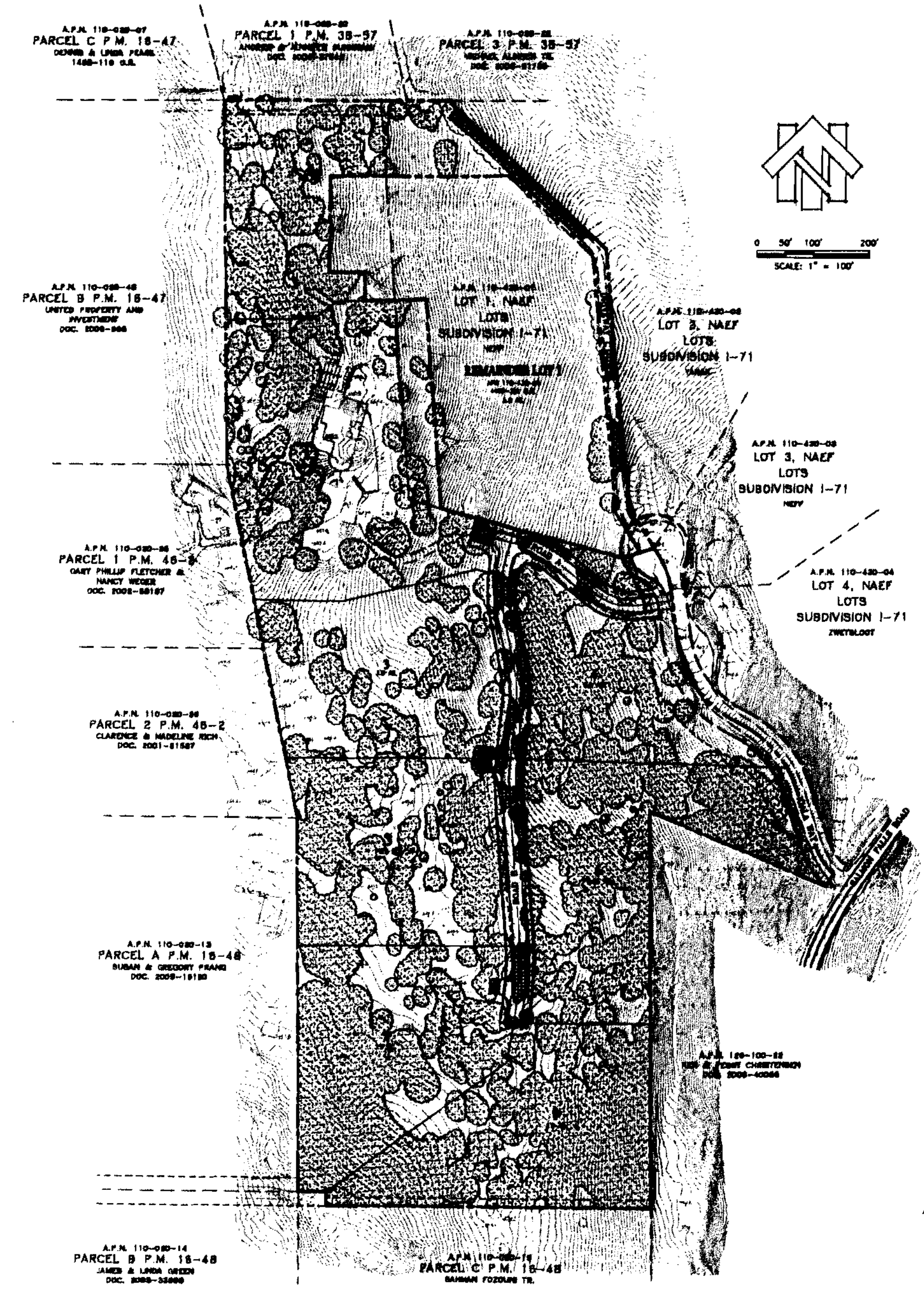
Trees can be managed, but they cannot be controlled. To live near a tree is to accept some degree of risk. The only way to eliminate all risks is to eliminate all trees. Our company goal is to help clients enjoy life with trees.

TREE PRESERVATION PLAN

TM-07-1458 MIGIANELLA

COUNTY OF EL DORADO   APRIL, 2013   STATE OF CALIFORNIA





LEGEND:

EXISTING TREE CANOPY

EXISTING TREE CANOPY TO BE REMOVED PER GRADING PHASE

CANOPY REMOVAL NOTES:

1. TOTAL SITE AREA = [illegible] AC
TOTAL SITE CANOPY = [illegible] AC ([illegible] OF PROJECT SITE)
ALLOWABLE REMOVAL UNDER OPTION "A" = [illegible] (EXISTING CANOPY) = [illegible] AC
TOTAL REMOVAL PER PLAN = [illegible] AC

2. THE PROJECT PROPONENT SHALL COMPLY WITH THE PROVISIONS OF POLICY 7.4.4.4 BY MEETING THE RETENTION REQUIREMENTS AND [illegible] REPLACEMENT RATIO OF OPTION A, PROVIDING ON - OR OFF-SITE MITIGATION AS ESTABLISHED [illegible] POLICY 7.4.4.4 AND ITS INTERIM GUIDELINES.

3. THE MITIGATION MAY BE PHASED TO REFLECT THE TIMING OF THE TREE CANOPY REMOVAL SUCH AS REMOVAL ASSOCIATED WITH STREET AND INFRASTRUCTURE GRADING AND GRADING ASSOCIATED WITH CONSTRUCTION OF SINGLE FAMILY DWELLINGS AND ACCESSORY STRUCTURES.

4. THE PROJECT IMPACTS WILL RESULT IN THE FOLLOWING MITIGATION ALLOCATIONS
OPTION A REMOVAL (ROADS & GRADING) ____ [illegible] (BY DEVELOPER)
OPTION A REMOVAL (LOTS ONLY) ____ 4.27 AC (SEE NOTE [illegible])
TOTAL REMOVAL ____ [illegible] AC

5. THE DEVELOPER RESERVES THE RIGHT TO CHANGE THIS ALLOCATION AS LONG AS OVERALL OAK CANOPY REMOVAL ON INDIVIDUAL LOTS DO NOT EXCEED ALLOWED REMOVAL UNDER OPTION A ([illegible] AC).

6. THE ARBORIST MAY REQUIRE THE REMOVAL OF ADDITIONAL TREES IF HE WARRANTS THEM TO BE A HAZARD WITHIN OR OUTSIDE OF THE CONSTRUCTION LIMITS AND/OR BUILDING SITES. THESE TREES ARE NOT SUBJECT TO REPLACEMENT STANDARDS PER INTERIM GUIDELINES APPROVED FOR POLICY 7.4.4.4 IF THE ARBORIST FINDS THEM DEAD, DISEASED OR DYING.

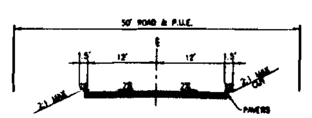
7. TREE PROTECTION FENCING SHALL BE PLACED AFTER COMPLETION OF TREE REMOVAL OPERATIONS AND PRIOR TO CLEARING AND GRUBBING.

8. OPTION B IS NOT AVAILABLE AT THE TIME OF PREPARATION OF THIS MAP. IN AN EVENT PAYMENT OF FEE IN LIEU OF CANOPY REPLACEMENT BECOMES AVAILABLE, THE APPLICANT RESERVES THE RIGHT TO CHANGE HIS MITIGATION OPTION IN COMPLIANCE WITH ADOPTED ZONING ORDINANCE.

OPTION "A" LOT CANOPY REMOVAL *

LOT #	AREA
1	0.53
2	0.53
3	0.53
4	0.53
5	0.53
6	0.53
7	0.53
8	0.53
TOTAL	4.27

*MAX ALLOWED REMOVAL ON RESIDENTIAL LOTS



6" CHIP SEAL OR AS DETERMINED BY R VALUE

TYPICAL SECTION
SCALE: 1"=10'

NO ON-STREET PARKING
PARKING MAY BE ACCOMMODATED THROUGH
THE USE OF PARKING BAY(S) PER HILLSIDE STANDARDS

cta Engineering & Surveying
Civil Engineering • Land Surveying • Land Planning

RECEIVED
PLANNING DEPARTMENT

M:\12-029-001\PLANNING\TENTATIVE MAP\12-029-001 TPP.dwg, 4/18/2013 4:28:29 PM, dmerlo

HISTORIC RESOURCE ASSOCIATES
HISTORIC ARCHITECTURE • ARCHAEOLOGY • HISTORICAL & GENEALOGICAL RESEARCH

05 DEC -8 PM 3:29

RECEIVED
PLANNING DEPARTMENT

July 26, 2005

Shawn Nejatian
2020 Kaila Way
El Dorado Hills, CA 95762

Re: Cultural Resources Study for APN. 110-020-32 & 30, El Dorado County, CA

Dear Mr. Nejatian :

This letter, together with the attached cultural resource documents, provides evidence that the aforementioned parcel (APN. 110-020-32 & 30) was surveyed for cultural resources in December 1992. The referenced report is "Archaeological Survey Report of Assessors Parcel No. 110-020:10 & 11, A Parcel Split East of El Dorado Hills, California, prepared for Kenneth Purcell, P.O. Box 909, Shingle Springs, CA 95682" (Supernowicz 1992).

No significant cultural properties were identified in APN. 110-020-32 & 33, although several cultural properties were identified to the south within the Naef property, which were mitigated in the report entitled "Archaeological Investigation Report of the Historic Thomson Ranch Site, APN. 110:430:100, 03, and 04" (Supernowicz January 2004). We have also submitted a copy of this report, along with the aforementioned report to satisfy any conditions required by the county regarding cultural resource studies within these parcels. If you have any questions, please do not hesitate to contact me.

Respectfully,

Dana E. Supernowicz

2001 Sheffield Drive
El Dorado Hills, CA 95762-5905
Tel: 916-941-1864
Fax: 916-941-9466
Email: historic.resource@comcast.net

Attachment 8

Z 07-0043
TM 07-1458

ARCHAEOLOGICAL SURVEY REPORT

OF ASSESSORS PARCEL NO. 110:020:10 & 11

A PARCEL SPLIT EAST OF EL DORADO HILLS

EL DORADO COUNTY, CALIFORNIA

DECEMBER 1992

Prepared For:

Kenneth W. Purcell
P.O. Box 909
Shingle Springs, CA 95682

Leon Naef (Applicant)
1740 Salmon Falls Road
El Dorado Hills, CA 95762

Prepared By:

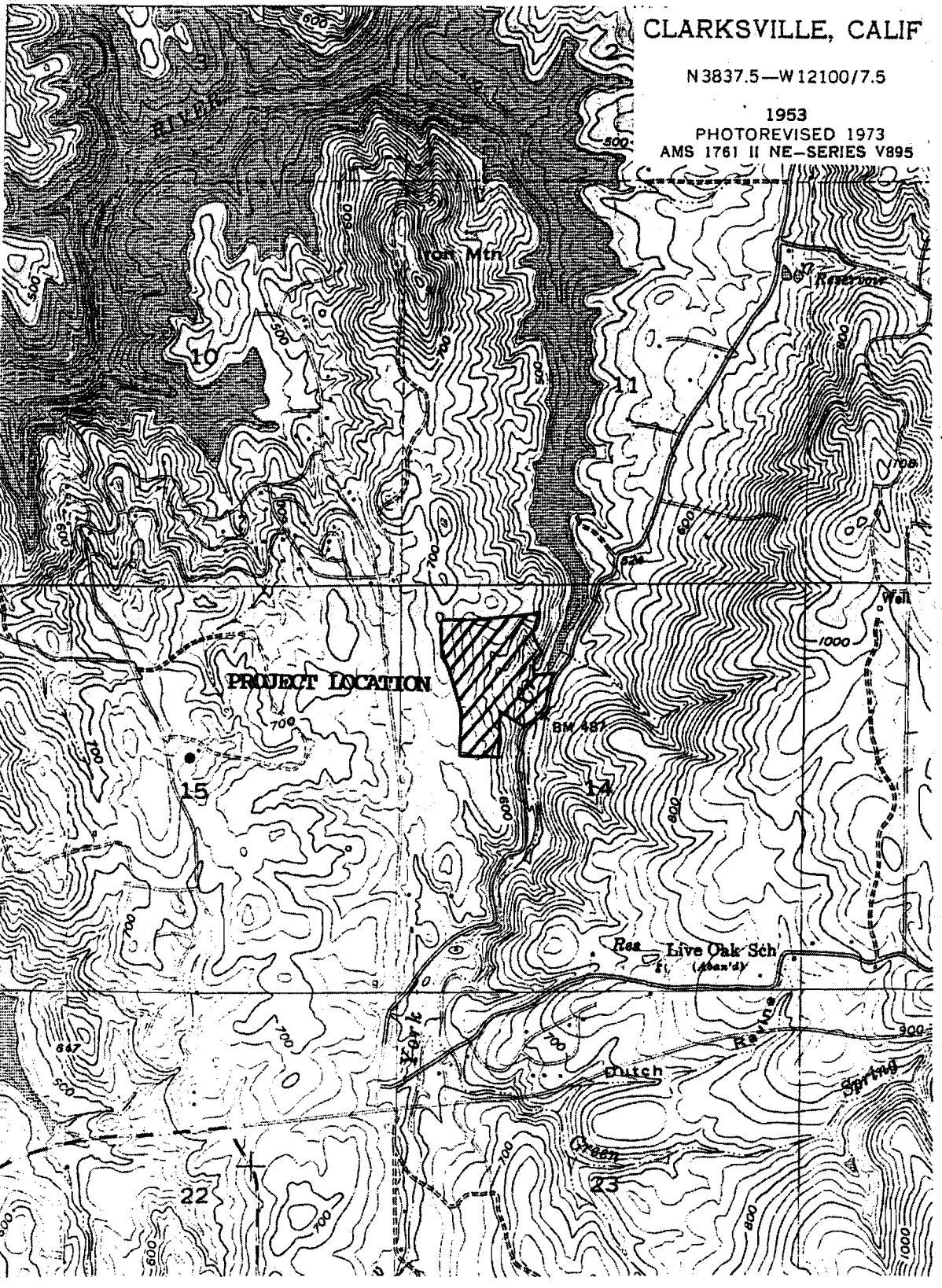
Dana E. Supernowicz
Archaeological/Historical Consultant
5441 Rolling Rock Road
Placerville, CA 95667

Z 07-0043
TM 07-1458

Permanent Trinomial: CA-
Supplement:
Other Designation:

PROJECT LOCATION MAP

Naef Parcel Split



The 1895 Official Map of El Dorado County and the 1908 Map depict the alignment of Salmon Falls Road on the east side of New York Creek, an apparent realignment if the map is correct. The owner of the property, which at that time contained 80 acres, was one A. Thompson. From an examination of these maps, it seems apparent that Salmon Falls Road was realigned to its present course prior to 1895. Therefore, the roadbed bisecting the subject property was built prior to 1895 and perhaps as early as 1850.

None of the maps examined indicate a house on the subject property, but surface artifacts suggest that the site was occupied through the 1930s or as late as the 1940s. The size of the trunks of the walnut trees indicate they are no older than the 1920s. No nineteenth century surface artifacts were found associated with the apparent older features, the pad and dry-laid rock fireplace. This may suggest that the site was cleared by later occupants, who grazed livestock on the property or that the site was occupied only briefly before it was abandoned.

Therefore, given the paucity of artifacts distributed across the site, their age, and lack of association, it cannot be demonstrated without further research if the site meets CEQA criteria, Appendix K. It is therefore determined that the site has potential to contribute important information on historic land use in El Dorado County and that the features representing the site be preserved through a building setback or other open space easement. If this cannot be achieved, then it is recommended that additional work be conducted to make a final determination of significance under CEQA, and if the site is significant, mitigate the site through data recovery.

ARCHAEOLOGICAL INVESTIGATION REPORT

OF THE HISTORIC THOMSON RANCH SITE

A.P.N. 110:430:04-100 & 110:430:03 and 04

NEAR SALMON FALLS

EL DORADO COUNTY, CALIFORNIA

JANUARY 2004

Prepared For:

Leon Naef
2041 Kaila Way
El Dorado Hills, CA 95762

Prepared By:

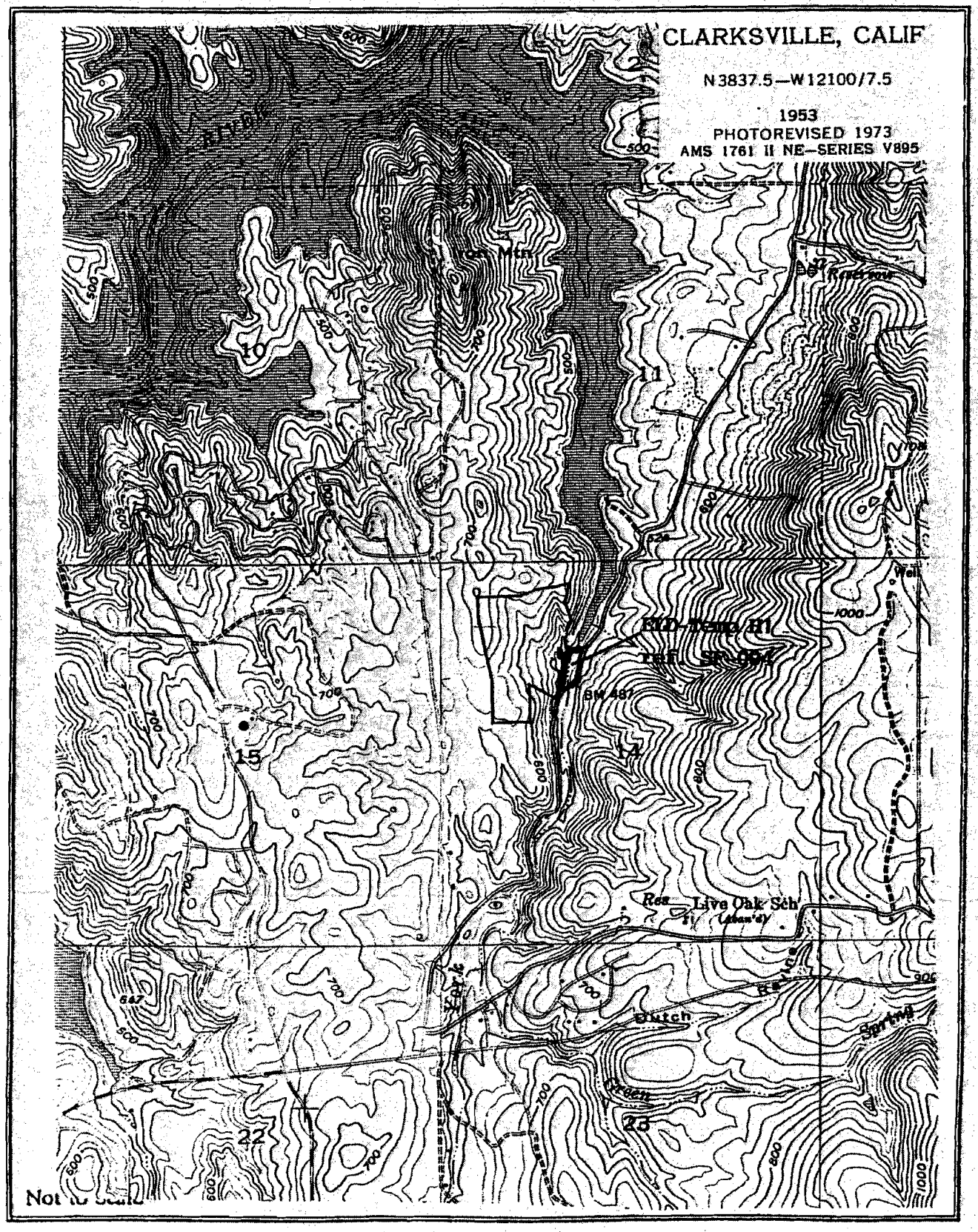
Historic Resource Associates
2001 Sheffield Drive
El Dorado Hills, CA 95762

Z 07-0043
TM 07-1458

Permanent Trinomial: CA
Supplement:
Other Designation:

ARCHAEOLOGICAL SITE LOCATION MAP

Page ___ of ___.



side of Salmon Falls Road adjacent to New York Creek. The Naef family desires to construct two single family homes within the two parcels, each varying in size to approximately 5 acres. The legal description of the property is a portion of the NW 1/4 of Section 14, Township 10 North, Range 8 East, MDM.

The subject of this study is the site of Thomson Ranch, also listed as Thompson in historic records, recorded as SF-004/ELD-Temp H1. After a more careful examination, and excavations, the subject property was found to include additional cultural features, including a trash deposit associated with the Thomson family. All the identified properties, which enjoy common historic boundaries, were relocated and tested for their archaeological data potential. In addition, archival research and oral history was expanded from the original study, providing important new information about the subject properties.

IV. STUDY FINDINGS

Archaeological Testing at the Thomson Ranch Site, ELD-Temporary H1, which also included additional archival research and oral history, was necessary to determine the significance of the historic property based on CEQA standards, as they pertain to the California Register of Historic Resources. Fieldwork was largely accomplished by the process of metal detection, limited hand excavation, shovel tests, and a mechanical excavator. Where dense clusters of artifacts were uncovered, that feature was more fully excavated to determine depth, spatial area, temporal context, diagnostic context, stratigraphy, and potential significance. The focus of the excavation was to positively date the properties, display their range of artifactual constituents, and, hopefully, uncover intact, stratigraphic subsurface artifactual evidence that would link the features to specific research questions leading to a final determination of significance.

From the combination of this evidence, several observations were made:

> (1) Based upon surface and subsurface archaeological evidence, documentary records, and oral history, two distinct house sites were documented, the earliest dating to the late 1860s or 1870s and the latest dating to the late-1930s or mid-1940s.
>
> (2) Although there were other owners of the subject property during the nineteenth century, evidence suggests that the Thomson family appears to have owned the property since 1887 and Theodore Thomson and his family occupied the property from 1912 through the mid-1940s. During the occupation of the property, the Thomson family appears to have lived a modest life, typical of other quasi-mining/agrarian families in El Dorado County during the late nineteenth through mid-twentieth centuries

(3) Subsurface features were generally shallow, with the exception of an intentionally filled depression, which appears to date between 1910-1930, when Theodore Thomson had taken possession of the property following his father, Zacarias Thomson's death in 1898 and his mother's death around 1904.

(4) Archaeological evidence failed to provide much detail regarding the architectural characteristics of any of the buildings within the subject property. Square cut and round or wire nails excavated from the property, however, were useful in defining periods of occupation. The lack of archaeological (architectural) evidence was largely the result of Theodore Thomson's dismantling of the residence and other buildings on the property and taking the materials to Folsom for reuse on another residence. Oral history and archival information, however, was more productive and did confirm the architectural design and characteristics of the 1912-1944 home owned by the Thomson family (refer to attached Photographic Record).

(5) The oldest house or cabin site evidenced by a partial standing rock and clay mortared chimney was likely built by miners in the 1860s living on the subject property, but who perhaps did not hold legal title to the property. Very few artifacts were found associated with the cabin, suggesting its occupation was short-lived. The cabin appears to pre-date Zacarias Thomson's ownership of the property in the 1880s.

In summary, the Thomson Ranch features reflect early twentieth to mid-twentieth century settlement patterns found throughout most of the western slopes of El Dorado County. The property's archaeological constituents did confirm what archival and oral history suggested regarding the dates of occupation and functions of the various features within the larger property. The archaeological data, however, was not as important as was the oral history and family documents provided by Hazel Lindelof (nee Thomson) and Carl Thomson. Therefore, while archaeological data was collected and interpreted, although of some importance, the data does not appear to rise to a level of significance that would make the property eligible under Criterion 4 of CEQA (California Register of Historic Resources). The data potential of the site is largely exhausted, and since no standing architectural properties exist, this report provides ample information to interpret its historical evolution.

Migianella

Wildland Fire Safe Plan

Prepared for:

Marie Mitchell

Prepared by:

CDS Fire Prevention Planning
William F. Draper
Registered Professional Forester
#898
4645 Meadowlark Way
Placerville, CA 95667

July 21, 2013

Attachment 9

Miglianella Safe Plan

Plan Approved by:

7/30/13
Michael Isenthal, Battalion Chief — Date
Fire Marshal
El Dorado Hills Fire Department

7-24-13
Darla McFarlin, Fire Captain — Date
Fire Prevention
California Department of Forestry
and Fire Protection

Prepared by:

8-1-13
William F. Draper — Date
RPF 598

CONTENTS

I. PURPOSE AND SCOPE

Communities are increasingly concerned about wildfire safety. Drought years coupled with flammable vegetation and annual periods of severe fire weather insure the potential for periodic wildfires.

The purpose of this plan is to assess the wildfire hazards and risks of the Migianella development, to identify measures to reduce these hazards and risks and to protect the native vegetation. There are moderate fuel hazards and moderate topography associated with this proposed development both on and adjacent to the project.

The possibility of large fires occurring when the Migianella project is complete will be reduced. However, small wildfires in the open space areas and on the larger lots may occur due to the increase in public uses.

Incorporation of the fire hazard reduction measures into the design and maintenance of the development will reduce the size and intensity of wildfires and help prevent catastrophic fire losses. State and County regulations provide the basic guidelines and requirements for fire safe mitigation measures and defensible space around dwellings. This plan builds on these basic rules and provides additional fire hazard reduction measures customized to the topography and vegetation of the development with special emphasis on the interface of homes and wildland fuels.

The scope of the Migianella Wildland Fire Safe Plan recognizes the extraordinary natural features of the area and designs wildfire safety measures which are meant to compliment and become part of the community design. The Plan contains measures for providing and maintaining defensible space along roads and around future homes. Plan implementation measures must be maintained in order to assure adequate wildfire protection.

Homeowners who live in and adjacent to the wildfire environment must take primary responsibility along with the fire services for ensuring their homes have sufficient low ignitability and surrounding fuel reduction treatment. The fire services should become a community partner providing homeowners with technical assistance as well as fire response. For this to succeed, it must be shared and implemented equally by homeowners and the fire services.

II. FIRE PLAN LIMITATIONS

The Wildland Fire Safe Plan for the Migianella development does not guarantee that wildfire will not threaten, damage or destroy natural resources, homes or endanger residents. However, the full implementation of the mitigation measures will greatly reduce the exposure of homes to potential loss from wildfire and provide defensible space for firefighters and residents as well as protect the native vegetation. Specific items are listed for homeowner's attention to aid in home wildfire safety.

III. THE MIGIANELLA WILDLAND FIRE SAFE PLAN

1. PROJECT DESCRIPTION

The Migianella development is located within the unincorporated community of El Dorado Hills on a generally east facing flat to moderate slope and lies between Salmon Falls Road to the east and Lakehills Drive to its west. This project will divide APN's: 110-020-45 and 110-430-01 consisting of 26.05 acres into 8 lots ranging in size from 3 acres to 5 acres. All lots are over 1 acre in size and must meet the full fire safe clearance requirements. Access is from Salmon Falls Road to Kaila Way. A cul-de-sac, road "A" and "B", will come off of Kaila Way providing access to parcels 1, 3 through 8. A new driveway will go north along the east side of the development to provide access to parcel 2. Also, the cul-de-sac at the end of road "B" will be at the property line between parcels 7 and 8. The key topographic features are the flat to moderate slopes and the oak canopy shading much of the property.

Kaila Way will be rebuilt to bring the road grade down to within 15% for 325'. All other segments of Kaila Way and Road "A" shall meet the specifications of the Transportation Division. Road "B" shall be longer than 1,320' and have an approved turn around at its end. There will be a "T" turn around between parcels 3 and 5.

Structural fire protection is provided by the El Dorado Hills Fire Department and wildland fire protection by the California Department of Forestry and Fire Protection (CALFIRE). A fire hydrant system will serve the new area. Water is to be supplied by El Dorado Irrigation District.

2. PROJECT VEGETATION (FUELS)

For wildfire planning purposes the vegetation is classified as follows:

(a) ground fuels- annual grasses and poison oak, vineyard and scattered down trees and limbs (Brush)
(b) overstroy- scattered stands of Blue Oaks and Liveoak and individual Gray Pines

Light to moderate fuel loading is throughout the property. There are larger parcels on the east, north and west outside of this development. There are pockets of wildland along these borders of the project in the developed parcels. Downed trees and dense oak canopy mixed with the brush comprise the problem of fuel laddering. Ladder fuels are mainly oak limbs and poison oak. Oak canopy crown closure may require some thinning of the overstory trees. Gray Pines (digger pines) should be eliminated as they are a very hazardous tree.

Lakehills Court borders parcel 1 on the north end of this development and provides marginal access and buffer from wildfire threat. Folsom Lake lies to the northeast of this development.

3. PROBLEM STATEMENTS

A. The grass/brush fuels will ignite and have a rapid rate of spread.

Fire in the grass/brush fuels on the slopes of the development are the most serious wildfire problem for this project.

B. Risk of fire starts will increase with development.

The greatest risk from fire ignition will be along roads, in the open space areas and on large lots as human use on these areas increase.

C. Provisions must be made to maintain all fuel treatments.

The wildfire protection values of fuel reduction are rapidly lost if not maintained. Annual maintenance by June 1 of each year is necessary.

D. Typical home design and siting often does not recognize adequate wildfire mitigation measures.

A review of many wildfires has conclusively shown that most home losses occur when: (1) there is inadequate clearing of flammable vegetation around a house, (2) roofs are not fire resistant, (3) homes are sited in hazardous locations, (4) firebrand ignition points and heat traps are not adequately protected and (5) there is a lack of water for suppression.

4. GOALS

A. Modify the continuity of high hazard vegetation fuels.
B. Reduce the size and intensity of wildfires.
C. Ensure defensible space is provided around all structures.
D. Design fuel treatments to minimize tree removal
E. Ensure fuel treatment measures are maintained.
F. Identify fire safe structural features.
G. Help homeowners protect their homes from wildfire.

5. WILDFIRE MITIGATION MEASURES

Wildfire mitigation measures are designed to accomplish the Goals by providing and maintaining defensible space and treating high hazard fuel areas. Fire hazard severity is reduced through these mitigation measures. The Wildfire Fire Safe Plan places emphasis on defensible space around structures.

Migianella

Eight lots are planned that are three plus acres in size. A new road, Road "A" will be built to a minimum of 24 feet of travel surface with a 20 foot wide fuel hazard reduction zone along each side of the roadway. The new road will have rolled curbs to provide added width for vehicle passage on the roadway. The road shall be posted "No Parking". A cul-de-sac will be at the end. This road shall be longer than 1,320' as agreed to with the fire agencies. A "T" turn around will be built along road "A" between parcels 3 and 5. The fuel hazard reduction zone shall be annually maintained. The roads and cul-de-sac shall conform to El Dorado Transportation Division (TD) specifications. The road "B" is yet to be named.

A long driveway will be constructed from the end of Kaila Way to serve parcel 2. Driveways longer than 400' shall have a turnout built near the driveway mid-point. The turnout for parcel 2 shall be at the curve in the drive. A turn-around will also be built at the end of the driveway near the new residence. (See TD Guideline)

One existing residence is on parcel 1. There is a new vineyard on this parcel as well as parcels 3 and 4.

Fuels are dense stands of oak and scattered open grasslands. Tree limbs, brush and pockets of poison oak are the major ladder fuels. Appendix B outlines the treatment of oaks.

The project is in a Moderate Fire Hazard Severity Zone. Implementation of Wildland-Urban Interface Fire Areas Building Standards will be required for the construction of new residences. These standards address roofing, venting, eave enclosure, windows, exterior doors, siding, and decking.

Clearance along the road and around structures is very important and necessary. Fire Safe specifications state that all trees in the fuel hazard reduction zones shall be thinned so the crowns are not touching. Branches on the remaining trees shall be pruned up 10 feet as measured on the uphill side of the tree. Brush shall be removed. Grass shall be kept mowed to a 2 inch stubble annually by June 1. Any tree crown canopy over the road or driveways shall be pruned at least 15 feet up from the roadway surface.

The fuel hazard reduction zone shall continue along both sides of the driveways and be at least 20' wide. This zone is in addition to the clearances required by state law. The State required Fire Safe clearances PRC 4291) shall be implemented around all structures (See CALFIRE Guidelines). Clearances may be required at the time of construction by the County.

More restrictive standards maybe applied by approving El Dorado County authorities. Approval of this plan does not guarantee approval of this project.

Mitigation Measures:

- **All lots shall be landscaped to Firescaping Standards Zones I and II (Appendix A).**
    - **a. Responsibility- homeowner within one year of occupancy**

- **Driveways over 400 feet shall provide for a turnout near the midpoint of the driveway. Vertical clearance for the entire length of the driveway will be 15 feet. Driveways over 300 feet in length shall have a turn-around at the residence.**
    - **a. Responsibility- homeowner**

- **All homes shall have Class A listed roof and assembles and siding of fire resistant material.**
    - **a. Responsibility- homeowner**

- **Decks that are cantilevered over the natural slope shall be enclosed.**
    - **a. Responsibility- homeowner (See Appendix C for guidelines)**

- **All lots shall have a 30 foot setback for buildings and accessory buildings or to all property lines which ever is less and a 30 foot setback from the center of the road.**
    - **a. Responsibility- builder**

6. BUILDING SETBACKS ON ONE ACRE OR LARGER LOTS

State SRA Regulations (1276.01) requires a minimum of a 30 foot setback from all property lines or to the center of the road for lots 1 acre or larger.

7. OTHER FIRE SAFE REQUIREMENTS

A. A Notice of Restriction shall be filed with the final subdivision map which stipulates that a Wildfire Fire Safe Plan has been prepared and wildfire mitigation measures must be implemented.

B. A copy of the Wildfire Fire Safe Plan shall be given to each new landowner within the development.

C. Each new property owner prior to construction shall be required to contact El Dorado Community Development Agency/Building Division to have the residential fire sprinkler plan approved. All fire sprinkler systems shall be designed and installed by a licensed contractor.

D. Road improvements and fire hydrants shall be completed prior to the filing of the final map or completion of a "Bonding and Completion Plan".

E. The project shall meet all the Public Resource Codes 4290 as amended (the 1991 SRA Fire Safe Regulations- Article 2 Access, Article 3 Signing, Article 4 Water, Article 5 Fuels), County and Fire Department ordinances.

F. A legal entity (HOA) shall be created with authority for maintaining and enforcing all fuel treatment mitigation measures if homeowners fail to implement or maintain. Covenants, Conditions and Restrictions must be developed to ensure the enforcement of the structural and vegetation Fire Safe regulations and the maintenance of the fuel hazard reduction zones.

G. The fire hydrant system shall meet the California Fire Code specifications to water volume, pressure and spacing.

H. The homeowner/property owner is responsible for any future fire safe or building code changes adopted by the State or local authority.

I. All driveways must be a minimum of 12 feet wide with a minimum of 15 feet of vertical clearance over the driveway and a 20 foot wide fuel treatment zone on both sides.

J. All gates must be at least 2 feet wider than the driveway they gate. Gates must be set into the property a minimum of 30 feet from the edge of the roadway.

K. Fuel treatment along public roads and driveways shall have all fuels within 20 feet of the shoulder of the roadway treated annually by June 1 (See Appendix B).

L. The fuel hazard reduction zone along driveways may incorporate irrigated landscaping providing the planting is less than 24" in height and has low flammability.

M. Clearance requirements may be required by El Dorado County at the time of construction.

N. All roads 24 feet wide or less shall be posted "No Parking".

O. Residential construction contractors may be required to submit a parking plan to El Dorado Hills Fire Department to insure off street parking during construction.

P. Fencing adjacent to open space shall be constructed from nonflammable material.

Q. The El Dorado Hills Fire Department Weed Abatement ordinance shall apply to any vacant lot.

E. Appendix

Appendix A

MIGIANELLA

Firescaping Standards

Firescaping is an approach to landscaping to help protect homes from wildland fires. The goal is to create a landscape that will slow the advance of a wildfire and create a Defensible Space that provides the key point for fire fighting agencies to defend the home. This approach has a landscape zone surrounding the home containing a balance of native and exotic plants that are fire and drought resistant, help control erosion, and are visually pleasing. Firescaping is designed not only to protect the home but to reduce damage to oaks and other plants.

Zone I

The zone extends to not less than 30 feet from all structures **or to the property line** in all directions and has a traditional look of irrigated shrubs, flowers gardens, trees and lawns. All dead trees, brush, concentrations of dead ground fuels (tree limbs, logs etc. exceeding 1inch in diameter) are removed. All native oak trees and brush species are pruned up to 6-8 feet above the ground as measured on the uphill side but no more than 1/3 of the live crown. The plants in this zone are generally less than 18 inches in height, must be slow to ignite from wind blown sparks and flames. Such plants produce only small amounts of litter and retain high levels of moisture in their foliage year around. Native and exotic trees are permitted inside the Zone, but foliage may not be within 10 feet of the roof or chimney. Gray pines shall be excluded from this area. Grass and other herbaceous growth within this zone must be irrigated or if left to cure must be mowed to a 2 inch stubble, chemically treated or removed. Such treatment must be accomplished by June 1, annually. This zone has built in firebreaks created by driveways, sidewalks etc.

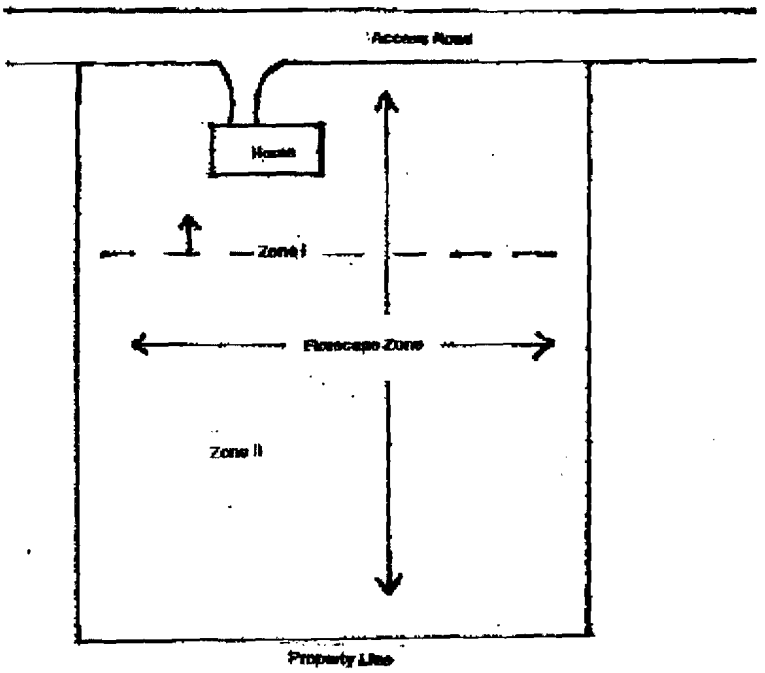
Zone II

This Zone adds to Zone I and extends 70 feet or **to the property line** from all structures in all directions and is a transition area to the outlying vegetation. The zone is a band of low growing succulent and ground covers designed to reduce the intensity, flame length and rate of spread of an approaching wildfire. Irrigation may be necessary to maintain a quality appearance and retain the retardant ability of the plants. All dead trees, brush, concentration of dead ground fuels (tree limbs, logs etc.) exceeding 2 inches in diameter are removed. Annual grasses are mowed after they have cured to a 2 inch stubble by June 1, annually. Native trees and brush species are preserved and pruned of limbs up to 8 feet above the ground as measured on the uphill side.

For All Zones With Live Oaks

Mature, multi stemmed Live Oaks can present a serious wildfire problem if untreated. Treat the Live Oaks as to the following specifications: (a) remove all dead limbs and stems and (b) cut off green stems at 8 feet above the ground as measured on the uphill side that arch over and are growing down towards the ground.

APPENDIX A-1
FIRESCAPING ZONES
EXHIBIT



Typical Lot in Oak Woodland
(schematic, no scale)

APPENDIX B
MIGIANELLA
FUEL TREATMENT SPECIFICATIONS
For
OAK WOODLAND VEGETATION
Within The Designated Fuel Treatment Areas

1. Leave all live trees.

2. Remove all dead trees.

3. Remove all brush ladder fuels.

4. Prune all live trees of dead branches and green branches 8 feet from the ground as measured on the uphill side of the tree, except no more than 1/3 of the live crown is removed. All slash created by pruning must be disposed of by chipping or hauling off site.

5. Annually by June 1, reduce the grass or weeds to a 2 inch stubble by mowing, chemical treatment, disking or a combination of treatments.

6. With mature, multi stem Live Oak trees, remove all dead limbs and stems, cut off green stems at 8 feet above the ground as measured on the uphill side that arch over and are growing down towards the ground.

7. Mistletoe needs to be pruned from oaks. Trees with over 50% mistletoe in the crown should be removed/replaced.

8. Gray pines, if left, must be isolated with nothing growing within their dripline.

9. Oak canopy over the driveways shall be thinned so that it is less than 50% canopy closure.

APPENDIX C

MIGIANELLA
ENCLOSED DECK GUIDELINES

The purpose of enclosing decks that are cantilevered out over the natural slope is to help prevent heat traps and fire brands from a wildfire igniting the deck or fuels under the deck.

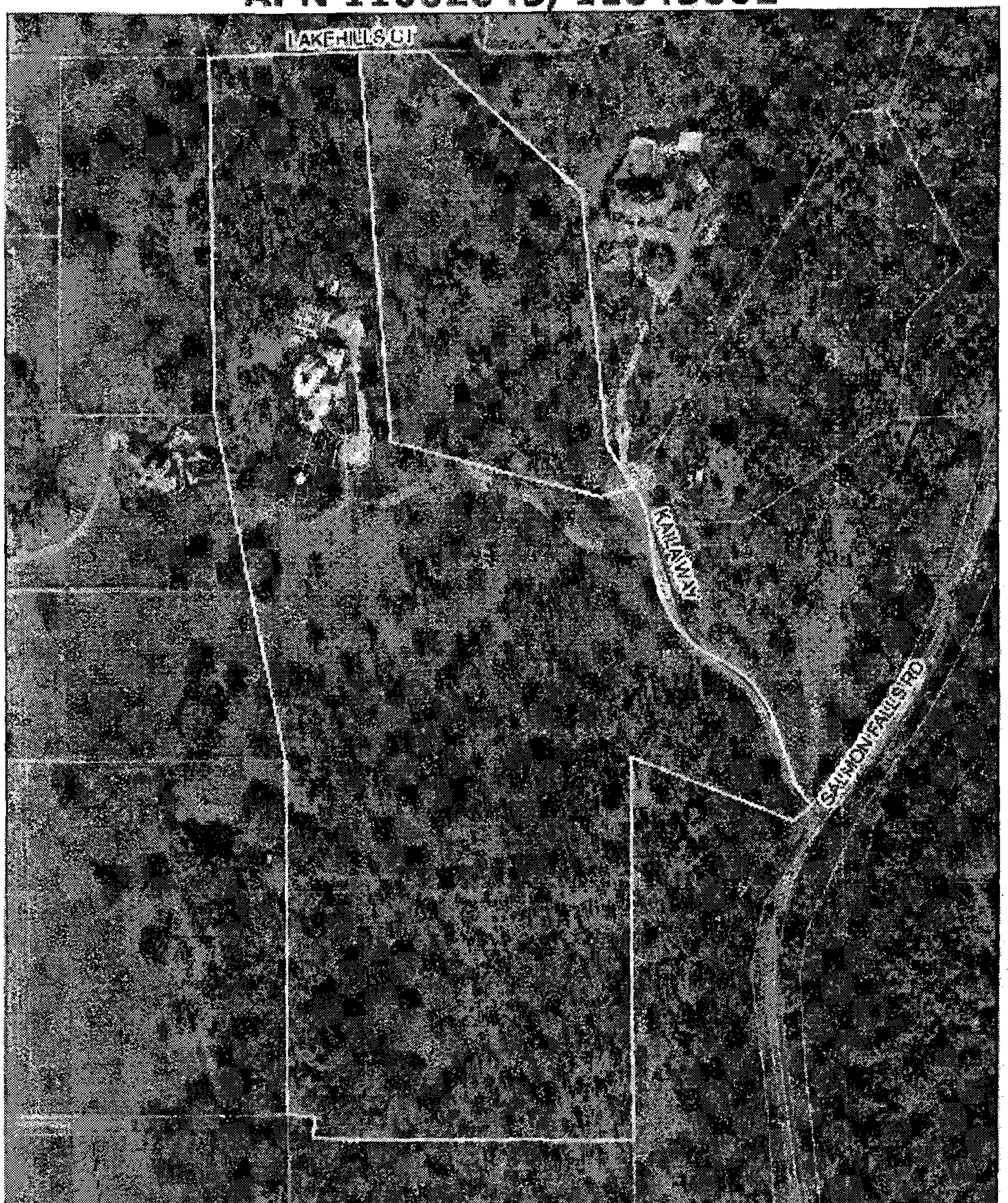
1. Does not apply to decks that are constructed using fire resistant materials such as concrete, steel, stucco etc.

2. Any deck shall not include non fire rated composite deck material.

3. Applies to decks one story or less above natural slopes.

4. Combustible material must not be stored under the deck.

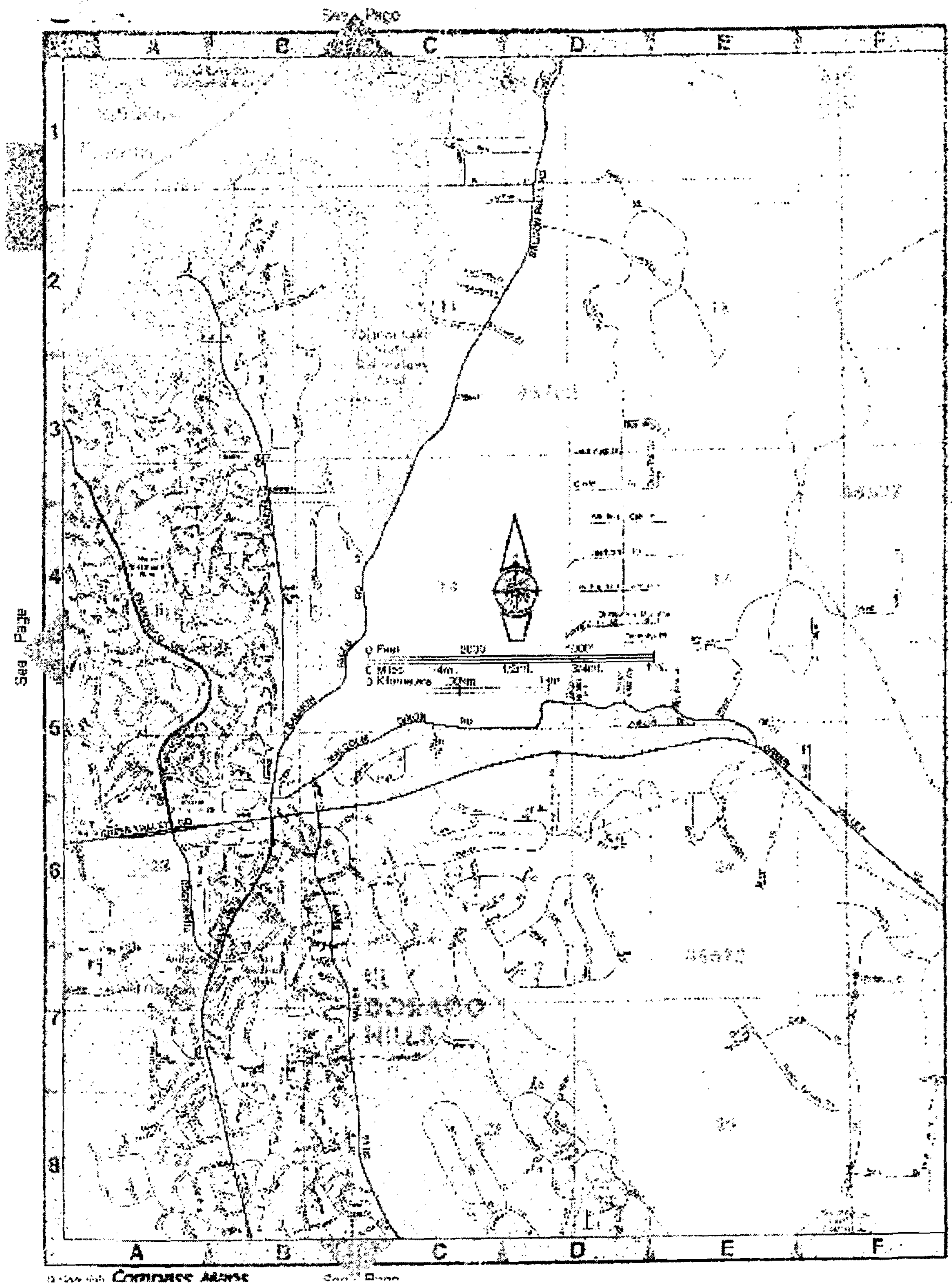
APN 11002045, 11043001

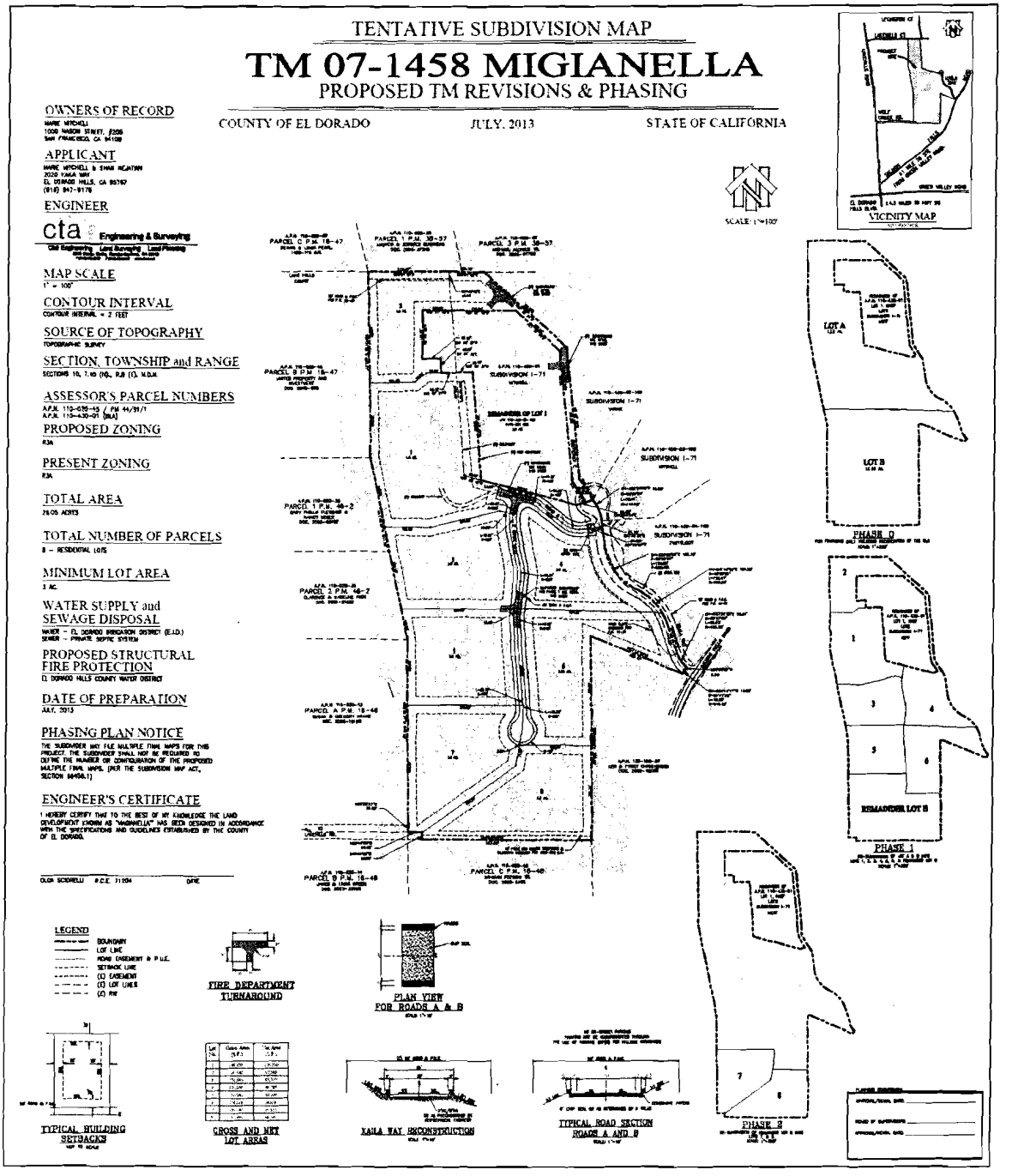


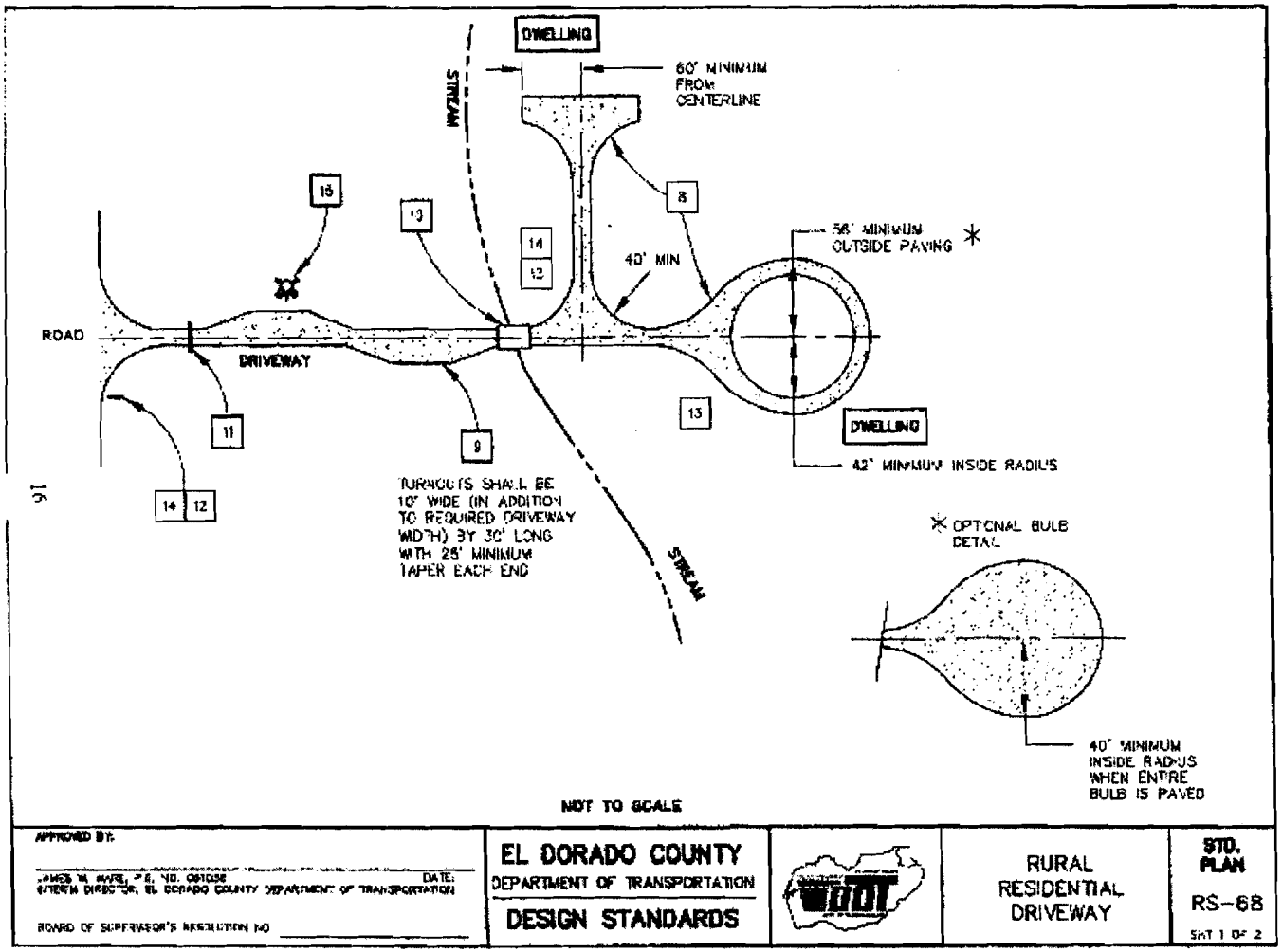
0 100 200

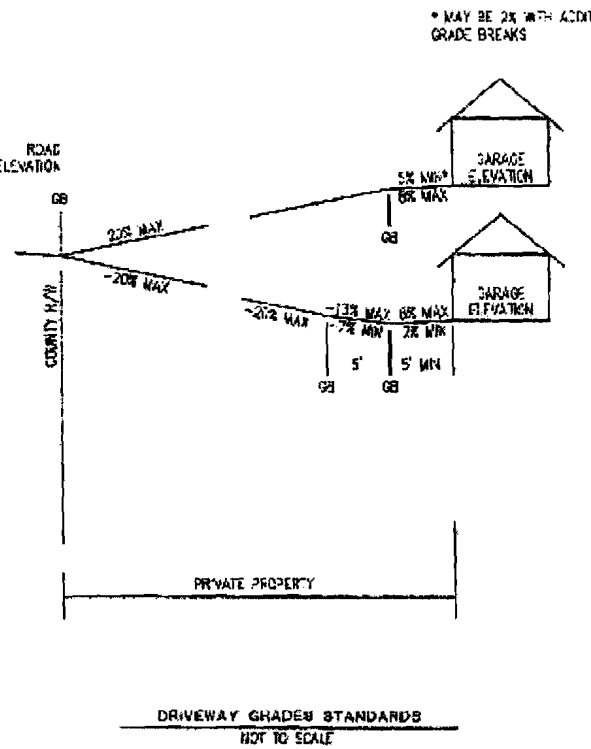
Feet

Map displayed in State Plane Coordinate System


See Page
A B C D E F
1
2
3
4
5
6
7
8
See Page
Compass Maps


TENTATIVE SUBDIVISION MAP
TM 07-1458 MIGIANELLA
PROPOSED TM REVISIONS & PHASING
COUNTY OF EL DORADO
JULY, 2013
STATE OF CALIFORNIA
OWNERS OF RECORD
APPLICANT
ENGINEER
cta Engineering & Surveying
MAP SCALE
1" = 100'
CONTOUR INTERVAL
CONTOUR INTERVAL = 2 FEET
SOURCE OF TOPOGRAPHY
TOPOGRAPHIC SURVEY
SECTION, TOWNSHIP and RANGE
ASSESSOR'S PARCEL NUMBERS
PROPOSED ZONING
PRESENT ZONING
TOTAL AREA
TOTAL NUMBER OF PARCELS
8 - RESIDENTIAL LOTS
MINIMUM LOT AREA
3 AC.
WATER SUPPLY and SEWAGE DISPOSAL
PROPOSED STRUCTURAL FIRE PROTECTION
EL DORADO HILLS COUNTY WATER DISTRICT
DATE OF PREPARATION
JULY, 2013
PHASING PLAN NOTICE
ENGINEER'S CERTIFICATE
SCALE: 1"=100'
VICINITY MAP
LOT A
LOT B
PHASE 2
REMAINDER LOT B
PHASE 1
PHASE 3
LEGEND
FIRE DEPARTMENT TURNAROUND
PLAN VIEW FOR ROADS A & B
TYPICAL BUILDING SETBACKS
CROSS AND NET LOT AREAS
KAILA WAY RECONSTRUCTION
TYPICAL ROAD SECTION ROADS A AND B


DWELLING
60' MINIMUM FROM CENTERLINE
STREAM
15
13
14
12
8
40' MIN
56' MINIMUM OUTSIDE PAVING *
ROAD
DRIVEWAY
11
9
13
DWELLING
42' MINIMUM INSIDE RADIUS
14
12
TURNOUTS SHALL BE 10' WIDE (IN ADDITION TO REQUIRED DRIVEWAY WIDTH) BY 30' LONG WITH 25' MINIMUM TAPER EACH END
STREAM
* OPTIONAL BULB DETAIL
40' MINIMUM INSIDE RADIUS WHEN ENTIRE BULB IS PAVED
NOT TO SCALE
APPROVED BY:
DATE:
BOARD OF SUPERVISOR'S RESOLUTION NO
EL DORADO COUNTY
DEPARTMENT OF TRANSPORTATION
DESIGN STANDARDS
DOT
RURAL RESIDENTIAL DRIVEWAY
STD. PLAN
RS-68
SHT 1 OF 2



DRIVEWAY GRADES STANDARDS

NOT TO SCALE

NOTES:

1. MAXIMUM 10% GRADE BREAK BETWEEN DRIVEWAY SECTIONS (I.E. AREAS IN DRIVEWAY WHERE GRADE CHANGES). ADDITIONAL GRADE BREAKS ARE ALLOWED.
2. DRIVEWAY CONNECTING TO A COUNTY MAINTAINED ROAD REQUIRES A COUNTY ISSUED ENCROACHMENT PERMIT. SEE APPLICABLE ENCROACHMENT STANDARD PLAN
3. EACH DRIVEWAY SHALL SERVE NO MORE THAN TWO BUILDINGS WITH NO MORE THAN THREE DWELLING UNITS ON A SINGLE PARCEL, AND ANY NUMBER OF ACCESSORY BUILDINGS.
4. GRADE NOT TO EXCEED 18% (DRIVEWAY GRADE MAY BE UP TO 20% WHEN PAVED). 12' WIDE MINIMUM. CENTERLINE RADIUS ON CURVES 5 50' MINIMUM. VERTICAL CLEARANCE OF 15' MINIMUM.
5. DRIVEWAY SURFACE MUST BE ALL-WEATHER AND SUPPORT 75,000 POUNDS MINIMUM. SURFACING ON 6OR COMPACTED SOIL IS 6" AGGREGATE BASE. ALTERNATE SURFACING DESIGNS MAY BE PERMITTED FROM A CIVIL ENGINEER CERTIFYING THE DRIVEWAY WILL SUPPORT A 75,000 POUND LOAD AND BE ALL-WEATHER.
6. DRIVEWAYS AT OR ABOVE 3,000 FT ELEVATION SHALL INCLUDE PARKING AREAS AS SET FORTH IN THE COUNTY'S ZONING CODE.
7. IF IN THE TAHOE BASIN, DRIVEWAY MUST MEET TRPA REQUIREMENTS AND THE REQUIREMENTS OF THIS STANDARD PLAN WHERE THEY DO NOT CONFLICT.
8. TURN AROUNDS SHALL BE HAMMERHEAD, "T" OR PEAR SHAPED BULB. TURNAROUND WILL BE NO MORE THAN 50' FROM BUILDINGS WHEN DRIVEWAY EXCEEDS 300' IN LENGTH.
9. DRIVEWAYS EXCEEDING 150' IN LENGTH, BUT LESS THAN 800' IN LENGTH, SHALL PROVIDE A TURNOUT NEAR THE MIDPOINT OF THE DRIVEWAY. WHERE THE DRIVEWAY EXCEEDS 800', TURNOUTS SHALL BE PROVIDED NO MORE THAN 400' APART. TURNOUTS SHALL BE SURFACED SAME AS THE DRIVEWAY
10. BRIDGES AND CULVERTS SHALL BE DESIGNED BY A CIVIL ENGINEER AND SHALL SUPPORT A MINIMUM LOAD OF 75,000 POUNDS. SIGNS SHALL BE POSTED ON BRIDGE WHEN ADEQUATE TO INDICATE THE WEIGHT LIMIT, WIDTH AND HEIGHT RESTRICTIONS. SINGLE LANE BRIDGES REQUIRE TURNOUTS ON EACH SIDE OF THE BRIDGE.
11. GATES SHALL OPEN TO PROVIDE A CLEAR OPENING AT LEAST 2 FEET WIDER THAN THE DRIVEWAY AND NOT LESS THAN 14 FEET WIDE. GATE TO BE LOCATED 30' MINIMUM FROM THE ROAD, AND OPEN AWAY FROM THE ROAD.
12. ADDRESSES TO BE 4" HIGH WITH 3/8" STROKE WIDTH LETTERS OR NUMBERS, REFLECTORIZED WITH CONTRASTING BACKGROUND AND VISIBLE FROM BOTH DIRECTIONS. MULTIPLE ADDRESSES SHALL BE ON A SINGLE POST.
13. ALL INTERSECTIONS SERVING DWELLING UNITS SHALL HAVE ADDRESS SIGNS THAT CLEARLY IDENTIFY THE LOCATION OF EACH DWELLING UNIT.
14. ADDRESS SIGNS MUST BE CLEARLY VISIBLE ABOVE SNOW HEIGHT. CONTACT THE APPLICABLE FIRE PROTECTION DISTRICT FOR SPECIFIC HEIGHT REQUIREMENTS
15. FIRE APPARATUS SPACE SHALL BE LOCATED NEXT TO FIRE HYDRANTS, STANDPIPES OR WATER SUPPLY APERTURES.
16. VARIATIONS TO THIS STANDARD MAY ONLY BE APPROVED BY THE FIRE PROTECTION DISTRICT HAVING JURISDICTION.

APPROVED BY:

JAMES W. MARE, P.E. NO. C61008 DATE:
INTERIM DIRECTOR, EL DORADO COUNTY DEPARTMENT OF TRANSPORTATION

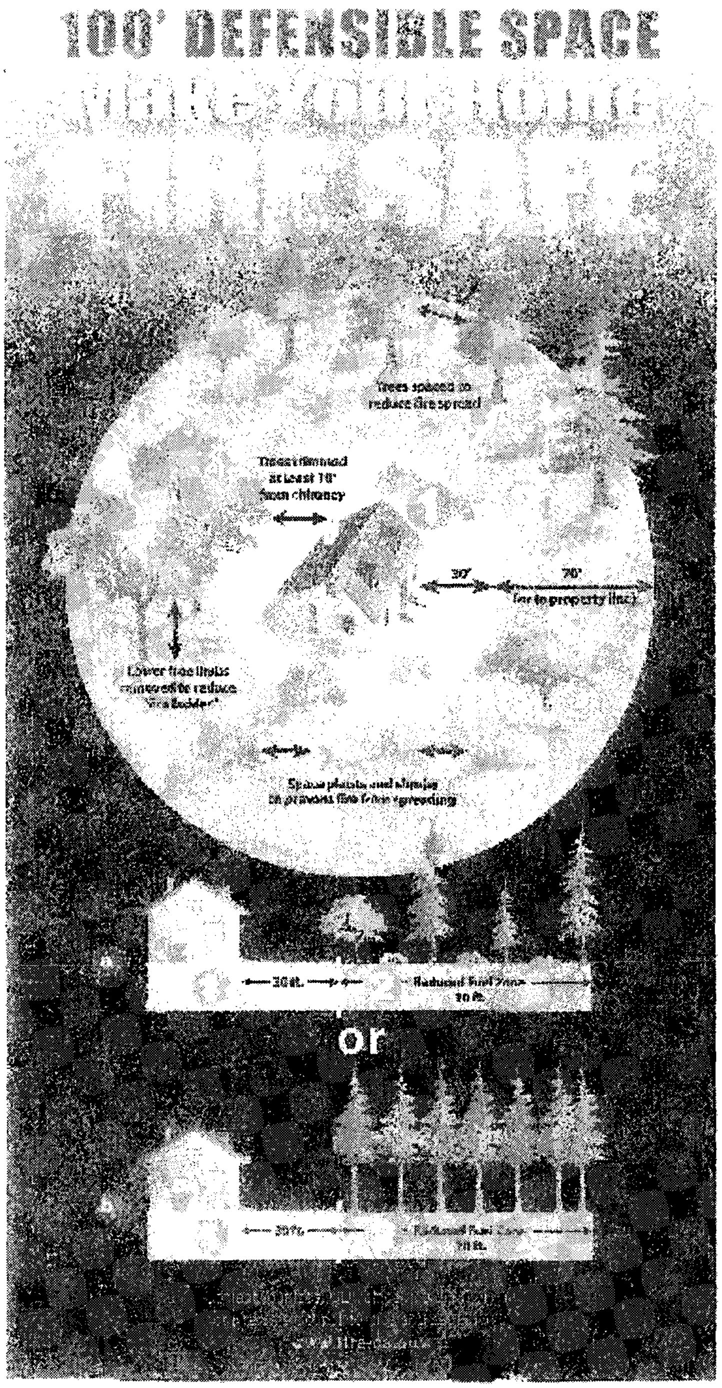
BOARD OF SUPERVISOR'S RESOLUTION NO. _____

EL DORADO COUNTY
DEPARTMENT OF TRANSPORTATION
DESIGN STANDARDS

RURAL RESIDENTIAL DRIVEWAY

STD. PLAN
RS-68
SHT 2 OF 2

CAL FIRE GUIDELINE



Why 100 Feet?

[illegible]

A defensible space of 100 feet around your home is required by law.[1] The goal is to protect your home while providing a safe area for firefighters.

[illegible]

– Clearing an area of 30 feet immediately surrounding your home is critical. This area requires the greatest reduction in flammable vegetation.

[illegible]

– The fuel reduction zone in the remaining 70 feet (or to property line) will depend on the steepness of your property and the vegetation.

Spacing between plants improves the chance of stopping a wildfire before it destroys your home. You have two options in this area:

- Create horizontal and vertical spacing between plants. The amount of space will depend on how steep the slope is and the size of the plants.
- Large trees do not have to be cut and removed as long as all of the plants beneath them are removed. This eliminates a vertical "fire ladder."

When clearing vegetation, use care when operating equipment such as lawnmowers. One small spark may start a fire; a string trimmer is much safer.

Remove all dead [illegible] – [illegible] needles and leaves from your roof and gutters. Keep tree limbs trimmed at least 10 feet from any chimneys and remove dead limbs that hang over your home or garage. The law also requires a screen over your chimney outlet of not more than ½ inch mesh.

[1] [illegible]

State of California
Department of Forestry and Fire Protection

NOTICE OF
FIRE HAZARD INSPECTION

A representative from CAL FIRE has inspected your property for fire hazards. You are hereby notified to correct the violation(s) indicated below.
Failure to correct these violations may result in a citation and fine.

Occupant:	Physical Address:	Phone #:

Occupant Not Home: 1st Attempt: ___/___/___	Occupant Not Home: 2nd Attempt: ___/___/___	Refused Inspection: ( )	For Questions, Contact Inspector at: ( ) -	Battalion #:

Roof Construction: Combustible/Non-Combustible	Exterior Siding: Combustible/Non-Combustible	Window Panes: Single Pane/Double Pane	Eaves: Enclosed/Unenclosed	Decks or Porches: Masonry/Composite/Wood	Location of Structure: Flat Ground/Slope/Ridge Top

Checked boxes indicate violations.

Defensible Space Zone (within 30 feet of all structures or to property line):

- ☐ 2 3 A. Remove leaves, needles or other vegetation on roofs, gutters, decks, porches and stairways etc. PRC §4291(a)(6)
- ☐ 2 3 B. Remove all dead trees, shrubs or other plants adjacent to or overhanging buildings. PRC §4291(a)(5)
- ☐ 2 3 C. Remove all dead or dying branches and stums from trees, shrubs or other plants adjacent to or overhanging buildings. PRC §4291(a)(5)
- ☐ 2 3 D. Remove all branches within 10 feet of any stovepipe or chimney outlet. PRC §4291(a)(4)
- ☐ 2 3 E. Remove all dead or dying grass, leaves, needles or other vegetation. PRC §4291(a)(1)
- ☐ 2 3 F. Remove or isolate live flammable ground cover and shrubs (i.e. Bear Clover, Mountain Misery, Juniper etc.). PRC §4291(a)(1)

Reduced Fuel Zone (within 30 - 100 feet of all structures or to property line):

- ☐ 2 3 G. Mow dead or dying grass to a maximum of 4 inches in height. Trimmings may remain on the ground. PRC §4291(a)(1)
- ☐ 2 3 H. Live flammable ground cover less than 18 inches in height (i.e. Mountain Misery, Bear Clover etc.) may remain, but overhanging and adjacent trees must be pruned up to 15 feet. PRC §4291(a)(1)
- ☐ 2 3 I. Reduce fuels in accordance with the Continuous Tree Canopy Standard (see back). PRC §4291(a)(1)
- ☐ 2 3 J. Reduce fuels in accordance with the Horizontal Spacing Standard (see back). PRC §4291(a)(1)

Defensible and Reduced Fuel Zone (within 100 feet of all structures or to property line):

- ☐ 2 3 K. Logs or stumps embedded in the soil must be removed or isolated from structures and other vegetation. PRC §4291(a)(1)
- ☐ 2 3 L. Remove all dead or dying brush, trees and branches within 15 feet of the ground. PRC §4291(a)(1)

Other Requirements:

- ☐ 2 3 M. Clear dead, dying or flammable vegetation within 10 feet around and above propane tanks. CFC §3807.3
- ☐ 2 3 N. Address numbers shall be displayed in contrasting colors (4" Min. Size) and readable from the street or access road. CFC §505.1

Recommendations.

Other Recommendations:

- ☐ Cover all chimney or stovepipe openings with a metal screen having openings no larger than 1/2 inch.
- ☐ Clear 10 feet around and 15 feet above fuels (i.e. Woodpiles, lumber, scrap etc.). Move woodpiles as far as possible from structures.
- ☐ Remove flammable materials stored under decks and similar overhangs of structures.
- ☐ Clear vegetation 10 feet from sides and 15 feet above all driveways and turnaround areas.

Comments:

Additional Information on Back

Complete only if occupant contacted

1. Inspector:_____ Date:___/___/___ A re-inspection will occur on/after: ___/___/___
2. Inspector:_____ Date:___/___/___ A re-inspection will occur on/after: ___/___/___
3. Inspector:_____ Date:___/___/___

AEU 0209

(White-Inspector, Canary-1st to Occupant, Pink-2nd to Occupant, Gold-3rd to Occupant)

El Dorado Irrigation District

In reply refer to: FIL0410-012

April 27, 2010

Marie Mitchell
2020 Kaila Way
El Dorado Hills, CA 95762

Subject: Facility Improvement Letter (FIL), Migianella Subdivision
Assessor's Parcel No. 110-020-45 (El Dorado Hills)
EDC Project No: Z07-0043/ TM07-1458

Dear Ms. Mitchell:

This letter is in response to your request dated April 15, 2010. This letter is valid for a period of one year. If facility improvement plans for your project have not been submitted to the District within one year of the date of this letter, a new FIL will be required.

Design drawings for your project must be in conformance with the District's *Water, Sewer, and Recycled Water Design and Construction Standards*.

This project is an 8-lot residential subdivision on 25.04 acres. Water service and fire hydrants are requested. The property is within the District boundary. This letter is not a commitment to serve, but does address the location and approximate capacity of existing facilities that may be available to serve your project.

Water Supply

In terms of water supply, as of January 1, 2009 there were approximately 3,597 equivalent dwelling units (EDUs) available in the El Dorado Hills Water Supply Region. Your project, as proposed on this date, would require 7 additional EDUs of water supply.

Water Facilities

The El Dorado Hills Fire Department has determined that the minimum fire flow for this project is 1000 GPM for a 2-hour duration while maintaining a 20-psi residual pressure. According to the District's hydraulic model, the existing system can deliver the required fire flow. In order to provide this fire flow and receive service, you must construct a water line extension connecting to the existing 10-inch water line stub located in Lakehills Court.

Attachment 10 TM 07-1458-E-R1/ BLA13-0015

The hydraulic grade line for the existing water distribution facilities is 820 feet above mean sea level at static conditions and 816 feet above mean sea level during fire flow and maximum day demands.

The flow predicted above was developed using a computer model and is not an actual field flow test.

Easement Requirements

Proposed water lines, sewer lines, and related facilities must 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 will be permitted within the easements of any existing or proposed facilities. The District must have unobstructed access to these easements at all times, and does not generally allow water or sewer facilities along lot lines.

Easements for any new District facilities constructed by this project must be granted to the District prior to District approval of water and/or sewer improvement plans, whether onsite or offsite. In addition, due to either nonexistent or prescriptive easements for some older facilities, any existing onsite District facilities that will remain in place after the development of this property must also have an easement granted to the District.

Environmental

The County is the lead agency for environmental review of this project per Section 15051 of the California Environmental Quality Act Guidelines (CEQA). The County's environmental document should include a review of both offsite and onsite water and sewer facilities that may be constructed by this project. You may be requested to submit a copy of the County's environmental document to the District if your project involves significant offsite facilities. If the County's environmental document does not address all water and sewer facilities and they are not exempt from environmental review, a supplemental environmental document will be required. This document would be prepared by a consultant. It could require several months to prepare and you would be responsible for its cost.

Summary

Service to this proposed development is contingent upon the following:

- The availability of uncommitted water supplies at the time service is requested.
- Approval of the County's environmental document by the District (if requested)
- Approval of an extension of facilities application by the District
- Approval of facility improvement plans by the District
- Construction by the developer of all onsite and offsite proposed water and sewer facilities
- Acceptance of these facilities by the District
- Payment of all District connection costs

Services shall be provided in accordance with El Dorado Irrigation District Board Policies and Administrative Regulations, as amended from time-to-time. As they relate to conditions of and fees for extension of service, District Administrative Regulations will apply as of the date of a fully executed Extension of Facilities Agreement.

If you have any questions, please contact Marc Mackay at (530) 642-4135.

Sincerely,

Elizabeth D. Wells

Elizabeth D. Wells, P.E.
Engineering Division Manager

EW/MM:pc

Enclosures: System Map

c: Brad Ballenger, Fire Marshal
El Dorado Hills Fire Department
1050 Wilson Blvd
El Dorado Hills, CA 95762

Gene E. Thorne & Associates, Inc.
4080 Plaza Goldorado Circle
Cameron Park, CA 95682

Roger Trout, Director
El Dorado County Development Services Department,
2850 Fairlane Court
Placerville, CA 95667

Olga Sciorelli

From: Mackay, Marc <mmackay@eid.org>
Sent: Thursday, May 16, 2013 11:29 AM
To: Olga Sciorelli
Cc: Wells, Elizabeth
Subject: RE: Migianella FIL 0410-012 Reminder

Hello Olga,

At this time EID will not require an updated FIL as we have had no formal activity with this project for several months, an updated FIL would not contain significantly different information regarding available capacity or potential connection points. The requirement for a valid FIL will be evaluated at such time as Improvement Plans are to be submitted.

Regards,

Marc Mackay, QSP
Associate Engineer
El Dorado Irrigation District
OFFICE: (530)642-4135

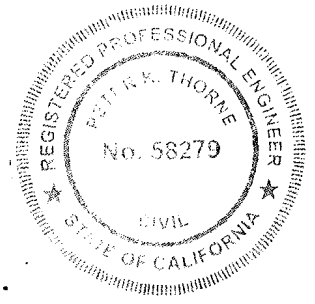
PRELIMINARY DRAINAGE REPORT

FOR

MIGINELLA SUBDIVISION

PREPARED BY:

GENE E. THORNE & ASSOCIATES, INC.
4080 PLAZA GOLDORADO CIRCLE
CAMERON PARK, CA 95862-8257
530.677.1747/916.985.7745



REVIEWED BY:

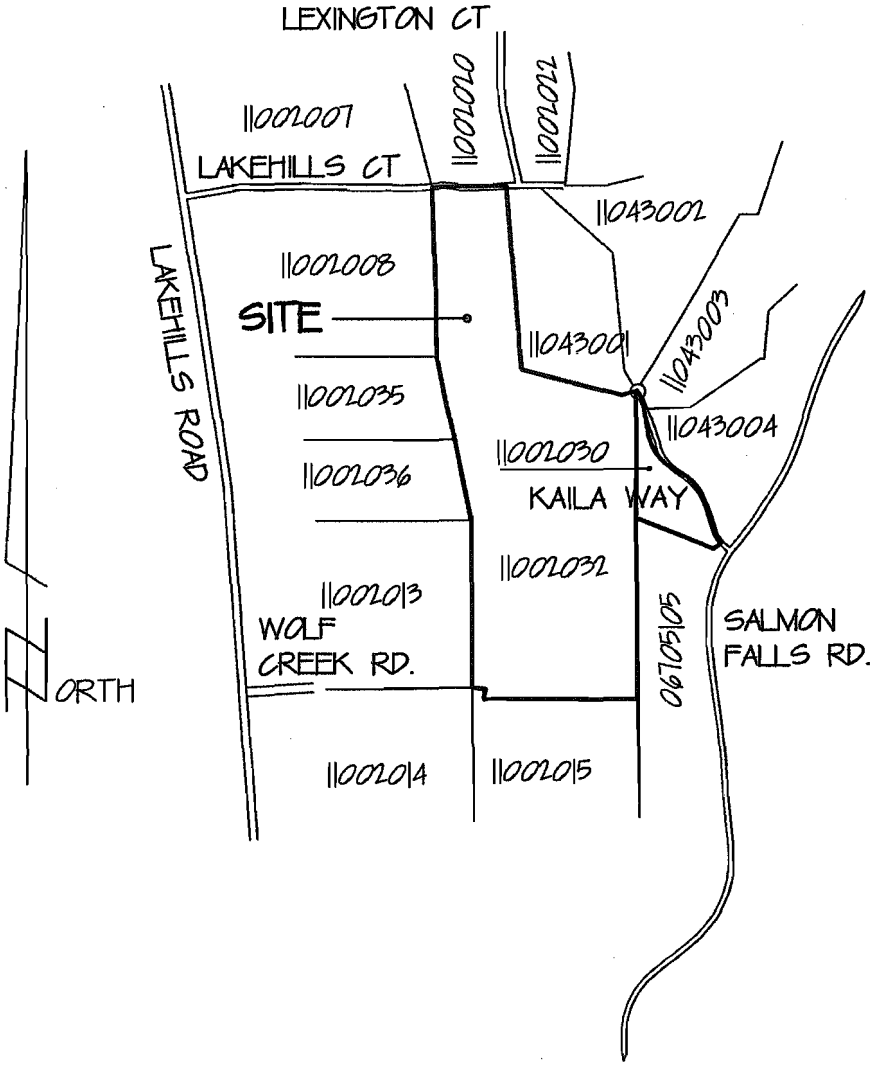
.....
PETER K. THORNE, RCE 58279

27 AUGUST 2007

Attachment 11

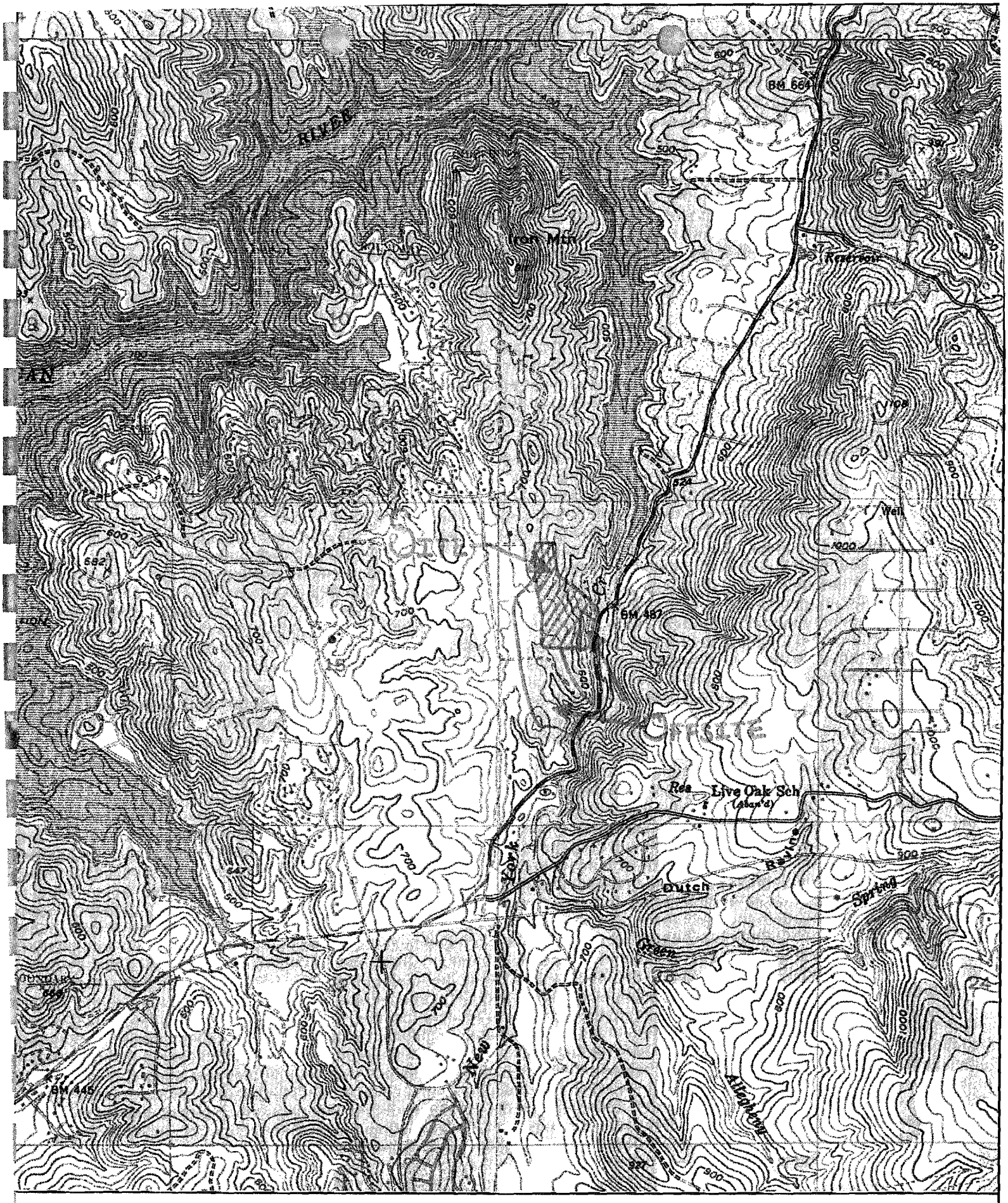
Z 07-0043
TM 07-1458

TABLE OF CONTENTS



VICINITY MAP

NOT TO SCALE



Name: CLARKSVILLE
Date: 8/28/2007
Scale: 1 inch equals 2000 feet

Location: 038° 43' 28.91" N 121° 04' 33.79" W NAD 27

INTRODUCTION AND BACKGROUND

This property is located approximately 1 mile north of Green valley and west of Salmon Falls Road and Kaila Way in El Dorado Hills, California. The site is currently owned by Marie Mitchell and Shan Nejatian, and encompasses approximately 25.04 acres.

The site and the surrounding area are covered with brush, trees, and grass. The drainage in the area exits the site at five different points (See drainage exhibits for Points "A", "B", "C", "D" and "E"). The largest runoff (Areas 02 and 02a) travels southeast and crosses Salmon Falls Road through an existing 24" pipe, located south of the site along Salmon Falls Road. Then, the runoff flows east into New York Creek, which eventually, reaches Folsom Lake. Similarly, the second largest runoff (Areas 03, and 03a) travels southeast into an existing 24" pipe, which crosses under Kaila Way, and then into New York Creek.

Runoff from areas 04 and 04a discharge into a proposed 18" pipe at the bulb of Kaila Way and sheet flows into New York Creek. Area 05 sheet flows into New York Creek and then into Folsom Lake. For Area 01, water travels west and eventually reaches Folsom Lake. See Quad Map. The drainage for the site was analyzed using The Hydrograph Method as discussed in Section 2.3 and 2.4 of the El Dorado County Drainage Manual, adopted March 14, 1995.

A detention facility was used to reduce site runoff to pre-development flow rates.

PROCEDURE

A. *Runoff Areas: See the attached drainage shed maps located in the appendix of this report.*

B. *Mean Annual Precipitation, Pptn:*

We located the Project on the El Dorado County mean annual rainfall map, and determined from the map the annual rainfall for the Project.

Use Pptn = 26 inches (see Appendix 1)

C. *Unit Hydrograph:*

Using the Mean Annual Precipitation, and the El Dorado Design Rainfall Tables (See Appendix 2), both 10 and 100 year event Rainfall Depths are determined. This information is then entered into Bentley Civil Storm Type 1 SCS Storm Event to produce a Temporal Distribution Model (Cumulative Rainfall) for the 10 and 100-year events (See Appendix 3). From the Temporal Distribution Model (Cumulative Rainfall), the rainfall excess and the incremental excess values are estimated per Section 2.4 of the EDC Drainage Manual. Then, the runoff hydrograph is computed using the incremental rainfall excess per Section 2.4.2 of the EDC Drainage Manual.

D. *Time of Concentration, Tc:*

Per Section 2.4 of the EDC Drainage Manual, using Bentley Civil Storm software, all catchments have been analyzed based on the addition of sheet flow, shallow concentrated flow and channel flow using Soil Groups, Curve Numbers etc. to determine appropriate time of concentration for the catchments.

See attached Catchment Calculation Summary (Appendix 4) for Tc of each drainage area. A minimum time of concentration of 5 minutes was used.

E. *Flow Analysis:*

Bentley Civil Storm computes all flows for the entire network for each storm event. The output can be found in the calculations section and appendix 4 of this report. In the calculations section, the graphical representations of the pipes demonstrate the maximum level of water in the system during the 100-year storm event.

G. *Pipes Size Requirements:*

Pipes are sized to convey the 10-year event within the pipe, and to convey the 100-year event within the storm structures. See the calculations section for pipe size requirements.

SUMMARY AND CONCLUSIONS

Pre-Development:

The flow for a 100-year storm event does not exceed the capacity of the two existing CMP's at Point B and Point C (CO-01 and CO-02 respectively). However, the (E) 8" culvert at the bulb of Kaila Way floods and needs to be replaced. See Pre Development Storm Drain Profiles section for profiles.

Post-Development:

At post-development conditions, there is no increase in runoff for the 100-year storm event at Point "A." Also, with the replacement of the (E) 8" CMP with an 18" CMP at Kaila Way, the runoff from a 100-year storm event will be conveyed (see Post Development Storm Drain Profiles). On-site structures are sized to accommodate 10 and 100 year storm events.

Due to post-development conditions, there is an increase in runoff at point "B" of 2.31% WITHOUT detention for the 100-year storm event. With the addition of a detention facility, there is a reduction in flow of 5.12% for the 100-year storm event (see table below).

Overall, there is a reduction in runoff of 3.01% for the 100-year storm event (see table below). See Post-Development Exhibits in the back of this report.

Detention Pond:

The detention pond has been designed to reduce the flow to or below pre-existing conditions using an 8" pipe as the flow control outlet structure. The 8" orifice allows the proposed pond to maintain a minimum of 1.5 feet of freeboard. See Pond Table Report.

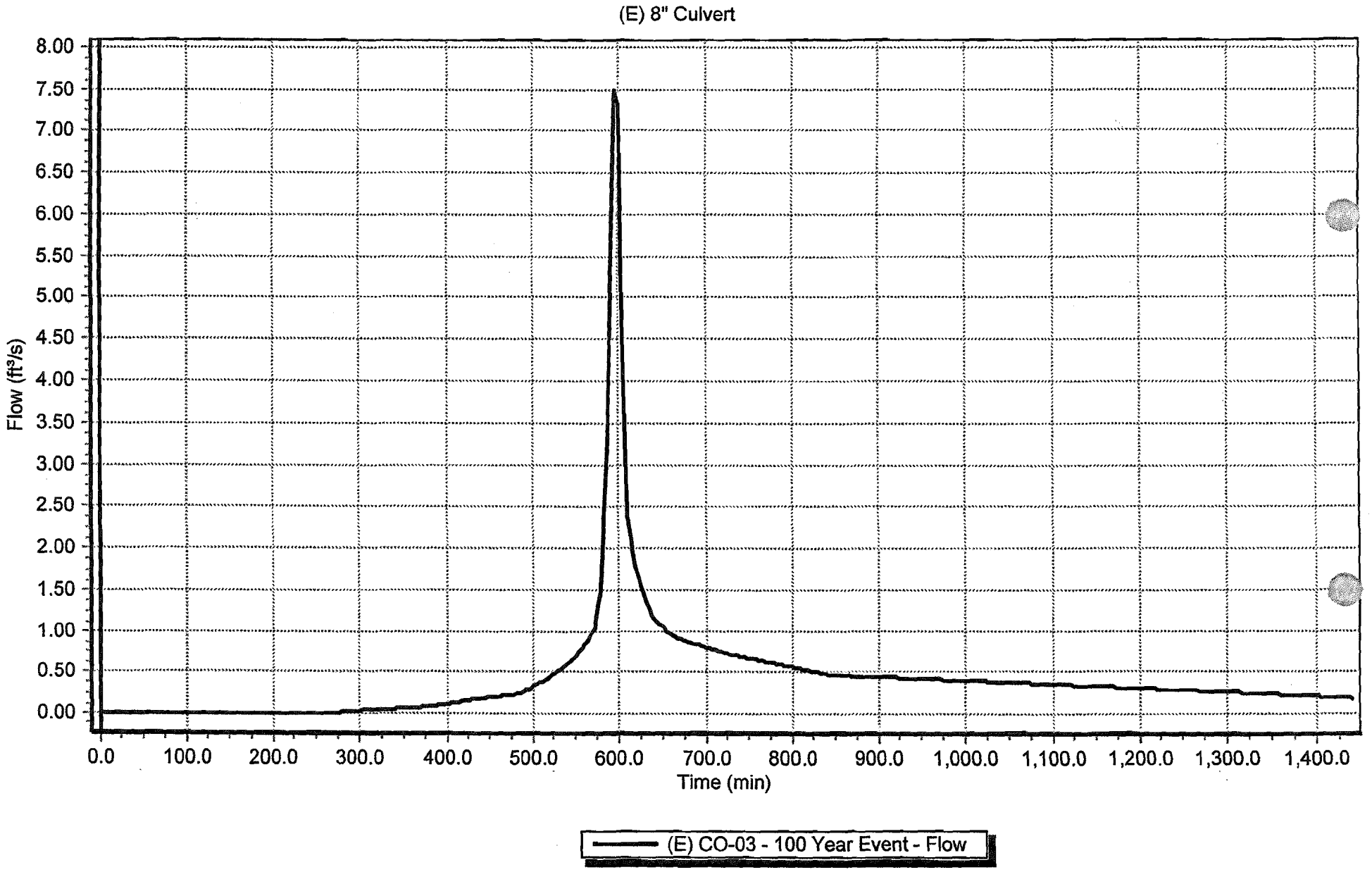
On-site structures are sized to accommodate all expected storm events.

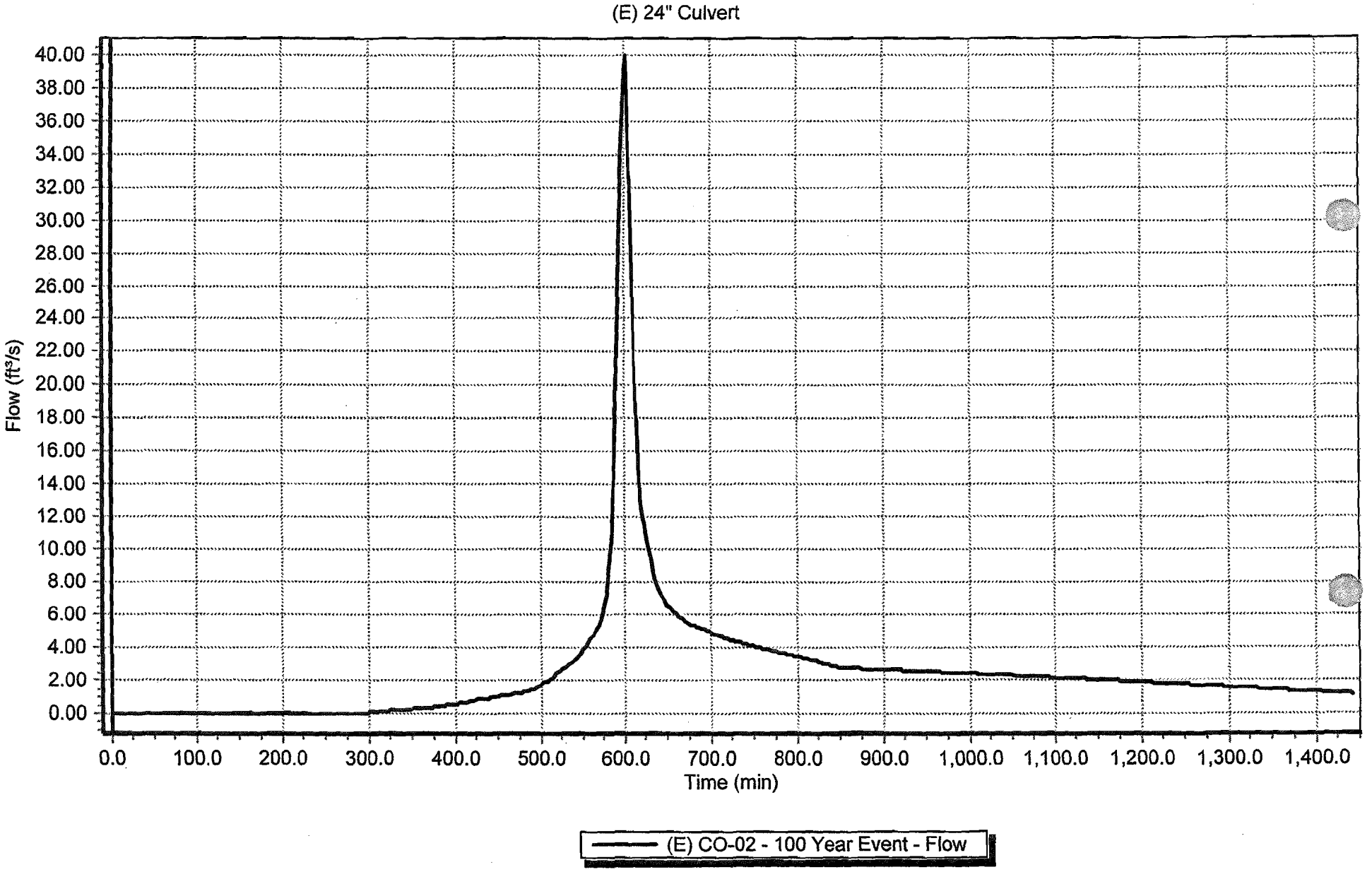
Release Point	Pre Development		Post Development Without Detention		Post Development With Detention	
	Q_{10}	Q_{100}	Q_{10}	Q_{100}	Q_{10}	Q_{100}
Point A	0.57	1.02	0.57	1.02	0.57	1.02
Point B	29.82	53.61	30.47	54.5	28.45	50.2
Point C	22.71	40.52	22.6	39.57	21.94	38.13
Point D	4.26	7.48	7.02	12.02	7.02	12.02
Point E	3.93	7.04	2.91	5.09	2.91	5.09
Total	61.29	109.67	63.57	112.2	60.89	106.46

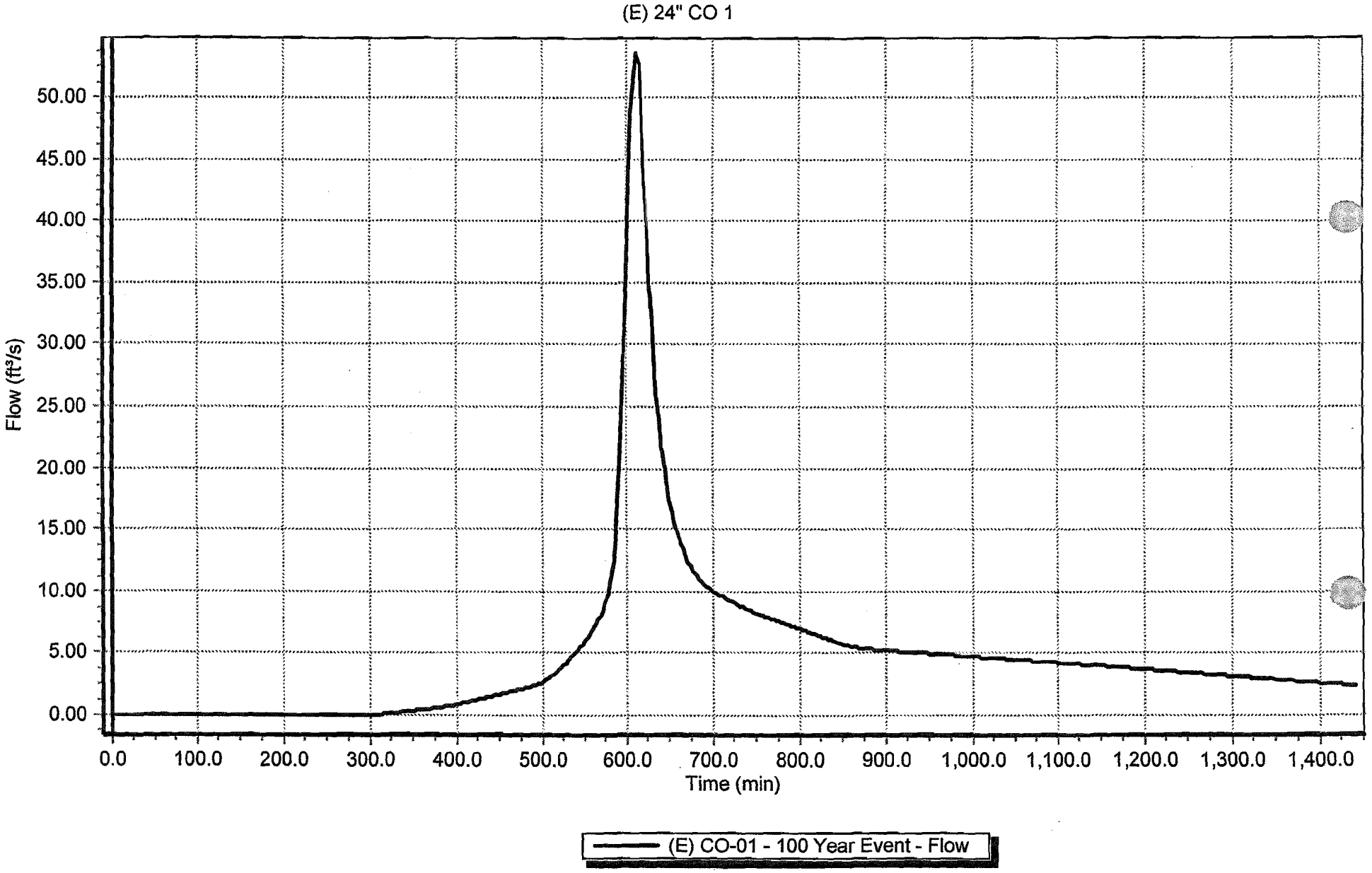
CONDUIT TABLE REPORT/HYDROGRAPH (PRE-DEVELOPMENT)

FlexTable: Conduit Table Report

Label	Start-node Id	Start Invert (ft)	Stop-node Id	Stop Invert (ft)	Constructed Slope (%)	Diameter (in)	Velocity (ft/s)	Full Capacity (ft^3/s)	Flow (ft^3/s)
(E) CO-03	1047: CS-149	561.10	1049: CS-150	560.00	2.720	8.0	13.55	1.99	4.73
(E) CO-02	1060: CS-154	495.50	1062: CS-155	492.43	6.545	24.0	18.92	57.87	35.73
(E) CO-01	1074: CS-157	542.00	1076: OF-39	540.00	8.000	24.0	22.43	63.98	48.54


(E) 8" Culvert
Flow (ft³/s)
8.00
7.50
7.00
6.50
6.00
5.50
5.00
4.50
4.00
3.50
3.00
2.50
2.00
1.50
1.00
0.50
0.00
0.0
100.0
200.0
300.0
400.0
500.0
600.0
700.0
800.0
900.0
1,000.0
1,100.0
1,200.0
1,300.0
1,400.0
Time (min)
(E) CO-03 - 100 Year Event - Flow


(E) 24" Culvert
Flow (ft³/s)
40.00
38.00
36.00
34.00
32.00
30.00
28.00
26.00
24.00
22.00
20.00
18.00
16.00
14.00
12.00
10.00
8.00
6.00
4.00
2.00
0.00
0.0
100.0
200.0
300.0
400.0
500.0
600.0
700.0
800.0
900.0
1,000.0
1,100.0
1,200.0
1,300.0
1,400.0
Time (min)
(E) CO-02 - 100 Year Event - Flow


(E) 24" CO 1
Flow (ft³/s)
50.00
45.00
40.00
35.00
30.00
25.00
20.00
15.00
10.00
5.00
0.00
0.0
100.0
200.0
300.0
400.0
500.0
600.0
700.0
800.0
900.0
1,000.0
1,100.0
1,200.0
1,300.0
1,400.0
Time (min)
(E) CO-01 - 100 Year Event - Flow

CONDUIT TABLE REPORT (POST-DEVELOPMENT)

FlexTable: Conduit Table Report

Label	Start-node Id	Start Invert (ft)	Stop-node Id	Stop Invert (ft)	Constructed Slope (%)	Diameter (in)	Velocity (ft/s)	Full Capacity (ft^3/s)	Flow (ft^3/s)
(E) CO-04a	1047: CS-149	561.10	1049: CS-150	560.00	2.720	18.0	10.31	17.32	11.97
(E) CO-02	1060: CS-154	495.50	1062: CS-155	492.43	6.545	24.0	18.79	57.87	36.00
(P) CO-03	1073: CS-157	602.00	1075: CS-158	596.00	16.552	12.0	20.57	14.49	12.47
(P) Pond Outlet	1084: OS-1	618.00	1090: CS-160	616.00	2.687	8.0	5.88	1.98	1.83
(E) 24" CO 1	1105: CS-163	542.00	1107: OF-41	540.00	8.000	24.0	20.54	63.98	33.12
(P) CO-04	1110: CS-165	602.00	1116: CS-166	600.00	4.392	18.0	11.62	22.01	7.78

DETENTION POND

PO-1

<General>

Active Scenario Label	100 Year Event
ID	1082
Label	PO-1
Notes	
Hyperlinks	<Collection: 0 items>

<Geometry>

Geometry

X (ft)	Y (ft)
6823120.15	2026218.63
6823123.21	2026203.47
6823108.51	2026194.13
6823083.22	2026195.43
6823072.53	2026202.69
6823056.29	2026200.75
6823038.11	2026196.87
6823026.47	2026199.30
6823007.57	2026219.42
6823000.54	2026232.75
6822984.78	2026245.84
6822955.76	2026261.85
6822932.49	2026267.92
6822926.20	2026268.58
6822925.80	2026296.26
6822926.17	2026318.97
6822934.19	2026327.36
6822973.46	2026301.85
6822998.67	2026271.55
6823027.52	2026258.95
6823045.94	2026265.25
6823073.34	2026262.10
6823101.92	2026243.41

Scaled Area 0.24 Acres

Active Topology

Is Active? True

PO-1

Active Topology

Simulation Initial Condition

Initial Elevation Type	Invert

SWMM Extended Data*

Evaporation Factor*	0.0
Apply Treatment?*	False
Pollutographs Collection*	<Collection: 0 items>

Inflow

Inflow Collection	<Collection: 0 items>

Physical

Volume Type	Elevation-Area Curve
Elevation-Area Curve	

Elevation (ft)	Area (Acres)	Percent Void Space (%)
617.00	0.01	100.0
618.00	0.04	100.0
619.00	0.08	100.0
620.00	0.12	100.0
621.00	0.18	100.0
622.00	0.24	100.0

Results (Engine Parsing)

Branch	7

Results (Extended Node)

Freeboard Height	2.35	ft
Flooding Depth	-2.35	ft
Volume	6451.16	ft³
Is Flooded Ever?	False	

Results (Flows)

Local Inflow?	False	
Total Local Inflow	0.00	ft³/s
Total Surface Inflow	0.00	ft³/s

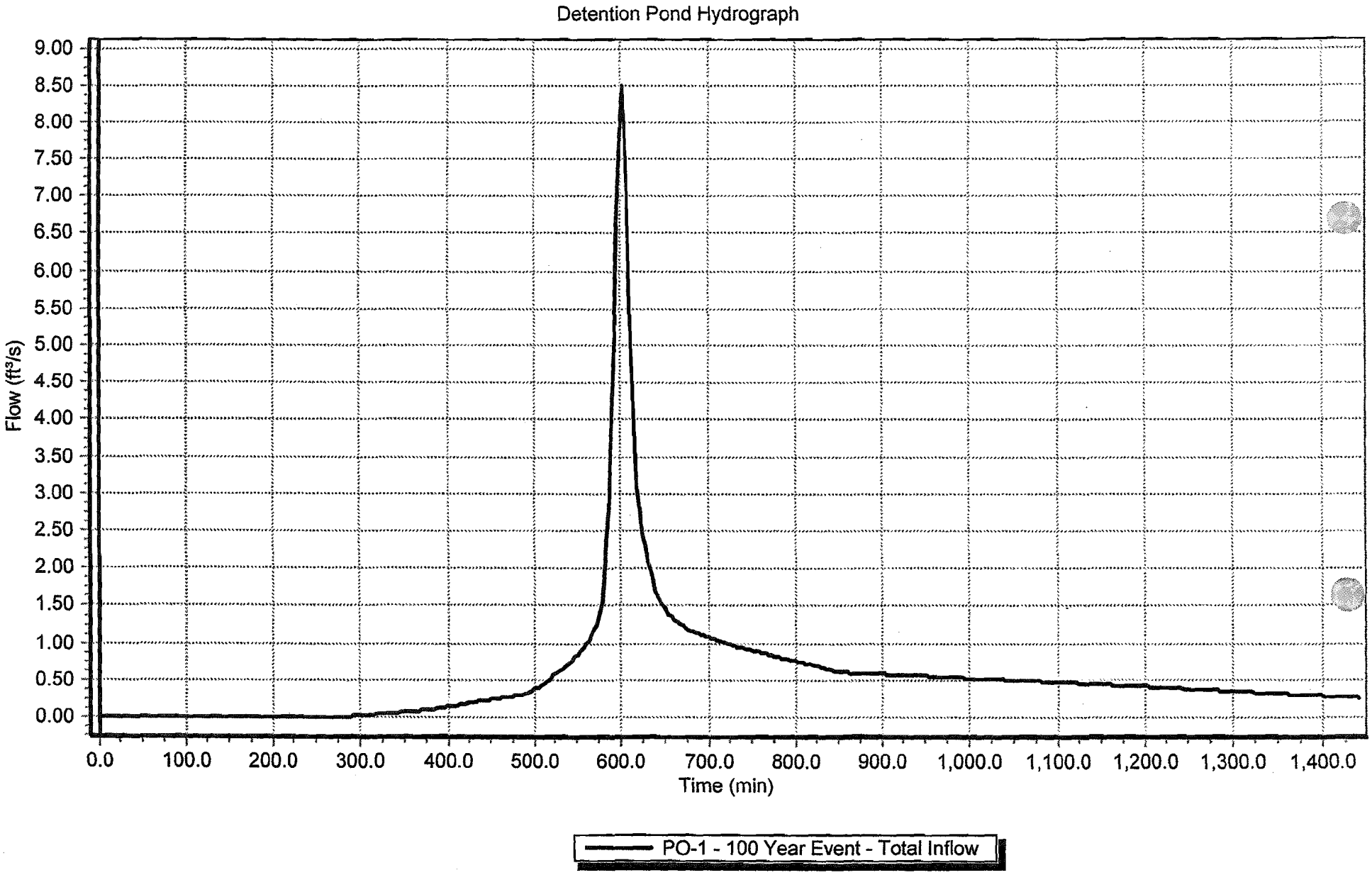
PO-1

Results (Flows)

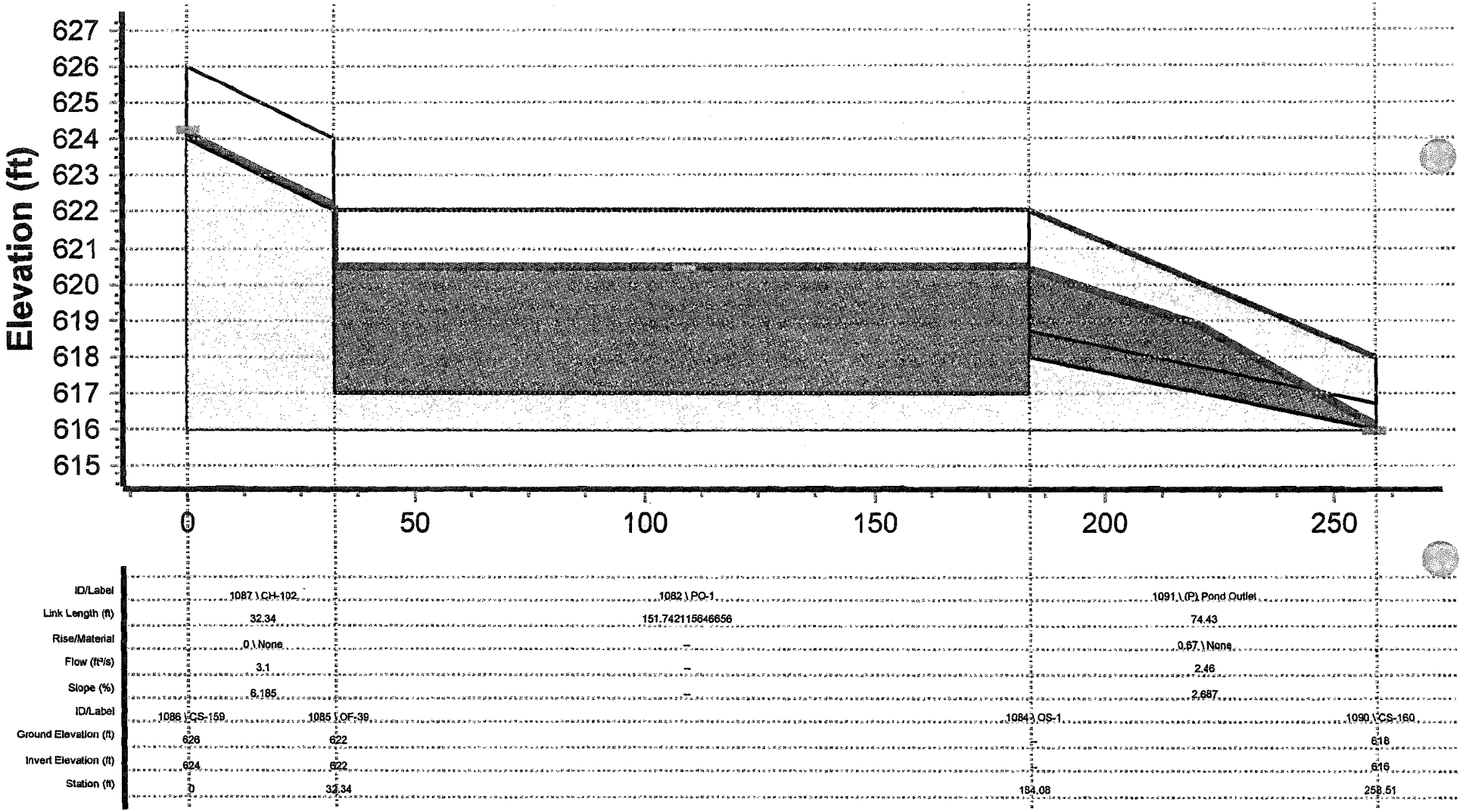
Total Inflow		7.99	ft³/s

Results

Hydraulic Grade		619.65	ft
Node Depth		2.65	ft
Is Flooded?	False		
Total Outflow		1.84	ft³/s
Overflow		0.00	ft³/s
Pollutants*	<Collection: 0 items>		

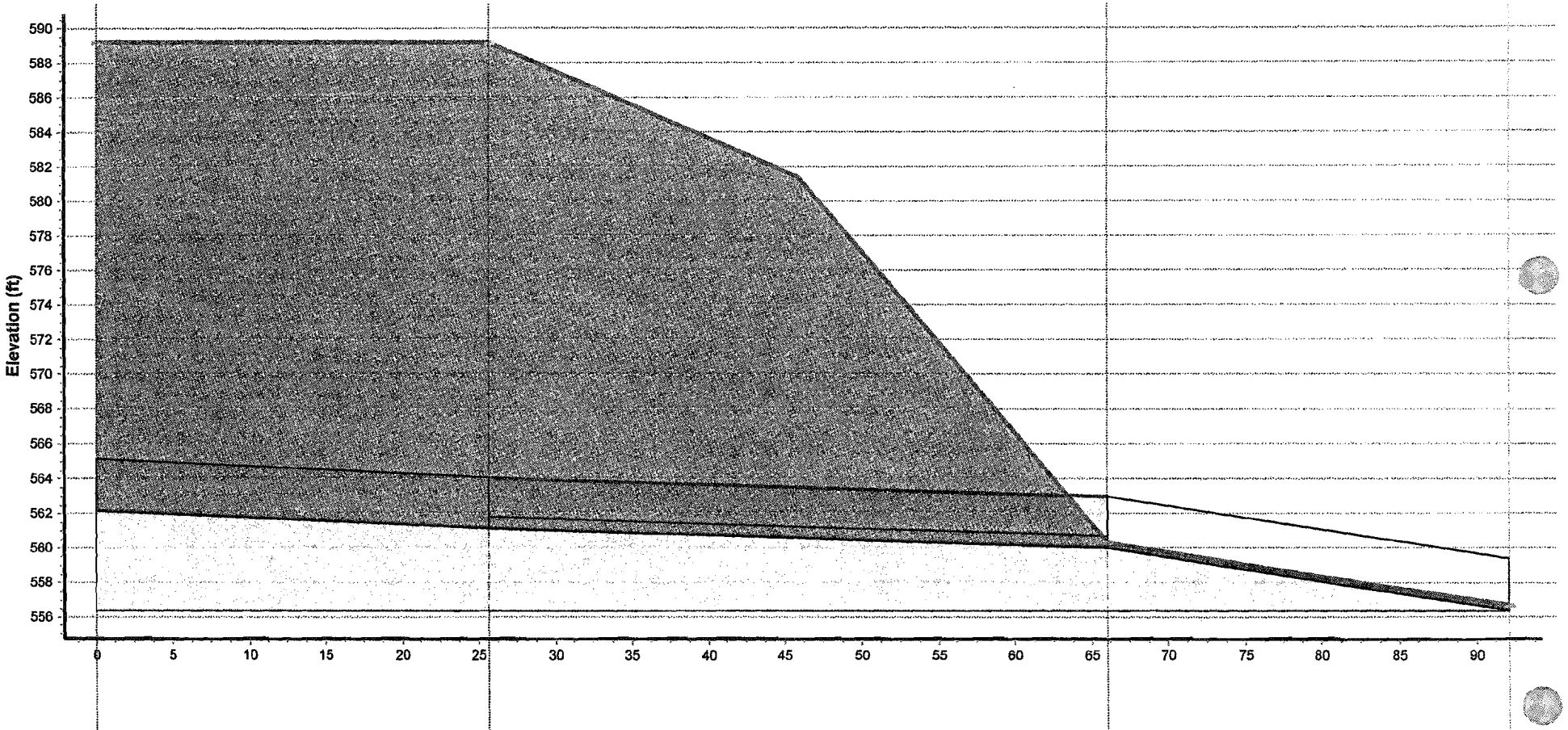

Detention Pond Hydrograph
Flow (ft³/s)
9.00
8.50
8.00
7.50
7.00
6.50
6.00
5.50
5.00
4.50
4.00
3.50
3.00
2.50
2.00
1.50
1.00
0.50
0.00
0.0
100.0
200.0
300.0
400.0
500.0
600.0
700.0
800.0
900.0
1,000.0
1,100.0
1,200.0
1,300.0
1,400.0
Time (min)
PO-1 - 100 Year Event - Total Inflow

POND - 100 Year Event Time: 10:19:29



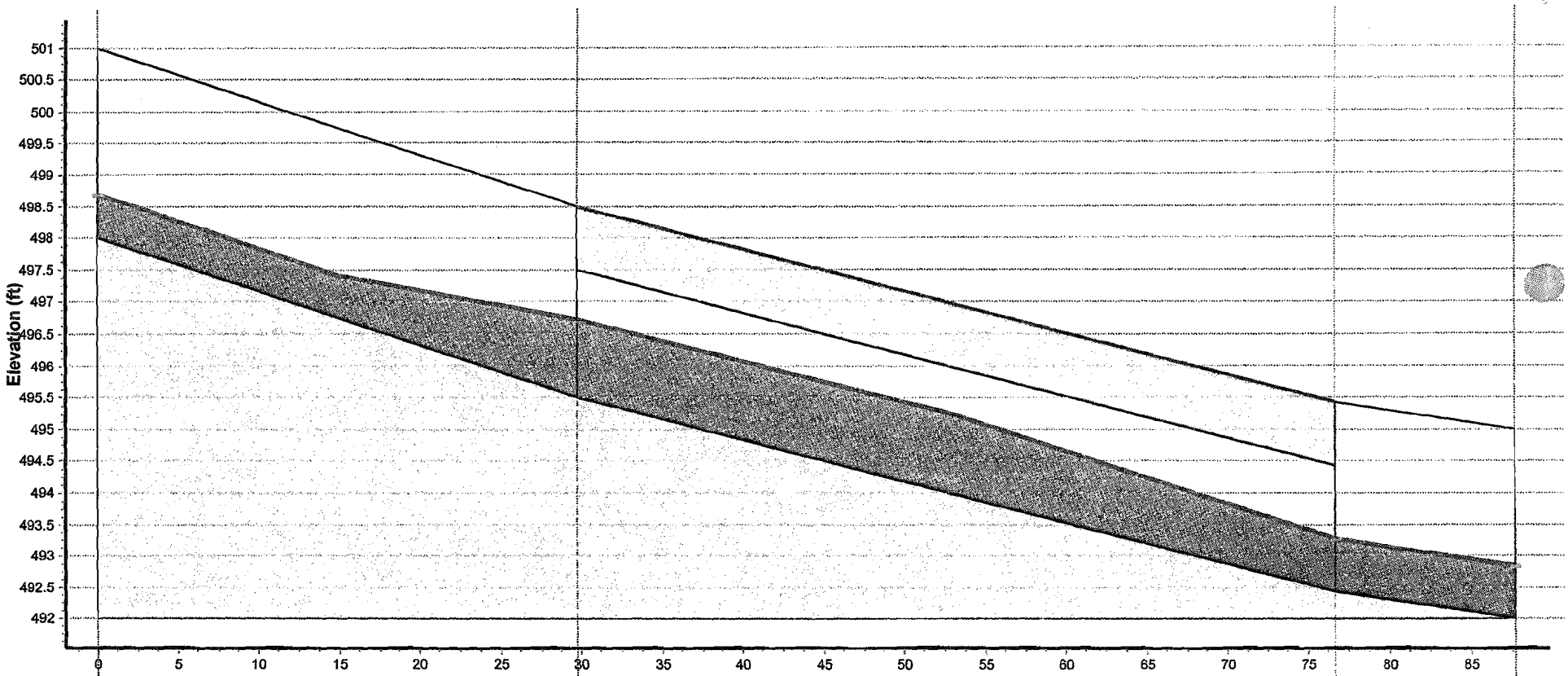
PRE-DEVELOPMENT STORM DRAIN PROFILES (100-YEAR)

(E) CO-01 - 100 Year Event Time: 09:55:29



ID/Label	1048 \ CH-01	1050 \ (E) CO-03	1052 \ CH-02	
Link Length (ft)	25.68	40.33	25.93	
Rise/Material	0 \ None	0.67 \ None	0 \ None	
Flow (ft³/s)	7.49	7.49	7.48	
Slope (%)	4.069	2.72	13.789	
ID/Label	1046 \ CS-148	1047 \ CS-149	1049 \ CS-150	1051 \ OF-02
Ground Elevation (ft)	565.14	564.1	563	556.43
Invert Elevation (ft)	562.14	561.1	560	556.43
Station (ft)	0	25.68	66.01	91.94

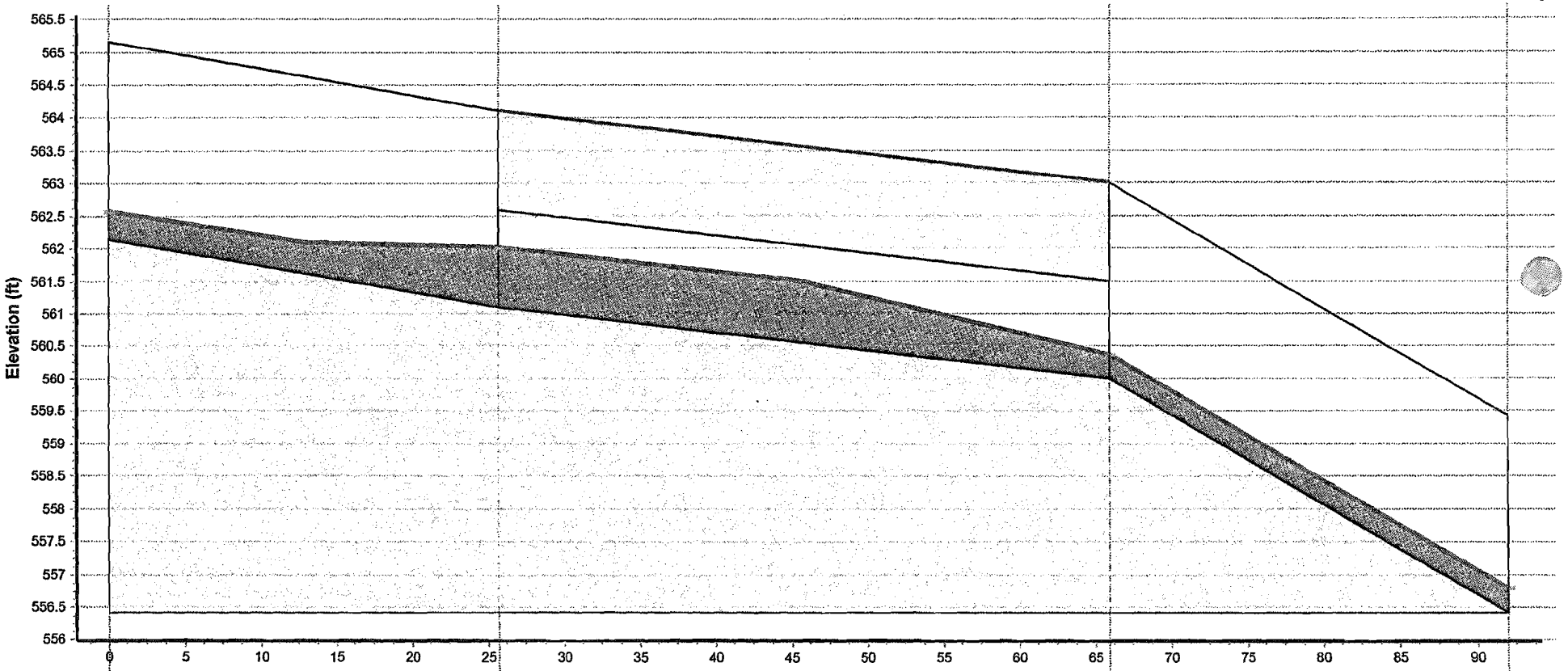
(E) CO-02 - 100 Year Event Time: 10:10:29



ID/Label	1061 \ CH-97	1063 \ (E) CO-02	1066 \ CH-99	
Link Length (ft)	29.77	46.91	10.97	
Rise/Material	0 \ None	2 \ None	0 \ None	
Flow (ft³/s)	39.97	39.98	39.98	
Slope (%)	8.398	6.545	3.919	
ID/Label	059 \ CS-153	1060 \ CS-154	1062 \ CS-155	1064 \ OF-38
Ground Elevation (ft)	501	498.5	495.43	492
Invert Elevation (ft)	498	495.5	492.43	492
Station (ft)	0	29.77	76.68	87.65

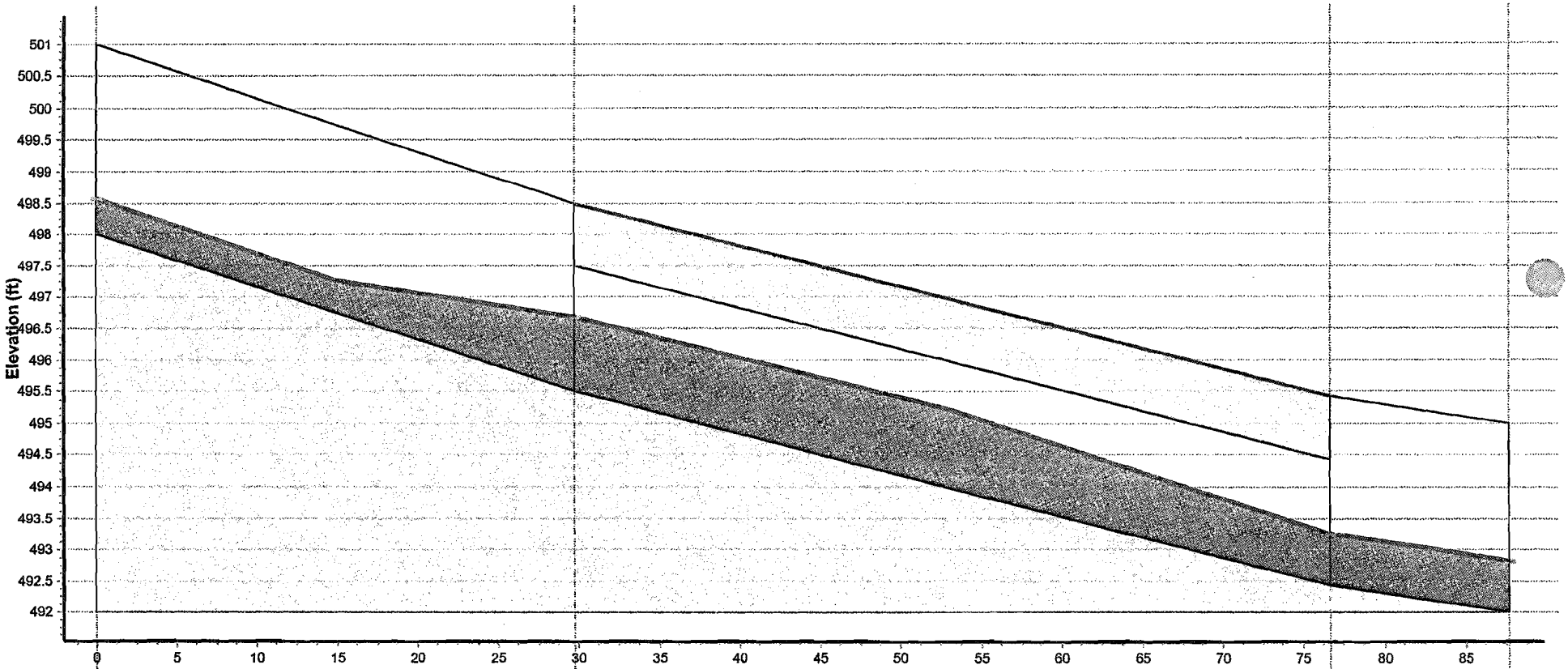
POST-DEVELOPMENT STORM DRAIN PROFILES (100-YEAR)

(E) CO-01 - 100 Year Event Time: 09:55:29

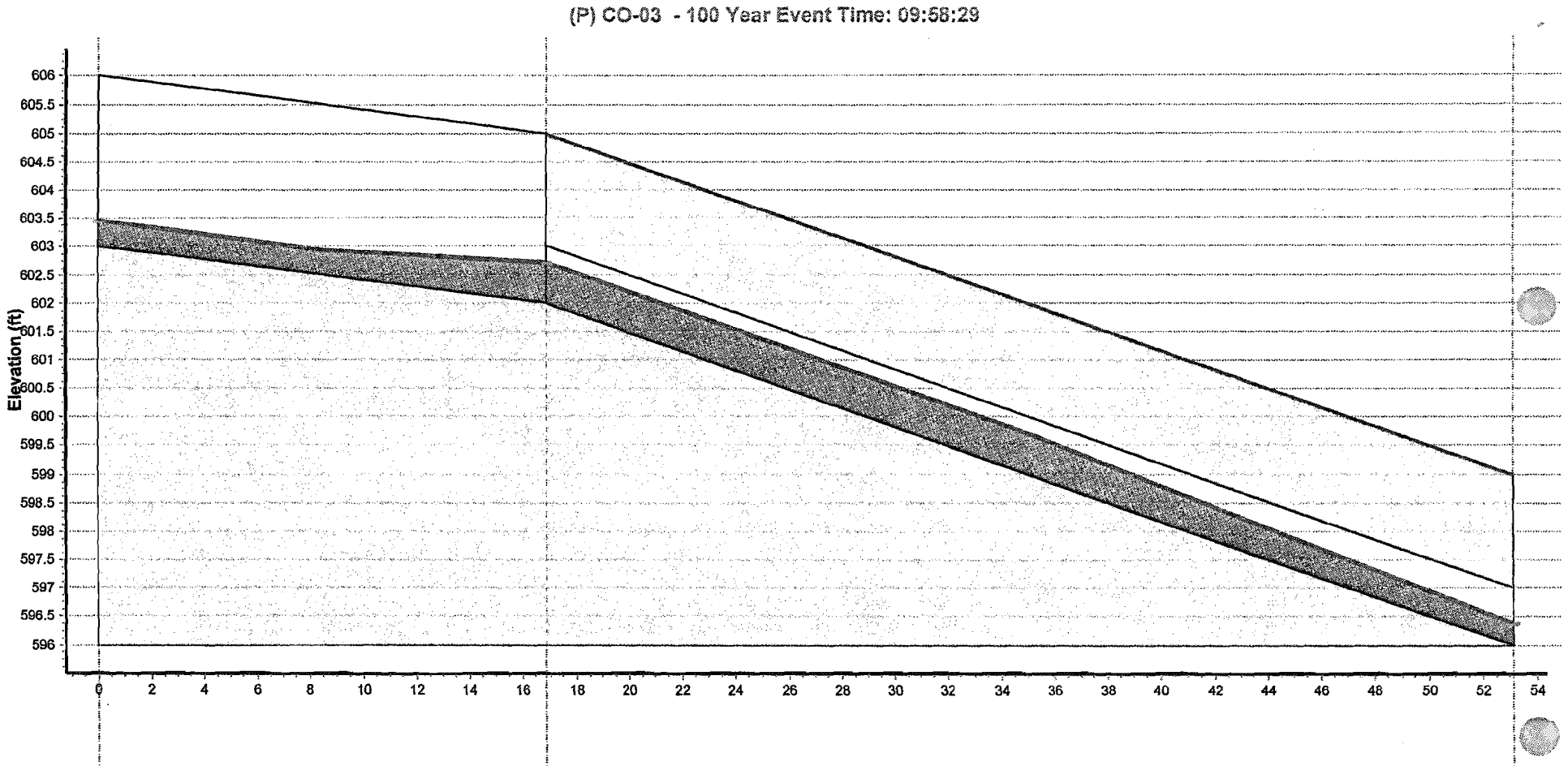


ID/Label		1048 \ CH-01	1050 \ (E) CO-04a	1052 \ CH-02
Link Length (ft)		25.68	40.33	25.93
Rise/Material		0 \ None	1.5 \ None	0 \ None
Flow (ft³/s)		12.04	12.02	12
Slope (%)		4.069	2.72	13.789
ID/Label	1046 \ CS-148	1047 \ CS-149	1049 \ CS-150	1051 \ OF-02
Ground Elevation (ft)	565.14	564.1	563	556.43
Invert Elevation (ft)	562.14	561.1	560	556.43
Station (ft)	0	25.68	66.01	91.94

(E) CO-02 - 100 Year Event Time: 10:10:29

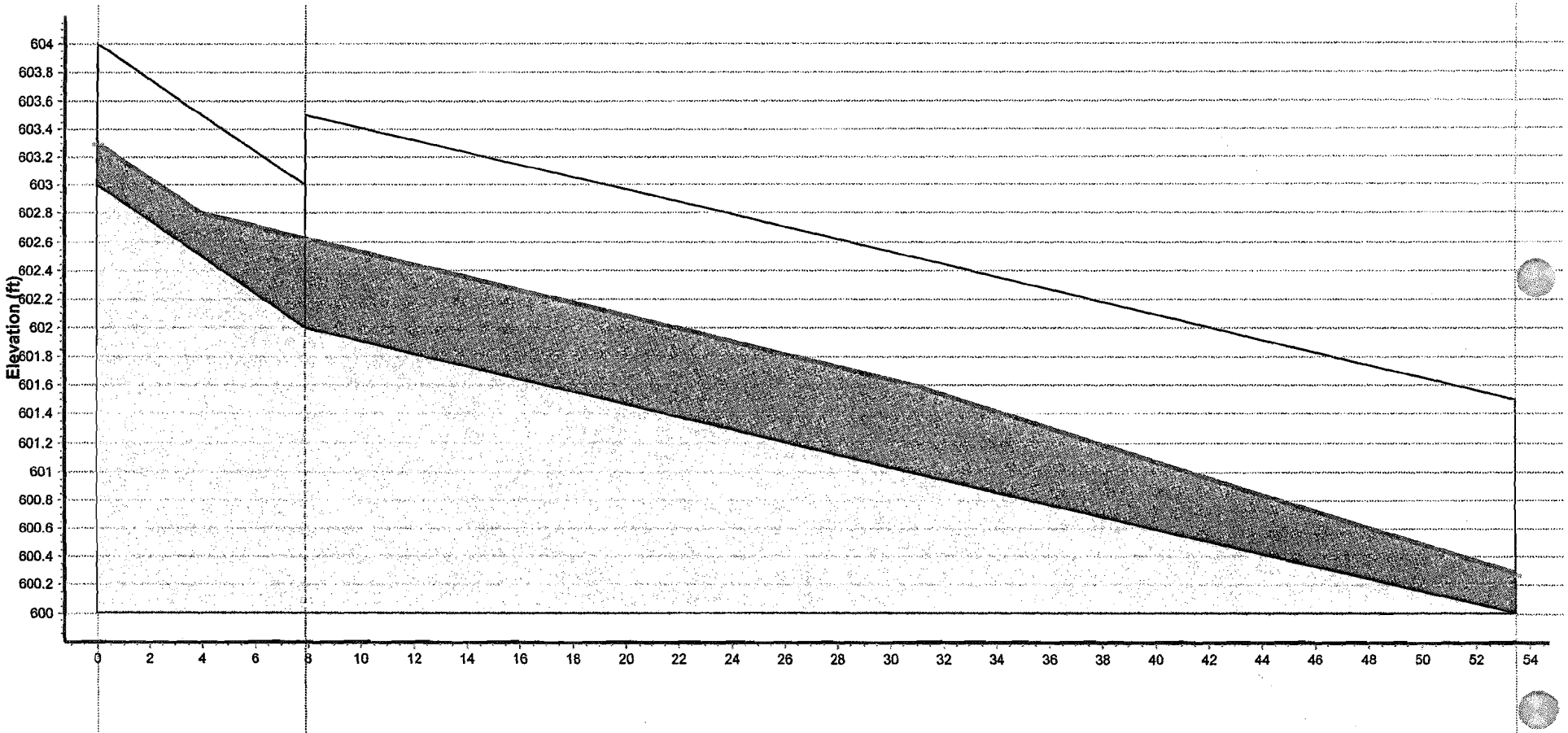


ID/Label	1061 \ CH-97	1063 \ (E) CO-02	1066 \ CH-99	
Link Length (ft)	29.77	46.91	10.97	
Rise/Material	0 \ None	2 \ None	0 \ None	
Flow (ft³/s)	25.56	38.13	38.13	
Slope (%)	8.398	6.545	3.919	
ID/Label	1059 \ CS-153	1060 \ CS-154	1062 \ CS-155	1064 \ OF-38
Ground Elevation (ft)	501	498.5	495.43	492
Invert Elevation (ft)	498	495.5	492.43	492
Station (ft)	0	29.77	76.68	87.65



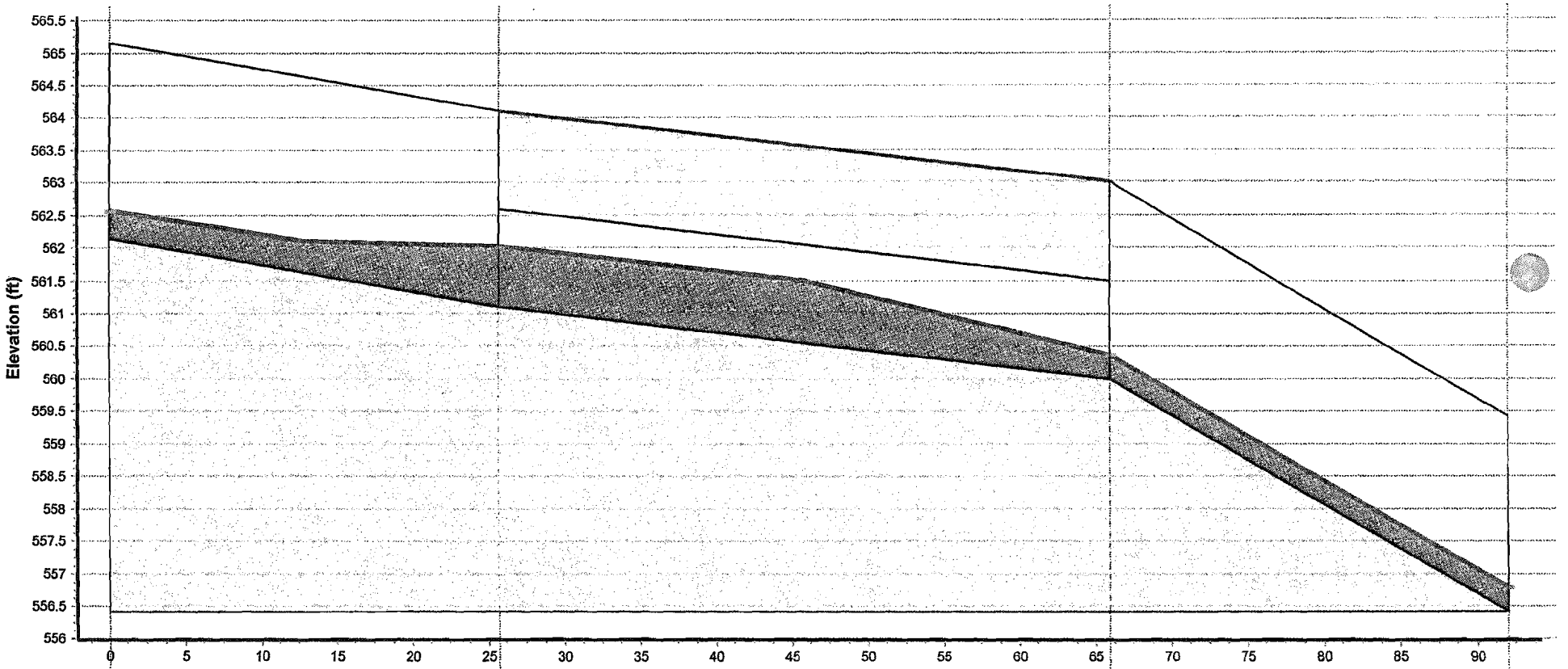
ID/Label	1074 \ CH-100	1076 \ (P) CO-03	
Link Length (ft)	16.85	36.25	
Rise/Material	0 \ None	1 \ None	
Flow (ft³/s)	12.48	12.47	
Slope (%)	5.936	16.552	
ID/Label	1072 \ CS-156	1073 \ CS-157	1075 \ CS-158
ground Elevation (ft)	606	605	599
Invert Elevation (ft)	603	602	596
Station (ft)	0	16.85	53.1

(P) 18" CO 04 - 100 Year Event Time: 09:58:29



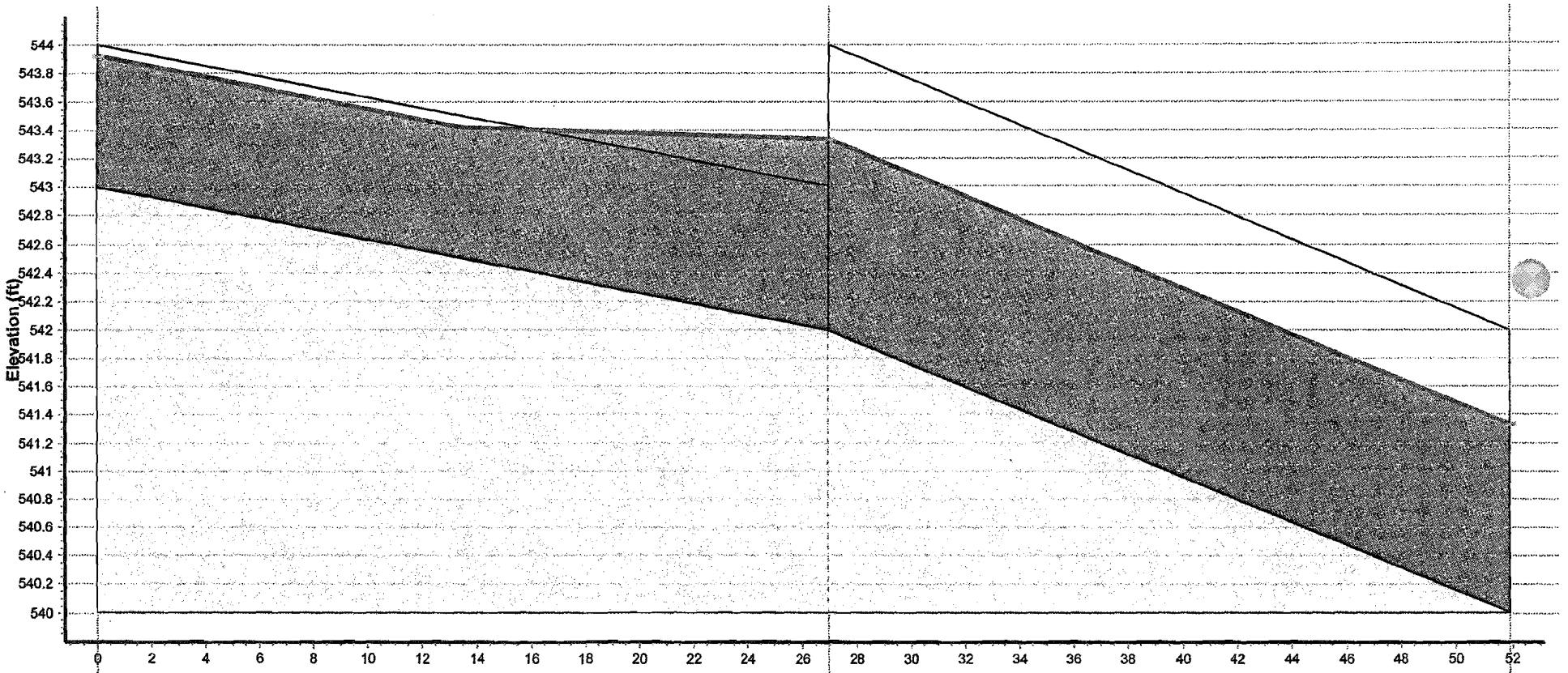
ID/Label	1111 \ CH-106	1117 \ (P) CO-04	
Link Length (ft)	7.89	45.54	
Rise/Material	0 \ None	1.5 \ None	
Flow (ft³/s)	7.78	7.78	
Slope (%)	12.667	4.392	
ID/Label	09 \ CS-164	1110 \ CS-165	1116 \ CS-166
ground Elevation (ft)	604	603	601
Invert Elevation (ft)	603	602	600
Station (ft)	0	7.89	53.43

(E) CO-04a - 100 Year Event Time: 09:55:29



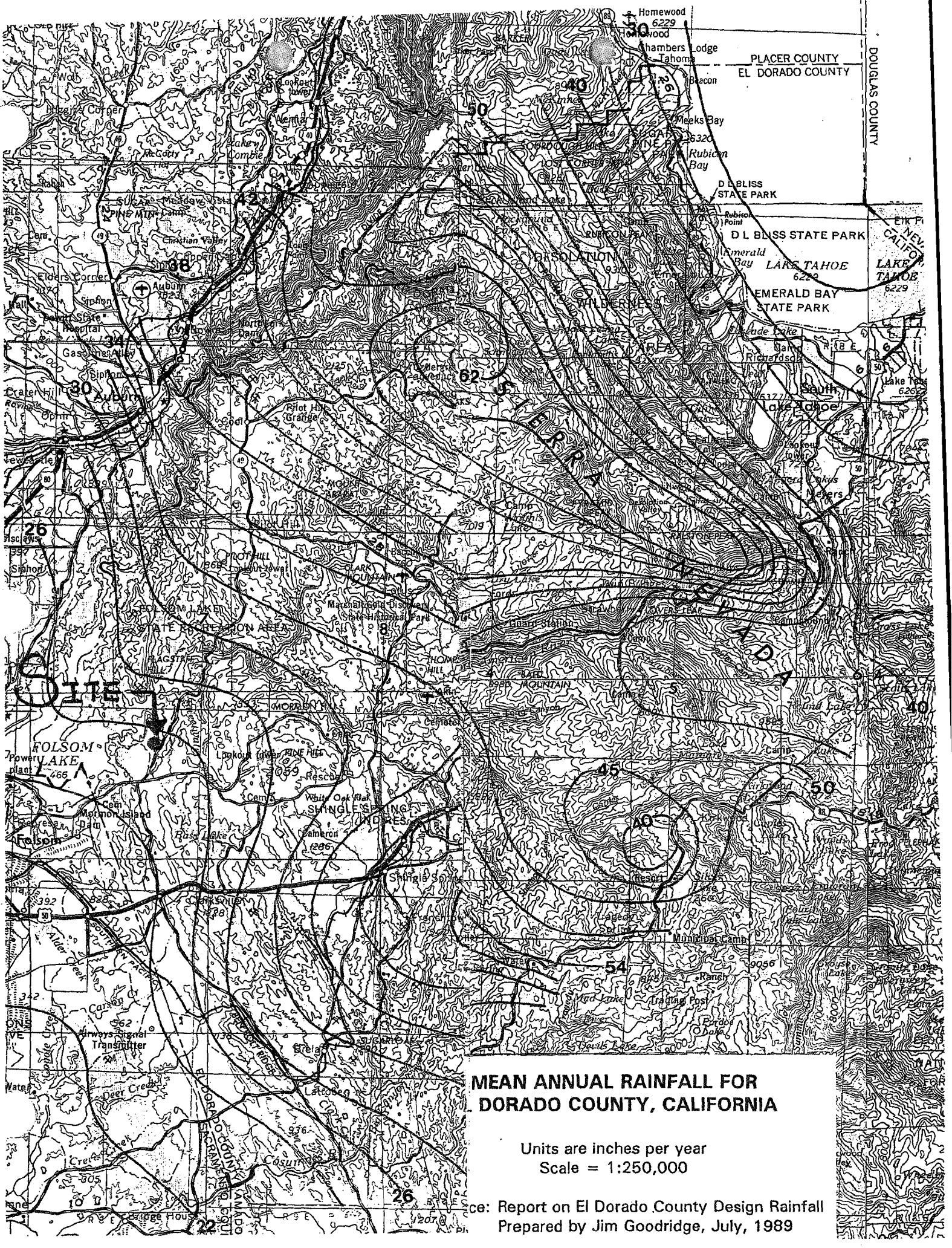
ID/Label		1048 \ CH-01	1050 \ (E) CO-04a	1052 \ CH-02
Link Length (ft)		25.68	40.33	25.93
Rise/Material		0 \ None	1.5 \ None	0 \ None
Flow (ft³/s)		12.04	12.02	12
Slope (%)		4.069	2.72	13.789
ID/Label	1046 \ CS-148	1047 \ CS-149	1049 \ CS-150	1051 \ OF-02
Ground Elevation (ft)	565.14	564.1	563	556.43
Invert Elevation (ft)	562.14	561.1	560	556.43
Station (ft)	0	25.68	66.01	91.94

(E) 24" CO 01 - 100 Year Event Time: 10:10:29



ID/Label		1106 \ CH-105	1108 \ (E) 24" CO 1
Link Length (ft)		26.95	25
Rise/Material		0 \ None	2 \ None
Flow (ft³/s)		47.9	50.2
Slope (%)		3.71	8
ID/Label	04 \ CS-162	1105 \ CS-163	1107 \ OF-41
ground Elevation (ft)	544	543	540
Invert Elevation (ft)	543	542	540
Station (ft)	0	26.95	51.95

APPENDIX 1



MEAN ANNUAL RAINFALL FOR DORADO COUNTY, CALIFORNIA

Units are inches per year
Scale = 1:250,000

ce: Report on El Dorado County Design Rainfall
Prepared by Jim Goodridge, July, 1989

APPENDIX 2

Rainfall Intensity in Inches per Hour for Return Period = 10 years

Mean Annual Precipitation	5 Min	10 Min	15 Min	30 Min	1 Hr	2 Hrs	3 Hrs	6 Hrs	12 Hrs	24 Hrs
20	2.004	1.434	1.179	0.843	0.603	0.432	0.355	0.254	0.182	0.130
22	2.127	1.522	1.251	0.895	0.640	0.458	0.377	0.270	0.193	0.138
24	2.255	1.613	1.326	0.949	0.679	0.486	0.399	0.286	0.204	0.146
26	2.383	1.705	1.402	1.003	0.718	0.514	0.422	0.302	0.216	0.155
28	2.512	1.797	1.478	1.057	0.756	0.541	0.422	0.318	0.228	0.163
30	2.640	1.889	1.553	1.111	0.795	0.569	0.468	0.335	0.239	0.171
32	2.769	1.981	1.629	1.165	0.834	0.597	0.490	0.351	0.251	0.180
34	2.897	2.073	1.704	1.219	0.872	0.624	0.513	0.367	0.263	0.188
36	3.026	2.165	1.780	1.273	0.911	0.652	0.536	0.383	0.274	0.196
38	3.154	2.257	1.855	1.327	0.950	0.680	0.559	0.400	0.286	0.205
40	3.282	2.349	1.931	1.381	0.988	0.707	0.581	0.416	0.298	0.213
42	3.411	2.440	2.006	1.436	1.027	0.735	0.604	0.432	0.309	0.221
44	3.539	2.532	2.082	1.490	1.066	0.763	0.627	0.449	0.321	0.230
46	3.668	2.624	2.157	1.544	1.104	0.790	0.650	0.465	0.333	0.238
48	3.796	2.716	2.233	1.598	1.143	0.818	0.672	0.481	0.344	0.246
50	3.925	2.808	2.309	1.652	1.182	0.846	0.695	0.497	0.356	0.255
52	4.053	2.900	2.384	1.706	1.221	0.873	0.718	0.514	0.368	0.263
54	4.181	2.922	2.460	1.760	1.259	0.901	0.741	0.530	0.379	0.271
56	4.310	3.084	2.535	1.814	1.298	0.929	0.763	0.546	0.391	0.280
58	4.438	3.176	2.611	1.868	1.337	0.956	0.786	0.563	0.402	0.288
60	4.567	3.267	2.686	1.922	1.375	0.984	0.809	0.579	0.414	0.296
62	4.695	3.359	2.762	1.976	1.414	1.012	0.832	0.595	0.426	0.305
64	4.824	3.451	2.837	2.030	1.453	1.039	0.854	0.611	0.437	0.313
66	4.952	3.543	2.913	2.084	1.491	1.067	0.877	0.628	0.449	0.321
68	5.081	3.635	2.989	2.138	1.530	1.095	0.900	0.644	0.461	0.330
70	5.209	3.727	3.064	2.192	1.569	1.122	0.923	0.660	0.472	0.338
72	5.337	3.819	3.140	2.246	1.607	1.150	0.945	0.676	0.484	0.346
74	5.466	3.911	3.215	2.300	1.646	1.178	0.968	0.693	0.496	0.355
76	5.594	4.003	3.291	2.354	1.685	1.205	0.991	0.709	0.507	0.363
78	5.723	4.095	3.366	2.409	1.723	1.233	1.014	0.725	0.519	0.371
80	5.851	4.186	3.442	2.463	1.762	1.261	1.036	0.742	0.531	0.380
82	5.980	4.278	3.517	2.517	1.801	1.288	1.059	0.758	0.542	0.388
84	6.108	4.370	3.593	2.571	1.839	1.316	1.082	0.774	0.554	0.396
86	6.236	4.462	3.668	2.625	1.878	1.344	1.105	0.790	0.566	0.405
88	6.365	4.554	3.744	2.679	1.917	1.371	1.127	0.807	0.577	0.413
90	6.493	4.646	3.820	2.733	1.955	1.399	1.150	0.823	0.589	0.421

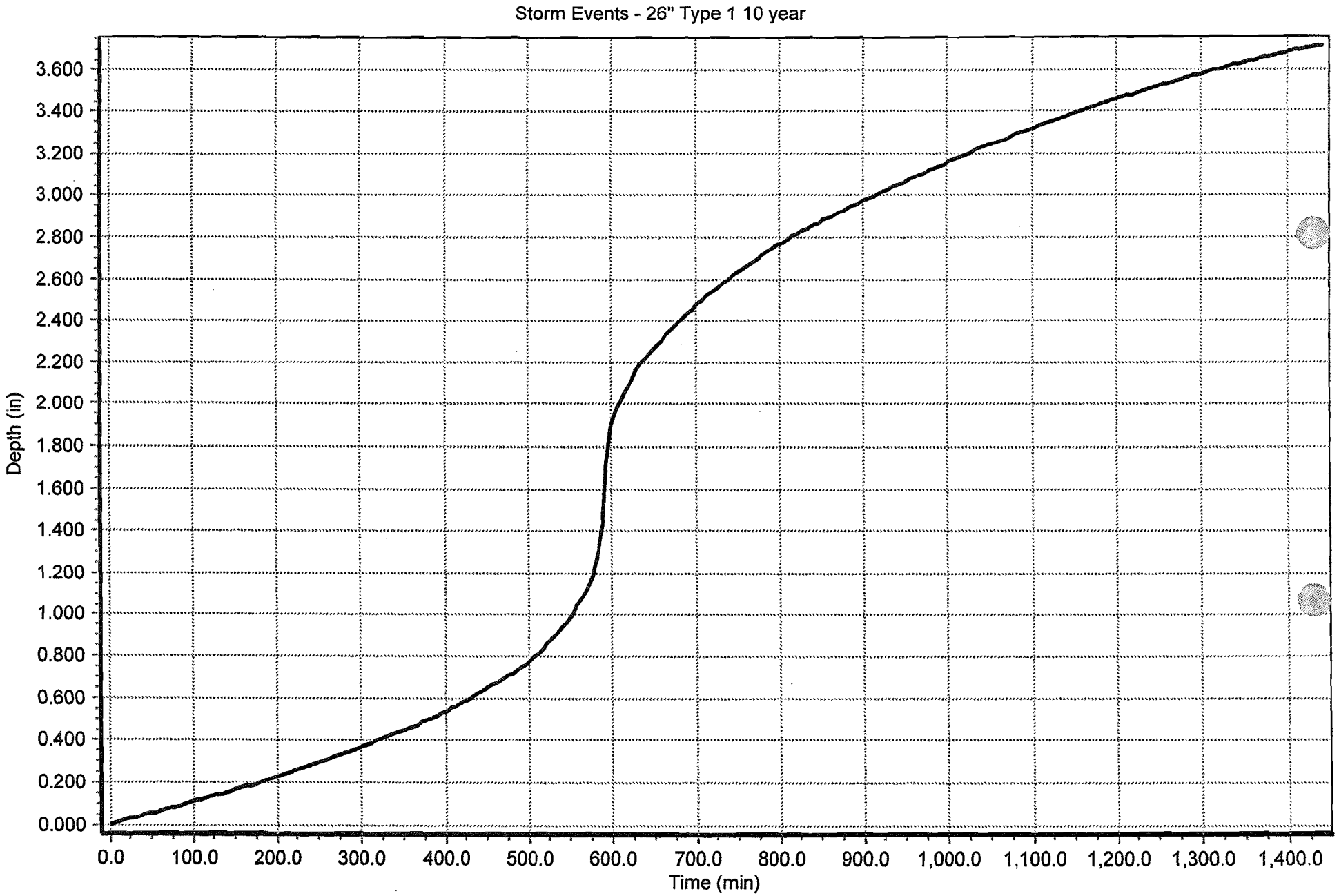
7/24/89 Note older versions are superseded
12:08 PM Prepared by Jim Goodridge 916.345.3106

Rainfall Intensity in Inches per Hour for Return Period = 100 years

Mean Annual Precipitation	5 Min	10 Min	15 Min	30 Min	1 Hr	2 Hrs	3 Hrs	6 Hrs	12 Hrs	24 Hrs
20	2.840	2.032	1.671	1.195	0.855	0.612	0.503	0.360	0.258	0.184
22	3.014	2.157	1.773	1.269	0.908	0.649	0.534	0.382	0.273	0.196
24	3.196	2.287	1.880	1.345	0.963	0.689	0.566	0.405	0.290	0.207
26	3.378	2.417	1.987	1.422	1.017	0.728	0.598	0.428	0.306	0.219
28	3.561	2.548	2.094	1.499	1.072	0.767	0.631	0.451	0.323	0.231
30	3.743	2.678	2.202	1.575	1.127	0.806	0.663	0.474	0.339	0.243
32	3.925	2.808	2.309	1.652	1.182	0.846	0.695	0.497	0.356	0.255
34	4.107	2.938	2.416	1.728	1.237	0.885	0.727	0.520.	0.372	0.266
36	4.289	3.069	2.523	1.805	1.291	0.924	0.760	0.544	0.389	0.278
38	4.471	3.199	2.630	1.882	1.346	0.963	0.792	0.567	0.405	0.290
40	4.653	3.329	2.737	1.958	1.401	1.002	0.824	0.590	0.422	0.302
42	4.835	3.459	2.844	2.035	1.456	1.042	0.856	0.613	0.438	0.314
44	5.017	3.590	2.951	2.112	1.511	1.081	0.889	0.636	0.455	0.326
46	5.199	3.720	3.058	2.188	1.566	1.120	0.921	0.659	0.471	0.337
48	5.381	3.850	3.164	2.265	1.620	1.159	0.953	0.682	0.488	0.349
50	5.563	3.980	3.272	2.341	1.675	1.199	0.985	0.705	0.504	0.361
52	5.745	4.111	3.380	2.418	1.730	1.238	1.018	0.728	0.521	0.373
51	5.927	4.241	3.487	2.495	1.785	1.277	1.050	0.751	0.537	0.385
56	6.109	4.371	3.594	2.571	1.840	1.316	1.082	0.774	0.554	0.396
58	6.291	4.501	3.701	2.648	1.895	1.356	1.114	0.797	0.571	0.408
60	6.473	4.632	3.808	2.725	1.949	1.395	1.147	0.820	0.587	0.420
62	6.656	4.762	3.915	2.801	2.004	1.434	1.179	0.844	0.604	0.432
64	6.838	4.892	4.022	2.878	2.059	1.473	1.211	0.867	0.620	0.444
66	7.020	5.022	4.129	2.954	2.114	1.512	1.243	0.890	0.637	0.455
68	7.202	5.153	4.236	3.031	2.169	1.552	1.276	0.913	0.653	0.467
70	7.384	5.283	4.343	3.108	2.223	1.591	1.308	0.936	0.670	0.479
72	7.566	5.413	4.450	3.184	2.278	1.630	1.340	0.959	0.686	0.491
74	7.748	5.544	4.558	3.261	2.333	1.669	1.372	0.982	0.703	0.503
76	7.930	5.674	4.665	3.338	2.388	1.709	1.405	1.005	0.719	0.514
78	8.112	5.804	4.772	3.414	2.443	1.748	1.437	1.028	0.736	0.526
80	8.294	5.934	4.879	3.491	2.498	1.787	1.469	1.051	0.752	0.538
82	8.476	6.065	4.986	3.567	2.552	1.826	1.501	1.074	0.769	0.550
84	8.658	6.195	5.093	3.644	2.607	1.865	1.534	1.097	0.785	0.562
86	8.840	6.325	5.200	3.721	2.662	1.905	1.566	1.120	0.802	0.574
88	9.022	6.455	5.307	3.797	2.717	1.944	1.598	1.143	0.818	0.585
90	9.204	6.586	5.414	3.874	2.772	1.983	1.630	1.167	0.835	0.597

7/27/89 Note older versions are superseded
12:08 PM Prepared by Jim Goodridge 916.345.3106

APPENDIX 3


Storm Events - 26" Type 1 10 year
Depth (in)
3.600
3.400
3.200
3.000
2.800
2.600
2.400
2.200
2.000
1.800
1.600
1.400
1.200
1.000
0.800
0.600
0.400
0.200
0.000
0.0
100.0
200.0
300.0
400.0
500.0
600.0
700.0
800.0
900.0
1,000.0
1,100.0
1,200.0
1,300.0
1,400.0
Time (min)

Generic

Storm Event Depth Type: Cumulative

Depths

Time (min)	Depth (in)
0.0	0.000
6.0	0.006
12.0	0.013
18.0	0.019
24.0	0.026
30.0	0.032
36.0	0.039
42.0	0.045
48.0	0.052
54.0	0.058
60.0	0.065
66.0	0.071
72.0	0.078
78.0	0.084
84.0	0.091
90.0	0.097
96.0	0.104
102.0	0.110
108.0	0.117
114.0	0.123
120.0	0.130
126.0	0.136
132.0	0.143
138.0	0.150
144.0	0.157
150.0	0.164
156.0	0.171
162.0	0.178
168.0	0.186
174.0	0.193
180.0	0.201
186.0	0.208
192.0	0.216

Generic

Time (min)	Depth (in)
420.0	0.579
426.0	0.592
432.0	0.606
438.0	0.620
444.0	0.634
450.0	0.648
456.0	0.662
462.0	0.676
468.0	0.691
474.0	0.705
480.0	0.720
486.0	0.735
492.0	0.752
498.0	0.771
504.0	0.791
510.0	0.813
516.0	0.836
522.0	0.860
528.0	0.886
534.0	0.914
540.0	0.943
546.0	0.974
552.0	1.007
558.0	1.043
564.0	1.083
570.0	1.124
576.0	1.185
582.0	1.282
588.0	1.439
594.0	1.719
600.0	1.911
606.0	1.975
612.0	2.032
618.0	2.083
624.0	2.126
630.0	2.164
636.0	2.196

Generic

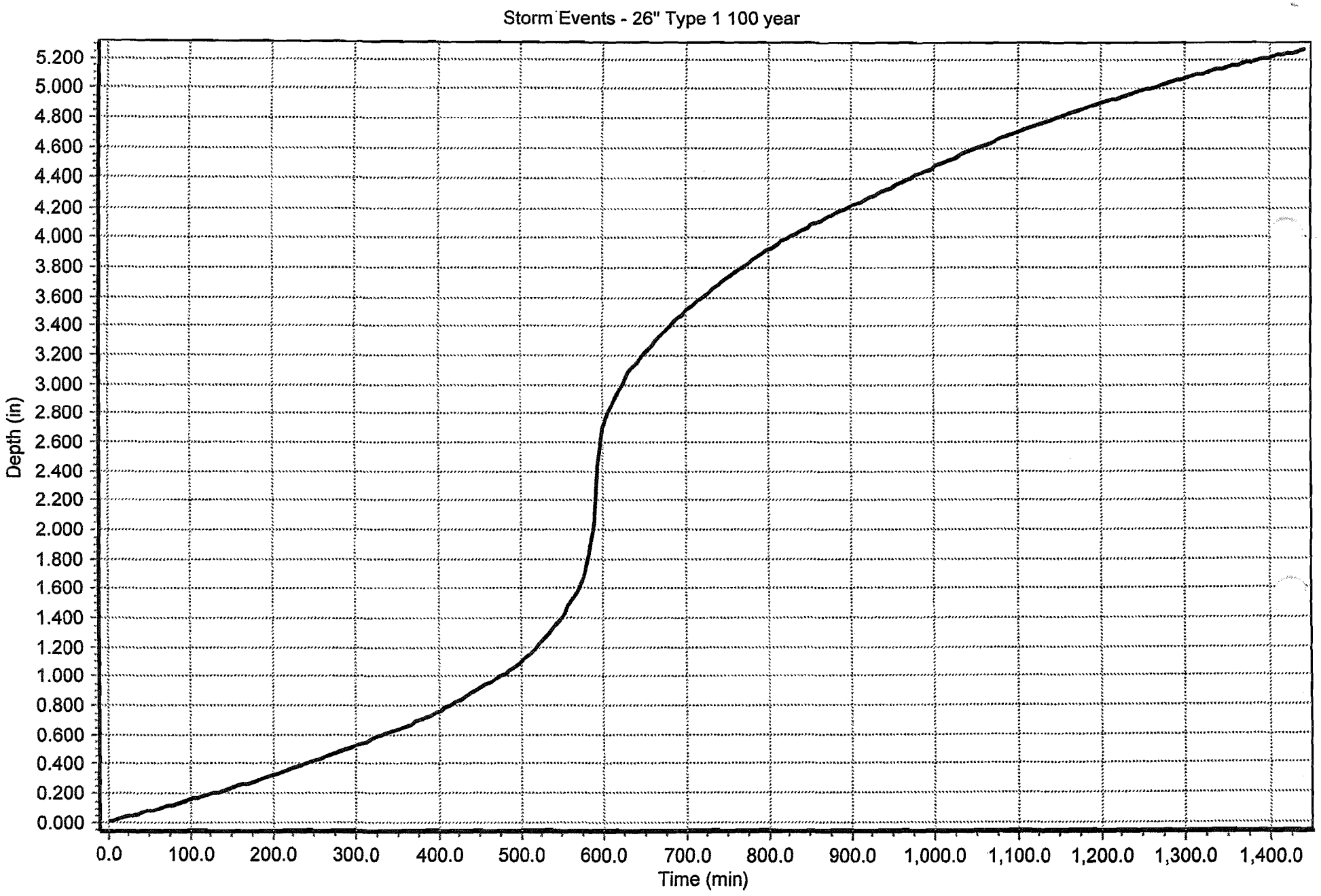
Time (min)	Depth (in)
864.0	2.906
870.0	2.918
876.0	2.930
882.0	2.941
888.0	2.953
894.0	2.965
900.0	2.976
906.0	2.988
912.0	2.999
918.0	3.010
924.0	3.022
930.0	3.033
936.0	3.044
942.0	3.055
948.0	3.066
954.0	3.077
960.0	3.088
966.0	3.098
972.0	3.109
978.0	3.120
984.0	3.130
990.0	3.140
996.0	3.151
1,002.0	3.161
1,008.0	3.171
1,014.0	3.181
1,020.0	3.191
1,026.0	3.201
1,032.0	3.211
1,038.0	3.221
1,044.0	3.231
1,050.0	3.241
1,056.0	3.250
1,062.0	3.260
1,068.0	3.269
1,074.0	3.279
1,080.0	3.288

Generic

Time (min)	Depth (in)
1,308.0	3.587
1,314.0	3.593
1,320.0	3.600
1,326.0	3.606
1,332.0	3.612
1,338.0	3.618
1,344.0	3.624
1,350.0	3.630
1,356.0	3.636
1,362.0	3.642
1,368.0	3.648
1,374.0	3.653
1,380.0	3.659
1,386.0	3.665
1,392.0	3.670
1,398.0	3.675
1,404.0	3.681
1,410.0	3.686
1,416.0	3.691
1,422.0	3.696
1,428.0	3.701
1,434.0	3.706
1,440.0	3.711

Rainfall

Storm Event Data Type	Depth	
Start Time	0.0	min
Increment	6.0	min
End Time	1,440.0	min


Storm Events - 26" Type 1 100 year
Depth (in)
5.200
5.000
4.800
4.600
4.400
4.200
4.000
3.800
3.600
3.400
3.200
3.000
2.800
2.600
2.400
2.200
2.000
1.800
1.600
1.400
1.200
1.000
0.800
0.600
0.400
0.200
0.000
0.0
100.0
200.0
300.0
400.0
500.0
600.0
700.0
800.0
900.0
1,000.0
1,100.0
1,200.0
1,300.0
1,400.0
Time (min)

Generic

Time (min)	Depth (in)
420.0	0.821
426.0	0.840
432.0	0.859
438.0	0.879
444.0	0.899
450.0	0.919
456.0	0.939
462.0	0.959
468.0	0.979
474.0	1.000
480.0	1.021
486.0	1.043
492.0	1.067
498.0	1.093
504.0	1.121
510.0	1.152
516.0	1.185
522.0	1.220
528.0	1.257
534.0	1.295
540.0	1.336
546.0	1.380
552.0	1.428
558.0	1.479
564.0	1.535
570.0	1.594
576.0	1.680
582.0	1.817
588.0	2.040
594.0	2.437
600.0	2.709
606.0	2.800
612.0	2.881
618.0	2.952
624.0	3.015
630.0	3.067
636.0	3.114

Generic

Time (min)	Depth (in)
864.0	4.120
870.0	4.136
876.0	4.153
882.0	4.170
888.0	4.186
894.0	4.203
900.0	4.219
906.0	4.236
912.0	4.252
918.0	4.268
924.0	4.284
930.0	4.300
936.0	4.315
942.0	4.331
948.0	4.346
954.0	4.362
960.0	4.377
966.0	4.392
972.0	4.407
978.0	4.422
984.0	4.437
990.0	4.452
996.0	4.467
1,002.0	4.481
1,008.0	4.496
1,014.0	4.510
1,020.0	4.524
1,026.0	4.539
1,032.0	4.553
1,038.0	4.567
1,044.0	4.580
1,050.0	4.594
1,056.0	4.608
1,062.0	4.621
1,068.0	4.635
1,074.0	4.648
1,080.0	4.661

Generic

Time (min)	Depth (in)
1,308.0	5.085
1,314.0	5.094
1,320.0	5.103
1,326.0	5.112
1,332.0	5.121
1,338.0	5.130
1,344.0	5.138
1,350.0	5.147
1,356.0	5.155
1,362.0	5.163
1,368.0	5.171
1,374.0	5.179
1,380.0	5.187
1,386.0	5.195
1,392.0	5.203
1,398.0	5.211
1,404.0	5.218
1,410.0	5.225
1,416.0	5.233
1,422.0	5.240
1,428.0	5.247
1,434.0	5.254
1,440.0	5.261

Rainfall

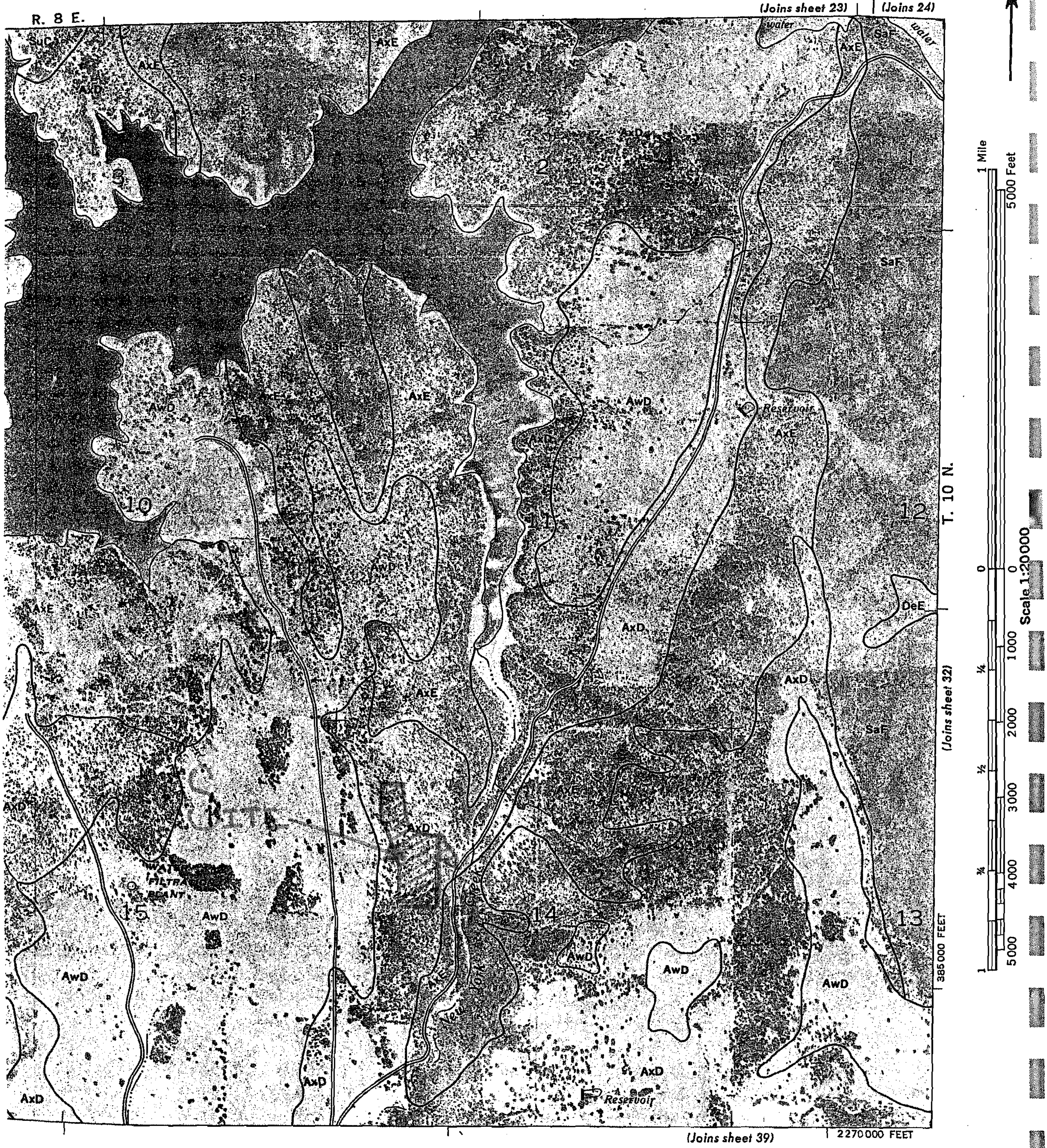
Storm Event Data Type	Depth	
Start Time	0.0	min
Increment	6.0	min
End Time	1,440.0	min

APPENDIX 4

Catchment FlexTable: 100-YR Post Development Report

Label	SCS CN	Area (Acres)	Tc (min)	Peak Flow (ft^3/s)	Total Runoff Volume (ft^3)
Area 01	80.0	0.54	15.4	1.03	6118.64
Area 02	80.5	32.72	28.6	47.90	376955.93
Area 02a	81.6	4.10	13.9	8.50	48775.04
Area 03	80.8	5.85	11.0	12.61	67903.70
Area 03a	81.7	12.31	14.0	25.56	146815.16
Area 04	82.0	3.31	9.0	7.78	39813.73
Area 04a	85.2	1.67	5.0	4.86	21990.79
Area 05	81.6	1.95	5.0	5.09	23159.99

APPENDIX 5


N
R. 8 E.
(Joins sheet 23)
(Joins 24)
water
AxE
SaF
SuC
AxD
AwD
AxE
SaF
DeE
Reservoir
WATER FILTRATION PLANT
T. 10 N.
(Joins sheet 32)
385000 FEET
2270000 FEET
(Joins sheet 39)
1
2
3
10
11
12
13
14
15
1 Mile
¾
½
¼
0
5000 Feet
4000
3000
2000
1000
Scale 1:20000

APPENDIX 6

Table 2.4.3

OVERLAND-FLOW ROUGHNESS COEFFICIENTS

(Source: SCS, 1986)

Surface Description (1)	Overland Flow *n* (2)
Smooth surfaces (concrete, asphalt, gravel, or bare soil)	0.011
Fallow (no residue)	0.05
Cultivated Soils:	
Residue Cover <20%	0.06
Residue Cover >20%	0.17
Grass:	
Short Grass Prairie	0.15
Dense Grasses	0.24
Bermuda	0.41
Range (natural)	0.13
Woods:	
Light Underbrush	0.40
Dense Underbrush	0.80

APPENDIX 7

Tc Data Collection: Area 01 (1041)

Runoff

Tc Data Collection

TR-55 Sheet Flow

Hydraulic Length		100.00	ft
Manning's n		0.140	
Slope		1.100	%
2 Year 24 Hour Depth		2.521	in

TR-55 Shallow Concentrated Flow

Hydraulic Length		200.00	ft
Is Paved	False		
Slope		1.100	%

TR-55 Shallow Concentrated Flow

Hydraulic Length		42.00	ft
Is Paved	False		
Slope		11.900	%

Tc Data Collection: Area 02 (1045)

Runoff

Tc Data Collection

TR-55 Sheet Flow

Hydraulic Length		100.00	ft
Manning's n		0.220	
Slope		3.500	%
2 Year 24 Hour Depth		2.521	in

TR-55 Shallow Concentrated Flow

Hydraulic Length		3516.00	ft
Is Paved	False		
Slope		4.800	%

Tc Data Collection: Area 02a (1083)

Runoff

Tc Data Collection

TR-55 Sheet Flow

Hydraulic Length		100.00	ft
Manning's n		0.220	
Slope		4.500	%
2 Year 24 Hour Depth		2.521	in

TR-55 Shallow Concentrated Flow

Hydraulic Length		600.00	ft
Is Paved	False		
Slope		4.000	%

Tc Data Collection: Area 03 (1119)

Runoff

Tc Data Collection

TR-55 Sheet Flow

Hydraulic Length		100.00	ft
Manning's n		0.120	
Slope		2.500	%
2 Year 24 Hour Depth		2.521	in

TR-55 Shallow Concentrated Flow

Hydraulic Length		603.00	ft
Is Paved	False		
Slope		6.000	%

Tc Data Collection: Area 03a (1100)

Runoff

Tc Data Collection

TR-55 Sheet Flow

Hydraulic Length	100.00	ft
Manning's n	0.150	
Slope	2.000	%
2 Year 24 Hour Depth	2.521	in

TR-55 Shallow Concentrated Flow

Hydraulic Length	708.00	ft
Is Paved	False	
Slope	6.000	%

Tc Data Collection: Area 04 (1043)

Runoff

Tc Data Collection

TR-55 Sheet Flow

Hydraulic Length		100.00	ft
Manning's n		0.120	
Slope		4.000	%
2 Year 24 Hour Depth		2.521	in

TR-55 Shallow Concentrated Flow

Hydraulic Length		543.00	ft
Is Paved	False		
Slope		7.700	%

Tc Data Collection: Area 04a (1044)

Runoff

Tc Data Collection

TR-55 Sheet Flow

Hydraulic Length	40.00	ft
Manning's n	0.011	
Slope	2.000	%
2 Year 24 Hour Depth	2.521	in

TR-55 Shallow Concentrated Flow

Hydraulic Length	1066.70	ft
Is Paved	False	
Slope	8.000	%

Tc Data Collection: Area 05 (1097)

Runoff

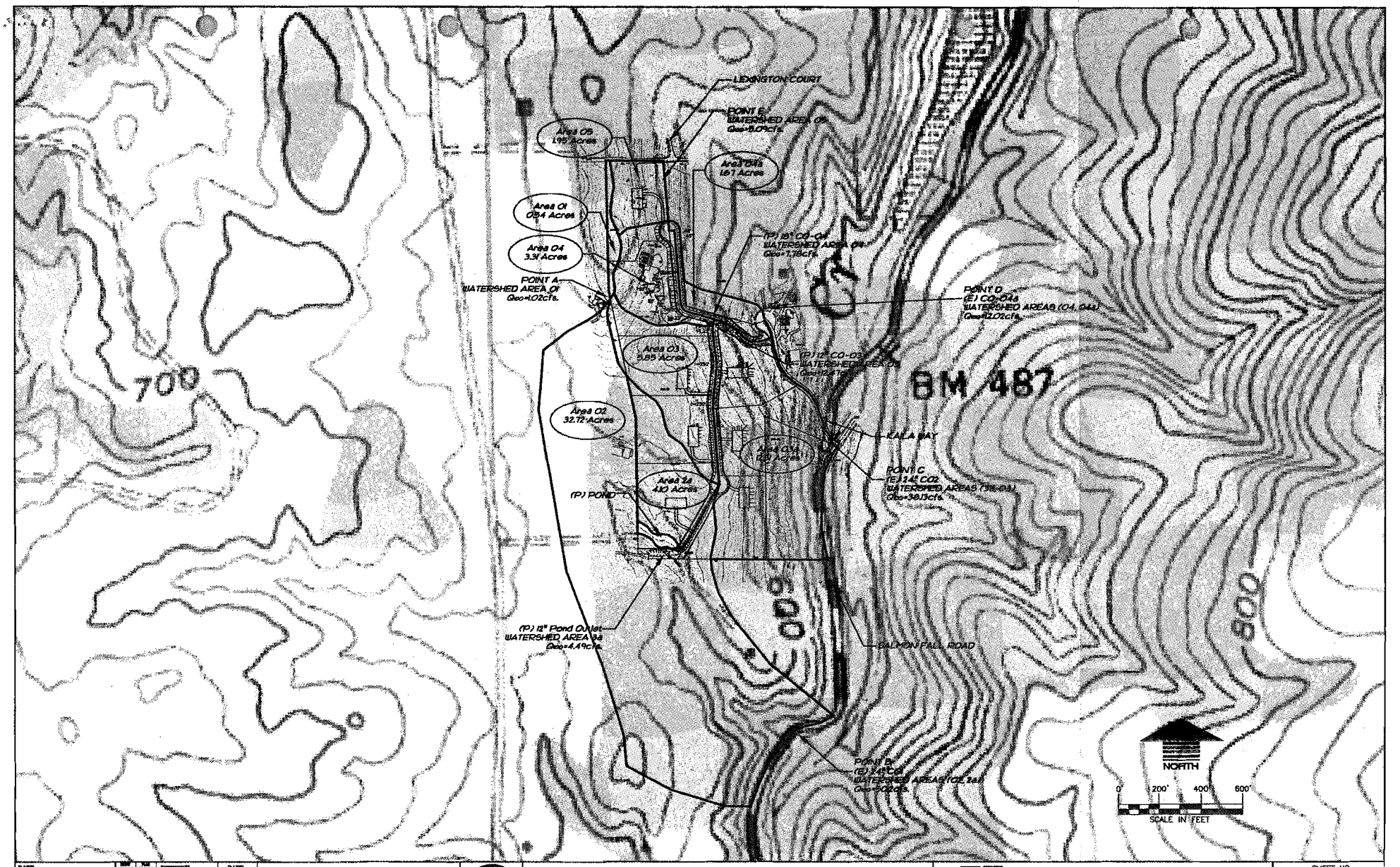
Tc Data Collection

TR-55 Sheet Flow

Hydraulic Length	100.00	ft
Manning's n	0.120	
Slope	14.000	%
2 Year 24 Hour Depth	2.521	in

TR-55 Shallow Concentrated Flow

Hydraulic Length	152.00	ft
Is Paved	False	
Slope	17.000	%



DATE	AUGUST 2007		REVISION	DATE
SCALE	AS SHOWN			
DESIGNED BY	PKT			
DRAWN BY	S. MARTINEZ			

MIGINELLA SUBDIVISION

PRELIMINARY PLANS

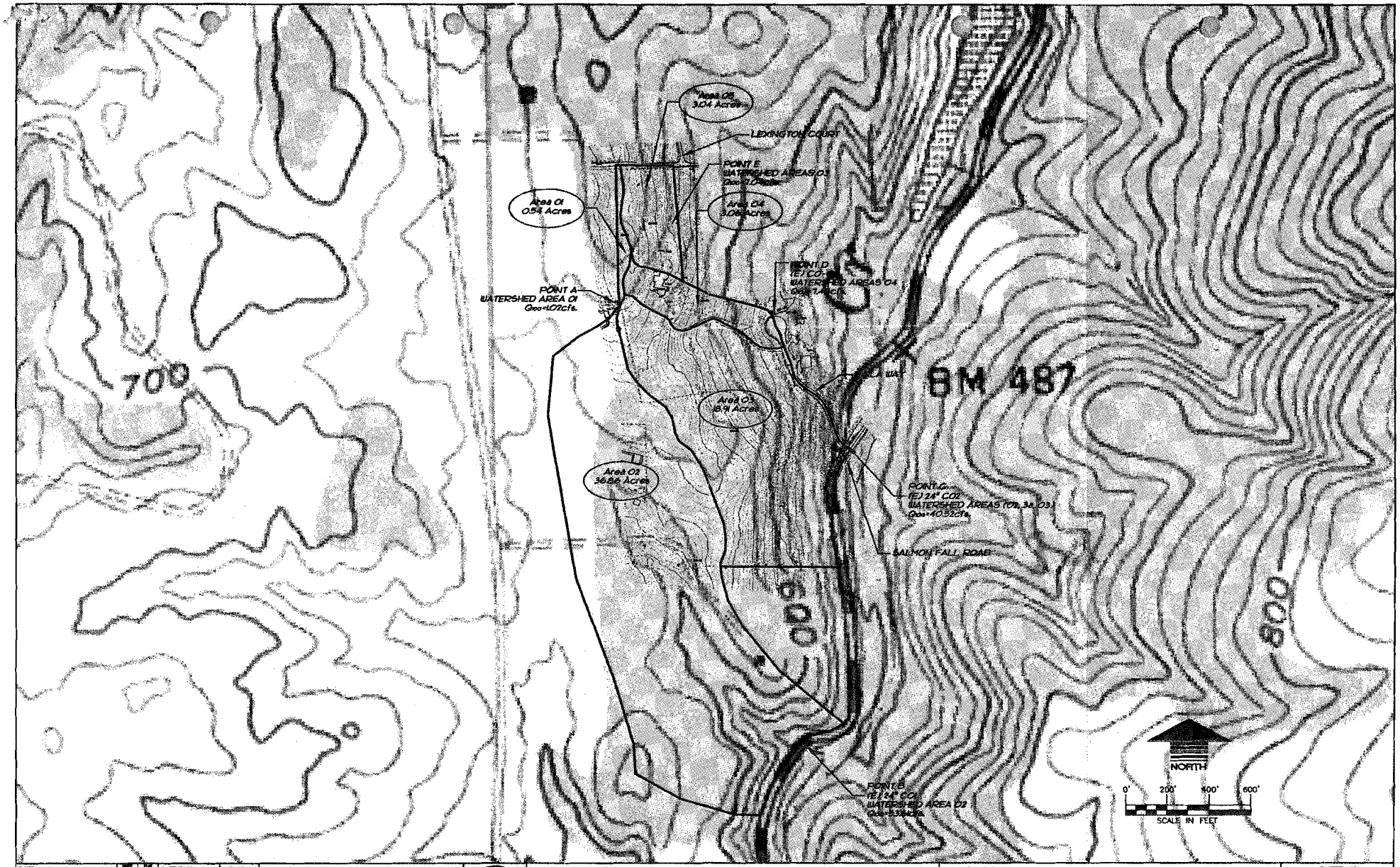
EL DORADO HILLS

POST-DEVELOPMENT DRAINAGE PLAN

GENE E. THORNE & Associates, Inc.
Engineering- Planning- Surveying
3025 Alhambra Drive, Suite A
Cameron Park, California 95682
(530) 677-1747 (916) 985-7745
Fax (530) 676-4205
www.thornecivil.com

SHEET NO.

DR1



DATE	JULY 2007			REVISION	DATE
SCALE	AS SHOWN				
DESIGNED BY	PKT				
DRAWN BY	S. MARTINEZ				

MIGINELLA SUBDIVISION

PRELIMINARY PLANS

EL DORADO HILLS

PRE-DEVELOPMENT DRAINAGE PLAN

GENE E. THORNE & Associates, Inc.
Engineering• Planning• Surveying
4080 Goldorado Circle, Suite A
Cameron Park, California 95682
(530) 677-1747 (916) 965-7745
Fax (530) 676-4205
www.thornecivil.com

SHEET NO.

DR2

TEST PIT # Lot #1 APN 110-020-3032 Mitchell/Nejatian

	HOLE 1	HOLE 2	HOLE 3	HOLE 4
Depth of hole	29"	31"	32"	32"
Start Time 0	0	0	0	0
Readings				
90	-3.0-0	d-0	-3-0	-3-0
120	-1.5-0	-2.5-0	-1.5-0	-1.3-0
200	-2.0-0	d-0	-2.5-0	-1.5-0
230	-1.0-0	-2.5-0	-1.0-0	-.8-0
260	-.8	-2.0	-.8	-.6
Ave Perc Rate	37.5 mpi	15 mpi	37.5 mpi	50 mpi

Notes: Soil Mantle
0-3' dark Brown Clay loam
3'-7' decomposed green rocky Clay loam
roots to 6'
No signs of ground water

Tree # 2754

Δ 35 mpi Min Disp. Area 6700 ft²

GPS Corrdinates 38.72697° N 121.07540° W
Elevation 674'

TEST PIT # Lot #2

	HOLE 1	HOLE 2	HOLE 3	HOLE 4
Depth of hole				
Start Time				
Readings				
Ave Perc Rate				

Notes:
Existing House

GPS Corrdinates
Elevation

TEST PIT # Lot #3

	HOLE 1	HOLE 2	HOLE 3	HOLE 4
Depth of hole	24"	26"	30"	30"
Start Time 0	0	0	0	0
Readings 90	d-0	d-0	-2.5-0	d-0
120	-1.0-0	-1.5-0	-1.2-0	-1.2-0
200	-2.0-0	-2.0-0	-1.8-0	-1.8-0
230	-.5-0	-.8-0	-.5-0	-.5-0
260	-.5	-.7	-.5	-.5
Ave Perc Rate	60 mpi	42.8 mpi	60 mpi	60 mpi

Notes: Soil Mantle
0-30" dark brown Clay loam
30"-7' weathered rocky Clay loam
roots to 6'
No signs of groundwater

Δ 55.7 mpi Min Disp Area 8200 ft²

GPS Corrdinates 38.72425° N 121.07419° W
Elevation 639'

TEST PIT # Lot #4

	HOLE 1	HOLE 2	HOLE 3	HOLE 4
Depth of hole	24"	26"	27"	24"
Start Time 0	0	0	0	0
Readings				
90	-1.5-0	d-0	-2.0-0	-2.0-0
120	-.7-0	-2.5-0	-1.5-0	-1.2-0
200	-1.0-0	d-0	-1.5-0	-1.5-0
230	-.4-0	-1.5-0	-.7-0	-.6-0
260	-.3	-1.4	-.6	-.5
Ave Perc Rate	100 mpi	21.4 mpi	50 mpi	60

Notes: Soil Mantle
0-3' dk br. Clay loam
3'-7½' green broken rocky Clay loam
roots to 7'
No signs of ground water

Δ 57.9 mpi Min Disp Area 8200 ft²

GPS Corrdinates 38.72363° N [illegible]° W
Elevation 636'

Attachment 12

REHS #3336

TEST PIT # Lot #5

	HOLE 1	HOLE 2	HOLE 3	HOLE 4
Depth of hole	31"	30"	32"	30"
Start Time 0	0	0	0	0
Readings				
90	d-0	d-0	d-0	d-0
120	-1.0-0	-1.5-0	-2.0-0	-1.3-0
200	-1.5-0	-2.0-0	d-0	-1.5-0
230	-.6-0	-1.0-0	-2.0-0	-.7-0
260	-.5	-1.0	-2.0	-.5
Ave Perc Rate	60 mpi	30 mpi	15 mpi	60 mpi

Notes: Soil Mantle
0-3' dark brown clay loam
3'-7½ decomp. tan rocky clay loam
roots to 5'
No signs of ground water

Δ 41.2 mpi Min Disp Area 8200 ft²

GPS Corrdinates 38.72260°N 121.074820°W
Elevation 633'

TEST PIT # Lot #6

	HOLE 1	HOLE 2	HOLE 3	HOLE 4
Depth of hole	31"	29"	30"	28"
Start Time 0	0	0	0	0
Readings				
90	-3.0-0	d-0	d-0	d-0
120	-1.7-0	-1.2-0	-1.0-0	-1.8-0
200	-2.0-0	-2.3-0	-4.0-0	d-0
230	-.8-0	-.8-0	-1.2-0	-1.2-0
260	-.7	-.8	-1.1	-1.2
Ave Perc Rate	42.8 mpi	37.5	27.3 mpi	25 mpi

Notes: Soil Mantle
0-30" red rocky clay loam
30"-7' Tan very rocky clay loam
roots to 6'
No signs of ground water

Δ 33.2 mpi Min Disp Area 6700 ft²

GPS Corrdinates 38.72250°N 121.07363°W
Elevation 657'

TEST PIT # Lot #7

	HOLE 1	HOLE 2	HOLE 3	HOLE 4
Depth of hole	28"	26"	32"	29"
Start Time 0	0	0	0	0
Readings				
90	d-0	d-0	-2.0-0	-1.5-0
120	-2-0	-1.5-0	-.7-0	-.3-0
200	-2.9-0	-2.3-0	-1.2-0	-.6-0
230	-1.0-0	-1.5-0	-.4-0	-.3-0
260	-1.0	-1.5	-.3	-.3
Ave Perc Rate	30 mpi	20 mpi	100 mpi	100 mpi

Notes: Soil Mantle
0-3' dark brown rocky clay loam
3'-7' very rocky clay loam
roots to 6'
No signs of ground water
Tree # 2320

Δ 62.5 mpi Min Disp Area 9500 ft²

GPS Corrdinates 38.72350°N 121.07367°W
Elevation 608'

TEST PIT # Lot # 8

	HOLE 1	HOLE 2	HOLE 3	HOLE 4
Depth of hole	36"	35"	34"	32"
Start Time 0	0	0	0	0
Readings				
90	-1.0-0	d-0	-3-0	d-0
120	-.3-0	-1.5-0	-1.0-0	-1.2-0
200	-.5-0	-1.8-0	-1.5-0	-2.5-0
230	-.2-0	-1.0-0	-.7-0	-1.1-0
260	-.2	-1.0	-.6	-1.0
Ave Perc Rate	150 mpi	30 mpi	50 mpi	30 mpi

Notes: Soil Mantle
0-3' dark brown clay loam
3'-7½' tan rocky clay loam
roots to 5'
No signs of groundwater
Tree # 2229

Δ 65 mpi Min Disp Area 9500 ft²

GPS Corrdinates 38.72451°N 121.07358°W
Elevation 576'

Project X-BASE

COUNTY OF EL DORADO, STATE OF CALIFORNIA

GENE E. THORNE & ASSOCIATES, INC.