Town and Country Village El Dorado Project

SCH# 2023070297

Final Environmental Impact Report

Prepared for
El Dorado County

August 2025

Prepared by

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Town and Country Village
El Dorado Project
Final Environmental Impact Report

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Lead Agency

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1. Introduction and List of Commenters

1. INTRODUCTION AND LIST OF COMMENTERS

1.1 INTRODUCTION

This Final Environmental Impact Report (EIR) contains agency and public comments received during the public review period of the Town and Country Village El Dorado Project (proposed project) Draft EIR. This document has been prepared by El Dorado County, as Lead Agency, in accordance with the California Environmental Quality Act (CEQA) and CEQA Guidelines Section 15132. The Introduction and List of Commenters chapter of the Final EIR discusses the background of the Draft EIR and purpose of the Final EIR, identifies the comment letters received on the Draft EIR, and provides an overview of the Final EIR's organization.

1.2 BACKGROUND

The Draft EIR identifies the proposed project's potential environmental impacts and the mitigation measures that would be required to be implemented. The following environmental analysis chapters are contained in the Draft EIR:

- Aesthetics;
- Air Quality, Greenhouse Gas Emissions, and Energy;
- Biological Resources;
- Cultural Resources;
- Geology and Soils;
- Hazards and Hazardous Materials;
- Hydrology and Water Quality;
- Land Use and Planning/Population and Housing;
- Noise;
- Public Services and Recreation;
- Transportation;
- Tribal Cultural Resources;
- Utilities and Service Systems;
- Wildfire;
- Effects Not Found to be Significant;
- Statutorily Required Sections; and
- Alternatives Analysis.

In accordance with CEQA, the Draft EIR was sent to the State Clearinghouse (SCH# 2023070297) for distribution to State agencies on July 26, 2024 for a 45-day public review period. In addition, the Draft EIR and a Notice of Availability (NOA) for the Draft EIR were published on the El Dorado County Planning Division website. Printed copies of the Draft EIR were made available for review at the Planning and Building Department (2850 Fairlane Court, Building C), the El Dorado County Library (345 Fair Lane), the El Dorado Hills Library (7455 Silva Valley Parkway), and the Cameron Park Library (2500 Country Club Drive). A public meeting was held at the El Dorado County

Planning and Building Department with a remote option through Zoom on August 22, 2024 to solicit public comments regarding the Draft EIR.

1.3 PURPOSE OF THE FINAL EIR

Under CEQA Guidelines Section 15132, the Final EIR shall consist of:

1. The Draft EIR or a revision of the Draft.
2. Comments and recommendations received on the Draft EIR.
3. A list of persons, organizations, and public agencies commenting on the Draft EIR.
4. The responses to significant environmental points raised in the review process.
5. Any other information added by the Lead Agency.

As required by CEQA Guidelines, Section 15090(a)(1)-(3), a Lead Agency must make the following three determinations in certifying a Final EIR:

1. The Final EIR has been completed in compliance with CEQA.
2. The Final EIR was presented to the decision-making body of the Lead Agency, and the decision-making body reviewed and considered the information in the Final EIR prior to approving the project.
3. The Final EIR reflects the Lead Agency's independent judgment and analysis.

Under CEQA Guidelines Section 15091, a public agency cannot approve or carry out a project for which an EIR has been certified that identifies one or more significant environmental effects of the project unless the public agency makes one or more written findings (Findings of Fact) for each of those significant effects. Findings of Fact must be accompanied by a brief explanation of the rationale for each finding supported by substantial evidence in the record. The Findings of Fact are included in a separate document that will be considered for adoption by the County's decision-makers.

Pursuant to CEQA Guidelines Section 15093(b), when a lead agency approves a project that would result in significant and unavoidable impacts, the agency must state in writing the reasons supporting the action (Statement of Overriding Considerations). The Statement of Overriding Considerations shall be supported by substantial evidence, and are subject to adoption by the County's decision-makers along with the Findings of Fact. The proposed project would result in a significant and unavoidable impact related to substantial degradation (in a non-urbanized area) of the existing visual character or quality of public views of the site and its surroundings (Impact 4.1-3); long-term changes in visual character associated with development of the proposed project in combination with future buildout of the El Dorado County General Plan (Impact 4.1-5); conflicts with or obstruction of implementation of the applicable air quality plan during project operation (Impact 4.2-2); a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment under an applicable federal or State ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors) (Impact 4.2-6); generation of greenhouse gas (GHG) emissions that may have a significant impact on the environment or conflicts with an applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of GHGs (Impact 4.2-7); cumulative loss of habitat for special-status species and oak woodlands (Impact 4.3-14); a substantial adverse change in the significance of a historical resource pursuant to CEQA Guidelines Section 15064.5 (Impact 4.4-1); generation of a substantial permanent increase in ambient noise levels associated with project buildout in excess of standards established in the

local general plan or noise ordinance, or applicable standards of other agencies (Impact 4.9-3); conflicts or inconsistency with CEQA Guidelines Section 15064.3, subdivision (b) (Impact 4.11-3); and cumulative conflicts with or inconsistency with CEQA Guidelines Section 15064.3, subdivision (b) (Impact 4.11-6). Thus, a Statement of Overriding Considerations must be adopted if the proposed project is approved.

1.4 LIST OF COMMENTERS

El Dorado County received 56 comment letters during the public comment period on the Draft EIR for the proposed project. A summary of verbal comments received at the public comment meeting on the Draft EIR is included as Letter 57. The comment letters were authored by the following agencies and individuals:

Agencies

Letter 1 ..... California Department of Fish and Wildlife
Letter 2 ..... El Dorado County Local Agency Formation Commission
Letter 3 ..... El Dorado Hills Community Services District
Letter 4 ..... El Dorado Hills Area Planning Advisory Committee
Letter 5 ..... El Dorado Transit
Letter 6 ..... Pacific Gas and Electric Company (Letter 1 of 3, 7/26/24)
Letter 7 ..... Pacific Gas and Electric Company (Letter 2 of 3, 7/30/24)
Letter 8 ..... Pacific Gas and Electric Company (Letter 3 of 3, 8/14/24)

Groups

Letter 9 ..... Center for Biological Diversity
Letter 10 ..... Housing El Dorado
Letter 11 ..... Lozeau Drury

Individuals

Letter 12 ..... John Albano (Letter 1 of 2, 8/17/24)
Letter 13 ..... John Albano (Letter 2 of 2, 9/9/24)
Letter 14 ..... Ana Azarkeyvan
Letter 15 ..... Yasaman Bayat
Letter 16 ..... Patricia Bergstrom
Letter 17 ..... Linda Campbell
Letter 18 ..... Ron Cassity
Letter 19 ..... Mike Connelly
Letter 20 ..... Michelle Danovaro
Letter 21 ..... Lionel de Maine
Letter 22 ..... Donald Dupere
Letter 23 ..... Peter Evenhuis
Letter 24 ..... Silvio Ferrari
Letter 25 ..... Stephen Ferry
Letter 26 ..... Steve Green
Letter 27 ..... Rajan Gutta
Letter 28 ..... Maryam Habibi
Letter 29 ..... Steve Hardy
Letter 30 ..... Kathy Hatten
Letter 31 ..... Vijay Kumar
Letter 32 ..... Randall LaFrom

Letter 33 ..... Karan Marsh
Letter 34 ..... Carolyn Oliveira
Letter 35 ..... Danica Olivo
Letter 36 ..... Sandra Ralph
Letter 37 ..... Ana Ramirez
Letter 38 ..... Russel Reyes
Letter 39 ..... Laurie Rinker (Letter 1 of 2, 8/17/24)
Letter 40 ..... Laurie Rinker (Letter 2 of 2, 9/9/24)
Letter 41 ..... Mike Roberts
Letter 42 ..... Patrick and Connie Rodgers (Letter 1 of 2, 8/5/24)
Letter 43 ..... Patrick and Connie Rodgers (Letter 2 of 2, 9/8/24)
Letter 44 ..... Enrique Rodriguez
Letter 45 ..... Reyna Rodriguez
Letter 46 ..... John Salud
Letter 47 ..... Kara Sather
Letter 48 ..... Lynda D. Seymour (Letter 1 of 2, 8/17/24)
Letter 49 ..... Lynda D. Seymour (Letter 2 of 2, 8/21/24)
Letter 50 ..... David B. Smith (Letter 1 of 2, 8/17/24)
Letter 51 ..... David B. Smith (Letter 2 of 2, 8/22/24)
Letter 52 ..... Kitty Tetrault
Letter 53 ..... Annaliese Tupper
Letter 54 ..... Robert Wahl
Letter 55 ..... Stan Wentland
Letter 56 ..... Margie Yowell, Mickie Smith, Karan Marsh, and Stephen Marsh

In addition, verbal comments were received from one commenter during the public meeting held before the El Dorado County Planning Commission on August 22, 2024, to solicit public comments regarding the Draft EIR. A summary of the comments from the Draft EIR comment hearing are included as Letter 57.

Letter 57 ..... Summary of Verbal Comments: Draft EIR Public Comment Meeting (August 22, 2024)

1.5 ORGANIZATION OF THE FINAL EIR

The Final EIR is organized into the following chapters:

1. Introduction and List of Commenters

Chapter 1 provides an introduction and overview of the document, describing the background and organization of the Final EIR. Chapter 1 also provides a list of commenters who submitted letters in response to the Draft EIR.

2. Responses to Comments

Chapter 2 presents the comment letters received and responses to each comment. Each comment letter received has been numbered at the top and bracketed to indicate how the letter has been divided into individual comments. Each comment is given a number with the letter number appearing first, followed by the comment number. For example, the first comment in Letter 1 would have the following format: 1-1. The response to each comment will reference the comment number.

3. Revisions to the Draft EIR Text

Chapter 3 summarizes minor changes made to the Draft EIR text since its release, including clarifications, modifications, and amplifications of the analysis

4. Mitigation Monitoring and Reporting Program

CEQA Guidelines Section 15097 requires lead agencies to adopt a program for monitoring the mitigation measures required to avoid the significant environmental impacts of a project. The intent of the Mitigation Monitoring and Reporting Program (MMRP) is to ensure implementation of the mitigation measures identified within the Draft EIR for the Town and Country Village El Dorado Project.

2. Responses to Comments

2. RESPONSES TO COMMENTS

2.1 INTRODUCTION

The Responses to Comments chapter contains responses to each of the comment letters submitted regarding the Town and Country Village El Dorado Project (proposed project) Draft EIR during the public review period and a response to the verbal comments received at the public meeting to receive public comment on the Draft EIR.

The County appreciates the time and effort taken by commenters to express their views and concerns as a part of this process. These views and recommendations are considered by County staff in developing the staff recommendation, and by the Planning Commission and Board of Supervisors in their deliberations and decision-making regarding certification of the EIR and the proposed project.

Section 15088(a) of the CEQA Guidelines directs that lead agencies must prepare written responses to those comments received during the Draft EIR comment period that raise "significant environmental issues." The County is not required to respond to comments on non-CEQA issues or to respond to late comments. Nevertheless, the County has chosen to respond to all comments received on the Draft EIR in this Responses to Comments chapter. The County has opted to take this broad approach to facilitate the public process, document the exchange of information, and provide important information about considerations relevant to the proposed project.

Where a comment provides the opinion, preference, or observation of the commenter (e.g., opinions on the merits of the project that are unrelated to its environmental impacts), without substantiation, this is acknowledged for the record, and further response is not provided. All comments, whether substantiated by facts or simply reflecting the position of the commenter, have been considered by the County throughout this process.

According to CEQA Guidelines Section 15088, "The level of detail contained in the response… may correspond to the level of detail provided in the comment (i.e., responses to general comments may be general). A general response may be appropriate when a comment does not contain or specifically refer to readily available information, or does not explain the relevance of evidence submitted with the comment." Thus, when a commenter expresses general concerns like the proposed project would result in "more traffic," "increased noise," "effects on water quality," or "increased light and glare," a specific response is not offered. Rather, the commenter is referred to those sections of the Draft EIR where the referenced general concern is evaluated in detail. For example, project-related traffic and its effect on the regional roadway network is evaluated in Chapter 4.11, Transportation, of the Draft EIR. Potential impacts related to noise and vibration associated with construction and operation of the proposed project are addressed in Chapter 4.9, Noise, of the Draft EIR. The potential effects of the project on local hydrology and water quality, including groundwater, are addressed in Chapter 4.7, Hydrology and Water Quality, of the Draft EIR, and project-related effects associated with light and glare are assessed in Chapter 4.1, Aesthetics, of the Draft EIR.

2.2 RESPONSES TO COMMENTS

The following 56 letters were received by the County during the public comment period for the Draft EIR. Each bracketed comment letter is followed by numbered responses to each bracketed comment. In addition, verbal comments from one commenter were received during the public meeting held on August 22, 2024, to solicit public comments on the Draft EIR and are identified as Letter 57. A numbered response is provided to the verbal comments, following the responses to the 56 letters. The responses amplify or clarify information provided in the Draft EIR and/or refer the reader to the appropriate place in the document where the requested information can be found. Comments that are not directly related to environmental issues (e.g., opinions on the merits of the project that are unrelated to its environmental impacts) are either discussed or noted for the record, as appropriate. Where revisions to the Draft EIR text are required in response to the comments, such revisions are noted in the response to the comment, and are also listed in Chapter 3 of this Final EIR. All new text is shown as double underlined and deleted text is shown as ~~struck through~~.

As presented in Chapter 3 of this Final EIR, minor corrections, additions, and revisions have been made to the Draft EIR, as initiated by the Lead Agency (El Dorado County). However, the changes represent only minor clarifications/amplifications of the analysis contained in the Draft EIR and do not constitute significant new information that, in accordance with CEQA Guidelines, Section 15088.5, would trigger the need to recirculate portions or all of the Draft EIR. Thus, recirculation of the Draft EIR is not required.

Each letter has been considered by the County and addressed, according to CEQA Guidelines Section 15088, prior to certification of this Final EIR.

Letter 1

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State of California – Natural Resources Agency
DEPARTMENT OF FISH AND WILDLIFE
North Central Region
1701 Nimbus Road, Suite A
Rancho Cordova, CA 95670-4599
916-358-2900
www.wildlife.ca.gov

GAVIN NEWSOM, Governor
CHARLTON H. BONHAM, Director

September 6, 2024

Bret Sampson, Planning Manager
El Dorado County Planning and Building Department
2850 Fairlane Court
Placerville, CA 95667
TownAndCountryElDorado@edcgov.us

Subject: Town and Country Village El Dorado Project
DRAFT ENVIRONMENTAL IMPACT REPORT (DEIR)
SCH No. 2023070297

Dear Bret Sampson,

The California Department of Fish and Wildlife (CDFW) received and reviewed the Notice of Availability of a DEIR from El Dorado County Planning and Building Department for the Town and Country Village El Dorado Project (Project) in El Dorado County pursuant the California Environmental Quality Act (CEQA) statute and guidelines.[1] 1-1

Thank you for the opportunity to provide comments and recommendations regarding those activities involved in the Project that may affect California fish, wildlife, plants and their habitats. Likewise, CDFW appreciates the opportunity to provide comments regarding those aspects of the Project that CDFW, by law, may need to exercise its own regulatory authority under the Fish and Game Code (Fish & G. Code).

CDFW ROLE

CDFW is California's **Trustee Agency** for fish and wildlife resources and holds those resources in trust by statute for all the people of the State (Fish & G. Code, §§ 711.7, subd. (a) & 1802; Pub. Resources Code, § 21070; CEQA Guidelines § 15386, subd. (a).). CDFW, in its trustee capacity, has jurisdiction over the conservation, protection, and management of fish, wildlife, native plants, and habitat necessary for biologically sustainable populations of those species (*Id.*, § 1802.). Similarly, for purposes of CEQA, CDFW provides, as available, biological expertise during public agency environmental 1-2

1 CEQA is codified in the California Public Resources Code in section 21000 et seq. The "CEQA Guidelines" are found in Title 14 of the California Code of Regulations, commencing with section 15000.

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review efforts, focusing specifically on projects and related activities that have the potential to adversely affect fish and wildlife resources.

CDFW may also act as **a Responsible Agency** under CEQA. (Pub. Resources Code, § 21069; CEQA Guidelines, § 15381.) CDFW expects that it may need to exercise regulatory authority as provided by the Fish and Game Code. As proposed, for example, the Project may be subject to CDFW's lake and streambed alteration regulatory authority. (Fish & G. Code, § 1600 et seq.) Likewise, to the extent implementation of the Project as proposed may result in "take" as defined by State law of any species protected under the California Endangered Species Act (CESA) (Fish & G. Code, § 2050 et seq.), the project proponent may seek related take authorization as provided by the Fish and Game Code.

1-2 cont.

PROJECT DESCRIPTION SUMMARY

The Project site is located in El Dorado County, California, approximately 500 feet north of U.S. Highway 50 (US 50), east of Bass Lake Road. The approximately 60.5-acre site is identified by Assessor's Parcel Numbers (APNs) 119-080-12, -021, and -023.

The Project consists of two areas: the first area called the Project Development Area is on the northernmost and southernmost 30.3 acres of the project site, would be developed with two hotels, retail services, two restaurants, a museum, an event center, associated parking, 56 residential cottages for employee housing, and an additional 56 residential cottages that may be rented on a daily or extended basis. The second area called the Program Study Area will consist of the central and easternmost 30.2 acres of the project site and may include future development of additional hotels, medical facilities, senior housing, townhomes and cottages, and other uses allowed by the proposed zoning districts.

1-3

COMMENTS AND RECOMMENDATIONS

CDFW offers the comments and recommendations presented below to assist the El Dorado County Department of Transportation in adequately identifying and/or mitigating the Project's significant, or potentially significant, impacts on biological resources.

CDFW is primarily concerned with the Project impacts to existing fish and wildlife resources including foothill yellow-legged frog (*Rana boylii*) (FYLF), western pond turtle (*Actinemys marmorata*), and other aquatic and terrestrial plant and wildlife species. CDFW is also concerned with impacts on riparian habitat and impacts to downstream aquatic resources. CDFW provides the following comments for the County's consideration.

1-4

Comment 1: Impacts to Foothill yellow-legged frog (*Rana bolyii*; FYLF)
4.3-5 Impacts to foothill yellow-legged frog either directly or through substantial habitat modifications.

Issue: Some construction activities will occur near Carsen Creek. The DEIR indicates that the Project Site is within the range of the Northeast/Northern Sierra clade (North Sierra

1-5

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Distinct Population Segment) of foothill yellow-legged frog (*Rana bolyii;* FYLF); this clade is listed as threatened under the California Endangered Species Act (CESA). A season of operation that avoids FYLF presence does not exist; FYLF may be encountered in various life stages year-round. The DEIR describes that a Qualified Biologist will conduct pre-construction surveys for FYLF but does not provide sufficient detail on survey methods or timing.

1-5 cont.

Per CDFW's recommendations below, a Qualified Biologist is defined as a person who is knowledgeable and experienced in the biology, life stages, natural history, and identification of local fish and wildlife resources present at the Project Site.

Recommendation 1.1: CDFW recommends the Proponent provide additional detail on FYLF bioassessment survey methods and timing. The Proponent should review CDFW's Considerations for Conserving the Foothill Yellow-Legged Frog available at https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=157562&inline.

To increase the likelihood of detection, surveys should include at least one visual encounter survey (VES) during the breeding and/or oviposition period (generally April–June), a tadpole survey four to eight weeks after the breeding survey(s), and a subadult survey in late summer/early fall (generally late August–early October). VES conducted during the late summer are often the easiest method for determining presence (generally late August to early October); subadults and occasionally adults are often observed along river margins, and subadult and adult frogs will likely also be observed in tributary streams (Crump and Scott 1994).

1-6

If any survey fails to detect FYLFs within suitable habitat, a follow-up survey should be conducted two to four weeks after the initial survey.

Recommendation 1.2: Regardless of whether FYLF are detected during the bioassessment surveys (described above in Recommendation 1.1), CDFW recommends the Proponent prepare a Pre-Construction Survey Plan (Plan) for FYLF and submit it to CDFW for review at least 30 calendar days prior to commencing ground-disturbing or in-water work activities.

A Qualified Biologist should develop the Plan for FYLF. Prior to preparing the Plan, CDFW recommends the Proponent review CDFW's Considerations for Conserving the Foothill Yellow-Legged Frog available at https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=157562&inline. CDFW recommends the following survey and species considerations be incorporated into the Plan and final DEIR:

1-7

a. The Plan should include what life-stage(s) shall be surveyed for, survey method(s), and timing of survey(s).

b. The Plan should provide justification for timing and methodology of survey design (e.g., watershed characteristics, regional snowpack, timing and rate of spring runoff, day length, average ambient air and water temperatures, local and seasonal conditions).

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c. If the Project Site has suitable frog breeding habitat, the Plan should include performing egg mass/larval surveys.

Within 3 to 5 calendar days prior to ground-disturbing and in-water activities at the Project Site, the Qualified Biologist should perform a pre-construction survey, as specified in the Plan, within the boundaries of the Project Site, plus a minimum 500-foot buffer zone upstream and downstream of the Project Site. The survey should include a description of any standing or flowing water. The Proponent should provide Pre-Construction Survey results, notes, and observations to CDFW prior to commencing ground disturbing and in-water activities. Conducting surveys prior to maintenance work may allow avoidance of incidental take. If the Proponent encounters any life stages of FYLF during pre-construction surveys, ground-disturbing or in-water activities, work should be suspended at the Project Site, and CDFW should be notified within 24 hours. Work may not re-initiate in the Project Site until the Proponent demonstrates compliance with CESA.

1-7 cont.

Recommendation 1.3: CDFW recommends that a CESA Incidental Take Permit (ITP) be obtained if the Project has the potential to result in "take" (Fish & G. Code § 86 defines "take" as "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill") of CESA-listed species, including FYLF, either through construction or over the life of the Project. No relocation shall be done for special status species or CESA listed species without the proper handling permits and/or CESA take coverage (e.g., an ITP).

Please note that mitigation measures that are adequate to reduce impacts to a less-than significant level to meet CEQA requirements may not be enough for the issuance of an ITP. To issue an ITP, CDFW must demonstrate that the impacts of the authorized take will be minimized and fully mitigated (Fish & G. Code § 2081 (b)). To facilitate the issuance of an ITP, if applicable, CDFW recommends the DEIR include measures to minimize and fully mitigate the impacts to any CESA-listed species the Project has potential to take. CDFW encourages early consultation with staff to determine appropriate measures to facilitate future permitting processes and to engage with the U.S. Fish and Wildlife Service to coordinate specific measures if both state and federally listed species may be present within the Project vicinity.

1-8

Comment 2: Impacts to Special-Status Plants
4.3-1 Impacts to special-status plant species either directly(e.g., threaten to eliminate a plant community) or through substantial habitat modifications.

Issue: Section 15125(c) of the CEQA Guidelines states that knowledge of the regional setting of a project is critical to the assessment of environmental impacts and that special emphasis should be placed on environmental resources that are rare or unique to the region. The DEIR should include a recent complete assessment of the flora and fauna within and adjacent to the Project footprint, with emphasis on identifying rare, threatened, endangered, and other sensitive species and their associated habitats.

1-9

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Project-specific mitigation measures to be implemented include transplantation and propagation. The DEIR should cover a range of possibilities for mitigation. The use of relocation, salvage, and/or transplantation as the sole mitigation for impacts to special status, rare, threatened, or endangered species are generally experimental in nature and largely unsuccessful. Therefore, the DEIR should describe additional mitigation measures utilizing habitat restoration, conservation, and/or preservation, in addition to avoidance and minimization measures, if it is determined that there may be impacts to special status, rare, threatened, or endangered species. 1-10

Recommendation: CDFW recommends the DEIR specifically include a thorough, recent (within the last two years), floristic-based assessment of special-status plants and natural communities, following CDFW's Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities (see www.wildlife.ca.gov/Conservation/Plants). 1-11

COMMENT 3: Impacts to Northwestern Pond Turtle
4.3-6 (Northwestern Pond Turtle [Actinemys marmorata])

Issue: The DEIR states that a Qualified Biologist will conduct surveys for northwestern pond turtle (*Actinemys marmorata*) prior to construction but does not provide sufficient detail on survey methods. 1-12

Recommendation: CDFW recommends the following language be added to Mitigation Measure 4.3-6 to clarify survey details and minimize impacts to northwestern pond turtle:

> Prior to ground-disturbing activities near Carsen Creek a Qualified Biologist will survey the Project Site where suitable habitat (including nest sites) occurs for northwestern pond turtle. Surveys will be performed within 30 days prior to starting Project activities and conducted within a minimum of 500 feet upstream and downstream of the Project activity where accessible. If detected during surveys, a site-specific avoidance, minimization, and/or relocation plan will be prepared and implemented by a Qualified Biologist with proper handling permits. The plan will include daily construction monitoring. The plan shall be submitted to CDFW. 1-13

Comment 3: Impacts to Nesting Birds
Mitigation Measure 4.3-7

Issue: The proposed Project activities could result in significant habitat loss for a variety of bird species. The significance of the impact of habitat clearing is not reduced by virtue of the abundance of similar or equivalent adjacent habitat to the Project Site; vegetation trimming and clearing may reduce available habitat for wildlife and, potentially, for special-status species which may use these forest stands. Sections 3503, 3503.5, and 3513 of the Fish and Game Code protect nesting and migratory birds and birds of prey. Section 3503 states that it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by the Fish and Game Code or any regulation made pursuant thereto. Section 3503.5 states that it is unlawful to take, possess, or destroy any birds in the orders Falconiformes or Strigiformes (birds of prey) or to take, possess, or destroy the nest or eggs of any such 1-14 1-15

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bird except as otherwise provided by the Fish and Game Code or any regulation adopted pursuant thereto. Section 3513 states that it is unlawful to take or possess any migratory nongame bird as designated in the federal Migratory Bird Treaty Act (MBTA). 1-15 cont.

Recommendation: CDFW recommends that nesting bird surveys be conducted if project activities are scheduled to occur between February 1 and August 31, to fully encapsulate the potential nesting season. The survey should take place no more than 15 calendar days prior to ground disturbing activities. CDFW typically recommends a minimum of a 500-foot radius for migrating birds, and a ½ mile radius for nesting raptors. If any special-status species are encountered during project activities, work should be suspended, CDFW notified, and conservation measures should be developed in agreement with CDFW prior to re-initiating the activity. Conversely, if during project activities, any species listed pursuant to the CESA are encountered, work shall be suspended, and CDFW notified. Work may not re-initiate until the Project proponent has consulted with CDFW and can demonstrate compliance with CESA. 1-16

Please note that the MBTA and Fish and Game Code apply regardless of the time of year. Therefore, if an active nest is discovered outside of the typical nesting season, it should be avoided using the same avoidance measures that would be applied during the typical nesting season until such time as the young have fully fledged and are foraging independently of their parents. 1-17

Comment 4: Moving out of Harm's Way.

Issue: The proposed Project activities could result in both direct or indirect mortality of wildlife. 1-18

Recommentation: To avoid direct mortality, the El Dorado County Planning and Building Department should state in the DEIR a requirement for a Qualified Biologist be retained to be onsite prior to and during all ground- and habitat-disturbing activities that have the possibility to cause harm to wildlife species. Furthermore, the DEIR should describe that the Qualified Biologist with the proper permits may move out of harm's way special-status species or other wildlife of low or limited mobility that would otherwise be injured or killed from Project-related activities, as needed. The DEIR should also describe Qualified Biologist qualifications and authorities to stop work to prevent direct mortality of special-status species. CDFW recommends fish and wildlife species be allowed to move out of harm's way on their own volition, if possible, and to assist their relocation as a last resort. It should be noted that the temporary relocation of onsite wildlife does not constitute effective mitigation for habitat loss. 1-19 1-20

Comment 5: Notification for Lake and Streambed Alteration Agreement

Issue: Carsen Creek passes directly through the project area. Depending on the Project activities a notification to CDFW pursuant to Section 1602 of the Fish and Game Code may be required. Notification is required for any activity that may do one or more of the following: 1-21

a. Substantially divert or obstruct the natural flow of any river, stream, or lake;

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b. Substantially change or use any material from the bed, channel or bank of any river, stream, or lake; or
c. Deposit debris, waste, or other materials where it may pass into any river, stream, or lake.

1-21 cont.

Please note that "any river, stream or lake" includes those that are episodic (i.e., those that are dry for periods of time) as well as those that are perennial (i.e., those that flow year-round). This includes ephemeral streams and watercourses with a subsurface flow. It may also apply to work undertaken within the flood plain of a body of water. Upon receipt of a complete notification, CDFW will determine if the Project activities may substantially adversely affect existing fish and wildlife resources and whether a Lake and Streambed Alteration (LSA) Agreement is required. An LSA Agreement will include measures necessary to protect existing fish and wildlife resources.

CDFW's issuance of an LSA Agreement is a "project" subject to CEQA (see Pub. Resources Code 21065). To facilitate issuance of an LSA Agreement, the DEIR should fully identify the potential impacts to the lake, stream, or riparian resources, and provide adequate avoidance, minimization, mitigation, and monitoring and reporting commitments.

1-22

Recommendation: CDFW recommends that the El Dorado County Planning and Building Department notify pursuant to Section 1602 of the Fish and Game Code as early as possible to determine if an LSA is needed.

1-23

ENVIRONMENTAL DATA

CEQA requires that information developed in environmental impact reports and negative declarations be incorporated into a database, which may be used to make subsequent or supplemental environmental determinations (Pub. Resources Code, § 21003, subd. (e)). Accordingly, please report any special-status species and natural communities detected during Project surveys to CNDDB. The CNNDB field survey form can be found at the following link: https://www.wildlife.ca.gov/Data/CNDDB/Submitting-Data. The completed form can be submitted online or mailed electronically to CNDDB at the following email address: CNDDB@wildlife.ca.gov.

1-24

FILING FEES

The Project, as proposed, would have an effect on fish and wildlife, and assessment of filing fees is necessary. Fees are payable upon filing of the Notice of Determination by the El Dorado County Planning and Building Department and serve to help defray the cost of environmental review by CDFW. Payment of the fee is required in order for the underlying project approval to be operative, vested, and final. (Cal. Code Regs, tit. 14, § 753.5; Fish & G. Code § 711.4; Pub. Resources Code, § 21089.)

1-25

CONCLUSION

Pursuant to Public Resources Code sections 21092 and 21092.2, CDFW requests written notification of proposed actions and pending decisions regarding the Project.

1-26

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Written notifications shall be directed to: California Department of Fish and Wildlife North Central Region, 1701 Nimbus Road, Rancho Cordova, CA 95670.

CDFW appreciates the opportunity to comment on the Notice of Availability of the DEIR for the Town and Country Village El Dorado Project and recommends that the El Dorado County Planning and Building Department address CDFW's comments and concerns. CDFW personnel are available for consultation regarding biological resources and strategies to minimize impacts.

1-26 cont.

If you have any questions regarding the comments provided in this letter, or wish to schedule a meeting and/or site visit, please contact Caitlyn Oswalt, Environmental Scientist at (916) 358-4315 or Caitlyn.Oswalt@wildlife.ca.gov.

Sincerely,

DocuSigned by:
Morgan Kilgour
C9A86764C0AD4F6...

Morgan Kilgour
Regional Manager

ec: Billie Wilson, Senior Environmental Scientist (Supervisory)
Caitlyn Oswalt, Environmental Scientist
Department of Fish and Wildlife

Office of Planning and Research, State Clearinghouse, Sacramento

Docusign Envelope ID: 50861105-5EBF-40EC-B49D-5D5232818104

Literature Cited

Crump ML, Scott NJ Jr. 1994. Visual encounter surveys. Pages 84–92 in Heyer WR, Donnelly MA, McDiarmid RW, Hayek LC, Foster MS, editors. Measuring and monitoring biological diversity, standard methods for amphibians. Washington D.C.: Smithsonian Institution Press.

LETTER 1: CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE

Response to Comment 1-1
The introductory comment does not address the adequacy of the Draft EIR or identify any specific environmental issues related to the proposed project.

Response to Comment 1-2
The comment does not address the adequacy of the Draft EIR. The comment has been noted for the record.

Response to Comment 1-3
The comment does not address the adequacy of the Draft EIR. The comment has been noted for the record.

Response to Comment 1-4
The comment provides an overview of the agency's general concerns. Please see the responses to the commenter's more specific comments in what follows.

Response to Comment 1-5
The Draft EIR determined that, although the majority of the Project Development Area does not contain suitable habitat for foothill yellow-legged frog (FYLF), the Biological Resources Assessment (BRA) conducted for the proposed project (see Appendix E of the Draft EIR) determined that Carson Creek represents suitable habitat for the species. As discussed on pages 4.3-26 and 4.3-27 of the Draft EIR, the proposed project would not disturb the creek. However, individual frogs could be killed if present in the construction area adjacent to Carson Creek. Therefore, the proposed project could substantially adversely affect FYLF if the off-site sewer alternative is implemented, and Mitigation Measure 4.3-5 would be required.

As detailed in Response to Comment 1-6 below, Mitigation Measure 4.3-5, which would be implemented if the off-site sewer pipe within the Carson Creek vicinity is constructed, has been modified to include CDFW's recommendations outlined in comments 1-6 and 1-7. Additional language has been included in the revisions to Mitigation Measure 4.3-5 to incorporate CDFW's definition of a qualified biologist.

Response to Comment 1-6
In response to Comment 1-6, the following requirements have been added to Mitigation Measure 4.3-5 as shown below. Added text is shown in double underline. Pages 4.3-48 and 4.3-49 of the Draft EIR are hereby revised as follows:

Off-Site Sewer Pipe Alignments Only

4.3-5 *Prior to initiation of ground disturbance activities within 100 feet of Carson Creek, associated with the off-site sewer pipe, the following measures shall be taken to mitigate potential impacts to foothill yellow-legged frog (FYLF):*

- *As part of the CWA Section 404 USACE permitting for the project, the USACE will conduct formal Endangered Species Act consultation with the USFWS on potential impacts to federally-listed species or species that are proposed for listing; this may*

include FYLF.[1] If the USACE consults with USFWS on FYLF, the project applicant shall prepare a Biological Assessment, which will include details on potential impacts and mitigation for FYLF, to be submitted to the USACE and the USFWS.

- *If take of FYLF is determined to be likely, the project applicant shall submit an application for an CDFW Code Section 2081 Incidental Take Permit.*
- *To determine the presence or absence of FYLF within Carson Creek, protocol FYLF surveys shall be conducted by a qualified biologist. To increase the likelihood of detection, surveys shall include at least one visual encounter survey (VES) during the breeding and/or oviposition period (generally April through June), a tadpole survey four to eight weeks after the breeding survey(s), and a subadult survey in late summer/early fall (generally late August through early October). The survey shall be conducted in accordance with the Peek et al (2017) Visual encounter survey protocol for Rana boylii in lotic environments and CDFW's Considerations for Conserving the Foothill Yellow-Legged Frog.*
- *Regardless of whether FYLF are detected during the bioassessment surveys, the project applicant shall develop a Pre-Construction Survey Plan for FYLF and submit it to the USFWS and CDFW for review at least 30 calendar days prior to commencing ground-disturbing or in-water work activities within 500 feet upstream and downstream of the construction area (if permitted by adjacent land owners). The Pre-Construction Survey Plan shall include what life-stage(s) shall be surveyed for, survey method(s), and timing of survey(s). The Pre-Construction Survey Plan shall also provide justification for timing and methodology of survey design (e.g., watershed characteristics, regional snow pack, timing and rate of spring runoff, day length, average ambient air and water temperatures, local and seasonal conditions). For sites with suitable breeding habitat, egg mass/larval surveys shall be conducted to support a negative finding.*
- *Within three to five days prior to entering or working within 100 feet of Carson Creek, a qualified biologist who is knowledgeable and experienced in the biology, life stages, natural history, and identification of local fish and wildlife resources at the project site shall perform a pre-construction survey, as specified in the Pre-Construction Survey Plan, within the 500-foot upstream and downstream buffer zone to the construction area (if permitted by adjacent land owners). The survey shall include a description of any standing or flowing water. The project applicant shall provide Pre-Construction Survey results, notes, and observations to CDFW prior to commencing ground disturbing and in-water activities.*
- *If the qualified biologist encounters any life stages of FYLF during pre-construction surveys, ground-disturbing or in-water activities shall be suspended at the project site, and CDFW shall be notified within 24 hours. Work shall not re-initiate in the project site until the project applicant demonstrates compliance with CESA.*

[1] The USACE may choose not to consult with USFWS on FYLF as direct impacts to USACE jurisdictional FYLF habitat are not proposed; impacts would only be indirect.

- *If it is determined that take of FYLF is likely to occur, the project applicant shall abide by mitigation measures developed during the course of the Endangered Species Act consultation with the USFWS and CDFW. These mitigation measures could include, but are not limited to, seasonal work restrictions for initial ground disturbance, pre-construction surveys by a qualified biologist, the installation of wildlife exclusion fencing, biological monitoring, and worker environmental awareness training. A qualified biologist is defined as a person who is knowledgeable and experienced in the biology, life stages, natural history, and identification of local fish and wildlife resources at the project site. If it is determined that take of FYLF is likely to occur, additional measures could include preservation, restoration, or enhancement of habitat on- or off-site, purchase of habitat credits from an agency-approved mitigation/conservation bank, working with a local land trust to preserve land, or any other method acceptable to USFWS and CDFW.*

  The mitigation measures listed below may be implemented if take of FYLF is likely to occur. The mitigation measures listed below may differ from mitigation measures included in a USFWS Biological Opinion or a CDFW Incidental Take Permit. If that occurs, the measures in the USFWS Biological Opinion and CDFW Incidental Take Permit take precedence.

  - *The project proponent shall develop a Pre-Construction Survey Plan for FYLF and submit it to the USFWS and CDFW for approval prior to ground-disturbing activities with 100 feet of Carson Creek. The Plan shall include what life-stage(s) shall be surveyed for, survey method(s), and timing of survey(s). The Plan shall provide justification for timing and methodology of survey design (e.g., watershed characteristics, regional snow pack, timing and rate of spring runoff, day length, average ambient air and water temperatures, local and seasonal conditions). For sites with suitable breeding habitat, two consecutive seasons of negative egg mass/larval surveys are recommended to support a negative finding.*
  - *Within 3-5 days prior to entering or working within 100-feet of Carson Creek, a USFWS and CDFW-approved biologist shall perform a pre-construction survey, as specified in the Pre-Construction Survey Plan, within 500-foot buffer zone upstream and downstream of the construction area (if permitted by adjacent land owners). The survey shall include a description of any standing or flowing water. Permittee shall provide Pre-Construction Survey notes and observations to the USFWS and CDFW prior to commencing Covered Activities.*
  - *The project proponent shall develop a Relocation Plan for FYLF and submit it to the USFWS and CDFW for approval prior to ground-disturbing activities within 100 feet of Carson Creek. The Relocation Plan shall include what life stage(s) will be relocated (e.g., adults or egg masses) and specific protocols for each life stage. The Relocation Plan shall quantify the amount, location, and quality of suitable*

receiving habitat (e.g., breeding and dispersal habitat). The Relocation Plan shall include capture and handling methods specific to each life stage. Relocation shall not occur without first obtaining the proper permits from USFWS and CDFW, and all relocation shall be conducted by a qualified biologist.

- *The project proponent shall ensure that Covered Activities, involving construction and heavy equipment use (such as excavation, grading, and contouring), that are conducted in streams, ponds, and riparian areas are limited to the period from May 1 to October 15 of each year (Dry Season). Any work outside of the Dry Season shall be subject to approval of the USFWS and CDFW.*
- *Prior to the start of construction within 100 feet of Carson Creek, high visibility orange fencing shall be installed around approved work areas. The fencing shall remain in place while construction activities are ongoing and shall be regularly inspected and fully maintained at all times.*
- *The project proponent shall develop a Water Diversion Plan for FYLF and submit it to CDFW for approval prior to any in-stream activities. The Water Diversion Plan shall contain detailed descriptions of the water intake screening (e.g., screen material, size, cleaning method, etc.), the duration of the water diversion, how the project proponent will ensure that aquatic life will be maintained or relocated from the dewatered area, diversion materials (unacceptable materials that are deleterious to fish and wildlife include particle board, plastic sheeting, bentonite, pressure-treated lumber, creosote, concrete, or asphalt), and monitoring methods for the diversion.*

- *If it is determined that take of FYLF is unlikely to occur, the Applicant shall conduct a pre-construction Visual Encounter Survey (VES) survey for the species within 15 days prior to initiation of ground disturbance within 100 feet of Carson Creek. The survey shall be conducted in accordance with the Peek et al (2017) Visual encounter survey protocol for Rana boylii in lotic environments and CDFW's Considerations for Conserving the Foothill Yellow-Legged Frog, but only implement the life-stage survey(s) that are appropriate for the time of year of the survey (which will be based on when construction commences). If survey results are negative, then no further mitigation will be required. If FYLF are found during the survey, then take should be considered likely to occur, and consultation with USFWS and CDFW as outlined above shall occur. Survey results shall be provided to the El Dorado County Planning and Building Department within 15 days of completion of all surveys.*

The above mitigation language was added in response to comments and in order to make Mitigation Measure 4.3-5 more inclusive and specific. Where, as here, the suggested revisions are adopted, recirculation is not required because the above revisions clarify an existing mitigation measure. Following revision, the Draft EIR's impact conclusions would remain the same. As such, the revisions do not represent a significant change to the Draft EIR.

Response to Comment 1-7

The comment makes further recommendations for mitigation related to FYLF. Please see Response to Comment 1-6 for revisions to Mitigation Measure 4.3-5.

Response to Comment 1-8

Regarding the proposed project's potential to result in "take" of a listed species, such as the FYLF, the Draft EIR includes mitigation measures that require obtaining an Incidental Take Permit (ITP) if take of a species listed under the California Endangered Species Act (CESA) cannot be avoided. For example, Mitigation Measures 4.3-2 and 4.3-5 both require the project proponent to obtain an ITP if take is determined to be likely. Furthermore, as specified in Mitigation Measures 4.3-2 and 4.3-5, any relocation of CESA-listed species would be done in accordance with USFWS and CDFW regulations, and in coordination with the agencies as required by law.

Response to Comment 1-9

As discussed on pages 4.3-37 and 4.3-38 of the Draft EIR, a list of special-status plant and wildlife species with potential to occur within the study area was developed as part of the BRA through queries of the following databases:

a) California Natural Diversity Database (CNDDB) query of the study area and all areas within five miles of the study area (see Figure 4.3-3 and Figure 4.3-4 of the Draft EIR);
b) U.S. Fish and Wildlife Service (USFWS) Information for Planning and Conservation (IPaC) query of the study area (included as Attachment B of the BRA);
c) California Native Plant Society (CNPS) Rare and Endangered Plant Inventory query of the "Clarksville, California" U.S. Geological Survey topographic quadrangle and the eight surrounding quadrangles (included as Attachment C of the BRA); and
d) Western Bat Working Group (WBWG) Species Matrix.

In addition, any special-status species that are known to occur in the project region, but that were not identified in any of the above database searches, were also analyzed for their potential to occur within the study area.

Qualified biologists conducted field surveys of various portions of the study area on April 13, 2022, September 27, 2023, and October 6, 2023, to assess the suitability of habitats on-site to support special-status species and to conduct protocol-level surveys. Meandering pedestrian surveys were performed on foot throughout the study area. Vegetation communities were classified in accordance with The Manual of California Vegetation, Second Edition, and plant taxonomy was based on the nomenclature in the Jepson eFlora. A list of all wildlife species observed during the field surveys is included as Attachment D to the BRA (see Appendix E of the Draft EIR).

In addition, protocol-level special-status plant surveys of the entire study area were completed on several dates in 2022, 2023, and 2024. The special-status plant surveys were conducted in accordance with the USFWS Guidelines for Conducting and Reporting Botanical Inventories for Federally Listed, Proposed and Candidate Plants; the California Department of Fish and Wildlife (CDFW) Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities; and the CNPS Botanical Survey Guidelines. The results of the protocol-level surveys described above were incorporated into and included as Attachment E to the BRA.

Response to Comment 1-10

If special-status plant species are found, the Draft EIR sets forth the specific mitigation measures that will be implemented based on the plant species affected, physical conditions at the impact site, and conditions at a proposed mitigation site, if applicable, under Mitigation Measure 4.3-1. For example, options for mitigating impacts to annual plants, such as dwarf dowingia, could include avoidance, seed collection and planting at a mitigation site, or collection of seed-bearing soil to be spread at a mitigation site. Options for mitigating impacts to perennial plants, such as Sanford's arrowhead or big-scale balsamroot, include avoidance, transplantation of plant to a mitigation site, propagation using cuttings to be planted at a mitigation site, or seed collection and planting at a mitigation site.

As detailed within Mitigation Measure 4.3-1 on page 4.3-40 of the Draft EIR, if special-status plants could be impacted, a qualified biologist would be required to prepare an avoidance and mitigation plan detailing protection and avoidance measures, transplantation procedures, success criteria, and long-term monitoring protocols. The plan shall be reviewed and approved by the El Dorado County Planning and Building Department and shall ensure that mitigation for the impacts to rare plants shall result in no net loss of individual plants after a five-year monitoring period. In addition, a preconstruction worker awareness training shall be conducted to alert workers to the presence of and protections for special-status plants.

If plants listed under the Federal Endangered Species Act (FESA) or the CESA are located within the project impact area and the plants cannot be avoided, the project proponent shall coordinate with USFWS and the CDFW (as appropriate) for issuance of an ITP and shall implement similar mitigation measures as outlined above and ultimately approved by the appropriate agency.

Response to Comment 1-11

As discussed in Response to Comment 1-9 and as discussed on page 4.3-48 of the Draft EIR, qualified biologists have conducted multiple, protocol-level surveys of the project site, relying on CDFW's Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities as recently as 2024. Protocol-level special-status plant surveys conducted throughout the study area during 2022, 2023, and 2024 were negative for all the special-status plant species that could occur within the proposed impact area; however, given enough time, plants may become established in areas where suitable habitat exists. Accordingly, Mitigation Measure 4.3-1 provides for an additional special-status plant survey to be conducted if construction has not commenced before 2026, consistent with the comment's recommendation.

Response to Comment 1-12

Please see Response to Comment 1-13.

Response to Comment 1-13

As suggested by the comment, Mitigation Measure 4.3-6 is hereby revised in the Final EIR as follows:

> Mitigation Measure(s)
> Implementation of the following mitigation measures would reduce the above potential impact to a *less-than-significant* level by requiring surveying, and if necessary, protection of northwestern pond turtle prior to installation of the off-site sewer pipe within the Carson Creek vicinity.

Off-Site Sewer Pipe Alignments Only

4.3-6 *Prior to ground-disturbing activities near Carson Creek, a qualified biologist who is knowledgeable and experienced in the biology, life stages, natural history, and identification of local fish and wildlife resources at the project site (qualified biologist) shall survey the project site where suitable habitat (including nest sites) occurs for northwestern pond turtle. Surveys shall be performed within 30 days prior to starting project activities and shall be conducted within a minimum of 500 feet upstream and downstream of the proposed activity where accessible. If detected during surveys, a site-specific avoidance, minimization, and/or relocation plan shall be prepared and implemented by a qualified biologist with proper handling permits. The plan shall include daily construction monitoring. The plan shall be submitted to CDFW.*

Another northwestern pond turtle survey shall be conducted no more than 48 hours prior to construction where construction activities overlap with suitable aquatic habitat (i.e., Carson Creek), and where construction will occur in arroyo willow riparian scrub or oak woodlands within 150 feet of these aquatic resources. If northwestern pond turtles or nests are not found, further mitigation is not required. Survey results shall be provided to the El Dorado County Planning and Building Department within 15 days of completion of all surveys.

If a northwestern pond turtle is observed within the proposed impact area, ~~a qualified biologist shall relocate the individual to habitat of equivalent or greater value outside of the proposed impact area prior to construction~~ work shall be suspended in a 100-foot radius of the animal until the animal leaves the project site on its own volition. If necessary, a qualified biologist shall notify CDFW to determine the appropriate procedures related to relocation, which shall include, but not be limited to, obtaining a valid and applicable CDFW Scientific Collecting Permit. Any worker who inadvertently injures or kills a northwestern pond turtle or who finds a northwestern pond turtle dead, injured, or entrapped must immediately report the incident to the applicant, who must then immediately notify CDFW. Entrapped northwestern pond turtles shall be relocated by a qualified biologist with a valid and applicable CDFW Scientific Collecting Permit if approved by CDFW. If a northwestern pond turtle nest is observed within the proposed impact area, the nest shall be fenced off and avoided until the eggs hatch. The exclusion fencing shall be placed no less than 25 feet from the nest. A qualified biologist shall monitor the nest daily during construction to ensure that hatchlings do not disperse into the construction area. Relocation of hatchlings shall occur as stipulated above, if necessary.

If, as part of the CWA Section 404 USACE permitting for the project, the USACE determines that formal Endangered Species Act (ESA) consultation with the USFWS is needed, the project proponent shall abide by the mitigation measures developed during the course of the ESA consultation, which shall supersede these measures. These mitigation measures could include, but are not limited to, seasonal work restrictions for initial ground disturbance, dewatering protocols, pre-construction surveys by a qualified biologist, the installation of

> *wildlife exclusion fencing, turtle relocation, nest avoidance, biological monitoring, and worker environmental awareness training. Additional measures could include preservation, restoration, or enhancement of habitat on- or off-site, purchase of habitat credits from an agency-approved mitigation/conservation bank, working with a local land trust to preserve land, or any other method acceptable to USFWS.*

The foregoing revisions to Mitigation Measure 4.3-6 are intended to clarify survey details and do not affect the conclusions of the Draft EIR. In accordance with CEQA Guidelines, Section 15088.5, recirculation of the Draft EIR is not required.

Response to Comment 1-14

As noted in the Draft EIR on page 4.3-52, the proposed project could have a substantial adverse effect, either directly or through habitat modifications, on nesting songbirds and raptor species protected under the Migratory Bird Treaty Act (MBTA) and the California Fish and Game Code (CFGC). Accordingly, the Draft EIR includes Mitigation Measure 4.3-7 to reduce the impacts to birds protected by the MBTA or the CFGC to a less-than-significant level. The comment's statement alleging reductions of habitat in the abstract are speculative and do not show how the proposed project would impact any species due to habitat loss, nor does the comment detail the locations or types of habitat that would be affected, with the exception of "forest stands," which do not occur within the project area. Accordingly, further response is not required.

Response to Comment 1-15

The comment does not address the adequacy of the Draft EIR. The comment has been noted for the record.

Response to Comment 1-16

Please see Response to Comment 9-16 for revisions to Mitigation Measure 4.3-7, which include changes suggested by this comment. In accordance with the commenter's suggested changes, the pre-construction survey shall now take place no more than 15 calendar days (instead of 14) prior to ground disturbing activities. Further, the language regarding the discovery of special-status species has been added as follows:

> *If any special-status species are encountered during project activities and the individual may be harmed or they do not leave the Project site independently within 2 hours, work shall be suspended, CDFW notified, and conservation measures shall be developed in agreement with CDFW according to CDFW protocols prior to re-initiating the activity. Conversely, if during project activities, any species listed pursuant to the CESA are encountered, work shall be suspended, and CDFW notified. Work may not re-initiate until the Project proponent has consulted with CDFW and can demonstrate compliance with CESA.*

The revisions to Mitigation Measure 4.3-7, which are presented in full in Response to Comment 9-16, will be implemented to clarify an existing mitigation measure. The Draft EIR's impact conclusions would remain the same; therefore, the revisions do not represent a significant change to the Draft EIR and recirculation would not be required.

Response to Comment 1-17

The comment does not address the adequacy of the Draft EIR. The comment has been noted for the record and provided to the decision-makers for their consideration.

Response to Comment 1-18

The comment asserts that project activities could result in both direct and indirect mortality of wildlife. However, the comment does not include specific details on what wildlife may be affected or the manner in which wildlife may be affected; therefore, further response is not required.

Response to Comment 1-19

The Draft EIR includes a number of mitigation measures that require a qualified biologist with the exact authority recommended for special-status species protection, including Mitigation Measures 4.3-6, 4.3-7, 4.3-8, and 4.3-9. However, a qualified biologist is not required to be on-site to monitor for species that are not protected. The comment does not provide any specific examples of special-status species that would be affected by the proposed project that are not already listed in the Draft EIR. Accordingly, any inference that a qualified biologist is required to be on-site outside of the measures already in place are unsupported and further response is not required.

Response to Comment 1-20

The Draft EIR does not suggest that any temporary relocation would substitute for a loss of habitat. As detailed in Response to Comment 1-14, the comment's statement alleging reductions of habitat in the abstract are speculative and do not show how the proposed project would impact any species due to habitat loss, nor does the comment detail the locations or types of habitat that would be affected. Therefore, further response is not required. Please also see Response to Comment 11-99.

Response to Comment 1-21

The comment does not address the adequacy of the Draft EIR. The comment has been noted for the record and provided to the decision-makers for their consideration. It should be noted that California Fish and Game Code (CFGC) Section 1602 is discussed on pages 4.3-30 and 4.3-57 of the Draft EIR.

Response to Comment 1-22

The fact that a Lake and Streambed Alteration (LSA) Agreement is subject to CEQA is acknowledged by the Draft EIR, which includes detailed information regarding possible stream or riparian resources that would be impacted if the off-site sewer site alternative is constructed. Specifically, please see page 4.3-57, which outlines a scenario under which an LSA Agreement would be required; pages 4.3-58 through 4.3-63 for a detailed discussion of on-site hydrology; Mitigation Measure 4.3-10 ["Prior to the commencement of ground-disturbing activities associated with the off-site sewer pipe, the project proponent shall apply for a Section 1600 Lake or Streambed Alteration Agreement from CDFW."]; and Mitigation Measure 4.3-11(d) [project proponent will implement all required mitigation in an LSA Agreement if off-site sewer alternative is chosen].)

Please note that Mitigation Measure 4.3-10 is revised under Response to Comment 11-95 and Mitigation Measure 4.3-11(d) is revised under Response to Comment 9-32.

Response to Comment 1-23

An LSA Agreement for the proposed project would only be required if the off-site sewer alternative is implemented. In that event, the Draft EIR acknowledges on page 4.3-57 that CDFW would need to issue an LSA Agreement prior to commencement of any project activity that may substantially divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream, or lake. The Draft EIR also discusses working in conjunction with CDFW to obtain an LSA

Agreement, and that the terms of the LSA Agreement would contain measures to protect affected fish and wildlife resources. In addition, the Draft EIR sets forth the procedures for obtaining an LSA in conjunction with CDFW in Mitigation Measures 4.3-10 and MM 4.3-11(d), which require the project proponent to apply for an LSA prior to the commencement of ground disturbing activities associated with the off-site sewer alternative, and to implement all mitigation as required by any required LSA Agreement.

Please note that Mitigation Measure 4.3-10 is revised under Response to Comment 11-95 and Mitigation Measure 4.3-11(d) is revised under Response to Comment 9-32.

Response to Comment 1-24

A list of all wildlife species observed during the field surveys is included as Attachment D to the BRA and a list of all plant species observed is included in the Special-status Plant Survey Report, which is included as Attachment E to the BRA (see Appendix E of this EIR). None of the plant or wildlife species observed are considered special-status and/or natural communities.

Response to Comment 1-25

The comment does not address the adequacy of the Draft EIR. The comment has been noted for the record.

Response to Comment 1-26

The comment does not address the adequacy of the Draft EIR. The comment has been noted for the record.

Letter 2

From: Erica Sanchez
To: PL-Town and Country Village El Dorado
Subject: RE: Notice of Availability: Draft Environmental Impact Report for Town and Country Village El Dorado Project - File NosGPA22-0003, SP-R21-0002, Z21-0013, PD21-0005, TM22-0005 & CUP23-0008
Date: Saturday, September 7, 2024 8:47:56 AM

Good morning,

2-1 Thank you for the opportunity to review and provide comments on the proposed Town and Country Village Draft EIR. The DEIR incorporates many of LAFCO's comments submitted previously during the administrative review process (NOP comment letter August 2023, TAC comment letter November 2022), we do not have additional comments to submit at this time.

Please reach out to our office with any questions and we look forward to continued collaboration on this project.

Thank you,

Erica Sanchez
Assistant Executive Officer
esanchez@edlafco.us

El Dorado Local Agency Formation Commission (LAFCO)
1190 Suncast Lane, Suite 11
El Dorado Hills, CA 95762
(530) 295-2707
www.edlafco.us

From: PL-Town and Country Village El Dorado <TownandCountryElDorado@edcgov.us>
Sent: Friday, July 26, 2024 10:21 AM
Subject: Notice of Availability: Draft Environmental Impact Report for Town and Country Village El Dorado Project -File NosGPA22-0003, SP-R21-0002, Z21-0013, PD21-0005, TM22-0005 & CUP23-0008

To all Concerned Agencies and Interested Parties:

Please see the attached Notice of Availability (NOA) for the Town and Country Village El Dorado Project. The El Dorado County Planning and Building Department-Planning Division, as the Lead Agency, prepared a Draft Environmental Impact Report (DEIR) for the Town and Country Village El Dorado Project (proposed project). The DEIR has been prepared in accordance with the California Environmental Quality Act (CEQA) (Public Resources Code [PRC] Sections 2100 et seq. and the CEQA Guidelines (14 California Code of Regulations [CCR] Sections 1500 et seq).

The DEIR is available for public and agency review for a 45-day period **beginning July 26, 2024, and ending on September 9, 2024**. The purpose of the comment period is to consider the content of the DEIR and the potential environmental impacts that may result from project implementation, not the merits of the proposed project itself. Comments pertaining to the environmental impact analysis, criteria and thresholds, mitigation measures, and alternatives presented in the DEIR will be considered by the County during preparation of the Final EIR. The Final EIR will include copies of the comments and the County's responses to comments pertaining to the environmental review and DEIR.

PROVIDING COMMENTS: El Dorado County is soliciting written comments from public agencies, organizations, tribes, and individuals regarding the environmental document. All comments should be provided **no later than 5:00 p.m. on September 9, 2024**. Please send written comments to: El Dorado County Development Services Department-Planning Services, Attention: Ande Flower, 2850 Fairlane Court, Placerville, CA 95667 or via email TownAndCountryElDorado@edcgov.us.

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LETTER 2: EL DORADO COUNTY LAFCO

Response to Comment 2-1

The comment does not address the adequacy of the Draft EIR. The comment has been noted for the record and provided to the decision-makers for their consideration.

Letter 3

EL DORADO HILLS
COMMUNITY SERVICES DISTRICT

September 09, 2024

El Dorado County Planning and Building Department
Planning Division
2850 Fairlane Court, Building C
Placerville, CA 95667
townandcountryeldorado@edcgov.us

RE: **Town and Country Village El Dorado Draft EIR**

The El Dorado Hills Community Services District ("District") appreciates this opportunity to participate and submit information to help inform the Town and Country Village El Dorado (Town and Country) Draft EIR (DEIR) process. Below are the District's comments submitted to be addressed in the Final EIR.

PARKLAND DEDICATION & DEVELOPMENT STANDARDS (POLICY #6110)

3-1 All subdividers of land within the District's jurisdiction shall dedicate park land suitable for active recreation use, or pay fees in-lieu thereof, or by District Board authorization, follow a combination of these alternatives. Dedication amounts shall be determined as a result of calculation based on the legislated rate of 5 acres per 1000 population project yield. Population per dwelling unit is specified in the County Subdivision Ordinance and is calculated at the rate of 3.3 persons for single family subdivisions and 2.1 for multi-family subdivisions on a per parcel basis (Pol. 6110.10).

The DEIR identifies up to 118 multi-family units which would yield 248 future residents based on the County ordinance population yield. The Town and Country project identifies a total of 1.57 acres of parkland required to be dedicated. The proposed payment of in lieu fees can meet the District's needs and requirements for parkland dedication should the County agree.

DRAFT EIR CHAPTER COMMENTS

Chapter 4 Impact Analysis

3-2 Subsection 4.10.4 – Public Services and Recreation Environmental Impacts

- EIR should contemplate and include analysis for all future capacity needs for utility services along Bass Lake Rd to the north of the proposed development.

OTHER DISTRICT SERVICES

3-3 The District is the primary provider of Recycling & Solid Waste Collection, Communications (Cable TV), while also providing Covenants, Conditions, & Restrictions (CC&Rs), and Design Review/Architectural Control services. The applicant has considered the Recycling & Solid Waste

1021 Harvard Way, El Dorado Hills, CA 95762 | (916) 933-6624 (P) | (916) 941-1627 (F) | www.edhcsd.org

3-3, cont.

and the Communications services appropriately as outlined in the DEIR. Should Town and Country require CC&R and/or Design Review services, the applicant shall work with the District.

The District looks forward to working with the applicants of Town and Country. Should you have any questions or comments regarding the concerns expressed in this letter, please contact me at (916) 614-3214.

Best regards,

Jeff Kernen

Jeff Kernen
Principal Planner
El Dorado Hills Community Services District

LETTER 3: EL DORADO HILLS COMMUNITY SERVICE DISTRICT

Response to Comment 3-1

Potential impacts related to parks and recreational facilities associated with the proposed project are discussed under Impact 4.10-4 of the Draft EIR. As discussed on pages 4.10-21 and 4.10-22 of the Draft EIR, the proposed project would be required to pay in-lieu fees to ensure compliance with El Dorado Hills Community Service District's (EDHCSD) parkland dedication Policy #6110. The comment has been noted for the record and provided to the decision-makers for their consideration.

Response to Comment 3-2

Potential impacts related to utilities and service systems, including system capacity, are discussed in Chapter 4.13, Utilities and Service Systems, of the Draft EIR. In addition, as discussed in detail in Chapter 3, Project Description, and Chapter 4.13, the project includes construction of off-site water line and natural gas pipeline extensions north along Bass Lake Road to its intersection with Hollow Oak Drive.

Response to Comment 3-3

The comment pertains to the Draft EIR, but does not require further response, as the analysis of solid waste and telecommunications services is considered adequate by the commenter. The comment has been noted for the record.

Letter 4

El Dorado Hills Area Planning Advisory Committee

APAC 2024 Officers
John Davey, Chair jdavey@daveygroup.net
John Raslear, Vice Chair jjrazzpub@sbcglobal.net
Timothy White, Vice Chair tjwhiteid@gmail.com
Brooke Washburn, Vice Chair washburn_bew@yahoo.com

1021 Harvard Way, El Dorado Hills, CA 95762
https://edhapac.org

August 26, 2024

TO: Bret Sampson, Planning Manager
County of El Dorado Planning Department
2850 Fairlane Court, Building C
Placerville, Ca 95667
Email: TownAndCountryElDorado@edcgov.us

The El Dorado Hills Area Planning Advisory Committee (EDH APAC) in conjunction with input from El Dorado Hills residents working on our Town & Country Village El Dorado review subcommittee, would like to submit the following comments, observations, and questions in response to the Generations at Green Valley DRAFT Environmental Impact Report public review period. **4-1**

El Dorado Hills Area Planning Advisory Committee Comments

Town and Country Village El Dorado: Draft EIR
(General Plan Amendment GPA22-0001, Rezone Z22-0001, Tentative Subdivision Map TM22-0001, Development Agreement DA24-0001)

EDH APAC Officers' & Subcommittee Comments

Project Area vs Program Study Area

EDH APAC understands the intent of trying to define the additional program study area, to avoid a 'serial' project, or a 'piecemeal' project approach, as required under CEQA. However, despite the recommendations from planning staff, and the DEIR consultant(s) to consider the program study area as part of the project, the result is precisely what was intended to be avoided - a proposed project, and an undefined program area with no specific project details that seeks changes to the Bass Lake Hills Specific Plan prior to a formal project, and actual details and data being proposed. **4-2**

4-2, cont. EDH APAC believes that any programming changes to the program study area separate from the proposed project be delayed, and that only the proposed project be analyzed and reviewed to move forward. Changes to the Bass Lake Hills Specific Plan area in the program study area should be submitted as a separate project application, and studied on its own merits before modifying the Bass Lake Hills Specific Plan. The Hotels and cottages project is the project that contains the most detail and the most analysis, and rightfully should be the reviewed project.

Chapter 4.9 - Noise

Page 513
Chapter 4.9 – Noise
Page 4.9-28
Table 4.9-13

Predicted Traffic Noise Level Increases at Existing Sensitive Receptors – 2023 Existing vs. 2023 Existing Plus Project

4-3 Does not include the Bass Lake Road, Barbary Way intersection in the measured intersections table.

Page 544
Chapter 4.9 - Noise
Page 4.9-59
Table 4.9-44

Predicted Traffic Noise Level Increases at Existing Sensitive Receptors – 2040 Cumulative vs. 2040 Cumulative Plus Project

Does not include the Bass Lake Road, Barbary Way intersection in the measured intersections table.

Page 546
Chapter 4.9 - Noise
Page 4.9-61

EDH APAC has significant concerns about noise generation through operation of the project. Event noises that carry uphill towards residences in the Bass Lake Hills Specific Plan and the adjacent Bar J Ranch community in Cameron Park were never contemplated in the Bass Lake Hills Specific Plan Environmental analysis.

4-4 Further, noise generation from the planned cabin residential element is immediately adjacent to existing RE5 and RE10 properties, as well as elements of the recent residential development in the Bass Lake Hills Specific Plan area. The density of the residential cabin element of the Town

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Page 2

& Country Village El Dorado proposal likewise, was not considered or studied in the Environmental analysis of the Bass Lake Hills Specific Plan.

4-4, cont. EDH APAC recommends a continuous periodic noise monitoring program for outdoor events to ensure expected analyzed operational noise levels from events do not exceed the acceptable County Noise level standards.

4-5 **Table 4.9-45**
Predicted Traffic Noise Level Increases at Existing Sensitive Receptors – 2040 Super Cumulative vs. 2040 Super Cumulative Plus Project

Does not include the Bass Lake Road, Barbary Way intersection in the measured intersections table.

Chapter 4.10 Public Services and Recreation

4-6 **Page 568**
Page 4.10-20

Discusses the closest Park(s) and recreational facilities. The DEIR mentions Christa McAuliffe Park, Dave West Park (CP CSD) and the Bass Lake Regional Park (EDH CSD) but fails to note the Laurel Oaks Park located east of Bass Lake Rd at 5031 Whistlers Bend Way, El Dorado Hills, CA.

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Chapter 4.11 - Transportation

1. EDH APAC has significant concerns with roadway design elements of the existing Bass Lake Road - US50 interchange in the plan area. The westbound off-ramp features only a yield traffic control sign onto northbound Bass Lake Road, and is striped in a manner that generates significant confusion for drivers new to the area. The hospitality aspect of the proposed project suggests a significant increase in visitors new to the area. Residents of the Bass Lake area have learned to 'compensate' for the confusing road design. EDH APAC recommends that the Town and Country Village El Dorado project facilitate a restriping of the westbound US50 offramp onto northbound Bass Lake Rd as an immediate interim solution until the interchange is redesigned and improved. An additional interim improvement should be a full stop sign control for all turn movements of the westbound US50 off ramp at the Bass Lake Road interchange.

Westbound Bass Lake Road-US50 Interchange offramp lane striping - merge arrows point to one lane that becomes two lanes, that becomes one lane.

4-7

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Page 4

2. Additionally, no signage exists that indicates to northbound motorists on Bass Lake Road that the right lane at Bass Lake Rd and Country Club Drive is right turn only - even though the roadway is painted with turn arrows, when the lane is occupied by many vehicles, the painted arrows are not visible. Numerous residents have mentioned that northbound vehicles in the right turn lane on Bass Lake Rd continue through the intersection only to discover that Bass Lake Rd north of Country Club Dr is a single northbound lane.

4-8

Northbound Bass Lake Rd approach to right turn lane at Country Club Drive - no turn signage

3. EDH APAC has significant concerns about the design of the Bass Lake Road-US50 interchange. Exploring the Cumulative Analysis contained in the DEIR, with 4,000 additional residences proposed on the south side of US50 at Bass Lake Rd, and the increased vehicle traffic resulting from the proposed Project Area, the two-lane capacity (an LOS function of the El Dorado County General Plan Transportation Element) under the US50 overpass of Bass Lake Rd is likely to become a bottleneck.

4-9

Bass Lake Road/Marble Valley Road US50 2-lane underpass - north view

4-9, cont.

Bass Lake Road/Marble Valley Road US50 2-lane underpass - south view

Further, sightlines are poor for the westbound US50 Bass Lake Rd off ramp for both

EDHAPAC
Page 6

4-9, cont.

south and northbound traffic onto Bass Lake Rd. The westbound US50 Bass Lake Road offramp to northbound Bass Lake Rd is controlled by a YIELD sign. EDH APAC recommends that this be reconfigured to a full STOP sign controlled intersection for the westbound US50 Bass Lake Road offramp to northbound Bass Lake Road.

Westbound US50 Bass Lake Road off ramp with impeded visibility to the south

4-10

4. EDH APAC has significant concerns about the right-in and right-out project access points along Bass Lake Road. El Dorado County expended significant resources in funding, analysis, and design time to realign the Country Club Drive-Bass Lake Road intersection, with the new alignment moved 1600 feet to the north. The previous intersection was one of the poorest performing intersections in unincorporated El Dorado County, and CalTrans indicated a need to move the intersection away from the Bass Lake Rd-US50 interchange. Placing two new driveways 700 and 900 feet away from the interchange would seem to impact the Bass Lake Rd-US interchange in the same fashion as the old Country Club Drive alignment. EDH APAC would recommend three northbound lanes from US50 on Bass Lake Rd in front of the project site, with the right-most lane being reserved for access into and out of the Project site only. A four lane Bass Lake Road alignment will eventually be required, so some consideration should be made for Right of Way along Bass Lake Road in front of Project Site.

4-10, cont.

Approximate project access driveways from Bass Lake Road with combined merge lane from US50 westbound off ramp and OLD Country Club Drive

5. EDH APAC has significant concerns about the former Country Club Drive (FRONTAGE ROAD) design and function. EDH APAC recommends that the former Country Club Driver (FRONTAGE ROAD) be restricted to RIGHT-IN and RIGHT-OUT turn movements ONLY.

4-11

Old Country Club Drive/Frontage Road westbound approach to Bass Lake Road

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Page 8

4-11, cont.

Old Country Club Drive/Frontage Road at Bass Lake Road view to south and offramp

4-12

6. EDH APAC has significant concerns about the Program Study Area Trip Generation data. When additional projects are proposed as part of the Program Area, Trip Generation and overall Transportation elements will require extensive analysis and mitigation.

Chapter 4.11 - Transportation (continued)

4-11 Project Development Area
Page 599
Page - 4.11-23

Conclusion (DEIR)

4-13

*The residential component of the **Program Study Area** would generate VMT per resident above the unincorporated El Dorado County baseline average. Therefore, the proposed project would conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b), and a significant impact could occur.*

---

1. EDH APAC has significant concerns about the Program Study Area exceeding VMT limits. There is no concrete development proposal for the Program Study Area, only suggestions of what "might be" considered.

Mitigation Measure(s) (DEIR)

4-14

Alternative modes of transportation are not available for the residential portion of the Program Study Area. Therefore, the following mitigation measure focuses on reducing the availability of automobiles to

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Page 9

4-14, cont.

discourage travel. According to CAPCOA, the Program Study Area would require a 13.83 percent reduction in VMT to facilitate a less-than-significant finding for VMT impacts under CEQA.

Because alternative modes are not available for the residential portion of the Program Study Area and the following mitigation measure is not anticipated to reduce per capita VMT by the required 13.83 percent, impacts would remain significant and unavoidable.

Project Development Area
None required.

PAGE 600
Program Study Area

4.11-3 *The below measures shall be implemented as practicable, to the satisfaction of the El Dorado County Engineer. VMT mitigation is based on guidance from the California Air Pollution Officers Association (CAPCOA).*

Unbundling of Parking Costs from Rent

Unbundling, or separating, a residential project's parking costs from property costs shall require those who wish to purchase parking spaces to do so at an additional cost. On the assumption that parking costs are passed through to the vehicle owners/drivers using the parking spaces, unbundling would result in decreased vehicle ownership, and thus, a reduction in VMT and GHG emissions. Unbundling may not be available to all residential developments, depending on funding sources. Unbundling would reduce parking demand by up to 15.7 percent under ideal conditions, based on an upper limit of $500 per month per parking space. Benefits are proportional to the fee; for example, a $150/month fee would provide half the benefit of a $300/month fee.

Reduced Parking Supply

Reducing the total parking supply available at a residential project or site would create scarcity and add additional time and inconvenience to trips made by private auto, thus disincentivizing driving as a mode of travel. Reducing the convenience of driving would result in a shift to other modes and decreased VMT, and thus, a reduction in GHG emissions and VMT. Evidence of the effects of reduced parking supply is strongest for residential developments. Such measures would reduce VMT by up to 13.7 percent if all on-site parking was eliminated, and by up to a prorated amount based on a lower level of implementation. Generally, El Dorado County requires one and a half to two parking spaces per multi-family unit; therefore, reducing the parking supply to one space per unit would reduce VMT by a maximum of 6.85 percent.

PAGE 601
Page 4.11 - 26

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Page 10

4.11-4 *Substantially increase hazards to vehicle safety due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment). Based on the analysis below, the impact would be less-than-significant.*

The following discussion includes an analysis of the proposed project's potential to substantially increase hazards to vehicle safety for both the Project Development Area and the Project Buildout.

Project Development Area and Project Buildout

As discussed above, the TIS included an analysis of collision history along the project area roadways. Pursuant to the TIS, the most collision-prone area within the vicinity of the project site is the portion of Bass Lake Road located between the US 50 eastbound offramp and Country Club Drive. However, the overall collision rate for Bass Lake Road between the US 50 eastbound ramps and Country Club Drive is 0.80 collisions per million VMT, which is well below the statewide average of 1.03 collisions per million VMT. In addition, as part of the Project Development Area improvements, the project would widen a portion of Bass Lake Road from two lanes to four lanes (two in each direction) from US 50 to just north of Country Club Drive. The widening project is currently in the County's CIP and identified as CIP 36105054.

4-14, cont.

The proposed project would not include any new sharp curves or dangerous intersections, and would not be located in the vicinity of any such roadway features. As discussed further in Chapter 3, Project Description, of this EIR, vehicle access to the project site would be provided by private roads connecting to Bass Lake Road to the west and to Country Club Drive to the north. Bass Lake Road would provide primary access to the Project Development Area south of Country Club Drive, containing the proposed hotels, Event Center/Museum, and restaurants. Primary access to the proposed cottages and secondary access to the proposed hotel would be provided from Country Club Drive. At the time that future development proceeds within the Program Study Area, a new roadway would be constructed and would connect the two portions of the project site. The new roadway would be comprised of a 45-foot right-of-way including two 14-foot travel lanes, and would include a roundabout in the Program Study Area to enhance traffic safety.

***

Conclusion

Based on the above, the proposed project would not substantially increase hazards to vehicle safety due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment), and a less-than-significant impact would occur.

Mitigation Measure(s)

None required.

EDHAPAC
Page 11

4-14, cont.

2. EDH APAC has significant concerns about these potential proposed mitigation measures for the Program Study Area - the El Dorado Hills Community, and El Dorado County on a larger level, have never implemented public transit in a meaningful, successful manner. Facilities and transportation options simply do not exist to serve our El Dorado Hills Community in a fashion that would leverage "less parking". To suggest these as viable mitigation measures is wish-casting, and ignores any actual achievable mitigation. Our community has been designed since 1962 as a car-focused transit community.

Additional Traffic Infrastructure Questions

4-15

- **Cost Estimates and Timeframes:** Providing cost estimates and timeframes for necessary infrastructure improvements.
- **Realistic Mitigations:** Ensuring that proposed mitigations are practical and effective in addressing traffic impacts.
- **Comprehensive Analysis:** Conducting a comprehensive analysis of traffic infrastructure needs, including road improvements, signal timing, and lane striping.

Key Questions and Areas of Analysis

To provide a comprehensive analysis, the following questions should be addressed:

1. **Identification of Intersections:**
   - What are the key intersections that will be affected by the development, and what is the current traffic volume at these intersections?
   - How will the development's traffic generate additional traffic at these intersections?
   - What are the potential impacts of increased traffic on congestion and safety at these intersections?
2. **Cost Estimates and Timeframes:**
   - What are the estimated costs of necessary infrastructure improvements, such as signal timing, lane striping, and road widening?
   - What is the expected timeframe for implementing these improvements?
   - How will the costs of these improvements be allocated among the developer, the county, and other entities?
3. **Realistic Mitigations:**
   - Are the proposed mitigation measures for traffic impacts realistic and effective?
   - Are there any potential constraints or limitations that could prevent the implementation of these measures?
   - How will the effectiveness of the mitigation measures be monitored and evaluated?
4. **Comprehensive Analysis:**
   - Has the analysis considered all necessary traffic infrastructure improvements, including road widening, signal timing, lane striping, and traffic control measures?

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Page 12

4-15, cont.

- Are the proposed improvements consistent with the design standards and guidelines for the area?
- How will the effectiveness of the traffic infrastructure improvements be evaluated?

5. **El Dorado County Capital Improvement Program**
   - What projects exist in the County's Capital Improvement Program that the project might impact?
   - What are the possible projects in the Capital Improvement Program that might become reimbursable to the project applicants?

Traffic Geometrics

4-16

- **Site Distance:** Ensuring adequate site distance for safe turning and merging
- **Safety:** Assessing the safety of proposed road improvements.
- **Vehicle Capacity:** Evaluating the capacity of roads to handle the projected traffic volume.
- **Speed Zones:** Determining appropriate speed zones for different road segments.
- **Curve Data:** Analyzing the geometry of curves to ensure safety and adequate sight distances.
- **Acceleration/Deceleration:** Assessing the need for acceleration and deceleration lanes at intersections, and the proposed project driveways/access points.
- **Right-of-Way Availability:** Determining the availability of right-of-way for road improvements.
- **Signing, Repaving, Striping, Drainage:** Identifying necessary improvements to signing, repaving, striping, and drainage.
- **Impacts to Adjacent Uses:** Assessing the potential impacts of road improvements on adjacent properties and uses.
- **Access:** Analyzing the need for new access points or modifications to existing access points.
- **Signal Study:** Conducting a signal study to evaluate the need for new signals or modifications to existing signals.
- **Intersection Widening:** Assessing the need for intersection widening to improve traffic flow.
- **Relocation of Existing Infrastructure:** Identifying any necessary relocation of existing infrastructure, such as utilities or structures.
- **Costs:** Estimating the costs of proposed traffic geometric improvements.

Key Questions and Areas of Analysis

To provide a comprehensive analysis, the following questions should be addressed:

1. **Site Distance:**
   - Are the proposed site distances for intersections and driveways adequate to ensure safe turning and merging?

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Page 13

4-16, cont.

- What modifications may be necessary to improve site distances?

2. **Safety:**
   - How will the proposed road improvements affect traffic safety, such as reducing accident rates?
   - What safety features will be incorporated into the design of the improvements?
3. **Vehicle Capacity:**
   - Will the proposed road improvements be sufficient to accommodate the projected traffic volume? (LOS metrics of the El Dorado County Adopted General Plan Transportation Element for both the El Dorado Hills Community Region, and Rural Region)
   - What are the potential impacts of increased traffic on congestion and safety?
4. **Speed Zones:**
   - What are the appropriate speed zones for different road segments?
   - How will speed zones be enforced and monitored?
5. **Curve Data:**
   - Are the proposed curves adequately designed to ensure safety and adequate sight distances?
   - What modifications may be necessary to improve curve geometry?
6. **Acceleration/Deceleration:**
   - Are acceleration and deceleration lanes needed at intersections to improve traffic flow and safety?
   - What is the estimated cost of providing these lanes?
7. **Right-of-Way Availability:**
   - Is sufficient right-of-way available for the proposed road improvements?
   - If not, what are the potential alternatives for acquiring additional right-of-way?
8. **Signing, Repaving, Striping, Drainage:**
   - What improvements are necessary to signing, repaving, striping, and drainage?
   - What is the estimated cost of these improvements?
9. **Impacts to Adjacent Uses:**
   - What are the potential impacts of road improvements on adjacent properties and uses, such as noise, vibration, and loss of access?
   - How will these impacts be mitigated?
10. **Access:**
    - Are new access points needed, or can existing access points be modified to accommodate the development?
    - What are the potential impacts of new access points on traffic flow and safety?
11. **Signal Study:**
    - Is a signal study necessary to evaluate the need for new signals or modifications to existing signals?
    - What are the expected outcomes of the signal study?
12. **Intersection Widening:**
    - Are intersection widening improvements necessary to improve traffic flow and safety?

4-16, cont.

- What is the estimated cost of intersection widening?

13. **Relocation of Existing Infrastructure:**
    - Are there any existing utilities or structures that will need to be relocated to accommodate road improvements?
    - What is the estimated cost of relocating these infrastructure elements?
14. **Costs:**
    - What is the estimated total cost of the proposed traffic geometric improvements?
    - How will the costs be allocated among the developer, the county, and other entities?

EDH APAC members have significant concerns about the traffic geometrics at both of the proposed project access roads on Bass Lake Road, the Old Country Club Drive/Frontage Road, and Country Club Drive, as well as the impacts of project mitigations and capacity improvements on numerous Bass Lake Road and Country Club Drive intersections of both public roads and private driveways.

Right of Way

- **Identification of Required Right-of-Way:** Determining the specific right-of-way needs for proposed traffic improvements.
- **Acquisition Methods:** Evaluating the potential methods for acquiring necessary right-of-way, including eminent domain.
- **Phasing:** Considering the potential for acquiring right-of-way in phases.

Key Questions and Areas of Analysis

To provide a comprehensive analysis, the following questions should be addressed:

4-17

1. **Identification of Required Right-of-Way:**
    - What specific right-of-way is needed for the proposed traffic improvements, such as for widening roads, constructing new lanes, or creating turn lanes?
    - How much right-of-way is required for each improvement?
    - Are there any existing easements or other rights-of-way that could be used to reduce the need for additional acquisitions?
2. **Acquisition Methods:**
    - What are the potential methods for acquiring necessary right-of-way, such as negotiation, condemnation, or dedication?
    - What are the potential costs and timelines associated with each method?
    - Are there any environmental or regulatory constraints that could affect the acquisition process?
3. **Phasing:**
    - Can the acquisition of right-of-way be phased to minimize disruptions and costs?
    - What are the potential benefits and drawbacks of phasing the acquisition process?

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Page 15

4-17, cont.

- How will the phasing of right-of-way acquisition be coordinated with the construction schedule for the project?

4.13 Utilities and Service Systems

4-18

From DEIR
Page 625
Page 4.13-1
4.13.2 Existing Environmental Setting
Section - Water Supply and Delivery Infrastructure.
Seeks annexation into the EID Service Area for water and sewer.

4-19

Page 655
Page 4.13-31
***4.13-2 Have sufficient water supplies** available to serve the project and reasonably foreseeable future development during normal, single dry, and multiple dry years. Based on the analysis below, the impact is less than significant*

Water Supply

EDH APAC member Alastair Dunn has completed extensive analysis on water availability for existing and proposed projects in the El Dorado Hills area. Mr. Dunn has a long and distinguished career in land acquisition, development, and the entitlement and approvals process both in El Dorado County and many other areas of the United States.

EDH APAC has submitted this analysis recently on three Specific Plan Proposals - EDH APAC has provided a page with Mr. Dunn's analysis on the EDH APAC El Dorado Hills Water Supply Analysis June 2024 [https://edhapac.org/el-dorado-hills-area-water-supply-analysis-june-2024/] we also include the links to these supporting documents of Mr. Dunn's analysis in this list:

4-20

- EDH APAC ExhibitW1 EID Water Demand Master Pop Projections Sheet1
- EDH APAC ExhibitW1 EID Water Demand Master EID Growth Projections Sheet2
- EDH APAC ExhibitW1 EID Water Demand Master EID Demand Est Sheet3
- EDH APAC ExhibitW1 EID Water Demand Master Demand Fut Proj Unit Sheet4
- EDH APAC ExhibitW1 EID Water Demand Master Supply and Demand Sheet 5

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- EDH APAC ExhibitW1 EID Water Demand Master Customer Use 2019 AFt Sheet6
- EDH APAC ExhibitW1 EID Water Demand Master Supply in Sc Ft 2019 Sheet7
- EDH APAC ExhibitW1 EID Water Demand Master Supply EID Reliability Sources Sheet8
- EDH WATER – Supply + Demand Analysis -W-FULL
- EDH Projects in EDH – CamPk plan areas – may 2024-A-Dunn1

4-20, cont.

4-21

In the conclusion section of Mr. Dunn's analysis in his Water Supply Demand Analysis, Mr Dunn indicates:

As the arrows show, no matter what, EDH has an imbalance of supply of water, particularly in the short run.

4-22

Summary: Given the positive assertion that: "there is sufficient water to cover the needs of all EDH projects" in general and Marble Valley and Lime Rock Valley Specific Plans, in particular; is false.

4-23

The main issue of imbalance in the medium and long term is the certainty of water rights secured and capital improvements achieved, see Exhibit 8 & 9. It is beyond my ability and the scope of this work to make any qualifying remark other than to say; I am uncomfortable with the caveats made in memoranda qualifying EID's water availability. To quote one such caveat: "The water rights applications and environmental analysis are still pending". And "the District cannot predict whether or when El Dorado Water Reliability Project may be approved". Indeed, the Tully and Young Memo of May 30, 2014, is rife with caveats that are now eleven ten years old.*

4-24

*Admittedly EID has achieved much since 2013, however, to continue to write long memos and outdated references in the Marble Valley DEIR underscoring the water rights secured and capital improvements made, it is imperative that a fresh review of these critical issues are factually reviewed, and if possible, qualified by a concrete probability (0 to 100) to give a measure of credibility as to water supply. (*MSR & SOI Update (final) Public -Service & Infrastructure, page 7-16 in reference to 2010 EDWPA's environmental report).*

4-25

SECTION FIVE: CONCLUSION** At this point, all I can say to EDH-APAC is: "Houston we have a problem". The fact that 17000 units are planned in the EDH area should give anyone reason to question the availability of water for such a fantastic, planned demand. Throughout the DEIRs from 2013 to 2024 there are **statements concluding that there

4-25, cont.

"is" sufficient water to attend Marble Valley's (and Lime Rock's) potable water needs. I suggest that this is not true for the EDU area.

4-26

Mr. Dunn's initial analysis focused on the proposed Village of Marble Valley Specific Plan, and the Lime Rock Village Specific Plan - residents have expressed concerns about the available water supply in the El Dorado Hills area due to the recent increase in large development projects. We include Mr. Dunn's analysis here as a pointed question to the ability to supply water in the El Dorado Hills Area - not to the question of overall water rights and EID district wide supply, but specifically water supply in El Dorado Hills.

Additional EDH APAC Questions on Water supply and water facilities

4-27

1. **Construction Impacts:**
   - What are the potential temporary construction permits required for the project?
   - How will construction impacts be mitigated, such as traffic management and noise control?
   - What easements will be needed for the pipeline and other infrastructure?

4-28

2. **Wastewater System Analysis:**
   - What is the optimal location for a force main, and what are the associated costs?

4-29

3. **Funding Structure:**
   - How will the costs of the offsite water improvements be divided among the county, ratepayers, and other entities?
   - What is the expected impact on water rates for existing residents and businesses?
   - Are there any opportunities for cost-sharing or collaboration with other projects?

Data and Analysis Requirements

To conduct a thorough analysis, the following data will be needed:

4-30

- **Existing utility infrastructure:** Maps, plans, and records of water, sewer, and other utilities in the area.
- **Development plans:** Site plans, zoning information, and projected water and sewer demands.
- **Hydrological data:** Rainfall, runoff rates, and groundwater levels.
- **Soil conditions:** Information on soil types, permeability, and corrosivity.
- **Traffic data:** Existing traffic volumes and projected future traffic patterns.

By addressing these questions and collecting the necessary data, we can develop a comprehensive analysis of the offsite water improvements proposed for the project. This analysis will help decision-makers understand the potential benefits and costs of the project and make informed decisions.

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Ground Water

EDH APAC has the following concerns and questions:

- **Groundwater Drawdown:** Assessing the potential for groundwater levels to decline due to the proposed development.
- **Recharge and Intrusion:** Analyzing the impact of the development on groundwater recharge and the potential for saltwater intrusion.
- **Water Rights:** Examining the water rights of surrounding properties and how they may be affected.
- **Water Source:** Determining whether the proposed development will use septic systems, recycled water, or wells, and analyzing the potential impacts of each option.

Key Questions and Areas of Analysis

To provide a comprehensive analysis, the following questions should be addressed:

1. **Groundwater Drawdown:**
   - What is the current groundwater level in the area, and what is the expected rate of groundwater recharge?
   - How much groundwater is expected to be used by the proposed development?
   - What is the potential for groundwater drawdown to impact existing wells in the area?
2. **Recharge and Intrusion:**
   - How will the development affect groundwater recharge rates?
   - Is there a risk of saltwater intrusion into the groundwater aquifer?
   - What measures can be taken to mitigate the potential for groundwater recharge and intrusion problems?
3. **Water Rights:**
   - What are the water rights of surrounding properties, and how do they relate to the proposed development?
   - Are there any conflicts or potential conflicts over water rights?
   - How will the development's water use be managed to avoid conflicts with existing water rights?

Data and Analysis Requirements

To conduct a thorough analysis, the following data will be needed:

- **Groundwater data:** Historical groundwater levels, aquifer characteristics, and recharge rates.
- **Hydrogeological maps:** Maps showing the location of groundwater aquifers and their boundaries.
- **Water rights information:** Records of water rights for surrounding properties.
- **Soil data:** Information on soil types, permeability, and infiltration rates.

EDHAPAC
Page 19

4-31
4-32
4-33
4-34
4-35

- **Land use data:** Information on current and future land uses in the area.

4-35, cont.

By exploring these questions, and collecting the corresponding data, we can develop a comprehensive analysis of the groundwater impacts of the proposed development. This analysis will help decision-makers calculate and consider the potential risks and benefits of the project.

Drainage

- **Watershed Analysis:** Assessing the impact of the proposed development on the overall watershed.
- **Onsite and Offsite Drainage:** Analyzing the drainage patterns both within the project site and in surrounding areas.

4-36

- **Water Retention Ponds:** Evaluating the need for and use of water retention ponds, particularly for fire suppression.
- **Drainage Contributions:** Determining the impact of the development on drainage in neighboring areas.
- **Drainage Infrastructure:** Identifying the necessary drainage infrastructure both on and off the site.
- **Hydraulic Study:** Conducting a comprehensive hydraulic study to evaluate drainage flows and potential impacts.

Key Questions and Areas of Analysis

To provide a comprehensive analysis, the following questions should be addressed:

1. **Watershed Analysis:**
   - What is the current condition of the watershed, and how will the development affect its hydrology?
   - Are there any sensitive areas or resources within the watershed that could be impacted by increased runoff?

4-37

   - How will the development's stormwater runoff be managed to minimize impacts on the watershed?
2. **Onsite and Offsite Drainage:**
   - What are the existing drainage patterns in the area, and how will they be affected by the development?
   - What are the potential impacts of increased runoff on surrounding properties and infrastructure?

4-38

   - How will the development's drainage system be designed to prevent flooding and erosion?
3. **Water Retention Ponds:**
   - Are water retention ponds necessary to manage stormwater runoff from the development?

4-39

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4-39, cont.

- What will be the primary use of any detention ponds, and will they be designed to serve multiple purposes (e.g., fire suppression, recreation)?
- How will the ponds be maintained and operated to ensure their effectiveness?

4. **Drainage Contributions:**
   - How will the development's drainage contribute to the overall runoff in surrounding areas?
   - What are the potential impacts of increased runoff on these areas, and how can they be mitigated?

4-40

5. **Drainage Infrastructure:**
   - What type of drainage infrastructure will be needed to manage stormwater runoff from the development, such as storm drains, swales, and detention ponds?
   - How will the drainage infrastructure be designed to accommodate seasonal flows and prevent flooding?

6. **Hydraulic Study:**
   - What is the scope and methodology of the required hydraulic study?
   - What data will be used to inform the study, such as rainfall data, topography, and land use information?
   - What are the expected outcomes of the study, and how will they be used to inform the development's design?

4-41

Chapter 4.14 Wildfire

Page 672
Page 4.14-7
El Dorado Hills Fire Department

4-42

The EIR discusses the EDH Fire Department Station 86 located at 3670 Bass Lake Road. EDH APAC would encourage further discussion of necessary Fire Apparatus required to wage a firefighting event in the proposed hotel structures, and whether Ladder Truck 85 located at Station 85, 1050 Wilson Blvd El Dorado Hills, CA has an adequate response time for a structure fire at the proposed hotel facilities, based on estimated response times from three travel routes (via US50 4.5 miles - 8 minutes, via Serrano Pkwy - 5.4 miles, 9 minutes, or Serrano Pkwy and Bass Lake Rd - 6.1 miles, 12 minutes).

Chapter 5.3 Cumulative Impacts

EDH APAC appreciates the effort of the applicant and the DEIR authors to address the cumulative impacts of the proposed Project Area and Plan Study Area along with other adjacent proposed development projects. This Cumulative Impacts section of this DEIR exceeds cumulative impact analysis from several other recent DEIR for projects in the El Dorado Hills

4-43

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4-43, cont. area. Significant amounts of development projects adjacent to the applicants' proposed Town and Country Village El Dorado project have substantial bearing on the cumulative aspects and impacts in El Dorado Hills.

4-44 EDH APAC believes that a cumulative analysis is necessary, and that mitigation and infrastructure capacity improvements **should be proportionally shared based on the degree of impact(s) across all of the proposed development projects**.

****

An area resident that chooses to remain anonymous has provided these comments and concerns to be included in EDH APAC's DEIR review document.

****

4-45 This is evidence of a prematurely submitted document. What is the project being analyzed? Maybe options A-B-C? Maybe B, D, E and F instead? Maybe X-Y and a set of undefined new items dreamed up on the fly, not included in the current dream possibilities listed and described by spokesperson Pane? It looks like the project proponent is hoping to appeal to all audiences—equestrians, bike riders, shoppers, wine drinkers, and many, many more, hoping you can appeal to everyone in some way to get approval.

4-46 With no defined project, this is not the time to move ahead—decide what the project is, then analyze impacts of those As, Bs Cs and so on together and alternatives. Equestrian trails may not work with biking. You need to finish the project definition first. Go back to the beginning and make some decisions. This seems like it is eternally changeable—worker housing becomes saleable cottages or part of the motel complex. A worker is fired and does not want to move for six months to allow their child to continue at the local school—where does the replacement live? No one will have a say without hammering out details now. The cottages remain a vagary.

4-47 I cannot find any definition of what the promised museum/meeting room might involve. A museum is not a display of unconnected and unrelated objects someone likes or wants to show off in glass cases, reminding one of a 19th century cabinet of curiosities. A true museum involves professional scholars and designers developing the theme, context, signage and artifact selection. How about information on how this will be developed, funded, managed, and updated as needed? What if the complex is sold? Who owns the artifacts?

4-48 The cultural resource section is still not completed—Josh Pane said at the 9-4-2024 APAC meeting that the person in charge of that was going out in the field on Thursday to do some additional fieldwork. Or will we have to believe he just misspoke and all resources are correctly identified, recorded, and evaluated for their significance under the appropriate criteria? The road names are not correct, and your maps at presentations seem to have changed several times, with now something called the "Old Clarksville Toll Road" --never a name in use for any roadway in the region. Will this change again with some archival research?

4-49 Many sections are unclear trying to deal with an undefined project. The hotel and other facilities need to be chosen and to be defined as a set plan, allowing other modifications. Then several groups of the team need to rewrite their sections, and identify impacts to the selected overall plan.

EDH APAC has benefited from numerous discussion opportunities with the Town & Country Village El Dorado applicants.The applicants have exceeded any other proposed project in terms of outreach and seeking feedback. The applicants have held presentations at the following EDH APAC meetings:

January 13 2021

April 14 2021

August 11 2021

4-50 January 12 2022

February 8 2023

July 18 2023 (SCOPING MEETING ANNOUNCEMENT ONLY)

August 9 2023

September 4, 2024

EDH APAC appreciates the opportunity to review and provide feedback on proposed development projects to mitigate impacts in our El Dorado Hills Community. Through question and feedback, our goal is to realize the best possible project outcome for our community, the project applicants, and for El Dorado County.

EDH APAC Town and Country Village El Dorado Subcommittee.

El Dorado Hills Area Planning Advisory Committee
"Non-Partisan Volunteers Planning Our Future Since 1981"

EID & EDH: Water Supply & Demand Study by Alastair Dunn June 19, 2024

INTERNAL MEMORANDUM

To: John Davy, Chairman, El Dorado Hills APAC
From: Alastair, APAC voting member.
Subject: Marble Valley – Water Availability

Purpose
The purpose of this memorandum to EDH-APAC is to:

a) Examine the documentation prepared for the Village of Marble Valley Specific Plan Draft Environmental Impact Report May 2024 regarding the supply and demand of potable water for the project,
b) Review the EID documents asserting the sufficiency, availability and sustainability of water for projects in the El Dorado Hills (EDH) area, and
c) Present an analysis of EID data tables referring to the supply and demand of water in El Dorado Hills (EDH) area.

The ensuing document is prepared for El Dorado Hills Area Planning Council (APAC) for their consideration in commenting on the Marble Valley DEIR. As such it is a personal and informal memorandum and not presented as a formal commissioned document.

Foreword
I apologize in advance for the document's length, detail and extensive use of tables and graphs to qualify the points I wish to underscore. The following documents were reviewed:

- DEIR, Water Supply Assessment, Tully & Young, October (2021)
- Valley of Marble Valley Specific Plan, DEIR, May,2024: Other Considerations, Impact Analysis.
- BAE Memorandum, November 2023
- EID's Uban Water Master Plan 2020, Chapters: 2 Water Service and System Description, 3 Water Supply, 4 Water Use, 5 Water System Reliability.
- Tully & Young Memorandum, May 2014 (19-1670 G 216 of 360)
- El Dorado Water Supply Assessment for Central El Dorado Specific Plan, August 2013.

The Marble Valley DEIR document constantly refers to past EID studies now between 11 and 5 years old, which to my mind brings into question the validity of the statements made in the DEIR itself.

4-51

On the 11th June last in the Planning Department's presentation in Cameron Park of Marble Valley and Lime Rock Valley, the proponents' leaflets on Water Supply said: "Based on these estimates from the EID's Urban Water Management Plan (UWMP-2020) there would be sufficient water supply for the proposed project, as well as other planned developments". It is that assertion I wish to qualify in this document.

Methodology
I attempted to reconstruct the many tables presented by EID throughout the documents into Excel tables to clearly show both historical (2015-2020) and projected (2020-2040) data so that one may quantify the basis of the assertions made as to adequacy of water availability for future projects in EDH.

All data was taken from the referenced documents above. However, it was incredibly difficult to link the many tables referenced into a logical array. Accordingly, I had to make some assumptions to present an array of data from 2015 to 2040 in a logical manner.

Particular attention was given to EDH's "pipeline*" of active and future projects undergoing the CEQA process in the County Planning website (projects in your area) to construct a nexus between residential units and acre feet of water to be supplied. See Exhibit A. (*Land developers generally refer to projects in the pipeline, to identify for planning purposes the number of residential units and commercial development for a given area).

All EID documents reviewed from 2013 to 2024 were internally consistent and factually referenced. They are sound documents. The problem arose when attempting to combine the data in each into summary tables on both supply and demand of water. This data is presented in Exhibit 1 > 6.

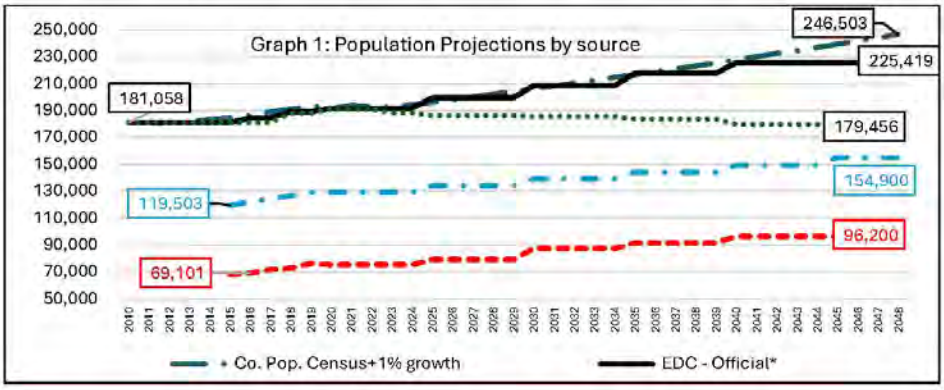
Page 1 of 11

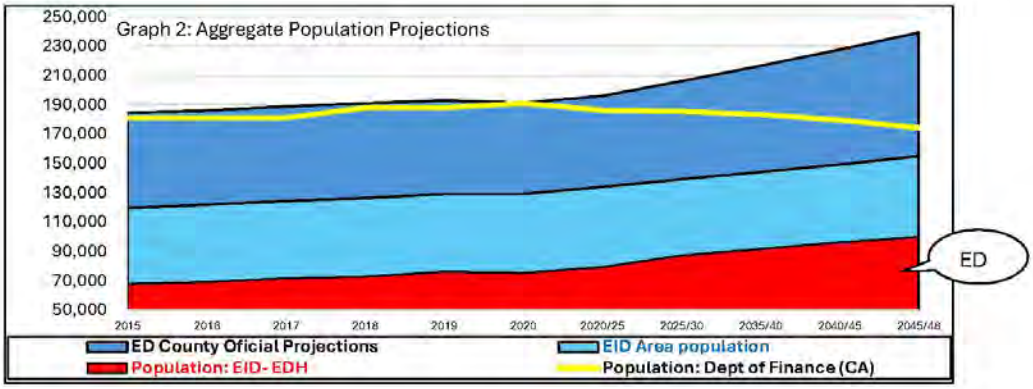
EID & EDH: Water Supply & Demand Study by Alastair Dunn June 19, 2024

SECTION ONE - WATER DEMAND

Population

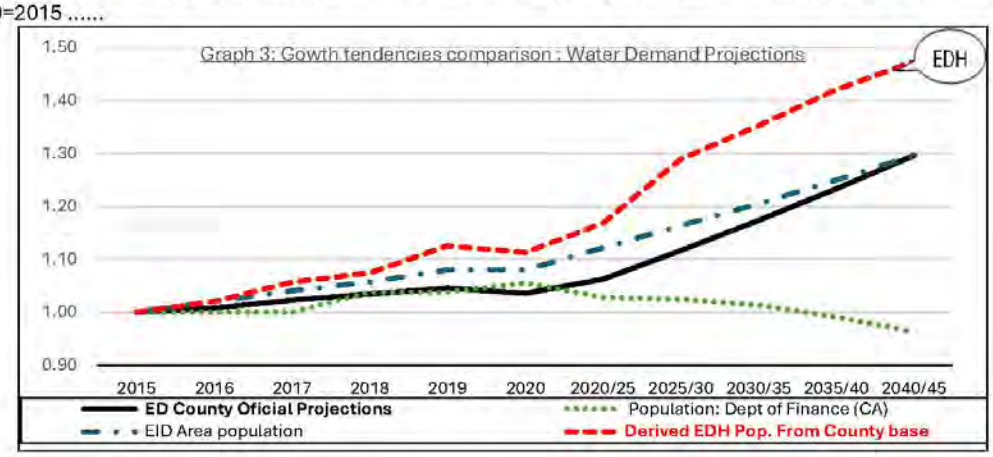
In general terms, the demand for water is said to be based on population growth for El Dorado County. The graph below gives the population – historic and projected - for each area within the County.





4-51, cont.

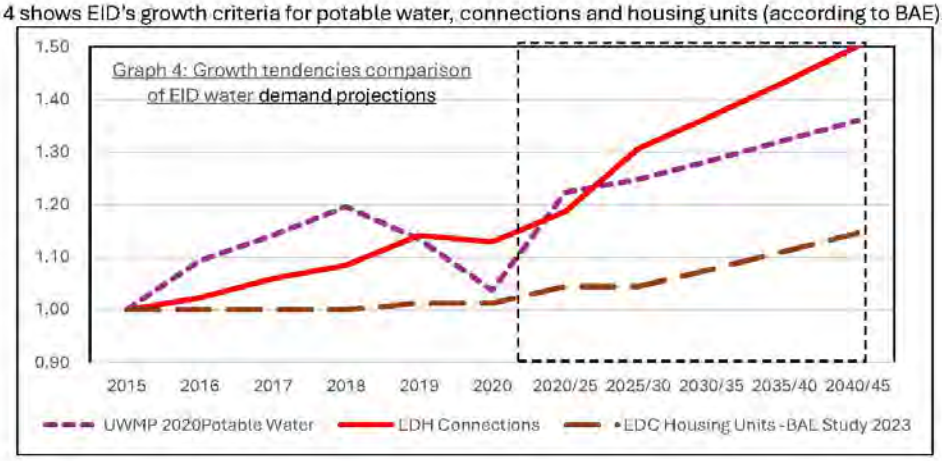
In projecting demand, it is necessary to measure the tendency (of growth) for each area referenced with base 100=2015 .....



One should note that given County population data, EDH is to grow at a much faster rate than other areas. It is this projection I use in determining EDH area's growth in residential units.

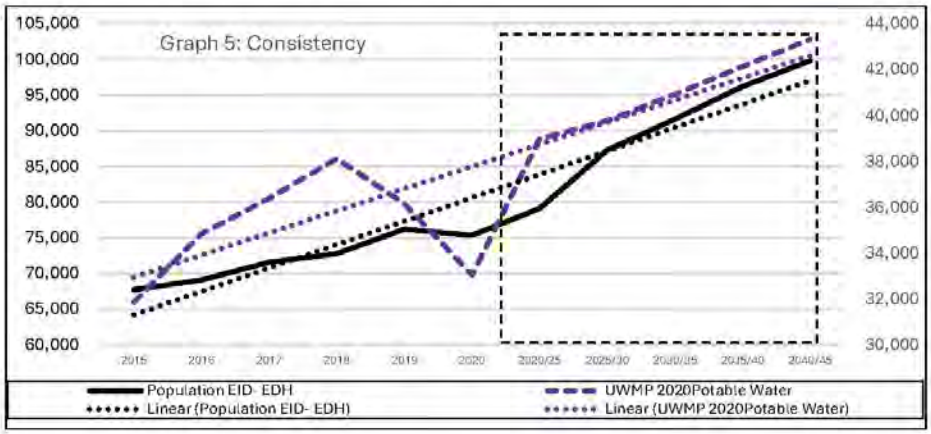
EID & EDH: Water Supply & Demand Study by Alastair Dunn June 19, 2024

Graph 4 shows EID's growth criteria for potable water, connections and housing units (according to BAE).



By visual inspection – given that both graphs 3 & 4 are on the same base 1.00 scale -one may conclude that, depending on what projection is taken, the resulting prediction shall be different. Fortunately, one set of data that - visually – gives one comfort, as indicated in graph 5. Both the EID "official" population projection and the UWMP potable demand projection have a similar slope.

4-51, cont.



UWMP 2020 Projections: Table 1

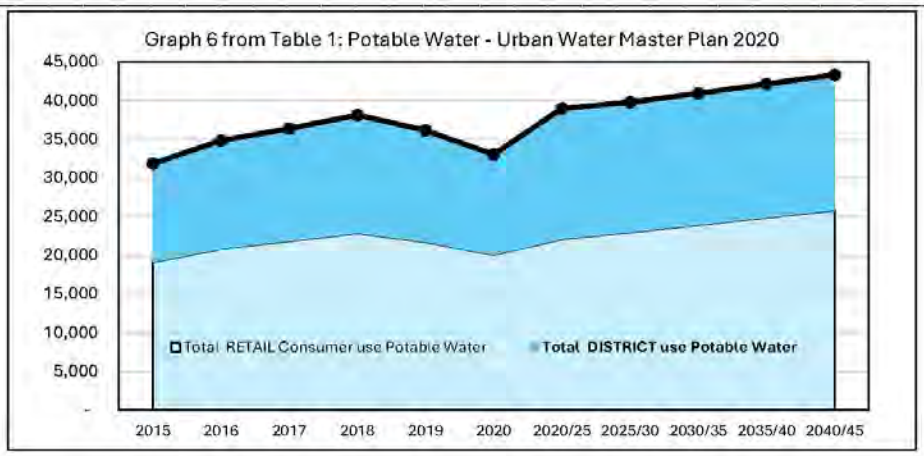
Urban Water Master Plan 2020	2015	2016	2017	2018	2019	2020	2020/25	2025/30	2030/35	2035/40	2040/45
EDH Consumer use Potable Water	9,570	10,197	11,099	11,385	11,078	12,220					
Weast + East service areas	9,544	10,675	10,743	11,472	10,635	7,850					
Total Retail Consumer use Potable W	**19,114**	**20,872**	**21,842**	**22,857**	**21,713**	**20,070**	**22,110**	**23,010**	**23,910**	**24,880**	**25,820**
City Pvill+ditc+other+recycle	1,830	2,047	2,060	2,200	2,039	1,505	4,240	4,240	4,240	4,240	4,240
Other+Ag.potb.+Loss	10,919	11,923	12,477	13,057	12,403	11,465	12,630	12,520	12,770	13,010	13,260
al DISTRICT use Potable Water	**31,863**	**34,842**	**36,379**	**38,114**	**36,156**	**33,040**	**38,980**	**39,770**	**40,920**	**42,130**	**43,320**

This table is a composite of several EID tables in the UWMP 2020

Graph 6 below is comprised of above data lines: Total Retail Consumer Potable Water (61% of total in 2020) and Total District Potable Water to give EIDs aggregate potable water demand.

4-51, cont.

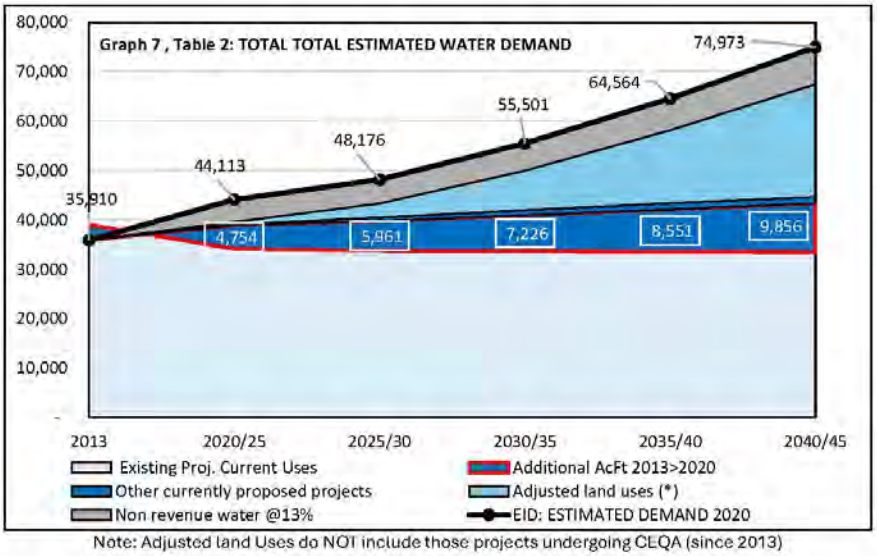
EID & EDH: Water Supply & Demand Study by Alastair Dunn — June 19, 2024



EID's Projected Aggregate Demand - Table 2 in ac. ft.

Water Supply Asst Table 3-2(2013)	(FINAL) ESTIMATED WATER DEMAND					
Table 3-1, pg 3-8	2013	2020/25	2025/30	2030/35	2035/40	2040/45
Existing Proj. Current Uses	38,984	34,154	33,809	33,694	33,579	33,464
Other currently proposed projects	0	163	696	1,052	1,272	1,332
Adjusted land uses	0	514	2,853	7,975	14,718	22,830
Non revenue water @13%	0	4,528	4,857	5,554	6,444	7,491
TOTAL Ac.Ft. DEMAND (2013)	**38,984**	**39,359**	**42,215**	**48,275**	**56,013**	**65,117**
Dif: UWMP 2020 (-) Demand 2013	(3,074)	4,754	5,961	7,226	8,551	9,856
EID: ESTIMATED DEMAND 2020	**35,910**	**44,113**	**48,176**	**55,501**	**64,564**	**74,973**
EDH: ESTIMATED DEMAND 2020	**10,313**	**12,669**	**13,836**	**15,940**	**18,543**	**21,532**

Note, the table was constructed from information given by EID in various reports and aggregated by me. It is not an EID (or Tully) table.



Note: Adjusted land Uses do NOT include those projects undergoing CEQA (since 2013)

4-51, cont.

EID & EDH: Water Supply & Demand Study by Alastair Dunn June 19, 2024

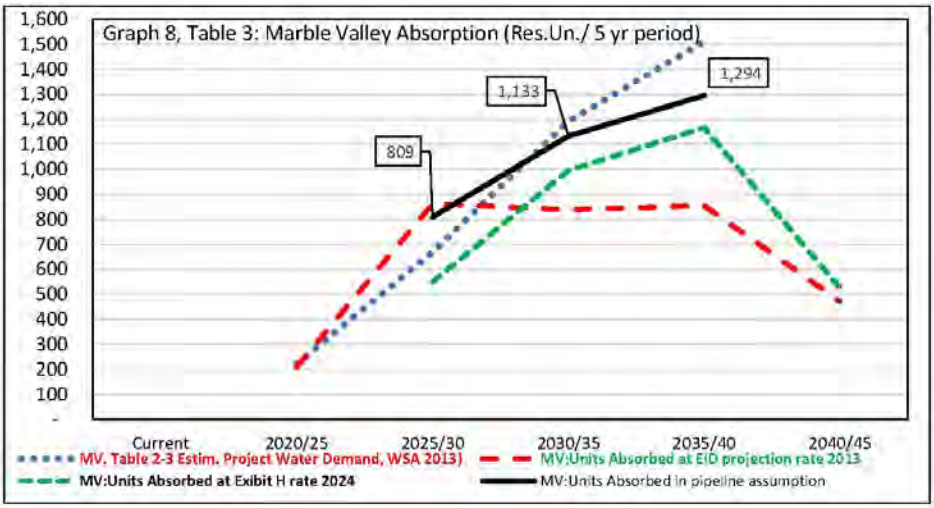
SECTION TWO: PIPELINE ANALYSIS

Marble Valley Absorptions

It appears that Marble Valley has projected – either stated in units or implied in acre feet- various absorptions rates as shown in Table 3 & Graph 8, below.

(*) Absorption refers to the number of units sold during a defined period (year) within a specific market area.)

Table 3 - Marble Valley	Current	2020/25	2025/30	2030/35	2035/40	2040/45	TOTAL
MV. Table 2-3 Estim. Project Water Demand, V		222	669	1,192	1,510		3,593
MV:Units Absorbed at EID projection rate 2013		210	862	838	855	471	3,236
MV:Units Absorbed at Exibit H rate 2024			549	995	1,166	526	3,236
MV:Units Absorbed in pipeline assumption			**809**	**1,133**	**1,294**		**3,236**



I point out these various Marble Valley absorptions to show the difference between EID's projections and mine for Marble Valley. The observation I make is the absorption changes over time over eleven years. In short, I doubt that the projection in Exhibit H reflects Marble Valley LLC's expectations, because if true their IRR/ NPV would be very low. In short, Marble Valley's water demand should reflect their expected absorption based on a market study that would also predict EID's water demand expectations.

Projected Absorption in residential units (see Exhibit 7).

A critical difference between my pipeline projection for the EDH area and those stated, or implied, in EID Studies, is the absorption of residential units over time. EID projects project by population growth and translates that growth into units and acres to project acre feet of water. (Table 2-3 Estimated Project Water Demand, Water Supply Assessment 2013).

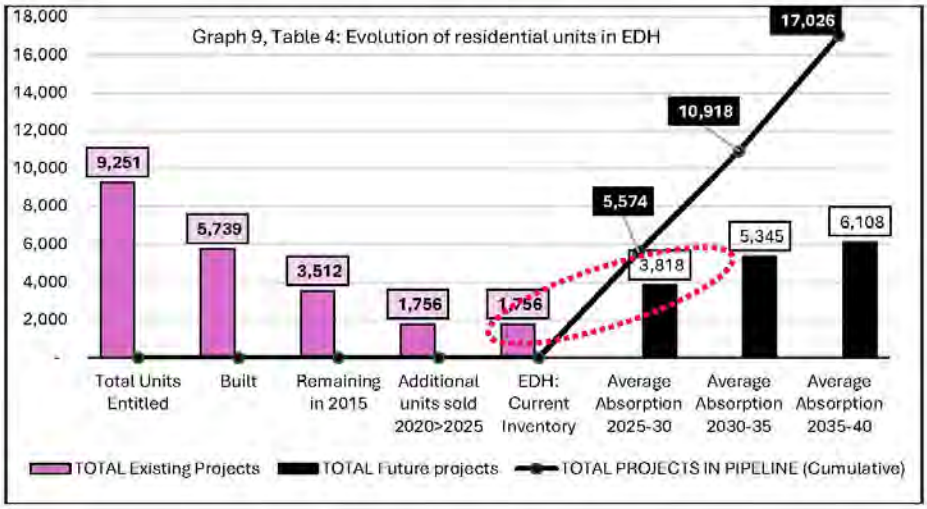
The key difference between EID's water demand projections and mine, is that my predictor variable for demand is in the residential unit. While EID's demand is predicted using an average factor of 0.674* ac. ft. per dwelling unit. (Note: I obtained this ratio based on *Table 2-3- Marble Valley, Water Supply Assessment 2013).

Table 8 and Graph 8 show the evolution of residential units in the EDH area. The short term 2025-30 period is critical due to the 1756 net units in 2020/25 plus 3818 units projected to be absorbed to give a significant inventory of 5574 units by 2030, presuming an annual sales rate of 1115 units a year. This rate suggests that each of the eighteen (18) projects in the EDH area must sell an average of 62 units per year; very aggressive. However, EID has no option other than to plan for this extraordinary pipeline.

EID & EDH: Water Supply & Demand Study by Alastair Dunn — June 19, 2024

Note: I have not added an estimate for commercial, industrial and landscape water demand that could be 30%* more to arrive at the Equivalent Dwelling Unit (EDU) that is used for projecting water demand. (* Table 2-3- MV Water Supply Assessment 2013). The actual demand projection could be understated by as much as 30%. I chose not to add this factor because the forecast is dire enough as it is.

Table 4: Currently approved projects in the EDH Area	Total Units Entitled	Built	Remaining in 2015	Additional units sold 2020>2025	EDH: Current Inventory	Average Absorption 2025-30	Average Absorption 2030-35	Average Absorption 2035-40	"PIPELINE" TOTAL RES. UNITS
TOTAL Existing Projects	9,251	5,739	3,512	1,756	1,756	-	-	-	1,756
TOTAL Future projects						3,818	5,345	6,108	15,270
TOTAL PROJECTS IN PIPELINE	9,251	5,739	3,512	1,756	1,756	3,818	5,345	6,108	17,026
TOTAL PROJECTS IN PIPELINE (Cumulative)						5,574	10,918	17,026	

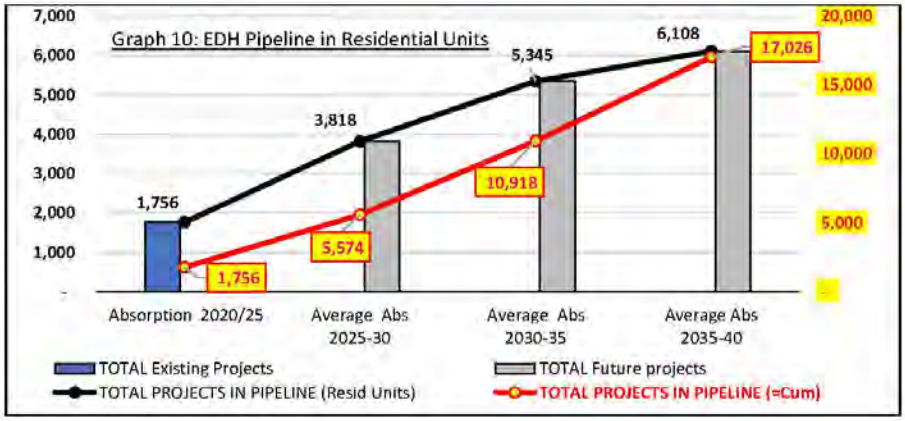


4-51, cont.

The 2025/30 absorption period is particularly important for EID to determine with greater accuracy because it is "the" variable that determines – as we shall see – EDH's deficit of water supply in the short run.

Pipeline Analysis

In developer speak the number of residential units existing and approved for a given area is "the pipeline" and crucial to determine. This is one set of data EID has not undertaken. All EID studies refer to "projects in your area" (County Website) in the entitlement (CEQA) process. There is no attempt to establish the pipelines impact on supply of water. Note: It is the – red- "cumulative" pipeline used to compare with EID data.



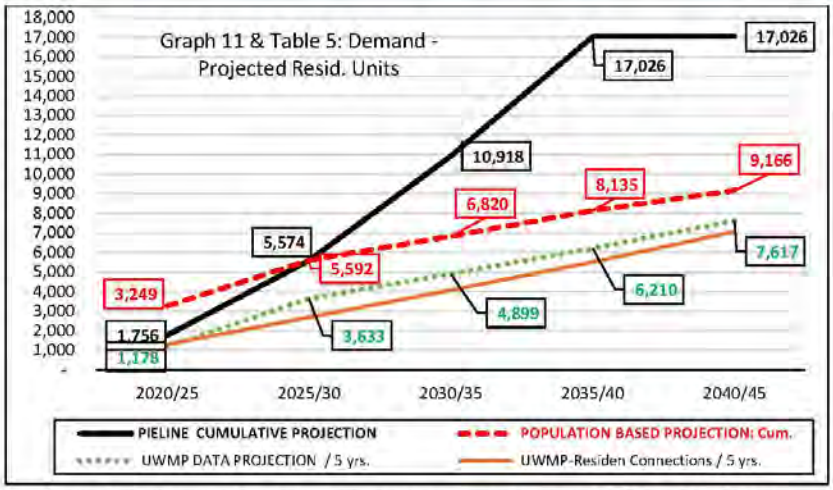
EID & EDH: Water Supply & Demand Study by Alastair Dunn June 19, 2024

EDH Water Demand Projections

Using the same factor per dwelling unit as EID for UWMP data (0.674 ac. ft. per dwelling unit) one can compare the Projects in the Pipeline in the EID area in Table 5 and Graph 11 below.

Table 5: Cumulative Residential Units

PROJECTIONS : Cumulative	2020/25	2025/30	2030/35	2035/40	2040/45
PIELINE CUMULATIVE PROJECTION	1,756	5,574	10,918	17,026	17,026
POPULATION BASED PROJECTION: Cum.	3,249	5,592	6,820	8,135	9,166
UWMP DATA PROJECTION / 5 yrs.	1,178	3,633	4,899	6,210	7,617
UWMP-Residen Connections / 5 yrs.	**1,285**	**2,683**	**4,068**	**5,506**	**7,054**



Note, the difference between my pipeline absorption and EID's is significant.

4-51, cont.

SECTION THREE: WATER SUPPLY

Exhibits 8>10 give the background to Table 10 below and highlights the water availability per period. EID and its consultants have updated the availability constantly depending on the infrastructure improvements made. However, I note that many supply figures (from 2015 to 2024) are couched with caveats. To make any water supply predictions for 2025/35 period this data must be assessed again today with realistic completion dates rather than caveats designed to cover oneself.

Table 6: Water Supply for EID Area

EID AREA - SUPPLY	In Use	Ac. Feet	Long term	Very Long	TOTAL
Sub Total Existing Contracts	23,000	27,190	17,000	-	**67,190**
Sub Total Planned	-	-	7,500	30,000	**37,500**
Recycled water	2,800	-	-	-	**2,800**
TOTAL Acre Feet	**25,800**	**27,190**	**24,500**	**30,000**	**107,490**
CUMULATIVE SUPPLY	**25,800**	**52,990**	**77,490**	**107,490**	
EDH CUMULATIVE SUPPLY	**7,410**	**15,219**	**22,255**	**30,871**	

Note that the table is consistent with the totals given by EID in their public service infrastructure: EID MSR & SOI Update pages 7-16.

EDH Water Supply

Unfortunately, EID does not give – or I could not find– EDH's supply broken out from the above table. I developed a ratio from EID's 2019 supply breakdown where I determined that EDH uses 28.7% of EID total supply. The table below summarizes my assumptions:

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- EDH takes 42.1% of the EID total supply, Table 11.

	Tota EID		EDH	Other + P'ville	Est+West+ otr
	Acre Feet	100.0%	42.1%	17.4%	40.5%
Sub Total Residential area	**14,684**	**55.9%**	8,926	-	5,758
Sub Total ommer +Ldsc+Tf	**3,225**	**12.3%**	2,015	-	1,210
Sub Total Ag	**3,803**	14.5%	137	-	3,666
Sub Total P'ville + other	**4,571**	17.4%	-	4,571	-
Total Usage 2019	**26,283**	**100.0%**	**11,078**	**4,571**	**10,634**

- Where (residential takes 55.9% of total plus 12.3% for commercial uses etc. to give EDH a total of 68.2%; that when multiplied by 42.1%-acre feet of water share, gives a **factor of 28.7%** representing EDH's share of total EID water supply.

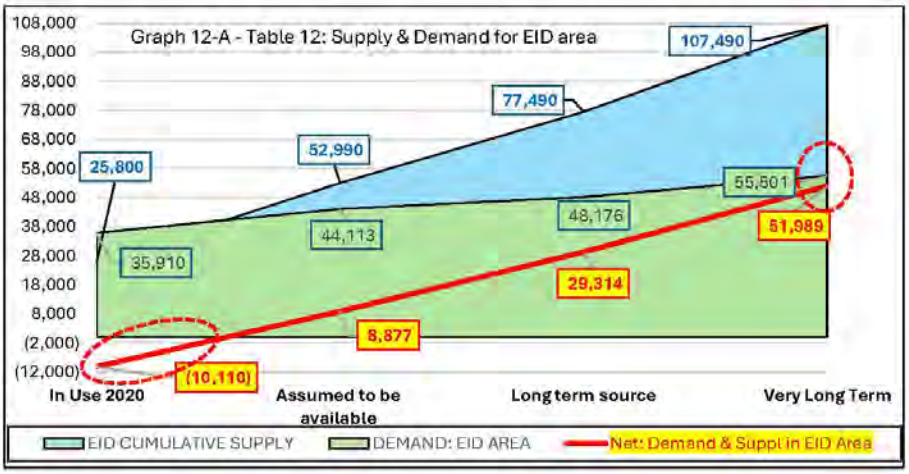
I detail this assumption because it is critical in determining the supply and demand estimate for the EDH area. Neither Tully & Young nor the Proponent (Marble Valley LLC) make this distinction. It is only with this desegregation can anyone make the necessary **nexus** with EID's acre feet projections and the EDH pipeline. The positive supply availability statements made rely exclusively on EID's total supply to reach their availability supply statements regarding EDH. I maintain that this is erroneous because it is not that EID Area has a problem of water supply, but EDH as an area within EID that does.

SECTION FOUR: SUPPLY & DEMAND

4-51, cont.

Supply & demand for the EID area (Table 12).

SUPPLY & DEMAND for EID area (in Ac.Ft)	In Use 2020	Assumed to be available	Long term source	Very Long Term
EID CUMULATIVE SUPPLY	25,800	52,990	77,490	107,490
DEMAND: EID AREA	35,910	44,113	48,176	55,501
Net: Demand & Suppl in EID Area	**(10,110)**	**8,877**	**29,314**	**51,989**



Maybe viewing the data in a different graph (12-B) shall illustrate EID's overall supply and demand situation better showing a small deficit in the 2020/25 period largely because of the net water demand of approved projects in the area. The data also shows that in the very long term the S&D balance is "thin".

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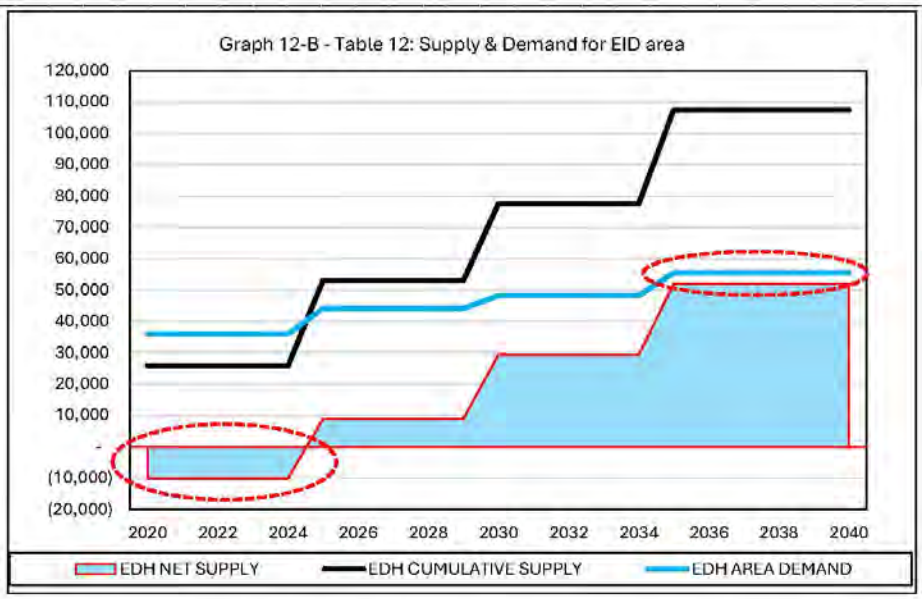
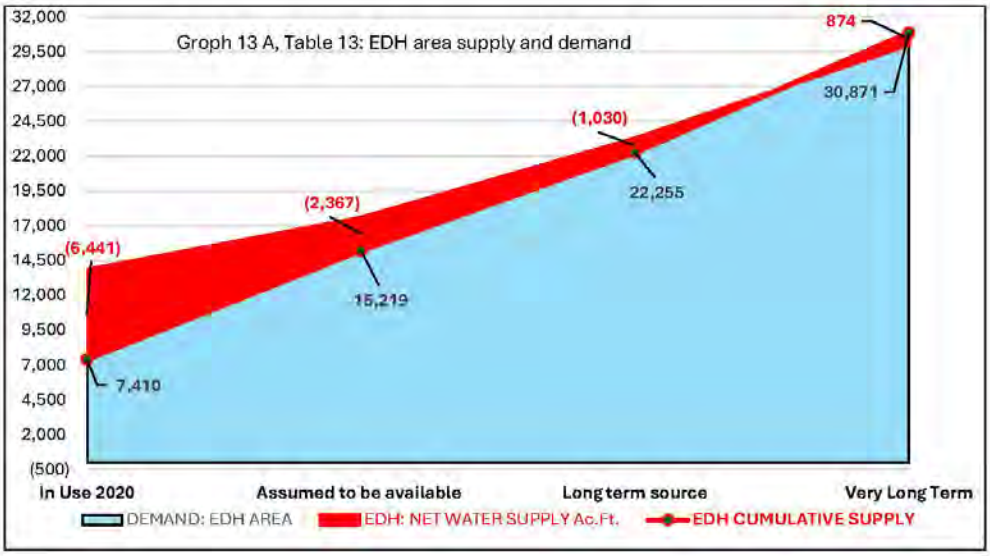


Conclusion: The EID area is not particularly threatened by a deficit of supply except possibly in the short run. However, this is largely dependent on the current net demand situation, that given the coarseness of the demand data derived requires better market data.

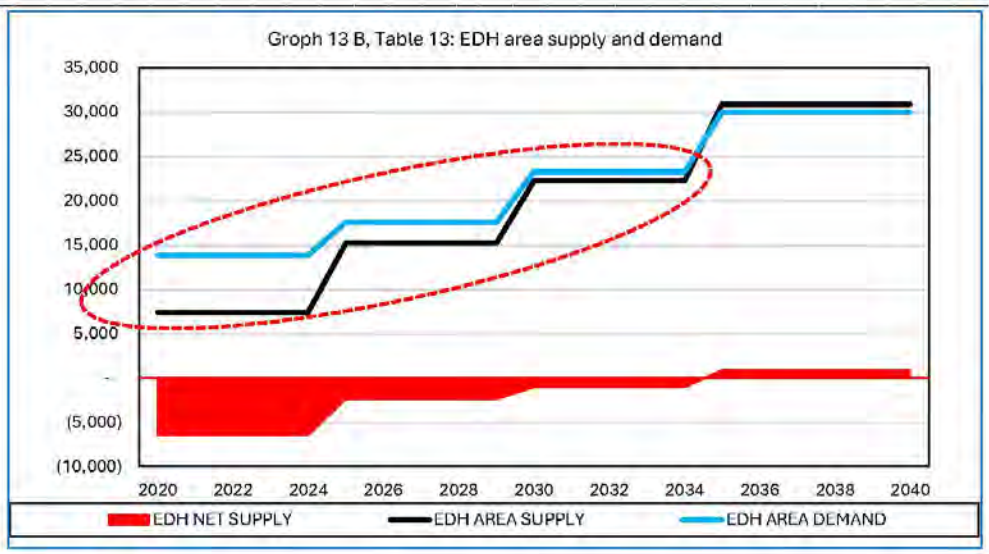
4-51, cont.

Supply & demand for the EDH area (Table 13)

EDH AREA: SUPPLY & DEMAND (in	In Use 2020	Assumed to	Long term	Very Long
EDH CUMULATIVE SUPPLY	7,410	15,219	22,255	30,871
DEMAND: EDH AREA	13,851	17,586	23,285	29,997
EDH: NET WATER SUPPLY Ac.Ft.	**(6,441)**	**(2,367)**	**(1,030)**	**874**



EID & EDH: Water Supply & Demand Study by Alastair Dunn June 19, 2024



The data suggests that on a local - EDH -level the supply and demand situation appear in a deficit of supply, not only in the short run, but also in the medium and long term.

Sensitivity Analysis

4-51, cont.

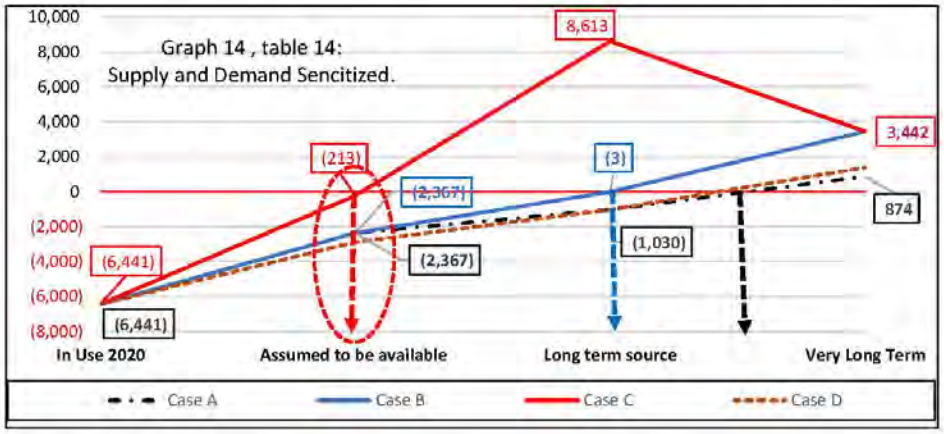
This study would be incomplete unless a sensitivity analysis were conducted on the two of the most sensitive variables to assess the severity of supply and demand imbalance:

- For water supply, which in this case is dependent on EID's capital investment program to secure the water right in Exhibits 8 & 9; and
- the predicted absorption of residential units in the EDH area – particularly in the short run.

Table 14: Variables sensitized (in red).

EDH Area	In Use 2020	Assumed to be available	Long term source	Very Long Term	Base Case	Average Absorption 2025-30	Average Absorption 2030-35	Average Absorption 2035-40	Average Absorption 2035-40	Acft brought forward "assumed available12025-30
Case A	(6,441)	(2,367)	(1,030)	874		25%	35%	40%	0%	
Case B	(6,441)	(2,367)	(3)	3,442		25%	25%	25%	25%	
Case C	(6,441)	(213)	8,613	3,442		25%	25%	25%	25%	37500 ac.ft. planned.
Case D	(6,441)	(2,881)	(1,030)	1,388		30%	30%	35%	5%	37500 ac.ft. planned.

I modified the absorption to benefit the overall availability of water and in one case brought forward Permit 2112 (Warren Act)17000 ac. Ft.+ CVP Contract- Fazio 7500 ac. Ft. Below the results graphed for the EDH area:



EID & EDH: Water Supply & Demand Study by Alastair Dunn June 19, 2024

As the arrows show, no matter what, EDH has an imbalance of supply of water, particularly in the short run.

Summary:
Given the positive assertion that: "there is sufficient water to cover the needs of all EDH projects" in general and Marble Valley and Lime Rock Valley Specific Plans, in particular; is false.

The main issue of imbalance in the medium and long term is the certainty of water rights secured and capital improvements achieved, see Exhibit 8 & 9. It is beyond my ability and the scope of this work to make any qualifying remark other than to say; I am uncomfortable with the caveats made in memoranda qualifying EID's water availability. To quote one such caveat*: "The water rights applications and environmental analysis are still pending". And "the District cannot predict whether or when El Dorado Water Reliability Project may be approved". Indeed, the Tully and Young Memo of May 30, 2014, is rife with caveats that are now eleven ten years old.

Admittedly EID has achieved much since 2013, however, to continue to write long memos and outdated references in the Marble Valley DEIR underscoring the water rights secured and capital improvements made, it is imperative that a fresh review of these critical issues are factually reviewed, and if possible, qualified by a concrete probability (0 to 100) to give a measure of credibility as to water supply.
(*MSR & SOI Update (final) Public -Service & Infrastructure, page 7-16 in reference to 2010 EDWPA's environmental report).

4-51, cont.

SECTION FIVE: CONCLUSION

At this point, all I can say to EDH-APAC is: "Houston we have a problem". The fact that 17000 units are planned in the EDH area should give anyone reason to question the availability of water for such a fantastic, planned demand.

Throughout the DEIRs from 2013 to 2024 there are statements concluding that there "is" sufficient water to attend Marble Valley's (and Lime Rock's) potable water needs. I suggest that this is not true for the EDU area.

I sustain that APAC make the following comment on the Marble Valley DEIR 2024:

Regarding Appendix B - Consistency with the El Dorado County General Plan in objective 5.2.1.2 and 5.2.1.4:
The attached memorandum forwarded by an APAC Member suggests that:

- The Project Consistency statement made that there "is" sufficiency of water is not true.

And as a recommendation state:

- The County must insist that the proponent, Marble Valley LLC have a full and proper update of the SB 610 Water Supply Assessment of August 2013 by Tully & Young updated prior to proceeding with any hearing by the Planning Commission for such a project.

LETTER 4: EL DORADO HILLS AREA PLANNING ADVISORY COMMITTEE

Response to Comment 4-1

The comment is introductory and does not address the adequacy of the Draft EIR. Note that the comment refers to the "Generations at Green Valley DRAFT Environmental Impact Report," but based on the following content of the letter, it is apparent that the substance of the comment letter is appropriately focused on the Town and Country Village El Dorado project.

Response to Comment 4-2

The commenter's concern about the lack of detail for the Program Study Area, and the request that only the Project Development Area be considered by the County at this time, is noted for the record and forwarded to the decision-makers.

Nevertheless, evaluation of both project-level and program-level components of a project is allowable pursuant to CEQA, and there are numerous examples of lead agencies employing such an approach. As noted in Practice Under the California Environmental Quality Act,[2]

> Sometimes one aspect of a large project is clearly defined, but later phases are not sufficiently well defined to be analyzed in detail. In such situations, agencies often prepare an EIR that evaluates the entire project at a "program level" and the more clearly defined aspects of the project at a "project level" of detail. See *Santa Teresa Citizen Action Group v City of San Jose* (20023) 114 CA4th 689, 696.

The level of specificity required in an EIR is related to the discretionary entitlements being sought by the project applicant. In other words, the level of specificity required in an EIR generally depends on the degree of specificity involved in the proposed activity reviewed in the EIR. There is no requirement for EIRs only to evaluate detailed projects. As demonstrated in the citation above, larger phased projects often include more detail for certain phases that are anticipated to develop in the near-term as compared to other phases that may develop at some future date. In such a case, the EIR must then evaluate the detailed phases at a project level, and the conceptual phases at a program level.

In the case of the Program Study Area for the Town and Country Village El Dorado project, as defined in Chapter 3 of the Project Description of the Draft EIR, the applicant is only seeking to amend the Bass Lake Hills Specific Plan (BLHSP) to change the current land uses of the Program Study Area from L.2-PD to 15.1 acres of Multi-Family Residential, 11.9 acres of Commercial, and 3.2 acres of Open Space. In addition, the proposed Rezone would change the Program Study Area's existing RE-10 zoning designation to Community Commercial (CC), Multi-Unit Residential (RM), and Open Space (OS). Additionally, as required by the BLHSP, the Planned Development Combining District (-PD) suffix would be added to all the zoning district designations listed above. Because the applicant is seeking only these program-level entitlements for the Program Study Area, the Draft EIR appropriately evaluates the Program Study Area at a program level. The word "program," pursuant to CEQA Guidelines Section 15168, suggests that the currently requested land use and zoning changes are the first logical steps in a chain of contemplated actions. This is the case for the Program Study Area; should the applicant pursue development of this area at

[2] Stephen L. Kostka and Michael H. Zischke. *Practice Under the Environmental Quality Act, Second Edition* (Vol. 1). Oakland: Continuing Education of the Bar (March 2024 Update), Section 11.31.

a later date, a Development Plan permit application would need to be submitted to the County for review and approval (see County Government Code Section 130.28.040). At such time, the County would review the Development Plan application for consistency with the BLHSP and the zoning standards, as well as to determine if the potential environmental impacts of the proposed Development Plan are within the scope of what the EIR studied, or if any of the criteria included in CEQA Guidelines Section 15162 would be triggered, thus requiring subsequent environmental review.

Response to Comment 4-3

As shown in Table 4.9-13 (2023) and Table 4.9-44 (2040 Cumulative and Super Cumulative) of the Draft EIR, the traffic noise analysis evaluated traffic noise level increases attributable to the project along Bass Lake Road, from Bridlewood Drive to Whistling Way, which includes the intersection of Bass Lake Road and Barbary Way. The traffic noise level increases along this roadway segment that are attributable to the project do not exceed 0.2 dB, which is substantially below the 5 dB threshold.

Response to Comment 4-4

The BLHSP and Bar J Ranch communities are located north and east, respectively, of the project site. The nearest residences located within the BLHSP and Bar J Ranch communities maintain a separation of approximately 3,600 to 4,000 feet from the project area. The BLHSP and Bar J Ranch communities are geographically separated from the project site by intervening topography (hillsides). Such topography would provide a significant degree of shielding (noise reduction) of operational noise produced within the project site, which would further reduce potential impacts. Even when excluding consideration of intervening topography shielding, as discussed previously, the nearest residences in the aforementioned communities are located approximately 3,600 to 4,000 feet from the project area. The Noise chapter of the Draft EIR contains analyses of operational noise at residential receivers that are located significantly closer than 3,600 to 4,000 feet. In addition, the analyses of operational noise at the residential receivers identified in the Draft EIR (i.e., the closest residences to project) are considered to be conservative, as the analyses did not account for intervening topography offsets and/or residential receivers located farther away.

As discussed in the Draft EIR noise section (Impact 4.9-2, page 4.9-27), impacts associated with outdoor event noise (music and event crowds) at the closest residential receivers are identified as potentially significant (Draft EIR, page 4.9-42). As a result, those impact discussions include specific mitigation measures required for implementation in order to comply with applicable El Dorado County noise level criteria. The relevant mitigation measure for the current discussion is 4.9-2(b), which requires:

> *4.9-2(b) In conjunction with the submittal of Improvement Plans and/or issuance of Building Permits, the project applicant shall include design and operational measures to ensure Event Center/Museum noise complies with the applicable noise standards. Available design and operational measures to ensure Event Center/Museum noise are in compliance could include, but not necessarily be limited to, the following:*
>
> - ***Noise Barriers:*** *The placement of permanent or temporary noise barriers would be an effective method to reduce event crowd and outdoor event amplified music noise at nearby*

residential receivers. The degree of effectiveness of noise barriers is dependent upon location, height and final elevation relative to nearby receivers, and shall be assessed using construction drawings.

- ***Shielding/Setbacks:*** *A site design that integrates shielding and/or setbacks from the outdoor event area could be an effective method to reduce event crowd and outdoor event amplified music noise at nearby residential receivers. The effectiveness would depend on degree of shielding and/or setback distances relative to nearby receivers, and shall be assessed using construction drawings.*
- ***Event Sound System Configurations:*** *The loudness of a sound system is highly variable upon volume level, speaker placement, and speaker orientation/directionality relative to receivers. Implementation of a sound system loudness restriction (i.e., 70 dB at 50 feet), required speaker placement (i.e., setbacks/screening) and speaker facing would be effective measures to reduce outdoor event amplified music levels at nearby receivers.*
- ***Outdoor Event Restrictions:*** *Restrictions on outdoor events, specifically with regards to allowable hours/time of day, would be effective in avoiding the potential of outdoor event crowd and outdoor event amplified music noise exceeding applicable General Plan noise level criteria (e.g., outdoor events restricted during nighttime hours).*

In conjunction with the submittal of Improvement Plans and/or issuance of Building Permits, a design-level acoustical analysis shall be submitted to the El Dorado County Planning and Building Department that demonstrates the included measures comply with applicable noise level criteria, including El Dorado County General Plan daytime, evening and nighttime hourly average (L_{eq}) and maximum (L_{max}) noise level standards at the closest residential receivers and General Plan exceedance criteria (Policy 6.5.1.13).

This mitigation measure will ensure that outdoor events would not exceed the County's noise standards at the nearest residential receptors, which are closer than the receivers mentioned by the commenter (e.g., Bar J Ranch community). Thus, this mitigation measure is also protective of the receivers mentioned by the commenter.

Response to Comment 4-5

Please see Response to Comment 4-3.

Response to Comment 4-6

In response to the comment, for clarification purposes, Impact 4.10-4, page 4.10-20 of the Draft EIR is hereby revised as follows:

> As discussed above, the nearest parks to the project site are the Christa McAuliffe Park and Dave West Park, which are located approximately 1.25 miles east of the project site.

and Laurel Oaks Park, located approximately 0.9-mile east of the project site at 5301 Whistlers Bend Way. In addition, the Bass Lake Regional Park is located approximately 1.51 miles north of the project site. The potential for the Project Development Area and Project Buildout to impact parks or other public recreational facilities are discussed in further detail below.

The above change is for clarification purposes and does not affect the analysis contained within the Draft EIR, which remains adequate.

Response to Comment 4-7

This comment is primarily related to the functioning of intersections, which is no longer considered an environmental impact under CEQA. In response to Senate Bill (SB) 743, the Governor's Office of Land Use and Climate Innovation (formerly known as the Office of Planning and Research [OPR]) has updated the CEQA Guidelines to include new transportation-related evaluation metrics. In December 2018, the California Natural Resources Agency certified and adopted the CEQA Guidelines update package along with an updated Technical Advisory related to Evaluating Transportation Impacts in CEQA. Full compliance with the Guidelines became effective July 2020. As a result of SB 743, and Section 15064.3 of the CEQA Guidelines, as discussed in further detail below, local jurisdictions may no longer rely on vehicle level of service (LOS) and similar measures related to delay as the basis for determining the significance of transportation impacts under CEQA, and instead a VMT metric should be evaluated.

Notwithstanding the above, a non-CEQA Local Transportation Analysis (LTA) was prepared for the proposed project by T. Kear Transportation Planning & Management, Inc. and reviewed and approved by the El Dorado County Department of Transportation (DOT). The purpose of the LTA is to analyze the project's effects relative to El Dorado County General Plan policies, particularly those related to LOS. The LTA identified project-related deficiencies relative to General Plan LOS policies at this location (specifically, the eastbound offramp) and recommended Abatement 29A. Recommended improvements included widening of the eastbound offramp, a second northbound lane under US-50, and signalization of the westbound ramps. DOT will consider these recommendations when developing conditions of approval for the proposed project.

Response to Comment 4-8

The comment relates to the lack of signage on Bass Lake Road, which is not a CEQA issue, nor a project-related deficiency relative to General Plan policies. The project includes widening Bass Lake Road from two-lanes to four-lanes from US 50 to just north of Country Club Drive. Those improvement plans will require additional signage and striping to the satisfaction of DOT.

Response to Comment 4-9

The comment refers to safety in the project vicinity. The CEQA Transportation Analysis found that the accident rate on Bass Lake Road between US 50 and Country Club Drive is lower than the statewide average for similar facilities and that (transportation) safety impacts under CEQA are less-than-significant.

However, as stated in Response to Comment 4-7, the LTA identified project-related deficiencies relative to General Plan LOS policies at this location and recommended Abatement 29A. Recommended improvements included widening of the eastbound offramp, a second northbound lane under US-50, and signalization of the westbound ramps. DOT will consider these recommendations when developing conditions of approval for the proposed project.

Response to Comment 4-10

The commenter's concern is noted but is no longer a CEQA consideration. The LOS for project access was studied as part of the LTA, which found that the proposed right-in/right out (RIRO) driveway to Bass Lake Road is anticipated to operate acceptably (at LOS C or better under all scenarios).

The distinction between full access driveways/intersections and RIRO driveways/intersections is important here. In general, full access intersections within 500 to 1,000 feet of an interchange are difficult to maintain an acceptable LOS because of queuing and driver lane selection. RIRO driveways more than 500 feet from an interchange are generally not considered to have those same issues. The LTA found no operational issues with the proposed RIRO driveway to Bass Lake Road.

The project is required to widen Bass Lake Road to four lanes along its frontage, and, has or will secure adequate right-of-way for that widening. The traffic operations analysis found no need for a 3rd northbound lane along this portion of Bass Lake Road.

Response to Comment 4-11

The location in question is already restricted to RIRO access (there are two sets of double yellow lines spaced two or more feet apart, also known as a "double-double" on Bass Lake Road. It is illegal to make a left turn across a double-double. Furthermore, former Country Club Drive (referred to in the Draft EIR as Old Country Club Drive) would not serve as a project access, but rather would only be used for emergency access purposes, as required by the El Dorado Hills Fire Department.

Response to Comment 4-12

Please see Response to Comment 4-2. In addition, the trip generation numbers calculated by T. Kear Transportation Planning and Management for the Program Study Area were developed based on the maximum buildout scenario analyzed within the Draft EIR for the Program Study Area (see Table 3-1 of the Draft EIR).

Response to Comment 4-13

Please see Response to Comment 4-2. In addition, the VMT calculated by T. Kear Transportation Planning and Management for the Program Study Area was developed based on the maximum buildout scenario analyzed within the Draft EIR for the Program Study Area (see Table 3-1 of the Draft EIR).

Response to Comment 4-14

The measures required in Mitigation Measure 4.11-3 of the Draft EIR are based on guidance from the California Air Pollution Control Officers Association (CAPCOA). The Draft EIR concurs with the commenter that expanding transit is not feasible. The feasible measures selected for implementation in Mitigation Measure 4.11-3 are unbundling parking costs from rent and reducing parking supply. The reduction in parking supply does not require a concomitant expansion of transit service to be effective, which appears to be the commenter's suggestion. Other modes of travel are available to access jobs and/or services. Nevertheless, it is important to note that the Draft EIR does not rely on these measures to render the project's VMT impact less-than-significant. The impact is ultimately determined to be significant and unavoidable.

Response to Comment 4-15

The commenters' questions and statements are primarily related to intersections and roadways, which are separately addressed in the LTA. Please refer to the LTA, which has been uploaded to the County's webpage for the proposed Town and Country Village El Dorado project, at:

https://www.eldoradocounty.ca.gov/Land-Use/Planning-and-Building/Planning-Division/Environmental-Impact-Report-EIR-Documents/Town-and-Country-Village-El-Dorado-DEIR

Regarding the request for cost estimates, there is no requirement during the environmental phase to quantify the cost of improvements proposed for General Plan consistency in the CEQA document. However, it should be noted that the BLHSP Public Facilities Financing Plan (PFFP) will be updated as part of the proposed project, and such updates will be reviewed by the County as part of project review.

With respect to the portion of the comment about mitigation, the mitigation measures included in the Transportation Chapter of the DEIR are focused on project construction traffic and VMT. Mitigation Measure 4.11-1 requires implementation of a construction signing and traffic control plan that would fully reduce the project's potential short-term traffic flow impact during construction. Mitigation Measure 4.11-3 requires implementation of VMT-reducing measures consistent with the CAPCOA *Handbook for Assessing GHG Emission Reductions, Climate Vulnerabilities, and Health and Equity* (December 2021). The measure would reduce the project's residential VMT, though the DEIR recognizes that it may not be feasible to reduce the residential VMT per capita by the required 13.83 percent to get below the applicable threshold. As a result, the project's residential VMT impact is rendered significant and unavoidable.

The proposed project would not impact any projects within the County's Capital Improvement Program (CIP). In fact, as part of the Project Development Area improvements, the project would widen Bass Lake Road from two- to 4-lanes (2-lanes each direction), from US 50 to just north of Country Club Drive. This widening project is currently in the County's CIP and identified as CIP 36105054.

Response to Comment 4-16

The commenters' questions and statements are primarily related to the proposed project's effects on the function of intersections and roadways, which are non-CEQA issues separately addressed in the LTA. The commenter asks a series of non-CEQA questions, the answers to which are provided in the LTA. Please refer to the LTA, which has been uploaded to the County's webpage for the proposed Town and Country Village El Dorado project. The conclusions included in the LTA will be considered by the County's Department of Transportation in developing conditions of approval for the proposed project.

Response to Comment 4-17

Please see Response to Comment 4-16.

Response to Comment 4-18

The comment restates water supply information from the Draft EIR and does not address the adequacy of the Draft EIR.

Response to Comment 4-19

The comment restates water supply information from the Draft EIR and does not address the adequacy of the Draft EIR.

Response to Comment 4-20

The comment refers to a Water Supply & Demand Study (Study) prepared by El Dorado Hills Area Planning Advisory Committee (EDH APAC) member Alastair Dunn, which is attached to Letter 4. The subject of the Study is "Marble Valley – Water Availability," and the stated purpose is to:

a) Examine the documentation prepared for the Village at Marble Valley Specific Plan Draft Environmental Impact Report May 2024 regarding the supply and demand of potable water for the project,
b) Review the EID documents asserting the sufficiency, availability and sustainability of water for projects in the El Dorado Hills (EDH) area, and
c) Present an analysis of EID data tables referring to the supply and demand of water in El Dorado Hills (EDH) area.

As can be seen, the referenced study was not prepared for the Town and Country Village El Dorado project. In contrast, the El Dorado Irrigation District (EID) hired Zanjero to prepare a SB 610 Water Supply Assessment (WSA) for the Town and Country Village El Dorado project, pursuant to Section 10910 et seq. of the California Water Code (see Appendix Q to the Draft EIR). In general, the WSA estimates the proposed project's water demand through build-out, presents and discusses the availability of water sources identified to meet that demand, and assesses whether expected water supplies will be sufficient to meet the projected water demand of EID with the proposed project along with current customers and other planned uses during normal, single dry, and multiple dry year conditions. The analysis contained in the WSA relies upon information from EID, including but not limited to, EID's 2020 Urban Water Management Plan (UWMP).

The WSA determined that EID has sufficient water supplies to meet future demands in all conditions and EID's Board adopted the WSA as adequate on October 10, 2023.

Zanjero is a professional engineering firm specializing in water supply analyses and EID is the agency that would be responsible for providing water service to the proposed project. The adopted WSA for the proposed project represents substantial evidence prepared by experts in the field of water supply, who have significant knowledge of EID's water supplies and demand forecasting.

Response to Comment 4-21

As mentioned in Response to Comment 4-20, the Study referenced by the commenter was not prepared for the Town and Country Village project. Even if the Study were applicable to Town and Country Village, this would not render the Draft EIR analysis of water supply inadequate as CEQA allows disagreement amongst experts (see Section 15151). The comment has been noted for the record and provided to the decision-makers for their consideration.

Response to Comment 4-22

Please see Response to Comment 4-21.

Response to Comment 4-23

Please see Response to Comment 4-21. In addition, it is important to note that the adopted WSA for the proposed Town and Country Village El Dorado Project is based on the latest water supply information available from EID, which is primarily sourced from the District's 2020 UWMP.

Response to Comment 4-24

Please see Response to Comment 4-21. In addition, it is important to note that the adopted WSA for the proposed Town and Country Village El Dorado Project is based on the latest water supply information available from EID, which is primarily sourced from the District's 2020 UWMP.

Response to Comment 4-25

Please see Response to Comment 4-21. In addition, it is important to note that the adopted WSA for the proposed Town and Country Village El Dorado Project is based on the latest water supply information available from EID, which is primarily sourced from the District's 2020 UWMP.

Response to Comment 4-26

Please see Response to Comment 4-21. In addition, it is important to note that the adopted WSA for the proposed Town and Country Village El Dorado Project is based on the latest water supply information available from EID, which is primarily sourced from the District's 2020 UWMP.

Response to Comment 4-27

The project's potential construction noise and traffic impacts are addressed in Chapters 4.9 and 4.11, respectively. Please refer to Impact 4.9-1 (construction noise) on page 4.9-22 and Impact 4.11-1 (construction traffic). The commenter's question about easements is not a CEQA issue and will be addressed separately by the County.

Response to Comment 4-28

Please refer to Chapter 3, Figure 3-18, Off-Site Sewer Line, for the proposed alignment of the off-site sewer line. Notably, the majority of the proposed alignments is consistent with the planned sewer trunk alignment shown in Figure 5-2, Sewer Plan, of the BLHSP. The alignment has been selected to be consistent with previous BLHSP planning efforts and maximize avoidance of natural resources. In addition, costs and funding mechanisms do not need to be identified as part of CEQA analysis.

Response to Comment 4-29

Costs and funding mechanisms do not need to be identified as part of CEQA analysis. Notwithstanding, it is noted that, as part of the project, the BLHSP PFFP is being updated to address the project's land uses and associated infrastructure costs.

Response to Comment 4-30

The comment does not address the adequacy of the Draft EIR, but rather requests information that is already contained within the Draft EIR. It appears that the commenter may not have read all sections of the Draft EIR for the proposed project as it contains the information being requested in the comment. Please refer to Chapter 3, Project Description, which includes utility maps, site plan and zoning information; Chapter 4.13, Utilities and Service Systems, which includes projected water and sewer demands; Chapter 4.7, Hydrology and Water Quality, which includes runoff and groundwater information; and Chapter 4.13, Transportation.

Response to Comment 4-31

The comment does not address the adequacy of the Draft EIR, but rather requests information that is already contained within the Draft EIR. As discussed in Impact 4.7-3 of the Draft EIR, water service for the proposed project would be provided by the EID, following annexation of the project site into the EID service area. The EID's EDH water service region, in which the project site would be located, draws water from the Folsom Reservoir. Thus, the proposed project would not be served water from groundwater supplies.

The same discussion notes that the project site is not considered a site of substantial groundwater recharge, as the project site is underlain by low-permeability rock.

The Draft EIR covers the potential interim use of a private septic system for the Project Development Area. Please refer to Chapters 3 and 4.5 of the Draft EIR for detailed discussion.

Response to Comment 4-32

Please see Response to Comment 4-31.

Response to Comment 4-33

Please see Response to Comment 4-31.

Response to Comment 4-34

Any water rights on surrounding properties would not be adversely affected by the proposed project. The proposed project would connect to EID's public water system for water service.

Response to Comment 4-35

Please see Response to Comment 4-31.

Response to Comment 4-36

The comment does not address the adequacy of the Draft EIR, but rather requests information that is already contained within the Draft EIR. All of the information requested in the comment is provided in the Hydrology and Water Quality chapter of the Draft EIR (Chapter 4.7). Please refer to Chapter 4.7.

Response to Comment 4-37

The comment does not address the adequacy of the Draft EIR, but rather requests information that is already contained within the Draft EIR. All of the information requested in the comment is provided in the Hydrology and Water Quality chapter of the Draft EIR (Chapter 4.7). Please refer to Chapter 4.7.

Response to Comment 4-38

The comment does not address the adequacy of the Draft EIR, but rather requests information that is already contained within the Draft EIR. All of the information requested in the comment is provided in the Hydrology and Water Quality chapter of the Draft EIR (Chapter 4.7). Please refer to Chapter 4.7.

Response to Comment 4-39

The comment does not address the adequacy of the Draft EIR, but rather requests information that is already contained within the Draft EIR. All of the information requested in the comment is provided in the Hydrology and Water Quality chapter of the Draft EIR (Chapter 4.7). Please refer to Chapter 4.7.

Response to Comment 4-40

The comment does not address the adequacy of the Draft EIR, but rather requests information that is already contained within the Draft EIR. All of the information requested in the comment is provided in the Hydrology and Water Quality chapter of the Draft EIR (Chapter 4.7). Please refer to Chapter 4.7.

Response to Comment 4-41

The comment does not address the adequacy of the Draft EIR, but rather requests information that is already contained within the Draft EIR. All of the information requested in the comment is provided in the Hydrology and Water Quality chapter of the Draft EIR (Chapter 4.7). Please refer to Chapter 4.7.

Response to Comment 4-42

The Draft EIR (pg. 4.10-16) acknowledges that Station 85 is the nearest ladder truck station to the project site and could respond to emergency situations at the proposed hotel and event center. In addition, the El Dorado Hills Fire Department reviewed the project application and provided a list of conditions of approval for the proposed project to ensure fire and emergency medical services can be adequately provided to the site. The proposed project would be subject to all such conditions of approval required by the El Dorado Hills Fire Department.

Response to Comment 4-43

The comment does not address the adequacy of the Draft EIR and is noted for the record. As acknowledged by the comment, the Draft EIR included a robust analysis of the project's cumulative impacts in Cumulative Impacts Chapter (Chapter 5.3).

Response to Comment 4-44

The comment does not address the adequacy of the Draft EIR and is noted for the record.

Response to Comment 4-45

The project that is analyzed in the Draft EIR is clearly described in Chapter 3 of the Draft EIR. Please also refer to Response to Comment 4-2.

Response to Comment 4-46

Please see Response to Comment 4-2.

Response to Comment 4-47

The commenter requests specific details about the contents of the museum, which has no direct bearing on the environmental analysis contained in the Draft EIR. The comment is noted for the record and will be forwarded to the decision-makers.

Response to Comment 4-48

The cultural resources analysis for the project site is complete and accurately reflected in Chapter 4.4 of the Draft EIR.

Response to Comment 4-49

Please see Response to Comment 4-2.

Response to Comment 4-50

The comment does not address the adequacy of the Draft EIR and is noted for the record.

Response to Comment 4-51

Please see Response to Comment 4-20.

Letter 5

EL DORADO TRANSIT

September 3, 2024

El Dorado County Planning & Building Department
Planning Division- Attention Ande Flower
2850 Fairlane Court
Placerville, CA 95667

RE: Town & Country Village El Dorado Project
Draft Environmental Impact Report
State Clearinghouse No. 2023070297
Submittal of Comments on Project

Dear Ande Flower:

The El Dorado County Transit Authority (El Dorado Transit or "Transit") appreciates the opportunity to review and comment on the above referenced project. This letter is in response to your Notice of Availability of a Draft Environmental Impact Report (DEIR) dated July 26, 2024, for the Town & Country Village El Dorado Project (T&CVP).

5-1 As mentioned throughout the DEIR, El Dorado Transit recently completed the first phase of the Bass Lake Hills Park & Ride (BLHP&R), located west of the new intersection of Country Club Drive and Bass Lake Road. The physical address for the park & ride facility is 1900 Old Bass Lake Road. The proposed T&CVP will benefit from the BLHP&R location and public facility improvements. However, in order to help mitigate any impacts of the project on the BLHP&R and public transit facilities, El Dorado Transit is requesting consideration and inclusion of the following:

Water System

With the understanding that the DEIR is a planning level document, Figure 4.13-1 shows a preliminary layout of the proposed water supply system. The recently completed BLHP&R is required to be landscaped per the Bass Lake Hills Specific Plan (BLHSP) and because currently there is no El Dorado Irrigation District (EID) water to the site, Transit will rely on an on-site water tank as a supply source. Since this system is not practical for the long term operation of the facility, it is imperative that the BLHP&R facility be served by water from EID. In order to achieve this need, the following should be incorporated as mitigation measures into the Final EIR for the project:

5-2
- The application for the project to the Local Agency Formation Commission (LAFCO) for annexation to EID shall include the BLHP&R parcels (APN 119-100-059 & 119-100-061).
- Modifications to the BLHSP Land Use Diagram (Figure 3-1) should include a "P" or "PF" (Public/Public Facility) designation in the legend and marked on the BLHP&R parcel location.
- The applicant shall be conditioned to provide a "stub" in the water line to be constructed on Bass Lake Road, to provide for adequate water service to the BLHP&R facility. The location of the stub and any related improvements shall be reviewed and approved by El Dorado Transit as part of the final design and engineering for the T&CVP.

El Dorado County Transit Authority • 6565 Commerce Way • Diamond Springs, CA 95619
530.642.5383 • ElDoradoTransit.com

Parking

5-3 The DEIR also states on Page 3-17 of the Project Description that the project applicant would propose a formal agreement with El Dorado Transit regarding use of the BLHP&R for "off hours/off-days" and weekends, for special events or other occasions. El Dorado Transit would certainly be open to further discussions with the project applicant regarding this proposal, and the cooperative effort to develop a mutually beneficial agreement.

5-4 El Dorado Transit understands that the T&CVP is in the early stages of approvals for development and reserves the right to make additional comments or conditions of approval for the project as the process continues in the future. If you have any questions regarding this response, please feel free to contact me at 530-642-5383, Ext. 201 or via e-mail at ebergren@eldoradotransit.com.

Sincerely,

Erik Bergren
Planning & Marketing Manager
El Dorado Transit

Cc: Brian James, Executive Director
El Dorado Transit

EDTCommentsDEIRT&CVillage.

2

LETTER 5: EL DORADO TRANSIT

Response to Comment 5-1

The comment is an introduction to the comment letter and does not address the adequacy of the Draft EIR. Please see the below responses to more specific comments.

Response to Comment 5-2

The comment does not address the adequacy of the Draft EIR but rather requests that the project stub a water connection to the Park and Ride Lot. The project includes construction of a potable water line within Bass Lake Road, and a stub could be provided. However, there is no nexus to the project for this requirement. In addition, the comment requests that a land use change be noted on the BLHSP land use diagram. However, such land use changes are not included as part of the proposed project, and such requests are required to be considered by the County for review and approval, separate from the proposed project. Thus, the comment has been forwarded to the applicant and County decision-makers for their consideration.

Response to Comment 5-3

The comment does not address the adequacy of the Draft EIR, has been noted for the record, and provided to the applicant and decision-makers for their consideration.

Response to Comment 5-4

The comment is a conclusory statement and does not address the adequacy of the Draft EIR. The comment has been noted for the record.

Letter 6

From: PL-Town and Country Village El Dorado
To: Nick Pappani
Cc: Ande Flower
Subject: FW: Notice of Availability: Draft Environmental Impact Report for Town and Country Village El Dorado Project - File NosGPA22-0003, SP-R21-0002, Z21-0013, PD21-0005, TM22-0005 & CUP23-0008
Date: Wednesday, July 31, 2024 2:42:21 PM

From: PGE Plan Review <pgeplanreview@pge.com>
Sent: Friday, July 26, 2024 10:23 AM
To: PL-Town and Country Village El Dorado <TownandCountryElDorado@edcgov.us>
Subject: Automatic reply: Notice of Availability: Draft Environmental Impact Report for Town and Country Village El Dorado Project -File NosGPA22-0003, SP-R21-0002, Z21-0013, PD21-0005, TM22-0005 & CUP23-0008

Hello,

Thank you for contacting PG&E's Plan Review Team. Due to high volumes of requests for review, expect delays in receiving comments or a project specific response from PG&E. Please see PG&E's general construction restrictions and guidelines for proposed projects around gas and electric facilities and incorporate these preliminary notes into your project design.

Gas Facilities

There could be gas transmission pipelines in this area which would be considered critical facilities for PG&E and a high priority subsurface installation under California law. Care must be taken to ensure safety and accessibility. So, please ensure that if PG&E approves work near gas transmission pipelines it is done in adherence with the below stipulations. Additionally, the following link provides additional information regarding legal requirements under California excavation laws: https://www.usanorth811.org/images/pdfs/CA-LAW-2018.pdf

6-1

1. Standby Inspection: A PG&E Gas Transmission Standby Inspector must be present during any demolition or construction activity that comes within 10 feet of the gas pipeline. This includes all grading, trenching, substructure depth verifications (potholes), asphalt or concrete demolition/removal, removal of trees, signs, light poles, etc. This inspection can be coordinated through the Underground Service Alert (USA) service at 811. A minimum notice of 48 hours is required. Ensure the USA markings and notifications are maintained throughout the duration of your work.

2. Access: At any time, PG&E may need to access, excavate, and perform work on the gas pipeline. Any construction equipment, materials, or spoils may need to be removed upon notice. Any temporary construction fencing installed within PG&E's easement would also need to be capable of being removed at any time upon notice. Any plans to cut temporary slopes exceeding a 1:4 grade within 10 feet of a gas transmission pipeline need to be approved by PG&E Pipeline Services in writing PRIOR to performing the work.

3. Wheel Loads: To prevent damage to the buried gas pipeline, there are weight limits that must be enforced whenever any equipment gets within 10 feet of traversing the pipe.

Ensure a list of the axle weights of all equipment being used is available for PG&E's Standby Inspector. To confirm the depth of cover, the pipeline may need to be potholed by hand in a few areas.

Due to the complex variability of tracked equipment, vibratory compaction equipment, and cranes, PG&E must evaluate those items on a case-by-case basis prior to use over the gas pipeline (provide a list of any proposed equipment of this type noting model numbers and specific attachments).

No equipment may be set up over the gas pipeline while operating. Ensure crane outriggers are at least 10 feet from the centerline of the gas pipeline. Transport trucks must not be parked over the gas pipeline while being loaded or unloaded.

4. Grading: PG&E requires a minimum of 36 inches of cover over gas pipelines (or existing grade if less) and a maximum of 7 feet of cover at all locations. The graded surface cannot exceed a cross slope of 1:4.

5. Excavating: Any digging within 2 feet of a gas pipeline must be dug by hand. Note that while the minimum clearance is only 12 inches, any excavation work within 24 inches of the edge of a pipeline must be done with hand tools. So to avoid having to dig a trench entirely with hand tools, the edge of the trench must be over 24 inches away. (Doing the math for a 24 inch wide trench being dug along a 36 inch pipeline, the centerline of the trench would need to be at least 54 inches [24/2 + 24 + 36/2 = 54] away, or be entirely dug by hand.)

6-1, cont.

Water jetting to assist vacuum excavating must be limited to 1000 psig and directed at a 40° angle to the pipe. All pile driving must be kept a minimum of 3 feet away.

Any plans to expose and support a PG&E gas transmission pipeline across an open excavation need to be approved by PG&E Pipeline Services in writing PRIOR to performing the work.

6. Boring/Trenchless Installations: PG&E Pipeline Services must review and approve all plans to bore across or parallel to (within 10 feet) a gas transmission pipeline. There are stringent criteria to pothole the gas transmission facility at regular intervals for all parallel bore installations.

For bore paths that cross gas transmission pipelines perpendicularly, the pipeline must be potholed a minimum of 2 feet in the horizontal direction of the bore path and a minimum of 12 inches in the vertical direction from the bottom of the pipe with minimum clearances measured from the edge of the pipe in both directions. Standby personnel must watch the locator trace (and every ream pass) the path of the bore as it approaches the pipeline and visually monitor the pothole (with the exposed transmission pipe) as the bore traverses the pipeline to ensure adequate clearance with the pipeline. The pothole width must account for the inaccuracy of the locating equipment.

7. Substructures: All utility crossings of a gas pipeline should be made as close to

perpendicular as feasible (90° +/- 15°). All utility lines crossing the gas pipeline must have a minimum of 12 inches of separation from the gas pipeline. Parallel utilities, pole bases, water line 'kicker blocks', storm drain inlets, water meters, valves, back pressure devices or other utility substructures are not allowed in the PG&E gas pipeline easement.

If previously retired PG&E facilities are in conflict with proposed substructures, PG&E must verify they are safe prior to removal. This includes verification testing of the contents of the facilities, as well as environmental testing of the coating and internal surfaces. Timelines for PG&E completion of this verification will vary depending on the type and location of facilities in conflict.

8. Structures: No structures are to be built within the PG&E gas pipeline easement. This includes buildings, retaining walls, fences, decks, patios, carports, septic tanks, storage sheds, tanks, loading ramps, or any structure that could limit PG&E's ability to access its facilities.

9. Fencing: Permanent fencing is not allowed within PG&E easements except for perpendicular crossings which must include a 16 foot wide gate for vehicular access. Gates will be secured with PG&E corporation locks.

10. Landscaping: Landscaping must be designed to allow PG&E to access the pipeline for maintenance and not interfere with pipeline coatings or other cathodic protection systems. No trees, shrubs, brush, vines, and other vegetation may be planted within the easement area. Only those plants, ground covers, grasses, flowers, and low-growing plants that grow unsupported to a maximum of four feet (4') in height at maturity may be planted within the easement area.

6-1, cont.

11. Cathodic Protection: PG&E pipelines are protected from corrosion with an "Impressed Current" cathodic protection system. Any proposed facilities, such as metal conduit, pipes, service lines, ground rods, anodes, wires, etc. that might affect the pipeline cathodic protection system must be reviewed and approved by PG&E Corrosion Engineering.

12. Pipeline Marker Signs: PG&E needs to maintain pipeline marker signs for gas transmission pipelines in order to ensure public awareness of the presence of the pipelines. With prior written approval from PG&E Pipeline Services, an existing PG&E pipeline marker sign that is in direct conflict with proposed developments may be temporarily relocated to accommodate construction work. The pipeline marker must be moved back once construction is complete.

13. PG&E is also the provider of distribution facilities throughout many of the areas within the state of California. Therefore, any plans that impact PG&E's facilities must be reviewed and approved by PG&E to ensure that no impact occurs which may endanger the safe operation of its facilities.

Electric Facilities

It is PG&E's policy to permit certain uses on a case by case basis within its electric transmission fee strip(s) and/or easement(s) provided such uses and manner in which they are exercised, will not interfere with PG&E's rights or endanger its facilities. Some

examples/restrictions are as follows:

1. Buildings and Other Structures: No buildings or other structures including the foot print and eave of any buildings, swimming pools, wells or similar structures will be permitted within fee strip(s) and/or easement(s) areas. PG&E's transmission easement shall be designated on subdivision/parcel maps as "**RESTRICTED USE AREA – NO BUILDING.**"

2. Grading: Cuts, trenches or excavations may not be made within 25 feet of our towers. Developers must submit grading plans and site development plans (including geotechnical reports if applicable), signed and dated, for PG&E's review. PG&E engineers must review grade changes in the vicinity of our towers. No fills will be allowed which would impair ground-to-conductor clearances. Towers shall not be left on mounds without adequate road access to base of tower or structure.

3. Fences: Walls, fences, and other structures must be installed at locations that do not affect the safe operation of PG&'s facilities. Heavy equipment access to our facilities must be maintained at all times. Metal fences are to be grounded to PG&E specifications. No wall, fence or other like structure is to be installed within 10 feet of tower footings and unrestricted access must be maintained from a tower structure to the nearest street. Walls, fences and other structures proposed along or within the fee strip(s) and/or easement(s) will require PG&E review; submit plans to PG&E Centralized Review Team for review and comment.

6-1, cont.

4. Landscaping: Vegetation may be allowed; subject to review of plans. On overhead electric transmission fee strip(s) and/or easement(s), trees and shrubs are limited to those varieties that do not exceed 10 feet in height at maturity. PG&E must have access to its facilities at all times, including access by heavy equipment. No planting is to occur within the footprint of the tower legs. Greenbelts are encouraged.

5. Reservoirs, Sumps, Drainage Basins, and Ponds: Prohibited within PG&E's fee strip(s) and/or easement(s) for electric transmission lines.

6. Automobile Parking: Short term parking of movable passenger vehicles and light trucks (pickups, vans, etc.) is allowed. The lighting within these parking areas will need to be reviewed by PG&E; approval will be on a case by case basis. Heavy equipment access to PG&E facilities is to be maintained at all times. Parking is to clear PG&E structures by at least 10 feet. Protection of PG&E facilities from vehicular traffic is to be provided at developer's expense AND to PG&E specifications. Blocked-up vehicles are not allowed. Carports, canopies, or awnings are not allowed.

7. Storage of Flammable, Explosive or Corrosive Materials: There shall be no storage of fuel or combustibles and no fueling of vehicles within PG&E's easement. No trash bins or incinerators are allowed.

8. Streets and Roads: Access to facilities must be maintained at all times. Street lights may be allowed in the fee strip(s) and/or easement(s) but in all cases must be reviewed by PG&E for proper clearance. Roads and utilities should cross the transmission easement as nearly at right angles as possible. Road intersections will not be allowed within the transmission easement.

9. Pipelines: Pipelines may be allowed provided crossings are held to a minimum and to be as nearly perpendicular as possible. Pipelines within 25 feet of PG&E structures require review by PG&E. Sprinklers systems may be allowed; subject to review. Leach fields and septic tanks are not allowed. Construction plans must be submitted to PG&E for review and approval prior to the commencement of any construction.

10. Signs: Signs are not allowed except in rare cases subject to individual review by PG&E.

11. Recreation Areas: Playgrounds, parks, tennis courts, basketball courts, barbecue and light trucks (pickups, vans, etc.) may be allowed; subject to review of plans. Heavy equipment access to PG&E facilities is to be maintained at all times. Parking is to clear PG&E structures by at least 10 feet. Protection of PG&E facilities from vehicular traffic is to be provided at developer's expense AND to PG&E specifications.

6-1, cont.

12. Construction Activity: Since construction activity will take place near PG&E's overhead electric lines, please be advised it is the contractor's responsibility to be aware of, and observe the minimum clearances for both workers and equipment operating near high voltage electric lines set out in the High-Voltage Electrical Safety Orders of the California Division of Industrial Safety (https://www.dir.ca.gov/Title8/sb5g2.html), as well as any other safety regulations. Contractors shall comply with California Public Utilities Commission General Order 95 (http://www.cpuc.ca.gov/gos/GO95/go_95_startup_page.html) and all other safety rules. No construction may occur within 25 feet of PG&E's towers. All excavation activities may only commence after 811 protocols has been followed.

Contractor shall ensure the protection of PG&E's towers and poles from vehicular damage by (installing protective barriers) Plans for protection barriers must be approved by PG&E prior to construction.

13. PG&E is also the owner of distribution facilities throughout many of the areas within the state of California. Therefore, any plans that impact PG&E's facilities must be reviewed and approved by PG&E to ensure that no impact occurs that may endanger the safe and reliable operation of its facilities.

Thank you,

Pacific Gas and Electric Company
Plan Review Team
Email: pgeplanreview@pge.com

You can read about PG&E's data privacy practices at PGE.com/privacy.

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LETTER 6: PACIFIC GAS AND ELECTRIC COMPANY

Response to Comment 6-1

The comment provides background information regarding applicable requirements related to Pacific Gas and Electric Co. (PG&E) facilities and easements and does not specifically address the adequacy of the Draft EIR. As discussed on page 4.13 in Chapter 13, Utilities and Service Systems, of the Draft EIR, PG&E currently operates electric transmission and distribution facilities within easements on the project site. The existing 80-foot PG&E easement runs diagonally east-to-west in the southern portion of the project site. The proposed project would not result in any activities which would disrupt or prevent access to the existing PG&E easements. The design of the proposed project would comply with all applicable specifications referenced by the commenter.

Letter 7

From: PL-Town and Country Village El Dorado
To: Nick Pappani
Subject: FW: Notice of Availability: Draft Environmental Impact Report for Town and Country Village El Dorado Project - File NosGPA22-0003, SP-R21-0002, Z21-0013, PD21-0005, TM22-0005 & CUP23-0008
Date: Wednesday, July 31, 2024 2:52:26 PM
Attachments: image001.png
Initial Response Letter 7-30-2024.pdf

From: PGE Plan Review <PGEPlanReview@pge.com>
Sent: Tuesday, July 30, 2024 10:49 AM
To: PL-Town and Country Village El Dorado <TownandCountryElDorado@edcgov.us>
Subject: RE: Notice of Availability: Draft Environmental Impact Report for Town and Country Village El Dorado Project -File NosGPA22-0003, SP-R21-0002, Z21-0013, PD21-0005, TM22-0005 & CUP23-0008

Classification: Internal

Dear Town and Country El Dorado,

Thank you for submitting the Town and Country Village El Dorado Project plans. The PG&E Plan Review Team is currently reviewing the information provided. Should this project have the potential to interfere with PG&E's facilities, we intend to respond to you with project specific comments. Attached is some general information when working near PG&E facilities that must be adhered to when working near PG&E's facilities and land rights.

7-1 This email and attachment does not constitute PG&E's consent to use any portion of PG&E's land rights for any purpose not previously conveyed. If there are subsequent modifications made to your design, we ask that you resubmit the plans to the email address listed below.

If you have any questions regarding our response, please contact the PG&E Plan Review Team at pgeplanreview@pge.com.

Thank you,

Pacific Gas and Electric Company
Plan Review Team
Email: pgeplanreview@pge.com

From: PL-Town and Country Village El Dorado <TownandCountryElDorado@edcgov.us>
Sent: Friday, July 26, 2024 10:21 AM
Subject: Notice of Availability: Draft Environmental Impact Report for Town and Country Village El

Dorado Project -File NosGPA22-0003, SP-R21-0002, Z21-0013, PD21-0005, TM22-0005 & CUP23-0008

CAUTION: EXTERNAL SENDER!

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To all Concerned Agencies and Interested Parties:

Please see the attached Notice of Availability (NOA) for the Town and Country Village El Dorado Project. The El Dorado County Planning and Building Department-Planning Division, as the Lead Agency, prepared a Draft Environmental Impact Report (DEIR) for the Town and Country Village El Dorado Project (proposed project). The DEIR has been prepared in accordance with the California Environmental Quality Act (CEQA) (Public Resources Code [PRC] Sections 2100 et seq. and the CEQA Guidelines (14 California Code of Regulations [CCR] Sections 1500 et seq).

7-2

The DEIR is available for public and agency review for a 45-day period **beginning July 26, 2024, and ending on September 9, 2024**. The purpose of the comment period is to consider the content of the DEIR and the potential environmental impacts that may result from project implementation, not the merits of the proposed project itself. Comments pertaining to the environmental impact analysis, criteria and thresholds, mitigation measures, and alternatives presented in the DEIR will be considered by the County during preparation of the Final EIR. The Final EIR will include copies of the comments and the County's responses to comments pertaining to the environmental review and DEIR.

PROVIDING COMMENTS: El Dorado County is soliciting written comments from public agencies, organizations, tribes, and individuals regarding the environmental document. All comments should be provided **no later than 5:00 p.m. on September 9, 2024**. Please send written comments to: El Dorado County Development Services Department-Planning Services, Attention: Ande Flower, 2850 Fairlane Court, Placerville, CA 95667 or via email TownAndCountryElDorado@edcgov.us.

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Pacific Gas and Electric Company

Plan Review Team
Land Management

PGEPlanReview@pge.com

July 30, 2024

Ref: Gas and Electric Transmission and Distribution

Dear Town and Country El Dorado,

Thank you for submitting the Town and Country Village El Dorado Project plans for our review. PG&E will review the submitted plans in relationship to any existing Gas and Electric facilities within the project area. If the proposed project is adjacent/or within PG&E owned property and/or easements, we will be working with you to ensure compatible uses and activities near our facilities.

Attached you will find information and requirements as it relates to Gas facilities (Attachment 1) and Electric facilities (Attachment 2). Please review these in detail, as it is critical to ensure your safety and to protect PG&E's facilities and its existing rights.

Below is additional information for your review:

7-3

1. This plan review process does not replace the application process for PG&E gas or electric service your project may require. For these requests, please continue to work with PG&E Service Planning: https://www.pge.com/en/account/service-requests/building-and-renovation.html.

2. If the project being submitted is part of a larger project, please include the entire scope of your project, and not just a portion of it. PG&E's facilities are to be incorporated within any CEQA document. PG&E needs to verify that the CEQA document will identify any required future PG&E services.

3. An engineering deposit may be required to review plans for a project depending on the size, scope, and location of the project and as it relates to any rearrangement or new installation of PG&E facilities.

Any proposed uses within the PG&E fee strip and/or easement, may include a California Public Utility Commission (CPUC) Section 851 filing. This requires the CPUC to render approval for a conveyance of rights for specific uses on PG&E's fee strip or easement. PG&E will advise if the necessity to incorporate a CPUC Section 851filing is required.

This letter does not constitute PG&E's consent to use any portion of its easement for any purpose not previously conveyed. PG&E will provide a project specific response as required.

Sincerely,

Plan Review Team
Land Management

PG&E Gas and Electric Facilities Page 1

Public

Pacific Gas and Electric Company

Attachment 1 – Gas Facilities

There could be gas transmission pipelines in this area which would be considered critical facilities for PG&E and a high priority subsurface installation under California law. Care must be taken to ensure safety and accessibility. So, please ensure that if PG&E approves work near gas transmission pipelines it is done in adherence with the below stipulations. Additionally, the following link provides additional information regarding legal requirements under California excavation laws: https://www.usanorth811.org/images/pdfs/CA-LAW-2018.pdf

1. Standby Inspection: A PG&E Gas Transmission Standby Inspector must be present during any demolition or construction activity that comes within 10 feet of the gas pipeline. This includes all grading, trenching, substructure depth verifications (potholes), asphalt or concrete demolition/removal, removal of trees, signs, light poles, etc. This inspection can be coordinated through the Underground Service Alert (USA) service at 811. A minimum notice of 48 hours is required. Ensure the USA markings and notifications are maintained throughout the duration of your work.

2. Access: At any time, PG&E may need to access, excavate, and perform work on the gas pipeline. Any construction equipment, materials, or spoils may need to be removed upon notice. Any temporary construction fencing installed within PG&E's easement would also need to be capable of being removed at any time upon notice. Any plans to cut temporary slopes exceeding a 1:4 grade within 10 feet of a gas transmission pipeline need to be approved by PG&E Pipeline Services in writing PRIOR to performing the work.

7-3, cont.

3. Wheel Loads: To prevent damage to the buried gas pipeline, there are weight limits that must be enforced whenever any equipment gets within 10 feet of traversing the pipe.

Ensure a list of the axle weights of all equipment being used is available for PG&E's Standby Inspector. To confirm the depth of cover, the pipeline may need to be potholed by hand in a few areas.

Due to the complex variability of tracked equipment, vibratory compaction equipment, and cranes, PG&E must evaluate those items on a case-by-case basis prior to use over the gas pipeline (provide a list of any proposed equipment of this type noting model numbers and specific attachments).

No equipment may be set up over the gas pipeline while operating. Ensure crane outriggers are at least 10 feet from the centerline of the gas pipeline. Transport trucks must not be parked over the gas pipeline while being loaded or unloaded.

4. Grading: PG&E requires a minimum of 36 inches of cover over gas pipelines (or existing grade if less) and a maximum of 7 feet of cover at all locations. The graded surface cannot exceed a cross slope of 1:4.

5. Excavating: Any digging within 2 feet of a gas pipeline must be dug by hand. Note that while the minimum clearance is only 24 inches, any excavation work within 24 inches of the edge of a pipeline must be done with hand tools. So to avoid having to dig a trench entirely with hand tools, the edge of the trench must be over 24 inches away. (Doing the math for a 24 inch

Pacific Gas and Electric Company

wide trench being dug along a 36 inch pipeline, the centerline of the trench would need to be at least 54 inches [24/2 + 24 + 36/2 = 54] away, or be entirely dug by hand.)

Water jetting to assist vacuum excavating must be limited to 1000 psig and directed at a 40° angle to the pipe. All pile driving must be kept a minimum of 3 feet away.

Any plans to expose and support a PG&E gas transmission pipeline across an open excavation need to be approved by PG&E Pipeline Services in writing PRIOR to performing the work.

6. Boring/Trenchless Installations: PG&E Pipeline Services must review and approve all plans to bore across or parallel to (within 10 feet) a gas transmission pipeline. There are stringent criteria to pothole the gas transmission facility at regular intervals for all parallel bore installations.

For bore paths that cross gas transmission pipelines perpendicularly, the pipeline must be potholed a minimum of 2 feet in the horizontal direction of the bore path and a minimum of 24 inches in the vertical direction from the bottom of the pipe with minimum clearances measured from the edge of the pipe in both directions. Standby personnel must watch the locator trace (and every ream pass) the path of the bore as it approaches the pipeline and visually monitor the pothole (with the exposed transmission pipe) as the bore traverses the pipeline to ensure adequate clearance with the pipeline. The pothole width must account for the inaccuracy of the locating equipment.

7-3, cont.

7. Substructures: All utility crossings of a gas pipeline should be made as close to perpendicular as feasible (90° +/- 15°). All utility lines crossing the gas pipeline must have a minimum of 24 inches of separation from the gas pipeline. Parallel utilities, pole bases, water line 'kicker blocks', storm drain inlets, water meters, valves, back pressure devices or other utility substructures are not allowed in the PG&E gas pipeline easement.

If previously retired PG&E facilities are in conflict with proposed substructures, PG&E must verify they are safe prior to removal. This includes verification testing of the contents of the facilities, as well as environmental testing of the coating and internal surfaces. Timelines for PG&E completion of this verification will vary depending on the type and location of facilities in conflict.

8. Structures: No structures are to be built within the PG&E gas pipeline easement. This includes buildings, retaining walls, fences, decks, patios, carports, septic tanks, storage sheds, tanks, loading ramps, or any structure that could limit PG&E's ability to access its facilities.

9. Fencing: Permanent fencing is not allowed within PG&E easements except for perpendicular crossings which must include a 16 foot wide gate for vehicular access. Gates will be secured with PG&E corporation locks.

10. Landscaping: Landscaping must be designed to allow PG&E to access the pipeline for maintenance and not interfere with pipeline coatings or other cathodic protection systems. No trees, shrubs, brush, vines, and other vegetation may be planted within the easement area. Only those plants, ground covers, grasses, flowers, and low-growing plants that grow unsupported to a maximum of four feet (4') in height at maturity may be planted within the easement area.

Pacific Gas and Electric Company

7-3, cont.

11. Cathodic Protection: PG&E pipelines are protected from corrosion with an "Impressed Current" cathodic protection system. Any proposed facilities, such as metal conduit, pipes, service lines, ground rods, anodes, wires, etc. that might affect the pipeline cathodic protection system must be reviewed and approved by PG&E Corrosion Engineering.

12. Pipeline Marker Signs: PG&E needs to maintain pipeline marker signs for gas transmission pipelines in order to ensure public awareness of the presence of the pipelines. With prior written approval from PG&E Pipeline Services, an existing PG&E pipeline marker sign that is in direct conflict with proposed developments may be temporarily relocated to accommodate construction work. The pipeline marker must be moved back once construction is complete.

13. PG&E is also the provider of distribution facilities throughout many of the areas within the state of California. Therefore, any plans that impact PG&E's facilities must be reviewed and approved by PG&E to ensure that no impact occurs which may endanger the safe operation of its facilities.

Pacific Gas and Electric Company

Attachment 2 – Electric Facilities

It is PG&E's policy to permit certain uses on a case by case basis within its electric transmission fee strip(s) and/or easement(s) provided such uses and manner in which they are exercised, will not interfere with PG&E's rights or endanger its facilities. Some examples/restrictions are as follows:

1. Buildings and Other Structures: No buildings or other structures including the foot print and eave of any buildings, swimming pools, wells or similar structures will be permitted within fee strip(s) and/or easement(s) areas. PG&E's transmission easement shall be designated on subdivision/parcel maps as "**RESTRICTED USE AREA – NO BUILDING.**"

2. Grading: Cuts, trenches or excavations may not be made within 25 feet of our towers. Developers must submit grading plans and site development plans (including geotechnical reports if applicable), signed and dated, for PG&E's review. PG&E engineers must review grade changes in the vicinity of our towers. No fills will be allowed which would impair ground-to-conductor clearances. Towers shall not be left on mounds without adequate road access to base of tower or structure.

3. Fences: Walls, fences, and other structures must be installed at locations that do not affect the safe operation of PG&'s facilities. Heavy equipment access to our facilities must be maintained at all times. Metal fences are to be grounded to PG&E specifications. No wall, fence or other like structure is to be installed within 10 feet of tower footings and unrestricted access must be maintained from a tower structure to the nearest street. Walls, fences and other structures proposed along or within the fee strip(s) and/or easement(s) will require PG&E review; submit plans to PG&E Centralized Review Team for review and comment.

7-3, cont.

4. Landscaping: Vegetation may be allowed; subject to review of plans. On overhead electric transmission fee strip(s) and/or easement(s), trees and shrubs are limited to those varieties that do not exceed 10 feet in height at maturity. PG&E must have access to its facilities at all times, including access by heavy equipment. No planting is to occur within the footprint of the tower legs. Greenbelts are encouraged.

5. Reservoirs, Sumps, Drainage Basins, and Ponds: Prohibited within PG&E's fee strip(s) and/or easement(s) for electric transmission lines.

6. Automobile Parking: Short term parking of movable passenger vehicles and light trucks (pickups, vans, etc.) is allowed. The lighting within these parking areas will need to be reviewed by PG&E; approval will be on a case by case basis. Heavy equipment access to PG&E facilities is to be maintained at all times. Parking is to clear PG&E structures by at least 10 feet. Protection of PG&E facilities from vehicular traffic is to be provided at developer's expense AND to PG&E specifications. Blocked-up vehicles are not allowed. Carports, canopies, or awnings are not allowed.

7. Storage of Flammable, Explosive or Corrosive Materials: There shall be no storage of fuel or combustibles and no fueling of vehicles within PG&E's easement. No trash bins or incinerators are allowed.

Pacific Gas and Electric Company

7-3, cont.

8. Streets and Roads: Access to facilities must be maintained at all times. Street lights may be allowed in the fee strip(s) and/or easement(s) but in all cases must be reviewed by PG&E for proper clearance. Roads and utilities should cross the transmission easement as nearly at right angles as possible. Road intersections will not be allowed within the transmission easement.

9. Pipelines: Pipelines may be allowed provided crossings are held to a minimum and to be as nearly perpendicular as possible. Pipelines within 25 feet of PG&E structures require review by PG&E. Sprinklers systems may be allowed; subject to review. Leach fields and septic tanks are not allowed. Construction plans must be submitted to PG&E for review and approval prior to the commencement of any construction.

10. Signs: Signs are not allowed except in rare cases subject to individual review by PG&E.

11. Recreation Areas: Playgrounds, parks, tennis courts, basketball courts, barbecue and light trucks (pickups, vans, etc.) may be allowed; subject to review of plans. Heavy equipment access to PG&E facilities is to be maintained at all times. Parking is to clear PG&E structures by at least 10 feet. Protection of PG&E facilities from vehicular traffic is to be provided at developer's expense AND to PG&E specifications.

12. Construction Activity: Since construction activity will take place near PG&E's overhead electric lines, please be advised it is the contractor's responsibility to be aware of, and observe the minimum clearances for both workers and equipment operating near high voltage electric lines set out in the High-Voltage Electrical Safety Orders of the California Division of Industrial Safety (https://www.dir.ca.gov/Title8/sb5g2.html), as well as any other safety regulations. Contractors shall comply with California Public Utilities Commission General Order 95 (http://www.cpuc.ca.gov/gos/GO95/go_95_startup_page.html) and all other safety rules. No construction may occur within 25 feet of PG&E's towers. All excavation activities may only commence after 811 protocols has been followed.

Contractor shall ensure the protection of PG&E's towers and poles from vehicular damage by (installing protective barriers) Plans for protection barriers must be approved by PG&E prior to construction.

13. PG&E is also the owner of distribution facilities throughout many of the areas within the state of California. Therefore, any plans that impact PG&E's facilities must be reviewed and approved by PG&E to ensure that no impact occurs that may endanger the safe and reliable operation of its facilities.

LETTER 7: PACIFIC GAS AND ELECTRIC COMPANY

Response to Comment 7-1

The comment is an introduction to the comment letter and does not address the adequacy of the Draft EIR. The comment has been noted for the record and provided to the decision-makers for their consideration.

Response to Comment 7-2

The comment is an attached notice for public comment on the Draft EIR provided by El Dorado County, and thus, a response to the comment is not required.

Response to Comment 7-3

The comment provides background information regarding applicable requirements related to Pacific Gas and Electric Co. (PG&E) facilities and easements and does not specifically address the adequacy of the Draft EIR. As discussed on page 4.13-7 in Chapter 13, Utilities and Service Systems, of the Draft EIR, PG&E currently operates electric transmission and distribution facilities within easements on the project site. The existing 80-foot PG&E easement runs diagonally east-to-west in the southern portion of the project site. The proposed project would not result in any activities which would disrupt or prevent access to the existing PG&E easements. The design of the proposed project would comply with all applicable specifications referenced by the commenter.

Letter 8

From: Newell, Justin <J2NF@pge.com>
Sent: Wednesday, August 14, 2024 10:04 AM
To: PL-Town and Country Village El Dorado
Subject: RE: Notice of Availability: Draft Environmental Impact Report for Town and Country Village El Dorado Project -File NosGPA22-0003, SP-R21-0002, Z21-0013, PD21-0005, TM22-0005 & CUP23-0008
Attachments: PG&E Impact Letter 8-14-2024.pdf

Follow Up Flag: Follow up
Flag Status: Flagged

Classification: Internal

Hello,

8-1 Please see the attached response regarding the Town and Country Village El Dorado Project. Please review and contact me with any questions.

Thank you,

Justin Newell | Land Agent | Property Management
Pacific Gas and Electric Company
916-594-4068
Pacific Gas and Electric Company.

Click here to access the PG&E Greenbook
Click here to Submit an Application
Click here to access Customer Connections Online

From: PGE Plan Review
Sent: Tuesday, July 30, 2024 10:49 AM
To: PL-Town and Country Village El Dorado <TownandCountryElDorado@edcgov.us>
Subject: RE: Notice of Availability: Draft Environmental Impact Report for Town and Country Village El Dorado Project - File NosGPA22-0003, SP-R21-0002, Z21-0013, PD21-0005, TM22-0005 & CUP23-0008

Dear Town and Country El Dorado,

8-2 Thank you for submitting the Town and Country Village El Dorado Project plans. The PG&E Plan Review Team is currently reviewing the information provided. Should this project have the potential to interfere with PG&E's facilities, we intend to respond to you with project specific comments. Attached is some general information when working near PG&E facilities that must be adhered to when working near PG&E's facilities and land rights.

This email and attachment does not constitute PG&E's consent to use any portion of PG&E's land rights for any purpose not previously conveyed. If there are subsequent modifications made to your design, we ask that you resubmit the plans to the email address listed below.

If you have any questions regarding our response, please contact the PG&E Plan Review Team at pgeplanreview@pge.com.

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Thank you,

Pacific Gas and Electric Company
Plan Review Team
Email: pgeplanreview@pge.com

From: PL-Town and Country Village El Dorado <TownandCountryElDorado@edcgov.us>
Sent: Friday, July 26, 2024 10:21 AM
Subject: Notice of Availability: Draft Environmental Impact Report for Town and Country Village El Dorado Project -File NosGPA22-0003, SP-R21-0002, Z21-0013, PD21-0005, TM22-0005 & CUP23-0008

CAUTION: EXTERNAL SENDER!

This email was sent from an EXTERNAL source. Do you know this person? Are you expecting this email? Are you expecting any links or attachments? If suspicious, do not click links, open attachments, or provide credentials. Don't delete it. **Report it by using the "Report Phish" button.**

To all Concerned Agencies and Interested Parties:

Please see the attached Notice of Availability (NOA) for the Town and Country Village El Dorado Project. The El Dorado County Planning and Building Department-Planning Division, as the Lead Agency, prepared a Draft Environmental Impact Report (DEIR) for the Town and Country Village El Dorado Project (proposed project). The DEIR has been prepared in accordance with the California Environmental Quality Act (CEQA) (Public Resources Code [PRC] Sections 2100 et seq. and the CEQA Guidelines (14 California Code of Regulations [CCR] Sections 1500 et seq).

8-3

The DEIR is available for public and agency review for a 45-day period **beginning July 26, 2024, and ending on September 9, 2024.** The purpose of the comment period is to consider the content of the DEIR and the potential environmental impacts that may result from project implementation, not the merits of the proposed project itself. Comments pertaining to the environmental impact analysis, criteria and thresholds, mitigation measures, and alternatives presented in the DEIR will be considered by the County during preparation of the Final EIR. The Final EIR will include copies of the comments and the County's responses to comments pertaining to the environmental review and DEIR.

PROVIDING COMMENTS: El Dorado County is soliciting written comments from public agencies, organizations, tribes, and individuals regarding the environmental document. All comments should be provided **no later than 5:00 p.m. on September 9, 2024.** Please send written comments to: El Dorado County Development Services Department-Planning Services, Attention: Ande Flower, 2850 Fairlane Court, Placerville, CA 95667 or via email TownAndCountryElDorado@edcgov.us.

WARNING: This email and any attachments may contain private, confidential, and privileged material for the sole use of the intended recipient. Any unauthorized review, copying, or distribution of this email (or any attachments) by other than the intended recipient is strictly prohibited. If you are not the intended

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recipient, please contact the sender immediately and permanently delete the original and any copies of this email and any attachments.

You can read about PG&E's data privacy practices at PGE.com/privacy.

Pacific Gas and Electric Company

Plan Review Team
Land Management

PGEPlanReview@pge.com

August 14, 2024

El Dorado Planning & Building Department
2850 Fairlane Court
Placerville, CA 95667

Re: Town and Country Village El Dorado Project

Dear El Dorado Planning & Building Department:

Thank you for giving us the opportunity to review the subject plans. The proposed Town and Country Village El Dorado Project is within the same vicinity of PG&E's existing facilities that impact this property.

PG&E has no comment one the adequacy or the draft Environment Impact Report. However, the draft Environment Impact Report makes note of PG&E's existing electric transmission easement within the boundary of the Town and Country Village El Dorado Project. The applicant is to ensure the development of the Town and Country Village El Dorado Project within PG&E's electric transmission easement complies with the existing easement language and the attached guidelines for projects near PG&E electric facilities. The applicant is to provide development plans to PG&E's Plan Review Team for comment when they are available. The applicant may contact PG&E's Plan Review Team via email at PGEPlanReview@pge.com.

8-4

Please contact the Building and Renovation Center (BRSC) for facility map requests by calling 1-877-743-7782 and PG&E's Service Planning department at www.pge.com/cco for any modification or relocation requests, or for any additional services you may require.

As a reminder, before any digging or excavation occurs, please contact Underground Service Alert (USA) by dialing 811 a minimum of 2 working days prior to commencing any work. This free and independent service will ensure that all existing underground utilities are identified and marked on-site.

If you have any questions regarding our response, please contact me at Justin.Newell@pge.com.

Sincerely,

Justin Newell
Land Management
916-594-4068

PG&E Gas and Electric Facilities Page 1

Pacific Gas and Electric Company

Plan Review Team
Land Management

PGEPlanReview@pge.com

Electric Facilities

It is PG&E's policy to permit certain uses on a case by case basis within its electric transmission fee strip(s) and/or easement(s) provided such uses and manner in which they are exercised, will not interfere with PG&E's rights or endanger its facilities. Some examples/restrictions are as follows:

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2. Grading: Cuts, trenches or excavations may not be made within 25 feet of our towers. Developers must submit grading plans and site development plans (including geotechnical reports if applicable), signed and dated, for PG&E's review. PG&E engineers must review grade changes in the vicinity of our towers. No fills will be allowed which would impair ground-to-conductor clearances. Towers shall not be left on mounds without adequate road access to base of tower or structure.

3. Fences: Walls, fences, and other structures must be installed at locations that do not affect the safe operation of PG&'s facilities. Heavy equipment access to our facilities must be maintained at all times. Metal fences are to be grounded to PG&E specifications. No wall, fence or other like structure is to be installed within 10 feet of tower footings and unrestricted access must be maintained from a tower structure to the nearest street. Walls, fences and other structures proposed along or within the fee strip(s) and/or easement(s) will require PG&E review; submit plans to PG&E Centralized Review Team for review and comment.

8-5

4. Landscaping: Vegetation may be allowed; subject to review of plans. On overhead electric transmission fee strip(s) and/or easement(s), trees and shrubs are limited to those varieties that do not exceed 10 feet in height at maturity. PG&E must have access to its facilities at all times, including access by heavy equipment. No planting is to occur within the footprint of the tower legs. Greenbelts are encouraged.

5. Reservoirs, Sumps, Drainage Basins, and Ponds: Prohibited within PG&E's fee strip(s) and/or easement(s) for electric transmission lines.

6. Automobile Parking: Short term parking of movable passenger vehicles and light trucks (pickups, vans, etc.) is allowed. The lighting within these parking areas will need to be reviewed by PG&E; approval will be on a case by case basis. Heavy equipment access to PG&E facilities is to be maintained at all times. Parking is to clear PG&E structures by at least 10 feet. Protection of PG&E facilities from vehicular traffic is to be provided at developer's expense AND to PG&E specifications. Blocked-up vehicles are not allowed. Carports, canopies, or awnings are not allowed.

7. Storage of Flammable, Explosive or Corrosive Materials: There shall be no storage of fuel or combustibles and no fueling of vehicles within PG&E's easement. No trash bins or incinerators are allowed.

8. Streets and Roads: Access to facilities must be maintained at all times. Street lights may be allowed in the fee strip(s) and/or easement(s) but in all cases must be reviewed by PG&E for

Pacific Gas and Electric Company

proper clearance. Roads and utilities should cross the transmission easement as nearly at right angles as possible. Road intersections will not be allowed within the transmission easement.

9. Pipelines: Pipelines may be allowed provided crossings are held to a minimum and to be as nearly perpendicular as possible. Pipelines within 25 feet of PG&E structures require review by PG&E. Sprinklers systems may be allowed; subject to review. Leach fields and septic tanks are not allowed. Construction plans must be submitted to PG&E for review and approval prior to the commencement of any construction.

10. Signs: Signs are not allowed except in rare cases subject to individual review by PG&E.

11. Recreation Areas: Playgrounds, parks, tennis courts, basketball courts, barbecue and light trucks (pickups, vans, etc.) may be allowed; subject to review of plans. Heavy equipment access to PG&E facilities is to be maintained at all times. Parking is to clear PG&E structures by at least 10 feet. Protection of PG&E facilities from vehicular traffic is to be provided at developer's expense AND to PG&E specifications.

8-5, cont.

12. Construction Activity: Since construction activity will take place near PG&E's overhead electric lines, please be advised it is the contractor's responsibility to be aware of, and observe the minimum clearances for both workers and equipment operating near high voltage electric lines set out in the High-Voltage Electrical Safety Orders of the California Division of Industrial Safety (https://www.dir.ca.gov/Title8/sb5g2.html), as well as any other safety regulations. Contractors shall comply with California Public Utilities Commission General Order 95 (http://www.cpuc.ca.gov/gos/GO95/go_95_startup_page.html) and all other safety rules. No construction may occur within 25 feet of PG&E's towers. All excavation activities may only commence after 811 protocols has been followed.

Contractor shall ensure the protection of PG&E's towers and poles from vehicular damage by (installing protective barriers) Plans for protection barriers must be approved by PG&E prior to construction.

13. PG&E is also the owner of distribution facilities throughout many of the areas within the state of California. Therefore, any plans that impact PG&E's facilities must be reviewed and approved by PG&E to ensure that no impact occurs that may endanger the safe and reliable operation of its facilities.

LETTER 8: PACIFIC GAS AND ELECTRIC COMPANY

Response to Comment 8-1
The comment is an introduction to the comment letter and does not address the adequacy of the Draft EIR. The comment has been noted for the record and provided to the decision-makers for their consideration.

Response to Comment 8-2
The comment is an introduction to the comment letter and does not address the adequacy of the Draft EIR. The comment has been noted for the record and provided to the decision-makers for their consideration.

Response to Comment 8-3
The comment is an attached notice for public comment on the Draft EIR provided by El Dorado County, and thus, a response to the comment is not required.

Response to Comment 8-4
The comment provides background information regarding applicable requirements related to Pacific Gas and Electric Co. (PG&E) facilities and easements and does not specifically address the adequacy of the Draft EIR. As discussed on page 4.13-7 in Chapter 13, Utilities and Service Systems, of the Draft EIR, PG&E currently operates electric transmission and distribution facilities within easements on the project site. The existing 80-foot PG&E easement runs diagonally east-to-west in the southern portion of the project site. The proposed project would not result in any activities which would disrupt or prevent access to the existing PG&E easements. The design of the proposed project would comply with all applicable specifications referenced by the commenter.

Response to Comment 8-5
Please see Response to Comment 8-4.

Letter 9

CENTER for BIOLOGICAL DIVERSITY

June 28, 2024

Sent via email

Ande Flower
El Dorado County Planning and Building Department
Planning Division
2850 Fairlane Court
Placerville, CA 95667
TownAndCountryElDorado@edcgov.us

Re: Town and Country Village El Dorado Project and Associated DEIR

Dear Ande Flower:

These comments are submitted on behalf of the Center for Biological Diversity (the "Center") regarding the Town and Country Village El Dorado Project and Associated DEIR ("Plan"). The Center recommends several amendments outlined below to ensure the project's impacts to special status species, wildlife connectivity, and community health are accurately assessed or sufficiently mitigated.

9-1

The Center is a non-profit, public interest environmental organization dedicated to the protection of native species and their habitats through science, policy, and environmental law. The Center has over 1.7 million members and online activists throughout California and the United States. The Center and its members have worked for many years to protect imperiled plants and wildlife, open space, air and water quality, and overall quality of life in the City of Monterey and the surrounding region.

I. The DEIR's Analysis of and Mitigation for the Project's Impacts to Biological Resources Is Inadequate.

The DEIR fails to adequately assess and mitigate the Project's impacts to special status species, important habitats, and wildlife connectivity. The DEIR fails to accurately analyze baseline conditions for numerous important species, including vernal pool fairy shrimp, burrowing owl and mountain lion. Further, the DEIR's proposed mitigation measures to significant and unavoidable impacts do not meet the CEQA standard. In numerous instances described below, the DEIR's finding that impacts to biological resources will be mitigated to less than significant is unsubstantiated and fails to meet CEQA's requirements. Additionally, the DEIR incorrectly minimizes the Project area's importance to local and regional wildlife connectivity and fails to mitigate impacts to this important ecological function.

9-2

A. The DEIR's Biological Surveys are Inadequate to Establish Baseline Conditions

The MND's wildlife surveys are grossly inadequate to establish a reliable baseline of existing environmental conditions present at the Project site. Under CEQA, an environmental review document must evaluate the potential environmental impacts of the project as compared to the existing environmental conditions (the "baseline"), so that the Project's impacts can be meaningfully analyzed and compared to alternatives. (*CEQA Guidelines* § 15125(a); *see County of Amador v. El Dorado County Water Agency* (1999) 76 Cal.App.4th 931, 952; *Neighbors for Smart Rail v. LA County Metropolitan Transit Authority* (2013) 57 Cal.4th 310, 315.) The evidence provided in the DEIR's impact analysis of biological resources does not meet this standard. 9-3

General biological surveys often do not detect cryptic, fossorial, migratory, aestivating, or nocturnal wildlife species. Such species with suitable habitat in the Project area could be permanently or periodically present, even if not observed during a general biological survey. Targeted surveys are necessary to assess the presence of these species. However, targeted surveys were not performed for several species, including vernal pool fairy shrimp ("fairy shrimp") or burrowing owl, or the five species of bat potentially present in the area. Several species of special concern that occur in the area and may occur within the Project site were completely omitted from analysis (mountain lion and American badger). 9-4

B. The DEIR Fails to Address Mountain Lion, a specially protected species

The DEIR fails to adequately describe, assess, and mitigate impacts to the mountain lions (*Puma concolor*). Despite being a special-status species known to occur in and near the Project Area, the DEIR fails to even mention mountains lions at all. 9-5

Mountain lions are a key indicator species of wildlife connectivity and healthy ecosystems. As the last remaining wide-ranging top predator in the region, the ability to move through large swaths of interconnected habitat is vital for genetic connectivity and their long-term survival. In addition, impacts to mountain lions in the region could have severe ecological consequences; loss of the ecosystem engineer could have ripple effects on other plant and animal species, potentially leading to a decrease in biodiversity and diminished overall ecosystem function. Many scavengers, including California condors, kit foxes, raptors, and numerous insects, would lose a reliable food source (Barry et al., 2019; Ruth & Elbroch, 2014). Fish, birds, amphibians, reptiles, rare native plants, and butterflies would potentially diminish if this apex predator were lost (Ripple et al., 2014; Ripple & Beschta, 2006, 2008). In fact, a recent literature review found that mountain lions are important ecosystem engineers and have been documented to have ecological interactions with at least 485 plant and animal species (Labarge et al., 2022). 9-6

The Project's impacts to mountain lions extend beyond its physical footprint. There is plenty of evidence documenting the effects of human activity specifically on mountain lions. One study found that mountain lions are so fearful of humans and noise generated by humans that they will abandon the carcass of a deer and forgo the feeding opportunity just to avoid 9-7

humans (Smith et al., 2017). The study concluded that even "non-consumptive forms of human disturbance may alter the ecological role of large carnivores by affecting the link between these top predators and their prey" (Smith et al., 2017). In addition, mountain lions have been found to respond fearfully upon hearing human vocalizations, avoiding the area and moving more cautiously when hearing humans (Smith et al., 2017; Suraci et al., 2019). Other studies have demonstrated that mountain lion behavior is negatively affected when exposed to other evidence of human presence, such as lighting or vehicles/traffic (Smith et al., 2015; Wang et al., 2017; Wilmers et al., 2013). 9-7 cont.

Yovovich et al. (2020) further documented the impacts of human activities on local mountain lions, specifically on communication and reproductive behaviors important for their survival. Males use scrapes to delineate territories as well as attract potential mates (Allen et al., 2015, 2016), and the males in the study preferred to use relatively flat areas away from human influence as scrape habitat (Yovovich et al., 2020). Similarly, when nursing females (with kittens less than 8 weeks old) shrank their home ranges to an average of 9 km^2 while their young were most vulnerable, they also selected undeveloped lands away from human disturbance, opting for habitat with protective cover and sufficient water and prey availability (Yovovich et al., 2020). The loss of adequate undisturbed communication and nursery habitat could disrupt important communication and reproductive behaviors that facilitate social structure and overall survival. Thus, continued habitat loss and fragmentation due to roads and development like the proposed Project that extend into mountain lion habitat with little regard for their movement and behavioral needs threaten the long-term survival of local mountain lions. 9-8

In a study that investigated the drivers of fine-scale movement decisions by pumas in fragmented landscapes in the Santa Cruz Mountains, Suraci et al. (2020) identified that mountain lions prefer larger habitat patches that are closer together and further away from buildings, and they preferred shrub over tree patches. However, mountain lions were willing to accept higher densities of anthropogenic features if target habitat patch areas were larger or the distance between patches was shorter (Suraci et al., 2020). In addition, pumas were found to travel longer distances through open habitats to access larger habitat patches, perhaps for more protective cover and/or for better hunting opportunities within the larger habitat patch areas (Suraci et al., 2020). These findings corroborate those of Smith et al. (2019), which found that pumas are able to move through partially developed habitat, though they are less likely to move through parcels with higher densities compared to parcels with less dense housing in and around the parcels. In fact, puma avoidance increased sharply as housing density increased up to 41 houses/km^2, after which avoidance remained high. Although these studies demonstrate that mountain lions have some tolerance of human presence, they more importantly highlight the negative impacts of increased human use/density on the movement and survival of mountain lions and the importance of habitat connectivity among large, intact, heterogeneous habitat patches. The proposed Project would substantially increase human activity in the area while destroying, degrading, and further fragmenting suitable mountain lion habitat. 9-9

The DEIR must adequately disclose, assess, and, if needed, mitigate the Project's impacts to mountain lions. 9-10

C. The DEIR Fails to Address American Badger, a Species of Special Concern

The DEIR fails to adequately assess and mitigate the Project's impacts to American badgers. Despite being a special-status species known to occur in and near the Project area, the DEIR fails to even mention American badger at all. 9-11

The American badger is a wide-ranging mesocarnivore. A study of American badgers in Monterey, CA found that badger home ranges varied from 1 km^2 to 25 km^2 (Quinn, 2008), and the species is also particularly sensitive to fragmentation (Crooks, 2002). American badgers occur throughout much of the state, including El Dorado County. The species occurs in a wide variety of open, arid habitats, including grasslands, which make up the majority of the Project area. It is therefore likely that suitable denning and foraging habitat is present in the Project area. 9-12

Surveys for American badgers must be conducted in the Project site, and if evidence of American badgers is found, mitigation measures must be developed. Mitigation must include pre-construction surveys, den avoidance measures, and environmental awareness training. Additionally, the permanent destruction and alteration of suitable American badger habitat due to the proposed Project would potentially impact connectivity for the species within El Dorado County, and must be mitigated. 9-13

D. The DEIR's mitigation for Burrowing Owl, a Species of Special Concern, Is Insufficient

Burrowing owls in El Dorado County are part of the Middle Central Valley population, which was petitioned for threatened status under CESA earlier this year (Miller, 2024). Burrowing owls in this region are declining due to a high rate of habitat destruction and fragmentation resulting from development pressures in the region. 9-14

The DEIR notes that suitable habitat occurs in the Project area. Focused surveys were not conducted, so it is unclear whether burrowing owls are present in the Project area. In this regard, the DEIR fails to accurately describe baseline conditions at the Project site. The DEIR should include targeted burrowing owl surveys conducted by USFWS- or CDFW-approved biologists following CDFW and USFWS protocols to properly assess burrowing owl presence in the Project area. 9-15

Importantly, burrowing owls have been spotted in the vicinity (DEIR at 4.3-23). Mitigation Measure 4.3-7 requires preconstruction burrowing owl surveys, and the implementation of a 100-foot buffer if raptors (presumably including owls) are detected (DEIR at 4.3-53). However, this is not enough to ensure that the Project does not significantly impact burrowing owls. The California Department of Fish and Wildlife recommends numerous additional mitigation measures, including the development of a Burrowing Owl Exclusion Plan as well as securing and permanently protecting mitigation lands to mitigate for loss of habitat *before* any activities that may impact burrowing owls begin (State of California Department of Fish and Game, 2012). The DEIR fails to adhere to best practices regarding burrowing owl surveys and mitigation. 9-16

An alternatives analysis should be performed and if burrowing owls are identified on the site, at least one alternative should evaluate the reduction of impacts to this rare species by moving the project away from the nesting burrows. Additionally, acquisition lands should be required as part of the mitigation to compensate for loss of nesting and foraging habitat and will need to be managed in perpetuity for conservation. Mitigation lands should be high-quality habitat and, at minimum 5:1 mitigation should be provided of all acres of burrowing owl habitat destroyed. 9-17

E. The DEIR Fails to Adequately Assess and Mitigate Impacts to Nesting Birds and Raptors

The DEIR fails to adequately assess and mitigate impacts to resident and migratory birds. The habitats in the Project area, including oak woodland, grassland, and riparian corridors, provide significant food resources and shelter to resident and migratory birds. The DEIR includes Mitigation Measures 4.3-7 to minimize impacts to birds, which mandates pre-construction nesting surveys and the establishment of construction buffers around nests (DEIR at 4.3-52, 53). However, these mitigation measures do not account for the ongoing impacts that will result from the proposed Project both during construction and after completion, both for nesting birds as well as other resident and migratory birds that may use the Project area for foraging or temporary habitat. 9-18

As discussed in more detail below, edge effects like noise and light from Project construction and operation will have impacts on wildlife and wildlife movement. Negative edge effects from human activity, traffic, lighting, noise, domestic pets, pollutants, and invasive weeds have been found to be biologically significant up to 300 meters (~1000 feet) away from anthropogenic features in terrestrial systems (Environmental Law Institute, 2003). This is important to consider when open space is immediately adjacent to the Project Area, as birds and other wildlife have been found to be sensitive to edge effects. For example, field observations and controlled laboratory experiments have shown that traffic noise can significantly degrade habitat value for migrating songbirds (Ware et al., 2015). Subjects exposed to 55 and 61 dBA (simulated traffic noise) exhibited decreased feeding behavior and duration, as well as increased vigilance behavior (Ware et al., 2015). Such behavioral shifts increase the risk of starvation, thus decreasing survival rates. Another study found a 28% decrease in bird abundance in areas when traffic noise was present compared to when there was no traffic noise (McClure et al., 2013). The DEIR's conclusion that impacts to nesting birds and raptors is less than significant with mitigation ignores the impacts of edge effects and habitat, which should be considered significant. 9-19

F. The DEIR's Proposed Mitigation for Vernal Pool Fairy Shrimp is Inadequate and Improperly Deferred

As discussed above, the DEIR does not provide sufficient information to determine whether fairy shrimp are present in suitable habitat that occurs in the Project area, thereby failing 9-20

to provide an accurate baseline and or adequately analyze potential impacts. This gap in the DEIR violates CEQA. (see *CEQA Guidelines* §15125(a).). For Mitigation Measure 4.3-3, the DEIR states that "The project applicant may choose to conduct surveys for vernal pool fairy shrimp prior to initiation of any ground disturbance activities within the Project Development Area and/or Sewer Alternative 2; any such surveys shall be conducted in accordance with the Survey Guidelines for the Listed Large Branchiopods (USFWS 2017). If protocol-level surveys of the on-site depressional seasonal wetlands are not conducted, or if vernal pool fairy shrimp are found during protocol-level wet- or dry-season surveys of the features, then the project proponent or the USACE (depending on the regulatory mechanism) shall consult with the USFWS regarding impacts to vernal pool fairy shrimp associated with the project." (DEIR at 4.3-44). This section appears to suggest that if surveys are not conducted, presence is assumed; but this must be clarified in the DEIR. Additionally, to present an accurate baseline of existing conditions in the project site, as required by CEQA, targeted surveys must be *required*. 9-20 cont.

Further, the proposed mitigation for fairy shrimp is improperly deferred. Mitigation Measure 4.3-3 states only that the Applicant will comply with any required take authorization from the USFWS, conditions of which "may include but will not be limited to fencing off avoided habitat, worker awareness trainings, preservation, restoration, or enhancement of habitat on- or off-site to compensate for indirect and/or direct effects; purchase of habitat credits from an agency approved mitigation/conservation bank; working with a local land trust to preserve land; or any other method acceptable to USFWS." (DEIR at 4.3-44). However, many of these options would require significantly more detail to guarantee success. For example, preservation, restoration or enhancement of habitat on-site would impact the development plans, while such activities offsite would require a dedicated partner organization and/or identification of specific restoration areas, none of which is provided in the DEIR. 9-21

This improperly deferred mitigation violates CEQA. (see *San Joaquin Raptor Rescue Center v. County of Merced* (2007) 149 Cal.App.4th 645, 670 [EIR inadequate where the success or failure of mitigation efforts "may largely depend upon management plans that have not yet been formulated and have not been subject to analysis and review within the EIR"]). In the limited circumstances in which deferred mitigation is appropriate, the agency must meet all of the following elements: (1) practical considerations prevented the formulation of mitigation measures during the planning process; (2) the agency committed itself to developing mitigation measures in the future; (3) the agency adopted specific performance criteria prior to project approval; and (4) the EIR lists the mitigation measures to be considered, analyzed, and possibly incorporated into the mitigation plan. (See *POET, LLC v. State Air Resources Bd.* (2013) 218 Cal.App.4th 681, 736-37 [review denied].) Here, the DEIR fails to meet these criteria. The lack of adequate details provided in the Mitigation Measure 4.3-3 does not allow the public and decisionmakers to evaluate the mitigation measures being taken and therefore does not meet CEQA's requirements.. 9-22

G. The DEIR Fails to Adequately Analyze and Mitigate Impacts to Bats

Bats are important members of California's ecosystems. Bats contribute to the maintenance of environmental stability through ecosystem services including insect pest control, pollination, seed dispersal, and production of guano as plant fertilize (Ramírez-Fráncel et al., 2022). Numerous bat species are experiencing declines and are at risk of extirpation in California due to habitat loss, fragmentation, and degradation, light, noise, and chemical pollution, and human disturbance, among other factors (H.T. Harvey and Associates & HDR, Inc., 2019) 9-23

The DEIR notes that "pallid bat, silver-haired bat, Townsend's big-eared bat, and hoary bat all have high potential to occur within the study area, and western red bat has moderate potential to occur." (DEIR at 4.3-53). However, the DEIR does not conduct any surveys for bats. Rather, the DEIR improperly defers such surveys, failing to provide an accurate representation of existing conditions (DEIR at 4.3-54). 9-24

The only proposed mitigation included in the DEIR is pre-construction surveys and roost exclusion if bats are found. This mitigation fails to take into account the impact of the Project on foraging bats, despite the presence of suitable foraging habitat that would be destroyed as a result of Project development. Thus, the loss of habitat due to development in the Project area will significantly impact native bats. 9-25

Further, the DEIR fails to assess impacts to potential roosting habitat surrounding the Project site, which would also be impacted by the proposed Project and associated human use and activities. The DEIR, therefore, fails to properly analyze and mitigate impacts to bats. 9-26

H. The DEIR's Proposed Mitigation for Oak Woodland is Insufficient and Improperly Deferred.

Oak woodlands provide valuable habitat and connectivity for a wide variety of California's native species, including 2,000 plants, 5,000 insects and arachnids, 80 amphibians and reptiles, 160 birds, and 80 mammals (Bernhardt & Swiecki, 2001; Jedlicka et al., 2014; Lawrence et al., 2011; Meadows, 2007; Tietje et al., 2015). They are also important for many ecosystem services that communities rely on for safety and economic stability, including water quality protection, carbon sequestration, erosion control, and soil retention (Brown & Krygier, 1970; Elliot, 2010; Jedlicka et al., 2014; Lawrence et al., 2011; Moyle et al., 2011; Pan et al., 2011). Reduced woodland cover has been shown to result in increased runoff (i.e., pollutants such as pesticides and fertilizers flowing into groundwater and surface waterways), erosion, sedimentation, and water temperatures; changes in channel morphology; decreased soil retention and fertility; and decreased terrestrial and aquatic biodiversity (Brown & Krygier, 1970; Dahlgren et al., 2003; Elliot, 2010; Houlahan & Findlay, 2004; Jedlicka et al., 2014; Lawrence et al., 2011; Lohse et al., 2008; Moyle et al., 2011; Opperman et al., 2005; Pess et al., 2002; Zhang & Hiscock, 2011). In addition, woodlands are an important carbon sink that can help moderate the impacts of climate change (Padilla et al., 2010; Pan et al., 2011), and some researchers argue that at a global scale, trees are linked to increased precipitation and water availability (Ellison et al., 2012). 9-27

Removing more woodlands would reduce the area's ability to support biodiversity, including numerous special-status animals and plants (Moskow, 2021), and decrease capacity for storing and sequestering carbon. The DEIR's proposed mitigation for loss of oak woodland is insufficient and improperly deferred. The DEIR's primary mitigation measure for loss of oak woodlands is Mitigation Measure 4.3-13 (DEIR at 4.3-70), which lists numerous possible options, including in-lieu fee payment, off-site deed restriction or conservation easement, replacement planting on-site or off-site, or a combination. However, some of these mitigation measures would require significantly more detail to properly assess. For example, replacement plantings on-site would necessitate identification or appropriate planting areas, as well as a thorough replacement planting plan, with long-term monitoring and adaptive management. None of these are provided. 9-28

Further, successful oak replanting is also difficult to achieve. Survivorship is often extremely low. One study found only 19.2% of seedlings survived after 41 years, and noted that this level of survivorship was considered relatively high for oaks (Koenig & Knops, 2007). An assessment of 5,000+ acorns planted through the Acorns to Oaks program showed that only 17% of seedlings survived over the short time period from 2012-2019. Additionally, 7 years—which is the proposed monitoring period in the DEIR (at 3.3-41)—is not a sufficient monitoring window to determine success of oak plantings. Generally, scientists recommend 15-20 years or more of monitoring to determine the success, or lack thereof, of enhanced, restored, or created habitat (Mitsch & Wilson, 1996; Zedler & Callaway, 1999). Higher mitigation ratios coupled with extended years of effective monitoring and adaptive management strategies are needed to improve chances of successfully mitigating impacts (Ambrose et al., 2006; Moilanen et al., 2009; Sudol & Ambrose, 2002). Oaks in particular are extremely slow growing; for example, of 14 blue oaks that were planted and assessed after a 41-year period, only one successfully outgrew the sapling stage (Koenig & Knops, 2007). 9-29

The Project should prioritize *avoidance* of intrusion and impacts to sensitive habitats that support special-status species. Preservation and enhancement/creation are not a successful as avoidance because it is much more challenging to repair functionality to degraded ecosystems. The DEIR should follow the science and prioritize the preservation of existing oak woodland, either within or outside the Project site, over the uncertain and risky tree planting proposal. 9-30

Further, the DEIR must provide more details on potential conservation easements, restoration areas, or other mitigation measures to ensure that mitigation is executed successfully. 9-31

I. The DEIR's Proposed Mitigation for Riparian Areas and Wetlands is Insufficient and Improperly Deferred.

The DEIR fails to adequately describe or consider the best available science when discussing the Project area's aquatic resources. As described in the DEIR numerous ephemeral streams and wetlands occur throughout the Project area (DEIR Table 4.3-2). Despite the vast amount of science highlighting the importance of these aquatic resources and adjacent upland habitat to native plants and animals as well as water resources, the DEIR fails to adequately mitigate impacts to less than significant. Mitigation Measure 4.3-11 addresses the loss of 9-32

wetlands that would result from the Project, and only includes application for relevant permits. The DEIR claims that for these permits, "Waters that will be impacted shall be replaced or rehabilitated on a "no net-loss" basis." (DEIR 4.3-63), yet provides no detail on how habitat restoration, replacement or rehabilitation will be performed. Without any detail about where habitat may be restored, how it will be restored, and how restoration success will be assessed, it is impossible to determine whether such mitigation is sufficient. This improperly deferred mitigation does not allow the public and decisionmakers to evaluate the mitigation measures being taken, violating CEQA. 9-32 cont.

The DEIR also fails to establish appropriate setbacks for the Project. In fact, the DEIR makes no mention of setbacks at all. For wetlands that are not destroyed by the Project, proper setbacks are necessary to ensure that impacts to these remaining wetlands are not significant. In addition to providing habitat connectivity, buffer zones around aquatic habitats are essential to protect the County's high diversity of plants, fish, aquatic invertebrates, birds, amphibians, and reptiles. The streams (perennial and intermittent) and wetlands throughout the region support numerous special-status flora and fauna. Species that rely on these aquatic habitats also rely on the adjacent upland habitats (e.g., riparian areas along streams, grassland habitat adjacent to wetlands). In fact, 60% of amphibian species, 16% of reptiles, 34% of birds and 12% of mammals in the Pacific Coast ecoregion depend on riparian-stream systems for survival (Kelsey & West, 2001). According to Figure 4.3-6, it appears that proposed development in the northern section of the Project area generally lies within 100 feet of the ephemeral stream that runs east to west through the Project area, and in many areas is significantly closer. Such a small distance between development and the ephemeral stream means further impacts to the stream from development and human activity are extremely likely, and may further degrade sensitive habitat. 9-33

The DEIR should consider the best available science implement 300-foot setbacks from perennial and intermittent streams that support or have the potential to support special-status and/or sensitive species. Larger buffer zones along streams and wetlands provide more stream bank stabilization, water quality protection, groundwater recharge, and flood control both locally and throughout the watershed (Lovell & Sullivan, 2006; Nieswand et al., 1990; Norris, 1993; Sabater et al., 2000; Whipple Jr., 1993). Thus, the DEIR should require a minimum 300-foot buffer around remaining wetlands. The fact that the DEIR has failed to provide any details on buffers and setbacks for aquatic habitat is a gross oversight, and renders the DEIR insufficient. A 300-foot buffer should be the bare minimum; larger buffers should be implemented where possible. A literature review found that recommended buffers for wildlife often far exceeded 325 feet, well beyond the largest buffers implemented in practice (Fischer & Lindenmayer, 2000; Robins, 2002). The DEIR should consider the steps that need to be taken to protect potential habitat, while supporting the regional biodiversity by minimizing its impact on crucial wetland habitats and adjacent terrestrial habitats. 9-34

J. The DEIR Fails to Adequately Analyze and/or Mitigate the Project's Impacts to Wildlife Connectivity.

Habitat connectivity is vital for wildlife movement and biodiversity conservation. Limiting movement and dispersal with barriers (e.g., development, roads, or fenced-off croplands) can affect animals' behavior, movement patterns, reproductive success, and physiological state, which can lead to significant impacts on individual wildlife, populations, communities, and landscapes (Ceia-Hasse et al., 2018; Cushman, 2006; Haddad et al., 2015; Trombulak & Frissell, 2000; Van Der Ree et al., 2011). Individuals can die off, populations can become isolated, sensitive species can become locally extinct, and important ecological processes like plant pollination and nutrient cycling can be lost. In addition, connectivity between high quality habitat areas in heterogeneous landscapes is important to allow for range shifts and species migrations as climate changes (Cushman et al., 2013; Heller & Zavaleta, 2009). Lack of wildlife connectivity results in decreased biodiversity and degraded ecosystems. 9-35

The DEIR fails to adequately assess and mitigate the Project's impacts to wildlife connectivity. The DEIR states that "the potential wildlife corridor along the intermittent drainage in the northern portion of the project site is considered low-quality" (DEIR at 4.3-64), and that "extensive grasslands will still be available to the west of the Project Development Area, and some grasslands would still be present to the east, and as a result, substantial impacts to deer movement are not anticipated." (DEIR at 4.3-64). However, these vague statements and unsupported conclusions do not sufficiently address the impacts of the habitat loss or edge effects that will result from the proposed Project, which will impair wildlife connectivity. 9-36

The DEIR also fails to mention the area has been identified as CDFW as a "Connection with implementation flexibility," a designation for areas that have been identified as having connectivity importance, and it lies right next to a "Conservation Planning Linkage" to the west of the Project area (Figure 1), a designation which represents the best connections between core natural areas to maintain habitat connectivity.[1] Instead, the DEIR erroneously claims that impacts to wildlife connectivity would be less than significant: "the proposed project would not interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors" (DEIR at 4.3-64). 9-37

[1] California Department of Fish & Wildlife Areas of Conservation Emphasis (https://apps.wildlife.ca.gov/ace/)

Figure 1. Map of California Department of Fish and Wildlife's Areas of Conservation Emphasis tool centered on the Project site. Legend in bottom left.

Development in the Project Area would destroy and degrade habitat, expand wildlife barriers such as roads, increase traffic, light and noise pollution, introduce outdoor pets, and introduce significant human activity that would negatively affect wildlife movement through the area. The DEIR's failure to adequately describe and analyze the importance of the Project Area in local and regional connectivity misleads the public and decisionmakers about the full extent of the Project's impacts and fails to comply with CEQA. 9-38

Edge effects of development likely impact key, wide-ranging predators, such as mountain lions, bobcats, and American badgers (Crooks, 2002; Delaney et al., 2010; Lee et al., 2012; Riley et al., 2006; Smith et al., 2015, 2017; Vickers et al., 2015; Wang et al., 2017), as well as smaller species with smaller home ranges, such as song birds, bats and other small mammals, and herpetofauna (Benítez-López et al., 2010; Bunkley & Barber, 2015; Cushman, 2006; Delaney et al., 2010; Gray, 2017; Kociolek et al., 2011; McClure et al., 2013; Slabbekoorn & Ripmeester, 2008; Ware et al., 2015). Limiting movement and dispersal can affect species' ability to find food, shelter, mates, and refugia after disturbances like fires or floods. Individuals can die off, populations can become isolated, sensitive species can become locally extinct, and important ecological processes like plant pollination and nutrient cycling can be lost. Negative edge effects from human activity, such as domestic pets, pollutants, invasive weeds, and increased fire frequency, have been found to be biologically significant up to 300 meters (~1000 feet) away from anthropogenic features in terrestrial systems (Environmental Law Institute, 2003). 9-39 9-40

Effective, functional corridors are continuous (not fragmented by roads or other anthropogenic features like housing developments), wide enough to overcome edge effects, dominated by native vegetation, and have equal or higher habitat quality than core habitat 9-41

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patches (Bennett et al., 1994; Brooker et al., 1999; J. A. Hilty & Merenlender, 2004). Edge effects of development and habitat degradation from the proposed Project would only result in low quality habitat in and around the Project area that would not be able to support the area's biodiversity or facilitate wildlife movement. The proposed Project would significantly impact wildlife connectivity. 9-41 cont.

It is widely recognized that the continuing fragmentation of habitat by humans threatens biodiversity and diminishes our (humans, plants, and animals) ability to adapt to climate change. In a report for the International Union for Conservation of Nature (IUCN), world-renowned scientists from around the world stated that "[s]cience overwhelmingly shows that interconnected protected areas and other areas for biological diversity conservation are much more effective than disconnected areas in human-dominated systems, especially in the face of climate change" and "[i]t is imperative that the world moves toward a coherent global approach for ecological connectivity conservation, and begins to measure and monitor the effectiveness of efforts to protect connectivity and thereby achieve functional ecological networks" (J. Hilty et al., 2020). The DEIR erroneously concludes that Project impacts to wildlife movement would be less than significant and fails to adequately assess and mitigate impacts to wildlife connectivity. 9-42

II. The DEIR fails to accurately disclose, analyze, and mitigate the Project's impacts to public resources and existing communities.

This project is sprawl development. Rather than densifying the existing communities that have water systems, streets, schools, transit systems, powerlines and other hard infrastructure already in place, this project would require new infrastructure to be constructed. It is important that the DEIR fully analyze, disclose, and mitigate the Project's impacts to public resources and existing communities. 9-43

Investment in exurban development creates a negative feedback loop of divestment from existing cities. Building out infrastructure ensures there is less resources to maintain and improve existing infrastructure in city centers. This reduces the quality and availability of those services creating more incentives for people to move away from the urban core (McElfish, James M, 2007). Additionally, building out infrastructure is more expensive; such costs get handed down to residents. A recent analysis indicated that sprawl development in the U.S. increases annualized infrastructure costs by 50% percent (Litman, 2015). 9-44

Unfortunately, none of the alternatives describe an increase in density *within* the current development footprint. As described in the DEIR, "the Higher Density Alternative would avoid the significant and unavoidable impact related to Transportation and would result in a reduction inVMT, and an associated reduction in GHG emissions, as compared to the proposed project. Therefore, the Higher Density Alternative would be considered the Environmentally Superior Alternative." (DEIR, 2-5). While this alternative is clearly superior to the proposed project, it would not be superior when compared to the current baseline. To support community and environmental health, we suggest an alternative that does not expand the existing footprint and focuses all development on densifying areas around existing public transportation infrastructure. This would achieve the goals of providing more housing for the community, while significantly reducing the impacts of such development on existing residents and the environment. 9-45

A. The Project Would Result in A Divestment in Infill Affordable Housing

While this Project does provide additional housing, it does not address the root cause of the housing crisis: affordability. Affordable housing is only equitable if low-income residents are provided housing opportunities with access to public resources. Yet this project proposes building market rate housing outside the city center that does nothing to address the affordability crisis that so many Californians are struggling with. 9-46

The County should instead be working to densify and redevelop its urban areas, rather than approving sprawl development that destroys open space. Densifying the County would help reduce rental prices and ensure residents have access to the public infrastructure already in place, such as parks, schools and public transit. If instead, the County chooses to invest in sprawl development, it could face the same challenges that residents of Los Angeles face with around 74% of the housing zoned single-family residential creating some of the highest rents in the nation (Menendian et al., 2022). 9-47

Shifting to more compact housing types not only reduces rents, but it significantly reduces residential land consumption. A mix of 80% single-family, 10% attached and 10% multi-family housing requires about twice as much land as an equal mix of housing types, and more than three times as much land as 10% single-family, 40% attached and 50% multi-family housing (Camagni et al., 2002). This leaves more open space for wildlife to flourish and for people to enjoy. Native landscapes help us regulate our climate, purify our air and water, pollinate our crops and create healthy soil. In addition to the direct benefits from access, preservation of our native habitats and the species that rely on them is critical to our long-term health and wellbeing (Sandifer et al., 2015). Therefore, the City should be doing everything to preserve the remaining open space. 9-48

However, upzoning alone is not enough. The City needs to increase equitable affordable housing in communities that have remained exclusionary. This could be achieved by **enacting a inclusionary housing mandate of 15% at 50% of average median income or 20% at 60% of average median income for all new development of five units or more.** 9-49 Finally, in-lieu fees, or fees that a developer pays into a fund to be spent on affordable housing elsewhere, should be eliminated, ensuring that all new developments with affordable housing requirements will be built onsite. In-lieu fees allow developers to pay their way out of affordable housing requirements leading to highly segregated neighborhoods and displacement of low-income residents to off-site affordable units. To ensure that low-income residents are provided affordable options in neighborhoods with the high public investment, we need to eliminate this option for developers. Implementing these policies along with upzoning the urban core would address the very real need for more affordable housing options, while still prioritizing the health, safety and wellbeing of all residents. 9-50

B. The Project Would Increase Single Occupancy Vehicle Use, Harming Community Health and Wellbeing and Divesting from Sustainable Transportation Methods.

The DEIR estimates that "the dwelling units constructed as part of the Program Study Area would generate a household VMT per resident of 22.9 which would exceed the 18.8 household VMT per resident threshold of significance. Therefore, full project buildout would result in a significant impact related to resident VMT." (DEIR, 4.11-23). Increasing a region's VMTs isn't just bad planning, it also undermines community health. Increased VMT increases emissions of air pollutants such as nitrogen oxides (NO_x), volatile organic compounds (VOCs), carbon monoxide, heavy metals, carbon dioxide and respirable particulate matter ($PM_{2.5}$). Increased VMT also leads to more ozone (O_3) production through the photochemical reactions of NO_x and VOCs emitted by vehicles (Lurmann et al., 2015). Short- and long-term exposure to several of these pollutants has been linked to premature mortality, compromised birth outcomes, heart disease and a host of respiratory illnesses (Mujtaba & Shahzad, 2021). 9-51

Another serious direct impact of increasing the number of cars on roads is automobile crashes, which are the leading cause of death among young people (15 to 19 years old) in the United States.[2] An estimated 42,915 people in the U.S. died in car crashes in 2021 alone and 3.4 million people are injured each year, which costs an estimated $473.2 billion annually as measured by wage and productivity losses, medical expenses, motor-vehicle damage, and employers' uninsured costs (Frumkin et al., 2004; U.S. Department of Transportation, 2022).[3] 9-52

Beyond the direct impacts, increased VMT has long term impacts on commuters. In 2019, the duration of the average daily commute in the United States increased to a new high of 55.2 minutes, and a record 9.8 percent of commuters reported daily commutes of at least 2 hours (Burd et al., 2021). These long commutes reduce time available to spend with family, friends, and community, and reduce opportunities for healthy recreation. The increase in inactivity and isolation can also lead to long-term health complications such as pre-diabetes, diabetes, obesity, asthma, isolation, stress and depression (Ewing et al., 2003; Leyden, 2003). 9-53

The DEIR simply acknowledges that the proposed project would conflict with or be inconsistent with CEQA Guideline section 15064.3, subdivision (b)." (DEIR, 4.11-24) The DEIR then states that "most of the potential measures that would address VMT are already implemented by the Program Study Area" and that the only remaining feasible measures are "unbundling of parking costs from rent, and reduced parking supply." (DEIR, 4.11-24) However, these measures put a huge financial burden on the individual resident and don't actually guarantee a reduction in VMT. 9-54

To actually reduce VMT the project must invest in enhanced transit. Providing alternatives to single occupancy vehicle travel is essential to building an efficient, sustainable and equitable transportation system. Unfortunately, we have a long way to go if we are going to achieve this vision in the U.S. In 2013, it was reported that of all the U.S. daily commutes to work, 76.4% are of people driving alone (McKenzie, 2015). According to the Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2015, our collective daily transportation in the U.S. constitutes about 27% of the total greenhouse gasses released (U.S. Environmental Protection 9-55

[2] Center for Disease Control and Prevention. "Underlying Cause of Death, 2018-2021." https://wonder.cdc.gov
[3] NSC Injury Facts. "Costs of Motor-Vehicle Injuries." 2021. https://injuryfacts.nsc.org/all-injuries/costs/guide-to-calculating-costs/data-details/

Agency, 2017). California's annual average emissions associated with passenger vehicles between 2000 and 2020 was approximately 110 million metric tons of CO2e. 9-55 cont.

To change these trends, government agencies need to invest in alternative modes of transportation to not only make them cheaper to use, but more efficient than driving. **Best practices for transportation options should include providing free public transit services for future residents and workers; implementing bus only lanes; optimizing bus routes to minimize overlap and ensuring coverage across the city in line with demand; and providing high-frequency, reliable services with regular bus stops for easy access.** 9-56

Studies indicate that free public transit services typically result in ridership increase from 20% to 60% in a matter of just a few months (Studenmund and Connor, 1982).[4] Similarly, bus lanes that reduce total transit door-to-door travel times by 5%-15% will increase urban peak ridership 2%-9% (UCLA Institute of Transportation Studies, 2019). Lastly, ensuring accessibility and convenience is essential to increasing ridership. Providing more bus stops decreases the distance residents have to travel to access such services. 9-57

It should be a priority of all governments to reduce VMTs with every new project, but instead this proposed sprawl development would steer the region in the opposite direction, eroding community and environmental health to build more single-occupancy vehicle infrastructure. 9-58

The DEIR fails to adequately assess and mitigate the Project's impacts on air pollution, and public health and safety due to increased cars on the road and VMT. 9-59

III. Conclusion

The Center encourages the County to incorporate our recommendations into the Final EIR to ensure that the project's impacts to special status species, wildlife connectivity, and community health are accurately assessed and sufficiently mitigated.

Thank you for your time and consideration. 9-60

Sincerely,

Elizabeth Reid-Wainscoat

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LETTER 9: CENTER FOR BIOLOGICAL DIVERSITY

Response to Comment 9-1

The introductory comment does not address the adequacy of the Draft EIR. The comment has been noted for the record and will be forwarded to the decision-makers for their consideration.

Response to Comment 9-2

The commenter provides general statements regarding a number of environmental issues in the Draft EIR in subsequent comments. The responses to the substance of the comments are given in responses below.

Response to Comment 9-3

The comment does not allege any specific defects with respect to wildlife surveys relied on in the Draft EIR. Note also that the comment refers to an "MND"; however, no MND was prepared for the proposed project; rather, a full environmental impact report (EIR) was prepared.

Response to Comment 9-4

An EIR is required to include a description of the physical environmental conditions in the vicinity of a project, which will normally constitute the baseline for analysis of the project's environmental impacts. CEQA Guidelines, Section 15125(a) states, "…[t]he description of the environmental setting shall be no longer than is necessary to provide an understanding of the significant effects of the proposed project and its alternatives."

Senior biologists from Madrone Ecological Consulting (Madrone) prepared a Biological Resources Assessment (BRA) for the Draft EIR (see Appendix E to the Draft EIR). The BRA includes multiple field surveys of the site, special-status plant surveys, an aquatic resources delineation, and an oak resources inventory.

The commenter claims that "targeted surveys" are necessary to assess the presence of several species. However, the comment does not identify any specific defects in the methodology employed in the Draft EIR or the experts retained to investigate and report on such issues. Many of the species identified in the comment (e.g., fairy shrimp, burrowing owl, and five species of bat) are evaluated in depth in Chapter 4.3, Biological Resources, of the Draft EIR. For example, potential impacts to vernal pool fairy shrimp were evaluated under Impact 4.3-3, to burrowing owl (among other nesting birds and raptors) under Impact 4.3-7, and to roosting bats under Impact 4.3-8.

The Draft EIR properly did not assess the absence of species not found to occur on the site, including mountain lion and American badger. The term "special-status species" is defined in the Draft EIR on page 4.3-1, and specifically includes only species that have been determined to be sufficiently rare to require analysis under CEQA. While southern California and central California coast populations of mountain lions are considered a candidate for State listing, mountain lions are not a special-status species in northern California.

American badgers are a California species of special concern, and the project site is within the species' range. As such, Madrone prepared a Revised BRA for the proposed project which includes an assessment of American badger (see Appendix A of the Final EIR). However, as discussed in the Revised BRA, the extremely rocky soils and lack of sufficient rodent prey precludes the presence of American badger within the project site.

Further, CEQA does not require an EIR to provide an exhaustive list of every species that may be found on or near a project site. Rather, an EIR is required to analyze environmental impacts only to the extent that it is reasonably feasible to do so.[1]

Response to Comment 9-5

As discussed in Response to Comment 9-4 above, mountain lions in northern California are not considered special-status species.

Response to Comment 9-6

As discussed in Response to Comment 9-4 above, mountain lions in northern California are not considered special-status species.

Response to Comment 9-7

As discussed in Response to Comment 9-4 above, mountain lions in northern California are not considered special-status species.

Response to Comment 9-8

Please see Response to Comment 9-4. In addition, the comment does not make specific claims about the proposed project; the mere assertion that the proposed project could cause an impact is not evidence that the project would. Neither the comment's assertion nor the background studies cited undercut or raise any doubt regarding the accuracy and adequacy of the site-specific studies undertaken for the Draft EIR.

Response to Comment 9-9

Please see Response to Comment 9-4. The comment relies on a study conducted in the Santa Cruz Mountains, which are located approximately 115 miles from the project site. The comment has been noted for the record and will be forwarded to the decision-makers for their consideration, but generally does not make any specific claims regarding the proposed project's potential impacts to mountain lions. As discussed in Response to Comment 9-4 above, mountain lions in northern California are not considered special-status species.

Response to Comment 9-10

Please see Responses to Comments 9-4 through 9-9.

Response to Comment 9-11

The comment does not provide evidence to support the assertion that American badgers occur in and near the project site, nor is the claim accurate. As shown in Figure 4.3-4 of the Draft EIR, occurrences of American badgers have not been reported within five miles of the project site. The Draft EIR appropriately only evaluates potential impacts to species which have the potential to be impacted by the proposed project. As stated in Response to Comment 9-4, the extremely rocky soils and lack of sufficient rodent prey precludes the presence of American badger within the project site.

[1] See CEQA Guidelines, Section 15151; and *Association of Irritated Residents v. County of Madera* (2003) 107 Cal.App.4th 1383, 1397 (biological report which discusses the field survey and the conclusions reached from collected data constitutes substantial evidence supporting the determination reached in an EIR)

Response to Comment 9-12

The comment's assertion that American badger occurs in the State of California and in El Dorado County is correct. However, the presence of a species in the wider County does not support a conclusion that suitable denning and foraging habitat is present within the project site, nor that the proposed project would impact such habitat. As stated in Response to Comment 9-4, the extremely rocky soils and lack of sufficient rodent prey precludes the presence of American badger within the project site.

Response to Comment 9-13

As discussed further in Response to Comment 9-4, environmental review for the Draft EIR involved multiple site-specific surveys and a review of prior surveys. American badgers or American badger habitat was not identified as part of the project-specific surveys. Therefore, mitigation related to potential impacts on American badgers was not required. As stated in Response to Comment 9-4, the extremely rocky soils and lack of sufficient rodent prey precludes the presence of American badger within the project site.

Response to Comment 9-14

The comment does not address the adequacy of the Draft EIR. The comment has been noted for the record and will be forwarded to the decision-makers for their consideration.

Response to Comment 9-15

As discussed further in Response to Comment 9-4, environmental review for the Draft EIR involved multiple site-specific surveys and a review of prior surveys. The extensive analysis of present conditions is more than sufficient to satisfy the legal requirements of an EIR, and the comment does not allege that the findings of those surveys are inaccurate in any way. CEQA does not require species-specific surveys for every species with the potential to occur on a site.

Response to Comment 9-16

As shown in Figure 4.3-4 of the Draft EIR, burrowing owls have been identified in Sacramento County within five miles of the project site. The nearest observation is approximately 2.3 miles from the project site. The site is also on the very edge of the elevational range for burrowing owls. Thus, the species has a low likelihood to occur on-site, though brome grassland habitat provides suitable wintering habitat and ground squirrel burrows and debris may provide marginally suitable habitat. The Draft EIR includes Mitigation Measure 4.3-7 requiring pre-construction surveys and non-disturbance buffers, which would sufficiently address potential impacts to burrowing owls.

Nonetheless, as suggested by the comment, and in consideration that the burrowing owl is now a candidate for listing under the California Endangered Species Act, Mitigation Measure 4.3-7 is hereby revised. It should be noted that additional revisions not related to burrowing owls are also provided here as requested under Response to Comment 9-18. The revisions are as follows:

Project Development Area and Project Buildout

4.3-7 *To minimize the potential for loss of special-status bird species, raptors, and other native birds, project activities (e.g., tree removal, vegetation clearing, ground disturbance, staging, construction of off-site improvements) shall be conducted during the non-breeding season (approximately September 1 through January 31, as determined by a qualified biologist who is knowledgeable and experienced in the biology, life stages, natural history, and*

identification of local fish and wildlife resources at the project site (qualified biologist).

The project proponent shall implement the following:

- *If ground disturbance or other construction activities are proposed during the bird nesting season (February 1 – August 31), a focused survey for nesting raptors and migratory bird nests shall be conducted by a qualified biologist within ~~14~~ 15 calendar days prior to the beginning of construction activities in order to identify active nests. This survey shall be conducted within the proposed construction area and all accessible areas within the following buffer areas:*
    - *0.5-mile for bald eagle and golden eagle;*
    - *0.25-mile for tree-nesting raptors; and*
    - *500 feet for all other species.*

- *If active raptor nests are found, construction activities shall not take place within 0.25-mile for golden eagle or within 500 feet of other raptor nest(s) until the young have fledged. If active songbird nests are found, a 100-foot no-disturbance buffer shall be established. ~~These no-disturbance buffers may be reduced based on consultation and approval by the County.~~ Daily monitoring of the nest by a qualified biologist during project activities shall be required if the activity has potential to adversely affect the nest as determined by the qualified biologist or if birds within active nests are showing behavioral signs of agitation (e.g., standing up from a brooding position, flying off the nest) during project activities, as determined by the qualified biologist. Documentation of compliance with the foregoing requirements and of any required coordination with CDFW shall be provided to El Dorado County Planning and Building Department prior to commencement of any project construction activities.*
- *The limit of work shall be indicated by bright orange temporary fencing or other similar highly-visible marker. Construction activities or personnel shall not cross the fencing, except with approval of a qualified biologist. If trees containing nests or burrows must be removed as a result of project implementation, removal shall be completed during the nonbreeding season (~~late September to March~~ September 1 through January 31) if possible, or after a qualified biologist determines that the young have fledged (during the breeding season).*
- *If any special-status species are encountered during project activities and the individual may be harmed, or they do not leave the Project site independently within 2 hours, work shall be suspended, CDFW notified, and conservation measures shall be developed in agreement with CDFW according to CDFW protocols prior to re-initiating the activity. Conversely, if during project activities, any species listed pursuant to the CESA are encountered, work shall be suspended, and CDFW notified. Work may not re-initiate until the Project proponent*

has consulted with CDFW and can demonstrate compliance with CESA.

- *If active nests are not found during the required pre-construction surveys, further mitigation shall not be required.*
- *Survey results shall be provided to the El Dorado County Planning and Building Department within 15 days of completion of all surveys. Surveys shall be repeated if there is a break of construction of more than 14 days during the nesting season.*

Burrowing Owl

- *Burrowing owl pre-construction surveys of suitable habitat shall be conducted by a qualified biologist within 14 days prior to the beginning of any ground-disturbing ~~construction~~ activities on and within 500 feet of the project site and off-site improvements using survey methods consistent with the CDFW Staff Report on Burrowing Owl Mitigation (CDFW 2012). Inaccessible areas (e.g., adjacent private property) shall not be surveyed directly, but the qualified biologist may use binoculars or a spotting scope to survey the inaccessible areas.*

  If occupied burrows are not found, the qualified biologist shall submit a report documenting the survey methods and results to the project proponent and to the El Dorado County Planning and Building Department, and further mitigation shall not be required.

  If an active burrow is found within 500 feet of pending construction activities, the project proponent shall establish and maintain a minimum buffer of 164 feet around the occupied burrow throughout construction. The actual buffer size shall be determined by the qualified biologist based on the time of year and level of disturbance in accordance with guidance provided in the CDFW Staff Report on Burrowing owl Mitigation, and may be as large as 1,640 feet (CDFW 2012). The protection buffer may be adjusted if, in coordination with CDFW, a qualified biologist determines that an alternative buffer would not disturb a burrowing owl from use of the burrow because of particular site features or other buffering measures. If occupied burrows are present that cannot be avoided or adequately protected with a no-disturbance buffer, and the burrowing owl does not depart independently within a few days, the burrow(s) shall be buffered and avoided for the duration of occupancy, through the end of nesting (as determined by a Qualified Biologist) or an Incidental Take Permit (ITP) shall be obtained in order to exclude owls from the burrow(s).. Burrowing owls shall not be excluded from occupied burrows until the ITP is approved by CDFW.

  If burrowing owls are evicted from burrows and the burrows are destroyed by project activities, the project proponent shall mitigate the loss of occupied habitat in accordance with the

ITP. The applicant shall retain a qualified biologist to develop a burrowing owl mitigation and management plan that incorporates the following goals and standards:

- *Mitigation lands shall be selected based on comparison of the habitat lost to the compensatory habitat, including type and structure of habitat; disturbance levels; potential for conflicts with humans, pets, and other wildlife; density of burrowing owls; and relative importance of the habitat to the species throughout its range.*
- *If feasible, mitigation lands shall be provided adjacent or proximate to the project site so that displaced owls can relocate with reduced risk of injury or mortality. The feasibility of providing mitigation adjacent or proximate to the project site depends on availability of sufficient habitat to support displaced owls that may be preserved in perpetuity.*
- *If habitat suitable for burrowing owl is not available for conservation adjacent or proximate to the project site, mitigation lands can be secured off-site and shall aim to consolidate and enlarge conservation areas outside planned development areas and within foraging distance of other conservation lands. Mitigation may also be accomplished through purchase of mitigation credits at a CDFW-approved mitigation bank, if available. Alternative mitigation sites and acreages may also be determined in coordination with CDFW.*

If burrowing owl habitat mitigation is completed through permittee-responsible conservation lands, the mitigation plan shall include mitigation objectives, site selection factors, site management roles and responsibilities, vegetation management goals, financial assurances and funding mechanisms, performance standards and success criteria, monitoring and reporting protocols, and adaptive management measures. Success shall be based on the number of adult burrowing owls and pairs using the site and whether the numbers are maintained over time. Measures of success, as suggested in the CDFW Staff Report, shall include site tenacity, the number of adult owls present and reproducing, colonization by burrowing owls from elsewhere, changes in distribution, and trends in stressors.

- *Documentation of compliance with the foregoing requirements and the coordination process with CDFW shall be provided to El Dorado County before commencement of any project construction activities.*

The foregoing revisions only refine Mitigation Measure 4.3-7, and do not affect the conclusions of the Draft EIR.

Response to Comment 9-17

As discussed under Impact 4.3-7 of the Draft EIR, impacts to burrowing owls would be less-than-significant with implementation of mitigation. Additional mitigation is included at commenter's request, as detailed in Response to Comment 9-16 above. CEQA does not require that alternatives be evaluated to reduce less-than-significant impacts.

The 2012 CDFW Staff Report addressing burrowing owl mitigation relied on by the commenter states that, "the best available science indicates that essential habitat for the burrowing owl in California must include suitable year-round habitat, primarily for breeding, foraging, wintering and dispersal habitat consisting of short or sparse vegetation (at least at some time of year), presence of burrows, burrow surrogates or presence of fossorial mammal dens, well-drained soils, and abundant and available prey within close proximity to the burrow." The suggestion to acquire lands at a 5:1 ratio is not included in the foregoing list. Furthermore, as stated in Mitigation Measure 4.3-7, if burrowing owls are evicted from burrows and the burrows are destroyed by project activities, the project proponent shall mitigate the loss of occupied habitat in accordance with the ITP that the applicant will need to obtain from CDFW. Potential impacts to burrowing owls would remain less-than-significant and additional mitigation is not required.

Response to Comment 9-18

As discussed under Impact 4.3-7 of the Draft EIR, potential impacts to bird species identified by the comment, including edge effects, would be less-than-significant with implementation of mitigation. Therefore, additional mitigation is not required. Please refer to Response to Comment 9-16 for the amplifications to Mitigation Measure 4.3-7.

Response to Comment 9-19

The comment relies on general academic papers and does not specifically dispute any conclusion made in the Draft EIR, which found that potential impacts to the environmental issues discussed in the comment would be less-than-significant with mitigation.

Response to Comment 9-20

Multiple surveys were undertaken of the project site. As a result of the surveys, Madrone determined that the Program Study Area does not contain suitable habitat for vernal pool fairy shrimp, but the Project Development Area and Sewer Alternative 2 have the potential to impact a small seasonal wetland area that could provide suitable habitat for vernal pool fairy shrimp. The foregoing information is disclosed in the Draft EIR on page 4.3-38 and is reiterated on page 4.3-39. Therefore, the comment is incorrect that the Draft EIR fails to provide the information.

The comment's interpretation of Mitigation Measure 4.3-3 is accurate. While the mitigation is clear in the text, the following revision is incorporated at the commenter's request:

> Mitigation Measure(s)
> Implementation of the following mitigation measure would reduce the above potential impact to a *less-than-significant* level.
>
> *Project Development Area (and Sewer Alternative 2)*
> *4.3-3* *If potential habitat for vernal pool fairy shrimp is identified within areas proposed for improvements, the project applicant shall redesign or modify project components to avoid the identified habitat to the maximum extent feasible. If avoidance of the identified habitat is not feasible, the project applicant shall either retain a USFWS-permitted*

biologist to conduct protocol-level branchiopod surveys to determine presence/absence of vernal pool fairy shrimp or the project applicant shall assume presence of the species. ~~T~~ If the project applicant ~~may~~ chooses to conduct the protocol level surveys, the project applicant shall employ a qualified biologist who is authorized by USFWS to conduct vernal pool branchiopod surveys (qualified biologist) to conduct surveys for vernal pool fairy shrimp prior to initiation of any ground disturbance activities within the Project Development Area and/or Sewer Alternative 2.~~; a~~ Any such surveys shall be conducted in accordance with the Survey Guidelines for the Listed Large Branchiopods (USFWS 2017). ~~If vernal pool fairy shrimp are not found during protocol-level wet and dry season surveys, further mitigation shall not be required. If protocol-level surveys of the on-site depressional seasonal wetlands are not conducted, or if vernal pool fairy shrimp are found during protocol-level wet- or dry-season surveys of the features, then the project proponent or the USACE (depending on the regulatory mechanism) shall consult with the USFWS regarding impacts to vernal pool fairy shrimp associated with the project.~~ Survey results shall be provided to the El Dorado County Planning and Building Department within ~~15~~ 90 days of completion of all surveys.

~~The project proponent shall comply with any conditions of the appropriate take authorization from the USFWS prior to County approval of any permit authorizing construction. The conditions in this take authorization may include but will not be limited to fencing off avoided habitat, worker awareness trainings, preservation, restoration, or enhancement of habitat on- or off-site to compensate for indirect and/or direct effects; purchase of habitat credits from an agency-approved mitigation/conservation bank; working with a local land trust to preserve land; or any other method acceptable to USFWS.~~

If the presence of vernal pool fairy shrimp is confirmed or inferred for the proposed project, and the habitat they inhabit will be impacted by the project, Endangered Species Act (ESA) consultation with USFWS shall be required to address impacts on the species before any ground-disturbing activities occurs within the occupied habitat. Documentation of the completion of ESA consultation shall be provided to the El Dorado County Planning and Building Department prior to the issuance of the grading permit.

In addition, if the presence of vernal pool fairy shrimp is confirmed or inferred for the proposed project, the project applicant shall compensate for direct and indirect effects on occupied or presumed occupied habitat for vernal pool fairy shrimp by purchasing the appropriate mitigation credits from a USFWS-approved conservation property/mitigation bank. Minimum mitigation ratios shall be 2:1 preservation, for direct effects, and 1:1 preservation for indirect effects (within 250 feet of ground disturbance) or as determined by USFWS during ESA consultation.

The foregoing revisions only refine Mitigation Measure 4.3-3, and do not affect the conclusions of the Draft EIR.

Finally, as noted in Response to Comment 9-5, the BRA prepared for the proposed project included multiple field surveys of the site, special-status plant surveys, an aquatic resources delineation, and an oak resources inventory. CEQA does not require a project to conduct every study that may be helpful. In addition, the existing setting is adequately established on pages 4.3-1 through 4.3-28 of the Draft EIR.

Response to Comment 9-21

Please see Response to Comment 9-20. In addition, the CEQA Guidelines recognize that compliance with regulatory requirements is permissible mitigation (CEQA Guidelines, Section 15126.4[a][1][B]). Additional detail will be developed as part of the regulatory process, which requires consultation with CDFW. The comment does not identify any reason why compliance with the regulatory requirements acknowledged within would be infeasible or ineffective (See *Citizens for a Sustainable Treasure Island v. City and County of San Francisco* (2014) 227 Cal.App.4th 1036, 1060).

Response to Comment 9-22

Under CEQA, a lead agency may rely on future studies to devise the specific design of a mitigation measure when the results of later studies are used to tailor mitigation measures to fit on-the-ground environmental conditions.[2] This is particularly true where, as here, it is not known whether future development will include the potentially impacted resource. If Sewer Alternative 2 is not selected, impacts would be avoided and no further study would be necessary.

Further, a lead agency may defer formulation of the details of a mitigation measure pending further study when necessary to do so, if the lead agency describes the mitigation actions that will be considered, adopts clear performance standards for measuring the effectiveness of the measures selected, and commits the agency to the mitigation plan. A mitigation performance standard is sufficient if the mitigation identifies specific criteria the agency will apply in determining that the impact will be mitigated (See *Sierra Club v. County of Fresno* (2018) 6 Cal.5th 502, 525).

The comment alleges that Mitigation Measure 4.3-3 improperly defers mitigation, but the measure satisfies the mitigation standards required by CEQA as described above. Nevertheless, as noted in Response to Comment 9-20, Mitigation Measure 4.3-3 has been amplified in this Final EIR to further clarify performance standards.

Response to Comment 9-23

The comment does not specifically dispute any conclusion made in the Draft EIR. In addition, the Draft EIR's conclusion that potential impacts to special-status bat species would be less-than-significant with mitigation is supported by substantial evidence, including the BRA and attachments thereto (see Appendix E to the Draft EIR).

Response to Comment 9-24

A lead agency has discretion to employ the survey methodology of the agency's choice, so long as that choice is supported by substantial evidence (see *Save North Petaluma River & Wetlands v. City of Petaluma* (2022) 86 Cal.App.5th 207, 221-226). The comment asserts that the Draft EIR did not conduct surveys for bats; however, multiple site visits by biological experts from Madrone

[2] See *Save Panoche Valley v. San Benito County* (2013) 217 Cal.App.4th 503, 524 (upholding mitigation measures, based on preconstruction surveys, requiring identified steps for avoiding impacts to biological resources to be implemented).

are documented throughout the Draft EIR, particularly on pages 4.3-37 and 4.3-38. The Draft EIR also notes the extensive literature study of the CNDDB database and the Western Bat Working Group (WBWG) Species Matrix on page 4.3-37.

Response to Comment 9-25

The comment alleges that mitigation fails to take into account how the proposed project would destroy foraging habitat for bats, but the statement does not show any specific example of how bats would be significantly impacted by the proposed project. Therefore, the comment is considered speculative. The Draft EIR determined that potential impacts to bats would be reduced to a less-than-significant level with the implementation of Mitigation Measure 4.3-8.

Nonetheless, the following changes have been made to MM 4.3-8, as follows:

Mitigation Measure(s)

Implementation of the following mitigation measure would reduce the above potential impact to a *less-than-significant* level.

Project Development Area and Project Buildout

4.3-8 *A qualified biologist who is familiar with bats and bat ecology (qualified biologist) shall conduct a bat habitat assessment of all potential roosting trees within the proposed impact footprint. This habitat assessment shall identify all potentially suitable roosting habitat and may be conducted up to one (1) year prior to the start of construction.*

If potential roosting habitat is identified within the areas proposed for impact, the qualified biologist shall survey the potential roosting habitat within 14 days prior to tree removal to determine presence of roosting bats in suitable habitat (e.g., large trees, crevices, cavities, exfoliating bark, foliage, buildings) on and adjacent to the project site. These surveys are recommended to be conducted utilizing methods that are considered acceptable by CDFW and bat experts. Methods may include evening emergence surveys, acoustic surveys, inspecting potential roosting habitat with fiberoptic cameras or a combination thereof. Survey results shall be provided to the El Dorado County Planning and Building Department within 15 days of completion of all surveys.

If pre-construction surveys indicate that roosts of special-status bats are not present, or that roosts are inactive or potential habitat is unoccupied, further mitigation is not required. ~~If roosting bats are found, exclusion shall be conducted as recommended by a qualified biologist. Methods may include acoustic monitoring, evening emergence surveys, and the utilization of two-step tree removal supervised by a qualified biologist. Two-step tree removal involves removal of all branches that do not provide roosting habitat on the first day, and the next day cutting down the remaining portion of the tree. Once the bats have been excluded, tree removal may occur.~~

If evidence of bat maternity roosts or hibernacula is observed, the species and number of bats using the roost shall be determined by a qualified biologist using noninvasive methods. Bat detectors (i.e., acoustic monitoring) or evening emergence surveys shall be used if

deemed necessary to supplement survey efforts by the qualified biologist.

A no-disturbance buffer of 250 feet shall be established around active pallid bat, Townsend's big-eared bat, or western red bat maternity roosts or hibernacula, as well as substantial maternity roosts or hibernacula of other bat species considered to be a wildlife nursery by the qualified biologist. Project activities shall not occur within this buffer until after the roosts are unoccupied as determined by a qualified biologist.

If roosts of pallid bat, Townsend's big-eared bat, or western red bat are determined to be present and must be removed, the bats shall be excluded from the roosting site before the tree is removed. A program addressing compensation, exclusion methods, and roost removal procedures shall be developed in coordination with CDFW before implementation. Exclusion methods may include use of one-way doors at roost entrances (bats may leave but not reenter) or sealing roost entrances when the site can be confirmed to contain no bats. Exclusion efforts may be restricted during periods of sensitive activity (e.g., during hibernation or while females in maternity colonies are nursing young). The loss of each roost (if any) resulting from the project shall be replaced in coordination with CDFW and may require construction and installation of bat boxes suitable to the bat species and colony size excluded from the original roosting site. If determined necessary during coordination with CDFW, replacement roosts shall be implemented before bats are excluded from the original roost sites.

Prior to exclusion activity, the qualified biologist shall quantify the average number of bats present at the roost by species and season, compare the replacement habitat with the habitat to be removed to ensure the replacement habitat is of sufficient or equal size, and monitor the temperature of the existing roost with a temperature datalogger to compare to the replacement habitat.

Within one year of the installation of replacement habitat, post-construction monitoring of the replacement habitats shall begin. A qualified biologist shall monitor the replacement habitats on year one, three, and five. If the success criteria (as defined below) is met, the monitoring may be reduced or discontinued as recommended by the qualified biologist in coordination with CDFW.

For day roost monitoring, conduct daytime inspections and evening exit counts to assess presence/absence of bats and the average number of bats, collect photo documentation to show use or lack of use by bats, record the location of bat use in the replacement habitat as well as the numbers and species of bats, as possible, in the replacement structure. Mitigation shall be considered successful when the target species has occupied the replacement habitat and when the estimated population of the replacement habitat has reached the goals set forth in the bat mitigation plan. If success criteria have not been met during the monitoring period, the qualified biologist shall provide recommendations for habitat modifications and additional monitoring.

After the replacement roosts are constructed and bats are confirmed to be absent from the original roost site by a qualified biologist, the roost tree or building may be removed. For roost trees, a two-step tree removal process supervised by a qualified biologist shall be implemented, including removal of all branches that do not provide roosting habitat on the first day, and removal of the remaining portion of the tree on the following day.

Documentation of compliance with the foregoing requirements shall be provided to El Dorado County Planning and Building Department prior to commencement of any project construction activities.

The foregoing revisions amplify the performance standards of Mitigation Measure 4.3-8, and do not affect the conclusions of the Draft EIR.

Response to Comment 9-26

The Draft EIR's conclusion that potential impacts to special-status bat species would be less-than-significant with mitigation is supported by substantial evidence, including Madrone's report and attachments thereto (see Appendix E to the Draft EIR). As discussed on pages 4.3-38 and 4.3-39 of the Draft EIR, the BRA included multiple site visits by Madrone, as well as the extensive literature study of the CNDDB database and the WBWG Species Matrix.

Response to Comment 9-27

The comment relies on general academic papers and does not specifically dispute any conclusion made in the Draft EIR, which found that potential impacts to the environmental issues discussed in the comment would be less-than-significant with mitigation.

Response to Comment 9-28

The comment alleges that Mitigation Measure 4.3-13 requires more detail to assess, but the Draft EIR contains ample information on the proposed project's potential impacts to oak trees (see Figure 4.3-7 and Table 4.3-6 of the Draft EIR) and is supported by the BRA and the attachments thereto (see Attachment G, Oak Resources Technical Report and Attachment J, Impacts to Oak Resources to the BRA, included as Appendix E of the Draft EIR).

Madrone's Oak Resources Technical Report provides the information required by El Dorado County's Oak Resources Management Plan, and Mitigation Measure 4.3-13 requires compliance with that plan, which was adopted in 2017 following a separate CEQA review.

Furthermore, Mitigation Measure 4.3-13 requires submittal of a final version of the Oak Resources Technical Report (ORTR) and an Oak Resources Code Compliance Certificate to the El Dorado County Planning and Building Department that address all on- and off-site oak tree and oak woodland impacts. Pursuant to CEQA Guidelines Section 15126.4(a)(1)(B), compliance with a regulatory permit or similar process is sufficient mitigation if compliance with such standards can be reasonably expected, based on substantial evidence, to reduce the impact to the specified performance standard.[3]

[3] See *Oakland Heritage Alliance v. City of Oakland* (2011) 195 Cal.App.4th 884, 906 ("a condition requiring compliance with regulations is a common and reasonable mitigation measure and may be proper where it is reasonable to expect compliance.")

Response to Comment 9-29

The comment relies on general academic papers and does not specifically dispute any conclusion made in the Draft EIR, which found that potential impacts to the environmental issues discussed in the comment would be less-than-significant with mitigation.

Response to Comment 9-30

The comment asserts that avoidance is preferred over tree planting, but, where substantial evidence supports the approving agency's conclusion that mitigation measures will be effective, as is the case here, such measures will be upheld against attacks based on their alleged inadequacy (see *Banning Ranch Conservancy v. City of Newport Beach* (2012) 211 Cal.App.4th 1209, 1233 [courts do not weigh expert evidence on effectiveness of mitigation measures; city was not required to acquiesce to mitigation measures for habitat impacts proposed by regulatory agency]).

Here, replanting is just one option for mitigation impacts to oaks and any final action may include a combination of measures to reduce impacts to the oaks. In addition, as noted in Mitigation Measure 4.3-13, replanting may be used to satisfy only up to 50 percent of the project's oak woodland mitigation requirement. Furthermore, the final form of mitigation shall be approved by the El Dorado County Planning and Building Department prior to initiation of any ground disturbing activities.

Response to Comment 9-31

Please see Responses to Comment 9-28 and 9-30.

Response to Comment 9-32

The comment generally asserts that the Draft EIR does not rely on the best available science discussing potential impacts to aquatic resources, and that Mitigation Measure 4.3-11 defers mitigation of the project's impacts. However, Impact 4.3-11 discusses the proposed project's potential impacts to aquatic resources in depth and is supported by extensive research conducted by Madrone in the BRA.

Furthermore, pursuant to CEQA Guidelines Section 15126.4(a)(1)(B), the CEQA Guidelines recognize that compliance with regulatory requirements is permissible mitigation. Additional detail will be developed as part of the regulatory process and in fact requires undergoing that regulatory process with the U.S. Army Corps of Engineers (USACE) and the Regional Water Quality Control Board (RWQCB). The comment does not identify any reason why compliance with the regulatory requirements acknowledged within the comment would be infeasible or ineffective (see *Citizens for a Sustainable Treasure Island v. City and County of San Francisco* (2014) 227 Cal.App.4th 1036, 1060).

Nevertheless, the following language has been added to Mitigation Measure 4.3-11(d), as follows:

4.3-11(d) *If the project applicant proceeds with the proposed off-site water main to be installed within the alignment of the approved Bass Lake North Bike Trail, the project applicant shall implement all mitigation measures included in the following resource agency permit documents:*

- *Clean Water Act Section 401 Water Quality Certification and Order (WDID No. 5A09CR00228);*

- *Streambed Alteration Agreement (EPIMS Notification No. ELD-34364-R2); and*
- *Section 404 Permit (ID No. SPK-2022-00634).*

Agreement from CDFW (if applicable), as well as the Clean Water Act permit from USACE (if required), shall be provided to El Dorado County Planning and Building Department prior to commencement of any project construction activities.

The foregoing revisions only refine Mitigation Measure 4.3-11(d), and do not affect the conclusions of the Draft EIR.

Response to Comment 9-33

Please see Response to Comment 9-32. In addition, the statement that impacts to the stream are "extremely likely" is speculative and does not constitute substantial evidence that such impacts would occur. The commenter does not adequately demonstrate the significance of any impacts that would result from the proposed project, especially considering that the project shall comply with USACE and RWQCB requirements and all affected waters would be replaced or rehabilitated on a "no-net-loss" basis.

Response to Comment 9-34

As discussed throughout the Draft EIR, all potential impacts associated with the proposed project would be mitigated to a less-than-significant levels before construction activities commence, with the exception of the unavoidable cumulative loss of habitat for special-status species and oak woodlands.

Response to Comment 9-35

The comment relies on general academic papers and does not specifically dispute any conclusion made in the Draft EIR, which found that potential impacts to the movement of any native resident or migratory wildlife species, or with established native resident or migratory wildlife corridors, would be less-than-significant.

Response to Comment 9-36

The Draft EIR examined the potential impacts to wildlife movement under Impact 4.3-12 on pages 4.3-63 through 4.3-65. The analysis determined that the proposed project is not located in a wildlife corridor and would not have a significant impact on wildlife movement. The conclusions of the Draft EIR are supported by substantial evidence, including the BRA, which was based on both literature review and site visits. Please also see Responses to Comments 11-64 and 11-65.

Response to Comment 9-37

The comment does not show how the proposed project would directly impact the area and, as the comment notes, the project site is adjacent to an area mapped as a "Conservation Planning Linkage" by CDFW. As noted by CDFW, connections with implementation flexibility are identified as "areas … having connectivity importance, but have not been identified as channelized areas, species corridors, or habitat linkages at this time." Although the adjacent area is mapped as a "Conservation Planning Linkage," that designation is applicable to the mapped area and cannot be extrapolated to the project site.

Furthermore, as noted by CDFW, "[t]he ACE maps provide a coarse level view of information for conservation planning purposes. The ACE project draws from multiple sources of vetted species occurrence data, as well as predictive species modeling efforts. ACE data products do not replace the need for site-specific evaluation of biological resources and should not be used for regulatory purposes." The BRA has relied upon a site-specific evaluation; the commenter has not provided additional site-specific data that contradicts Madrone's conclusions. It should also be noted that CDFW submitted a comment letter on the Draft EIR (see Letter 1) and did not identify any issues related to this topic.

Response to Comment 9-38

Please see Responses to Comment 9-36 and 9-37.

Response to Comment 9-39

Please see Responses to Comment 9-36.

Response to Comment 9-40

Please see Response to Comment 9-36.

Response to Comment 9-41

Please see Responses to Comment 9-36 and 9-37.

Response to Comment 9-42

Please see Responses to Comment 9-36 and 9-37.

Response to Comment 9-43

The comment provides introductory remarks that are elaborated upon in subsequent comments. Please see responses to those comments below.

Response to Comment 9-44

The comment provides a general comment about exurban development and does not discuss any specific environmental effect of the proposed project. Therefore, further response is not warranted. The comment has been noted for the record and will be forwarded to the decision-makers for their consideration.

Response to Comment 9-45

An EIR must evaluate alternatives to a project as proposed. However, pursuant to CEQA Guidelines Section 15126(f), the alternatives that must be evaluated in an EIR are limited to alternatives that would avoid or substantially lessen the significant effects of the project, and of those, the EIR need only examine in detail alternatives that could feasibly attain most of the project objectives. The Draft EIR evaluated three alternatives in detail, including a Higher Density Alternative, in Chapter 6, Alternatives Analysis.

The comment requests analysis of a high-density alternative within the current development footprint. As the project site is undeveloped, the comment ostensibly refers to off-site locations. The Draft EIR considered off-site alternatives. However, as discussed on page 6-11 of the Draft EIR, there would be limited 60-acre properties well suited for the proposed project. The lack of suitable alternative sites would be particularly true within already-developed areas, where large undeveloped areas of sufficient size are unlikely to exist. Condensing and otherwise modifying

the project to the point where the proposed project could be located within the existing development footprint would require fundamentally altering the nature of the project, thereby not meeting key project objectives. Therefore, the comment is noted for consideration of the merits of the proposed project.

Response to Comment 9-46

The provision of affordable housing is not an environmental impact under CEQA. Therefore, the comment does not present any significant environmental issue, and further response is not required. Nonetheless, it should be noted that the proposed project is a private project. Public funding for either infill or affordable housing is not being diverted to fund the proposed project. Thus, the comment is also incorrect that the proposed project would result in a disinvestment in infill affordable housing.

Response to Comment 9-47

The comment discusses the County's general land use policies towards development and does not make any specific comment about the project or its environmental impacts. As such, the comment is noted for the record and will be forwarded to the decision-makers for their consideration, and further response is not required.

Response to Comment 9-48

The Draft EIR does evaluate an alternative with a smaller development footprint in Chapter 6, Alternatives Analysis, under the Buildout Pursuant to BLHSP Alternative section. As the comment states, the smaller development footprint would reduce the significant impacts to biological resources. The means of achieving the smaller footprint in the Buildout Pursuant to BLHSP Alternative is somewhat different from the more compact housing types discussed in the comment, but the difference does not affect environmental impacts. Therefore, the proposed alternative is duplicative of alternatives already evaluated in the Draft EIR.

Given that the comment also refers to a City making efforts to preserve open space, it should be noted that El Dorado County is the lead agency for the proposed project.

Response to Comment 9-49

The comments urging application of an inclusionary housing mandate are noted for consideration, but do not raise any environmental issue with respect to the Draft EIR's environmental analysis. The comment also once again refers to a city, despite El Dorado County being the lead agency for the proposed project.

Response to Comment 9-50

The comments regarding payment of in-lieu fees related to affordable housing are noted for consideration, but do not raise any environmental issue with respect to the adequacy of the Draft EIR's environmental analysis.

Response to Comment 9-51

The comment notes the connection between VMT and air pollutant emissions. The air pollutant emissions from mobile sources are evaluated in Chapter 4.2, Air Quality, Greenhouse Gas Emissions, and Energy, of the Draft EIR, which is informed by the technical VMT and air quality studies in Appendices D and P to the Draft EIR. The comment is correct that increases in VMT are positively correlated with increases in air pollutant emissions. However, the comment does

not raise any specific issue with the environmental analysis in the Draft EIR. Therefore, the comment has been noted for consideration of the merits of the proposed project.

Response to Comment 9-52

The comment does not address the adequacy of the Draft EIR. The comment has been noted for the record and will be forwarded to the decision-makers for their consideration.

Response to Comment 9-53

The comment does not address the adequacy of the Draft EIR. The comment has been noted for the record and will be forwarded to the decision-makers for their consideration.

Response to Comment 9-54

The economic effects of unbundling parking are not considered physical environmental effects under CEQA. Though the comment questions the efficacy of unbundling parking for reducing VMT, the comment does not provide evidence to support the idea that unbundling might not reduce VMT impacts. As noted in the Draft EIR on page 4.11-24, the CAPCOA handbook explicitly includes unbundling parking as an effective VMT mitigation measure, so substantial evidence supports that such unbundling is effective VMT mitigation. Nonetheless, the Draft EIR finds that VMT impacts would still be significant despite the VMT mitigation measures. Please also see Response to Comment 11-131.

Response to Comment 9-55

Expanding transit is also identified as a VMT mitigation in the CAPCOA handbook. However, as the Draft EIR explains on page 4.11-25, expanding transit cannot be effectively implemented at the project level because alternative modes of transportation are not available for the residential portion of the Program Study Area. Therefore, potential mitigation related to expanding transit was found to be infeasible. Please also see Response to Comment 11-131.

Response to Comment 9-56

Please see Response to Comment 9-55 above.

Response to Comment 9-57

Please see Response to Comment 9-55.

Response to Comment 9-58

The comment provides summary observations but does not include additional specific comments. Specific responses to the issues contained in this comment are found in responses above. The comment has been noted for the record and will be forwarded to the decision-makers for their consideration.

Response to Comment 9-59

The comment states that that Draft EIR's evaluation and mitigation of several impacts is inadequate, but does not raise any specific issues with respect to the impact areas. The comment has been noted for the record and will be forwarded to the decision-makers for their consideration.

Response to Comment 9-60

The comment does not address the adequacy of the Draft EIR. The comment has been noted for the record and will be forwarded to the decision-makers for their consideration.

Letter 10

Housing El Dorado

Email: *housingeldorado@gmail.com*
Web-site: *Housingeldorado.org*
Mailing address: *1390 Broadway B-216, Placerville, Ca. 95667*
Phone: *530-497-0242*

Create and promote affordable housing solutions and support services that nurture individuals and families while encouraging self-sufficiency on the Western Slope of El Dorado County

To: El Dorado County Planning and Building Department - Planning Division
Attention: Ande Flower, 2850 Fairlane Court, Building C, Placerville, CA 95667
Date: August 22, 2024
Subject: Town & Country Village El Dorado

10-1

Housing El Dorado applauds the developer of the Town and Country Village El Dorado for including much needed employee housing as a key component of this project.

The inclusion of these 56 much needed, deed restricted hotel employee housing units in the proposed project, in combination with another 56 units available for rent on a daily or extended stay basis, is forward thinking.

By providing staff housing options close to work, this project will reduce commute times, decrease traffic congestion, and enhance the quality of life for workers. By making it possible for employees to live where they work, this project fosters a more connected and engaged community.

This is a practical and compassionate solution that addresses both environmental impacts and the county's critical need for additional workforce housing. This is clearly a model for future development in El Dorado County.

We urge the county to support and approve this project.

Board of Directors: Maureen Dion-Perry, Frank Porter, Craig Styles, Peg Vanderkar, Lexi Boeger; Wanda Demarest, Tamara Janies, Charlie McDonald, Donald Vanderkar; **EDCF Advisor:** Hilary Mulligan; and **Program Coordinator:** Nichole Paine

LETTER 10: HOUSING EL DORADO

Response to Comment 10-1

The comment does not address the adequacy of the Draft EIR. The comment has been noted for the record and will be forwarded to the decision-makers for their consideration.

Letter 11

LOZEAU DRURY LLP
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Via Email

September 6, 2024

Andy Nevis, Chair (andy.nevis@edcgov.us)
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Planning Division
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Attn: Ande Flower
TownAndCountryElDorado@edcgov.us

Re: Comment on Town and Country Village Draft Environmental Impact Report Application Nos. General Plan Amendment (GPA22-0003), Specific Plan Revision (SP-R21-0002), Planned Development Permit (PD21-0005), Rezone (Z21-0013), and Tentative Map (TM22-0005), and Conditional Use Permit (CUP23-0008)]

Dear Chair Nevis, Honorable Commissioners, and staff:

The following comments are submitted on behalf of Laborers Union of North America, Local Union 185 ("LIUNA") on the Town and Country Village Draft Environmental Impact Report ("Project"). The Project involves a "Project Development Area" and a "Program Study Area," the latter of which may include future development but currently has no development plans. The Project Development Area would include the construction of two 150-room hotels, 112 residential cottages, retail space, restaurants, an event center/museum, recreational amenities, and parking lots.

11-1

In support of its comments, LIUNA has retained expert wildlife biologist Dr. Shawn Smallwood, Ph.D.; air quality experts Dr. Paul E. Rosenfeld, Ph.D, and Matt Hagemann, P.G., C.Hg. of the environmental consulting firm Soil, Water, Air Protection Enterprise ("SWAPE"); and indoor air quality expert Francis Offerman. Dr. Smallwood's, Dr. Rosenfeld's and Mr. Hagemann's, and Mr. Offerman's comments and CVs are attached at Exhibit A, B, and C, respectively.

LEGAL STANDARD

I. CEQA and Environmental Impact Report

CEQA has two primary purposes. First, CEQA is designed to inform decision makers and the public about the potential, significant environmental effects of a project. (14 CCR § 15002(a)(1).) "Its purpose is to inform the public and its responsible officials of the environmental consequences of their decisions before they are made. Thus, the EIR 'protects not only the environment but also informed self-government.'" (*Citizens of Goleta Valley v. Board of Supervisors* (1990) 52 Cal.3d 553, 564.) Second, CEQA requires public agencies to avoid or reduce environmental damage when "feasible" by requiring "environmentally superior" alternatives and all feasible mitigation measures. (14 CCR § 15002(a)(2) and (3); see also *Berkeley Jets Over the Bay Com. v. Board of Port Cmrs.* (2001) 91 Cal.App.4th 1349,1354; *Citizens of Goleta Valley v. Board of Supervisors* (1990) 52 Cal.3d 553, 564.)

CEQA requires that an agency analyze the potential environmental impacts of its proposed actions in an Environmental Impact Report (EIR) except in certain limited circumstances. (See, e.g., Pub. Resources Code, § 21100.) The EIR is the very heart of CEQA. (*Dunn-Edwards v. BAAQMD* (1992) 9 Cal.App.4th 644, 652. The EIR is an "environmental 'alarm bell' whose purpose is to alert the public and its responsible officials to environmental changes before they have reached the ecological points of no return." (*Bakersfield Citizens for Local Control v. City of Bakersfield* (2004), 124 Cal.App.4th 1184, 1220.) The EIR also functions as a "document of accountability," intended to "demonstrate to an apprehensive citizenry that the agency has, in fact, analyzed and considered the ecological implications of its action." (*Laurel Heights Improvements Assn. v. Regents of Univ. of Cal.* (1988) 47 Cal.3d 376, 392.)

11-2

The EIR serves to provide agencies and the public with information about the environmental impacts of a proposed project and to "identify ways that environmental damage can be avoided or significantly reduced." (14 CCR § 15002(a)(2).) Critical to this purpose, the EIR must contain an "accurate and stable project description." (*County of Inyo v. City of Los Angeles* (1977) 71 Cal.App.3d 185 at 192-93 ("An accurate, stable and finite project description is the *sine qua non* of an informative and legally sufficient EIR.") The project description must contain (a) the precise location and boundaries of the proposed project, (b) a statement of the project objectives, and (c) a general description of the project's technical, economic, and environmental characteristics. (14 CCR § 15124.)

II. Standard of Review

The California Supreme Court has emphasized that:

11-3

> When reviewing whether a discussion is sufficient to satisfy CEQA, a court must be satisfied that the EIR (1) includes sufficient detail to enable those who did not

> participate in its preparation to understand and to consider meaningfully the issues the proposed project raises [citation omitted]....

(*Sierra Club v. Cty. of Fresno* (2018) 6 Cal.5th 502, 510 (2018) [citing *Laurel Heights Improvement Assn.*, 47 Cal.3d at 405].) The Court in *Sierra Club v. Cty. of Fresno* also emphasized that another primary consideration of sufficiency is whether the EIR "makes a reasonable effort to substantively connect a project's air quality impacts to likely health consequences." (*Id.* at 510.) "Whether or not the alleged inadequacy is the complete omission of a required discussion or a patently inadequate one-paragraph discussion devoid of analysis, the reviewing court must decide whether the EIR serves its purpose as an informational document." (*Id.* at 516.)

11-3 cont.

Although an agency has discretion to decide the manner of discussing potentially significant effects in an EIR, "a reviewing court must determine whether the discussion of a potentially significant effect is sufficient or insufficient, i.e., whether the EIR comports with its intended function of including 'detail sufficient to enable those who did not participate in its preparation to understand and to consider meaningfully the issues raised by the proposed project.'" (*Sierra Club,* 6 Cal.5th at 516 [citing *Bakersfield Citizens for Local Control v. City of Bakersfield* (2004) 124 Cal.App.4th 1184, 1197].) "The determination whether a discussion is sufficient is not solely a matter of discerning whether there is substantial evidence to support the agency's factual conclusions." (*Id.* at 516.) As the Court emphasized:

> [W]hether a description of an environmental impact is insufficient because it lacks analysis or omits the magnitude of the impact is not a substantial evidence question. A conclusory discussion of an environmental impact that an EIR deems significant can be determined by a court to be inadequate as an informational document without reference to substantial evidence.

(*Id.* at 514.) Additionally, "in preparing an EIR, the agency must consider and resolve every fair argument that can be made about the possible significant environmental effects of a project." (*Protect the Historic Amador Waterways v. Amador Water Agency* (2004) 116 Cal.App. 4th 1099, 1109.)

III. Mitigation Measures

In general, mitigation measures must be designed to minimize, reduce or avoid an identified environmental impact or to rectify or compensate for that impact. (14 CCR § 15370.) Where several mitigation measures are available to mitigate an impact, each should be discussed and the basis for selecting a particular measure should be identified. (14 CCR § 15126.4(a)(1)(B).) A lead agency may not make the required CEQA findings unless the administrative record clearly shows that all uncertainties regarding the mitigation of significant environmental impacts have been resolved.

11-4

If the project will have a significant effect on the environment, the agency may approve the project only if it finds that it has "eliminated or substantially lessened all significant effects on the environment where feasible" and that any unavoidable significant effects on the environment are "acceptable due to overriding concerns." (Pub. Res. Code, § 21081; 14 CCR § 15092(b)(2)(A) and (B).)

11-4 cont.

DISCUSSION

IV. The Project's Analysis of Impacts to Biological Resources is Not Supported By Substantial Evidence.

Dr. Smallwood reviewed and analyzed the Project's analysis of impacts to biological resources prepared by Madrone Ecological Consulting ("Madrone") and found that Madrone failed to accurately characterize the Project's environmental setting, failed to adequately analyze significant impacts to wildlife, and failed to provide adequate mitigation measures. As a result, the Project's analysis of impacts to biological resources is insufficient or not supported by substantial evidence.

11-5

A. The Project's environmental setting was not accurately characterized.

Dr. Smallwood conducted a 3.33-hour site visit on August 28, 2024, and detected 27 species of vertebrate wildlife. (Ex. A, p. 1.) Madrone detected six species of vertebrate wildlife that Dr. Smallwood did not detect, resulting in a combined 33 species detected in total. During his survey, Dr. Smallwood observed six special-status species, five of which Madrone failed to analyze, including the oak titmouse, yellow-headed black bird, turkey vulture, Cooper's hawk, red-tailed hawk, and American kestrel. (*Id.* at 10, 16.) The oak titmouse is listed by the U.S. Fish and Wildlife Service as a Bird of Conservation Concern, meaning that this species has been identified as a priority for conservation action. The yellow-headed black bird is listed as a Species of Special Concern by the California Department of Fish and Wildlife. The turkey vulture, red-tailed hawk, and American kestrel are naturally rare because of their position at the top of the food chain.

11-6

Dr. Smallwood found that the Project site is "far richer in special-status species" than is characterized by Madrone. (*Id.* at 16.) Dr. Smallwood notes that Madrone "screened out many special-status species from further consideration" due to its reliance on the California Natural Diversity Data Base ("CNDDB") for documented occurrences of special-status species near the Project site. (*Id.* at 15.) Dr. Smallwood explains that the problem with CNDDB is that:

11-7

> CNDDB relies entirely on volunteer reporting from biologists who were allowed to access whatever properties they report from. Many properties have never been surveyed by biologists. Many properties have been surveyed multiple times, but not

> all survey outcomes reported to the CNDDB. Furthermore, the CNDDB is interested only in the findings of special-status species, which means that species more recently assigned special status will have been reported many fewer times to CNDDB than were species assigned special status since the inception of the CNDDB. (*Id.*)

11-7 cont.

Given Dr. Smallwood's conclusion that Madrone failed to accurately characterize the environmental setting, including the occurrence likelihoods of special-status species, the Project's description of the environmental setting is insufficient and does not constitute substantial evidence of the Project's impacts to biological resources.

11-8

B. Significant impacts to wildlife

Dr. Smallwood found that since the Project's environmental setting has not been accurately characterized, "several potential project impacts have been inadequately analyzed." (*Id.* at 16.)

11-9

i. Habitat loss

Dr. Smallwood found that the Project did not analyze the loss of avian reproductive capacity resulting from habitat loss. (*Id.*) Dr. Smallwood calculated that the Project would cause the loss of 2,364 nest sites and 3,286 nest attempts per year. (*Id.* at 21.) However, Madrone failed to analyze this significant impact. (*Id.*) Accordingly, this impact must be considered and analyzed in the Project's final environmental impact report.

11-10

ii. Interference with wildlife movement

Dr. Smallwood determined that Madrone's finding that the "Project would leave ample wildlife movement corridor across the undeveloped areas" surrounding the project site to be incorrect. (*Id.*) As Dr. Smallwood explains:

> "Suburban residential development surrounds that Project area in all directions but the south, but U.S. 50 borders the south side of the Project. As habitat fragmentation has progressed in the area, the area's capacity to support wildlife movement in the region has declined, while at the same time it has elevated the importance of the project site to wildlife movement. (*Id.* at 22.)

11-11

Dr. Smallwood also took issue with the fact that Madrone "did not record or measure wildlife movement in any way." (*Id.* at 23.) As a result, Madrone's findings on wildlife movement are "speculative and conclusory" and therefore cannot be relied on as substantial evidence to determine the significance of the Project's impacts to biological resources. (*Id.*)

11-12

iii. Wildlife-vehicle collisions

Based on the Project's annual VMT, Dr. Smallwood was able to predict that the Project would result in 1,297 vertebrate wildlife fatalities per year. (*Id.* at 25.) Yet, Madrone failed to analyze this significant impact (*Id.*) Given that mitigation measures are available and feasible for this impact, such measures must be considered in the final environmental impact report for the Project in order to mitigate project-generated traffic impacts to wildlife. (*Id.* at 26.) 11-13

iv. Bird-window collisions

Dr. Smallwood predicts that the Project will result in 330 annual bird deaths due to window collisions. (*Id.* at 28.) Dr. Smallwood also notes that "[t]he vast majority of these predicted deaths would be birds protected under the Migratory Bird Treaty Act and under the California Migratory Bird Protection Act, thus causing significant unmitigated impacts." (*Id.*) Therefore, the Project's final environmental impact report must analyze and mitigate this impact. 11-14

C. The Project's proposed mitigation measures are inadequate.

Dr. Smallwood found the Project's mitigation measures inadequate because they "largely consist of the types of information-gathering survey's that needed to be completed in support of the DEIR" rather than actually mitigating impacts to wildlife. (*Id.* at 29.) Furthermore, the mitigation measures also fail to "prevent permanent loss of productive capacities of the species at issue and would fail to compensate for impacts." (*Id.*) 11-15

i. Preconstruction surveys are not sufficient mitigation.

The Project proposes preconstruction surveys as a mitigation measure for several species including Crotch's bumble bee, vernal pool fairy shrimp, Monarch, northwestern pond turtle, nesting birds, bats and the ringtail. However, as Dr. Smallwood explains, "[p]reconstruction surveys performed under a restricted time period cannot provide the same probability of detection as a well-timed protocol-level detection survey. It is therefore improper to require a preconstruction survey without having completed a detection survey." (*Id.* at 29-31.) Thus, preconstruction surveys alone are not sufficient to mitigate impacts to species. 11-16

ii. Mitigation measures for interference with wildlife movement and cumulative impacts are required.

While there are no mitigation measures proposed for the Project's interference with wildlife movement, Dr. Smallwood explains that there are measures available to mitigate this significant impact. (*Id.* at 32.) These measures include "the planning and construction of wildlife over- and under-crossings that are more substantial than the small plastic culverts currently in place." (*Id.*) 11-17

Dr. Smallwood also took issue with the fact that there are no mitigation measures proposed for the Project's cumulative impacts, despite findings that the Project's cumulative impacts will be significant and unavoidable. (*Id.*) Dr. Smallwood notes that there are "[m]any options [] available to mitigate cumulative impacts, such as protecting habitat at strategic locations . . . [and] the funding of wildlife monitoring at a regional scale . . ." (*Id.*) 11-18

Given that Project will result in significant cumulative impacts, as significant impacts due to interference with wildlife movement, mitigation is required and measures like those identified by Dr. Smallwood must be considered in the Project's final environmental impact report. 11-19

V. The Project's Air Quality Analysis is Not Supported By Substantial Evidence.

SWAPE reviewed and analyzed the Project's air quality analysis and found that it was inadequate because the air quality model input parameters were altered without justification, which resulted in improperly reduced calculations of Project emissions. Furthermore, SWAPE found that the Project failed to adequately evaluate emissions from diesel particulate matter (DPM) and failed to adequately mitigate significant greenhouse gas impacts. 11-20

A. <u>Changes to input parameters for construction and architectural coating emissions are unsupported.</u>

SWAPE found that the Project's construction and architectural coating emissions may be underestimated. (Ex. B, p. 3.) This is due to unsubstantiated changes to default parameters in the California Emissions Estimator Model ("CalEEMod"). (*Id.* at 1-2.) As SWAPE explains, "CalEEMod provides recommended default values based on site-specific information, such as land use type, meteorological data, total lot acreage, project type and typical equipment associated with project type." (*Id.* at 1.) However, a CalEEMod user may change the default values and input known project-specific values, such a change must be justified. (*Id.* at 2.) 11-21

For the construction emissions, SWAPE found that the DEIR failed to provide justification for its changes to input parameters regarding individual construction phase lengths. (*Id.* at 4.) SWAPE explains that the problem with this change is that: 11-22

> "[E]ach construction phase is associated with different emissions activities . . . [and] [b]y disproportionately altering and extending some of the individual construction phase lengths without proper justification, the model assumes there are a greater number of days to complete the construction activities required by the prolonged phases. As a result, there will be less construction activities required per day and fewer pollutants emitted per day." (*Id.* at 4-5.)

To accurately estimate the Project's construction emissions, SWAPE used project specific information provided in the DEIR to prepare an updated CalEEMod model. (*Id.* at 6.) When SWAPE proportionately altered the construction phase lengths in CalEEMod, the Project's estimated construction emissions for reactive organic gas ("ROG") and nitrogen oxides (NOx) increased 717% and 412% respectively. (*Id.* at 7.) SWAPE found that these increases exceeded applicable EDCAQMD significance thresholds. (*Id.*) 11-23

For the architectural coating emissions, SWAPE found that the DEIR failed to provide proper justification for changes to the default CalEEMod input parameters. (*Id.* at 5.) While the DEIR states that the changes are based on El Dorado County Air Quality Management District ("EDCAQMD") Rule 215, SWAPE was unable to "verify the accuracy of the revised architectural coating emission factors based on EDCAQMD Rule 215 alone." (*Id.*) This is because Rule 215 provides a range of standards for volatile organic compound ("VOC") limits for 42 different coating categories and the DEIR does not specify which type of coating the Project would use. (*Id.* at 6.) Thus, the revised coating emission inputs cannot be verified. 11-24

"The EIR must contain facts and analysis, not just the bare conclusions of a public agency." (*Santiago Cty. Water Dist. v. Cty. of Orange* (1981) 118 Cal.App.3d 818, 830.) "An agency's opinion concerning matters within its expertise is of obvious value, but the public and decision-makers, for whom the EIR is prepared, should also have before them the basis for that opinion so as to enable them to make an independent, reasoned judgment." (*Id.*) Thus, absent substantial evidence justifying the changes in the construction phase lengths and the architectural coating emission input, the Project's estimated emissions for construction and architectural coating cannot be relied on as substantial evidence to determine the significance of the Project's air quality impacts. 11-25

B. DPM emissions were inadequately evaluated.

SWAPE found that the DEIR's conclusion that the Project would not result in a significant health risk due to DPM emissions is unsupported because (1) a health risk assessment ("HRA") was not prepared and (2) without an HRA, the DEIR fails to assess the Project's cancer risk against EDCAQMD's cancer risk significance threshold. (*Id.* at 8.) 11-26

By failing to prepare an HRA, the DEIR fails to "connect the Project's construction-related TAC emissions [which include DPM] to the potential health risks posed to nearby receptors. (*Id.*) And without an HRA, the DEIR cannot determine whether the Project's cancer risk exceeds EDCAQMD's threshold of 10 in one million. (*Id.*) However, SWAPE prepared a screening level analysis using EPA's recommended screening model AERSCREEN to assess the Project's health risk and found the Project's excess cancer risk over the course of a 30-year residential lifetime to be 28.7 in one million, well over the EDCAQMD threshold. Therefore, the Project's DPM emissions may cause a significant health risk and without an HRA, the DEIR's 11-27

finding that the Project's DPM emissions would not cause a significant health risk remains unsupported by any substantial evidence.

11-27 cont.

C. Mitigation measures for greenhouse gas emissions are unsupported.

SWAPE found that the DEIR's conclusion that the Project's greenhouse gas emissions would be mitigated to a less than significant level is unsupported because the DEIR "fails to quantify the measures that would lead to a less-than-significant impact [greenhouse gas] impact." (*Id.* at 14.) Thus, the effectiveness of the proposed mitigation measures cannot be verified unless a quantitative analysis of the Project's greenhouse gas emissions that includes the implementation of the proposed measures is prepared and provided. (*Id.*) Until such an analysis is provided, the Project's greenhouse gas analysis remains unsupported and cannot be relied on as substantial evidence that the Project's greenhouse gas emissions will be mitigated to a less than significant level.

11-28

VI. The Project Will Result in Significant Indoor Air Quality Impacts.

Certified Industrial Hygienist Francisc Offerman conducted a review of the Project, DEIR, and relevant documents regarding the Project's indoor air emissions. Mr. Offermann is one of the world's leading experts on indoor air quality, in particular emissions of formaldehyde, and has published extensively on the topic. As discussed below and set forth in Mr. Offermann's comment, the Project's emissions of formaldehyde to air will result in significant cancer risks to future residents of the Project's residential component and to future employees of the Project's commercial component. Mr. Offermann's expert opinion and conclusions are substantial evidence that the Project will have significant air quality and health risk impacts as a result of these indoor air pollution emissions.

11-29

Formaldehyde is a known human carcinogen and listed by the State as a TAC. As was previously mentioned, EDCAQMD has established a significance threshold of health risks for carcinogenic TACs of 10 in one million.

Mr. Offerman explains that the primary source of indoor formaldehyde emissions is composite wood products, which are commonly used in building construction for flooring, cabinetry, baseboards, window shades, interior doors, and window and door trims. (Ex. C, pp. 2-3.)

Mr. Offerman found that future residents of the Project's residential units will be exposed to a cancer risk from formaldehyde of approximately 120 per million, even assuming that all materials are compliant with the California Air Resources Board's formaldehyde airborne toxics control measure. (*Id.* at 4.) This is more than 12 times EDCAQMD's CEQA significance threshold of 10 per million. (*Id.*)

11-30

In addition, Mr. Offermann found that future employees of the Project's commercial spaces will be exposed to a cancer risk from formaldehyde of approximately 17.7 per million, even assuming that all materials are compliant with the California Air Resources Board's formaldehyde airborne toxics control measure. (Ex. A, pp. 4-5.) This exceeds EDCAQMD's CEQA significance threshold of 10 per million. (*Id.* at 5.)

11-31

When a Project exceeds a duly adopted CEQA significance threshold, as here, this alone establishes substantial evidence that the project will have a significant adverse environmental impact. Indeed, in many instances, such air quality thresholds are the only criteria reviewed and treated as dispositive in evaluating the significance of a project's air quality impacts. (See, e.g. *Schenck v. County of Sonoma* (2011) 198 Cal.App.4th 949, 960 [County applies Air District's "published CEQA quantitative criteria" and "threshold level of cumulative significance"]; see also *Communities for a Better Environment v. California Resources Agency* (2002) 103 Cal.App.4th 98, 110-11 ["A 'threshold of significance' for a given environmental effect is simply that level at which the lead agency finds the effects of the project to be significant"].) The California Supreme Court made clear the substantial importance that an air district significance threshold plays in providing substantial evidence of a significant adverse impact. (*Communities for a Better Environment v. South Coast Air Quality Management Dist.* (2010) 48 Cal.4th 310, 327 [estimated emissions in excess of air district's significance thresholds "constitute substantial evidence supporting a fair argument for a significant adverse impact"].) Since expert evidence demonstrates that the Project will exceed the SCAQMD's CEQA significance threshold, there is substantial evidence that an "unstudied, ***potentially significant environmental effect[]***" exists. (See *Friends of Coll. of San Mateo Gardens v. San Mateo Cty. Cmty. Coll. Dist.* (2016) 1 Cal.5th 937, 958 [emphasis added].)

11-32

Failure to address the Project's formaldehyde emissions is contrary to the California Supreme Court's decision in *California Building Industry Ass'n v. Bay Area Air Quality Mgmt. Dist.* (2015) 62 Cal.4th 369, 386 (*CBIA*). In that case, the Supreme Court expressly holds that potential adverse impacts to future users and residents from pollution generated by a proposed project ***must be addressed*** under CEQA. At issue in *CBIA* was whether the Air District could enact CEQA guidelines that advised lead agencies that they must analyze the impacts of adjacent environmental conditions on a project. The Supreme Court held that CEQA does not generally require lead agencies to consider the environment's effects on a project. (*CBIA*, 62 Cal.4th at 800-01.) However, to the extent a project may exacerbate existing environmental conditions at or near a project site, those would still have to be considered pursuant to CEQA. (*Id.* at 801.) In so holding, the Court expressly held that CEQA's statutory language required lead agencies to disclose and analyze "impacts on ***a project's users or residents*** that arise ***from the project's effects*** on the environment." (*Id.* at 800 [emphasis added].)

11-33

The carcinogenic formaldehyde emissions identified by Mr. Offermann are not an existing environmental condition. Those emissions to the air will be from the Project. People will be residing in and using the Project once it is built and begins emitting formaldehyde. Once built, the Project will begin to emit formaldehyde at levels that pose significant direct and cumulative health risks. The Supreme Court in *CBIA* expressly finds that this type of air emission and health

11-34

impact by the project on the environment and a "project's users and residents" must be addressed in the CEQA process. The existing TAC sources near the Project site would have to be considered in evaluating the cumulative effect on future residents of both the Project's TAC emissions as well as those existing off-site emissions.

11-34 cont.

The Supreme Court's reasoning is well-grounded in CEQA's statutory language. CEQA expressly includes a project's effects on human beings as an effect on the environment that must be addressed in an environmental review. "Section 21083(b)(3)'s express language, for example, requires a finding of a 'significant effect on the environment' (§ 21083(b)) whenever the 'environmental effects of a project will cause substantial adverse effects *on human beings,* either directly or indirectly.'" (*CBIA*, 62 Cal.4th at 800 [emphasis in original].) Likewise, "the Legislature has made clear—in declarations accompanying CEQA's enactment—that public health and safety are of great importance in the statutory scheme." (*Id.*) It goes without saying that the thousands of future residents at the Project are human beings and the health and safety of those residents must be subjected to CEQA's safeguards.

11-35

The DEIR provides no substantial evidence regarding the significant health risks posed by the Project from indoor emissions of formaldehyde. The County has a duty to investigate issues relating to a project's potential environmental impacts. (See *County Sanitation Dist. No. 2 v. County of Kern*, (2005) 127 Cal.App.4th 1544, 1597–98. ["[U]nder CEQA, the lead agency bears a burden to investigate potential environmental impacts."].) The proposed mixed-use building will have significant impacts on air quality and health risks by emitting cancer-causing levels of formaldehyde that will expose future residents and employees to cancer risks potentially in excess of EDCAQMD's threshold of significance for cancer health risks of 10 in a million. In light of this impact and the lack of any substantial evidence to the contrary, the Project's final environmental impact report must analyze and mitigate this significant impact.

11-36

CONCLUSION

For the forgoing reasons, LIUNA respectfully requests that Project's environmental impact report be revised to adequately analyze and mitigate significant impacts and to ensure compliance with CEQA. LIUNA reserves its right to supplement these comments during review of the EIR for the Project. *Galante Vineyards v. Monterey Peninsula Water Management Dist.* (1997) 60 Cal.App.4th 1109, 1120 ("any party may bring an action pursuant to section 21167 if it has raised an objection to the adequacy of an EIR prior to certification").

11-37

Thank you for your attention to these comments.

Sincerely,

Kylah Staley
Lozeau | Drury LLP

EXHIBIT A

Shawn Smallwood, PhD
3108 Finch Street
Davis, CA 95616

Bret Sampson, Planning Manager
County of El Dorado
Planning and Building Department
2850 Fairlane Court, Building C
Placerville, CA 95667

29 August 2024

RE: Town & Country Village Project

Dear Mr. Sampson,

I write to comment on potential impacts to biological resources from the proposed Town & Country Village Project, which I understand would add two hotels, retail services, two restaurants, a museum, an event center, associated parking, 56 residential cottages for employee housing, and 56 residential cottages for rent on 60.5 acres of open space located north of U.S. Highway 50 and east of Bass Lake Road. I comment on the analyses of impacts to biological resources in the Draft Environmental Impact Report (DEIR) that was prepared by Raney Planning and Management on behalf of El Dorado County, as well as the biological technical report prepared by Madrone Ecological Consulting (Madrone 2024). My comments address biological resources as part of the existing environmental setting of 81.8 acres of both the 53.7-acre Project Area and the 28.1-acre Program Study Area, the latter of which the DEIR says might be developed later. As for comments on potential project impacts to wildlife, I address impacts related only to the 53.7-acre Project Area, because the DEIR does not describe the portion of the piecemealed project that would be developed later on the 28.1-acre Program Study Area. 11-38

My qualifications for preparing expert comments are the following. I hold a Ph.D. degree in Ecology from University of California at Davis, where I also worked as a post-graduate researcher in the Department of Agronomy and Range Sciences. My research has been on animal density and distribution, habitat selection, wildlife interactions with the anthrosphere, and conservation of rare and endangered species. I authored many papers on these and other topics. I served as Chair of the Conservation Affairs Committee for The Wildlife Society – Western Section. I am a member of The Wildlife Society and Raptor Research Foundation, and I've lectured part-time at California State University, Sacramento. I was Associate Editor of wildlife biology's premier scientific journal, The Journal of Wildlife Management, as well as of Biological Conservation, and I was on the Editorial Board of Environmental Management. I have performed wildlife surveys in California for thirty-seven years. My CV is attached. 11-39

SITE VISIT

I visited the site of the proposed project for 3.33 hours from 06:15 to 09:35 hours on 28 August 2024. I walked the site's perimeter where accessible, stopping to scan for wildlife 11-40

with use of binoculars. I recorded all species of vertebrate wildlife I detected, including those whose members flew over the site or were seen nearby, off the site. Animals of uncertain species identity were either omitted or, if possible, recorded to the Genus or higher taxonomic level.

Conditions were sunny with no wind and temperatures of 67-80° F. The site is covered by Valley Oak Savannah, Oak Woodland with wetlands (Photos 1–6). Species of oaks include interior live oak, blue oak and Valley oak.

11-40 cont.

Photos 1 and 2. *Oak woodland north of Country Club Drive (top), and Oak Savannah to the south (bottom), 28 August 2024.*

11-40 cont.

Photos 3 and 4. *Annual grassland and wetlands of the project site, 28 August 2024.*

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Photos 5 and 6. *Annual grassland and an oak of the project site, 28 August 2024.*

11-40 cont.

I saw mourning doves (Photo 7), Cooper's hawk and Ameican kestrel (Photos 8 and 9), two adult red-tailed hawks supervising a fledgling (Photos 10 and 11), western fence lizards (Photo 12), California kingsnake and black-tailed jackrabbit (Photos 13 and 14), and black phoebes (Photo 15) among other species listed in Table 1. I detected 27 species of vertebrate wildlife on the project site, including six species with special status (Table 1).

11-41

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11-41 cont.

Photo 7. *One of many mourning doves on the project site, 28 August 2024.*

5

11-41 cont.

Photos 8 and 9. *Cooper's hawk (left) and American kestrel (right) on the project site, 28 August 2024.*

Photo 10. *Red-tailed hawk landing on an oak on the project site, 28 August 2024.*

11-41 cont.

Photo 11. *Red-tailed hawk on the project site, 28 August 2024.*

Photo 12. *Western fence lizard on the project site, 28 August 2024.*

11-41 cont.

Photos 13 and 14. *Road-killed California kingsnake (top) and black-tailed jackrabbit (bottom) on Country Club Dr., 28 August 2024.*

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Photo 15. *Black phoebe on the project site, 28 August 2024.*

11-41 cont.

Table 1. *Species of wildlife I observed during 3.33 hours of survey on 28 August 2024.*

Common name	*Species name*	Status[1]	Notes
Western fence lizard	*Sceloporus occidentalis*		Many
California kingsnake	*Lampropeltis californea*		Dead on road
Northern Pacific rattlesnake	*Crotalus o. oreganus*		Shed skin between rocks
Mourning dove	*Zenaida macroura*		Many including fledglings
Anna's hummingbird	*Calypte anna*		Oak savannah
Turkey vulture	*Cathartes aura*	BOP	Oak savannah
Cooper's hawk	*Accipiter cooperii*	TWL, BOP	Oak woodland
Red-tailed hawk	*Buteo jamaicensis*	BOP	Pair with fledgling
American kestrel	*Falco sparverius*	BOP	Oak savannah
Black phoebe	*Sayornis nigricans*		Oak woodland
California scrub-jay	*Aphelocoma californica*		Oak woodland
Common raven	*Corvus corax*		Oak savannah
Oak titmouse	*Baeolophus inornatus*	BCC	Oak woodland
White-breasted nuthatch	*Sitta carolinensis*		Oak woodland
Western bluebird	*Sialia mexicana*		Oak woodland
House finch	*Haemorphous mexicanus*		Oak woodland
American goldfinch	*Spinus tristis*		Oak woodland
Yellow-headed blackbird	*X. xanthocephalus*	SSC3	3 flew over, low
Brewer's blackbird	*Euphagus cyanocephalus*		15 flew over, low
Black-tailed jackrabbit	*Lepus californicus*		Dead on road
Desert cottontail	*Sylvilagus audubonii*		Oak savannah
Coyote	*Canis latrans*		Oak savannah
Mule deer	*Odocoileus hemionus*		Trails
Deer mouse	*Peromyscus manicularus*		Burrows
Kangaroo rat	*Dipodomys*		Burrows
California vole	*Microtus californicus*		Burrows, grass runways
Botta's pocket gopher	*Thomomys bottae*		Burrows

[1] Listed as SSC = California Species of Special Concern, BCC = U.S. Fish and Wildlife Service Bird of Conservation Concern, TWL = Taxa to Watch List (Shuford and Gardali 2008), and BOP = Birds of Prey (California Fish and Game Code 3503.5).

Although I detected 27 species of vertebrate wildlife during my brief survey, I must point out that the species of wildlife I detected comprised only a sampling of the species that were present during my survey. Reconnaissance surveys, such as the one I completed at the project site, cannot support determinations of species' absence, but they can confirm species' presence. Such surveys can also be useful for estimating the number of species that were not detected, thereby revealing the degree to which the survey sampled the local wildlife community that was available at the time of the survey. One way to do this is to model the pattern in species detections with time into a survey. The cumulative number of species' detections increases with increasing survey time, but eventually with diminishing returns (Figure 1). In the case of my survey on the project site, the pattern in the data predicts that had I spent more time on the site, or had I help from more biologists, I would have detected many species of vertebrate wildlife during the morning of 28 August 2024.

11-42

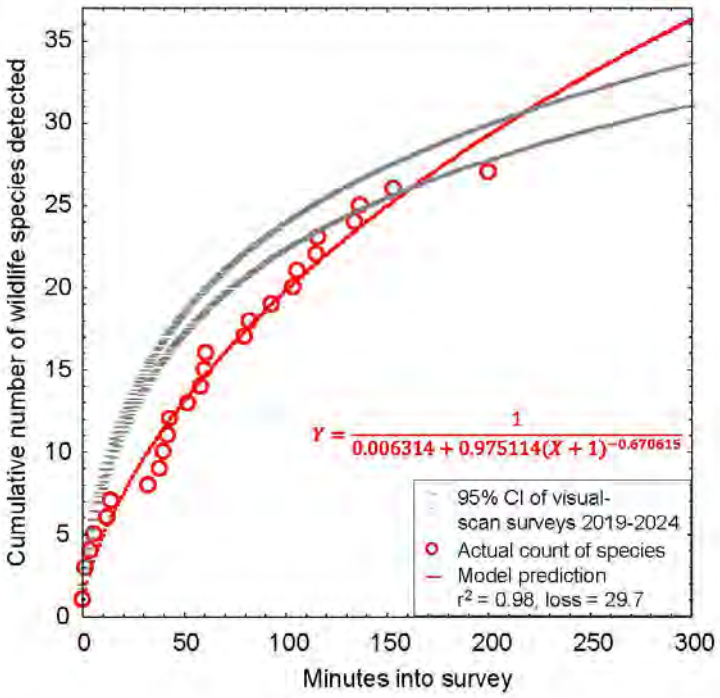

Figure 1. *Actual and predicted relationships between the number of vertebrate wildlife species detected and my elapsed survey time on 28 August 2024.*

The pattern in my data also indicates that my rate of species detections at the project site initially fell below the lower bound of the 95% confidence interval I estimated from 300 surveys at other project sites throughout California since 2019, but after several hours my rate of species detection caught up with and exceeded the upper bound of the 95% CI (Figure 1). In other words, wildlife species richness at the project site exceeds the species richness I have found at other project sites in the region. 11-43

The site supports many species of wildlife, including many more than I could detect during a brief reconnaissance survey. However, although this modeling approach is useful for more realistically representing the species richness of the site at the time of a survey, it cannot represent the species richness throughout the year or across multiple years because many species are seasonal or even multi-annual in their movement patterns and in their occupancy of habitat. I surveyed only in August, and therefore I was unlikely to see some of the species that would use the site in spring, fall or winter. 11-44

By use of an analytical bridge, I can apply a model developed from a much larger, more robust data set at a research site to predict the number of wildlife species that would make use of the project site over the longer term. As part of my research, I completed a much larger survey effort across 167 km² of annual grasslands of the Altamont Pass Wind Resource Area, Alameda County, where from 2015 through 2019 I performed 721 11-45

11

1-hour visual-scan surveys, or 721 hours of surveys, at 46 stations. I used binoculars and otherwise the methods were the same as the methods I used at the project site. At each of the 46 survey stations at my research site, I tallied new species detected with each sequential survey at that station, and then related the cumulative species detected to the hours (number of surveys, as each survey lasted 1 hour) used to accumulate my counts of species detected. I used combined quadratic and simplex methods of estimation in Statistica to estimate least-squares, best-fit nonlinear models of the number of cumulative species detected regressed on hours of survey (number of surveys) at the station: $\hat{R} = \frac{1}{1/a+b\times(Hours)^c}$, where $\hat{R}$ represented cumulative species richness detected. The models' coefficients of determination, r^2, ranged 0.88 to 1.00, with a mean of 0.97 (95% CI: 0.96, 0.98); or in other words, the models were excellent fits to the data.

11-45 cont.

I projected the predictions of each model to thousands of hours to find predicted asymptotes of wildlife species richness. The mean model-predicted asymptote of species richness was 57 after 11,857 hours of visual-scan surveys among the 46 stations. I also averaged model predictions of species richness at each incremental increase of number of surveys, i.e., number of hours (Figure 2). On average I detected 12.9 species over the first 3.33 hours of surveys in the Altamont Pass (3.33 hours to match the number of hours I surveyed at the project site), which composed 22.6% of the total predicted species I would detect with a much larger survey effort. Given the example illustrated in Figure 2, the 27 species I detected after my 3.33 hours of survey at the project site likely represented 22.6% of the species to be detected after many more visual-scan surveys over another year or longer. With many more repeat surveys through the year, I would likely detect $27/0.226 = 119$ species of vertebrate wildlife at the site. Assuming my ratio of special-status to non-special-status species was to hold through the detections of all 119 predicted species, then continued surveys would eventually detect 22 special-status species of vertebrate wildlife.

Again, however, my prediction of 119 species of vertebrate wildlife, including 22 special-status species, is derived from a visual-scan survey during the daytime, and would not detect nocturnal birds and mammals such as owls and bats. The true number of species composing the wildlife community of the site must be larger. One reconnaissance survey should serve only as a starting point toward characterization of a site's wildlife community, but this level of effort certainly cannot alone inform of the inventory of species that use the site.

11-46

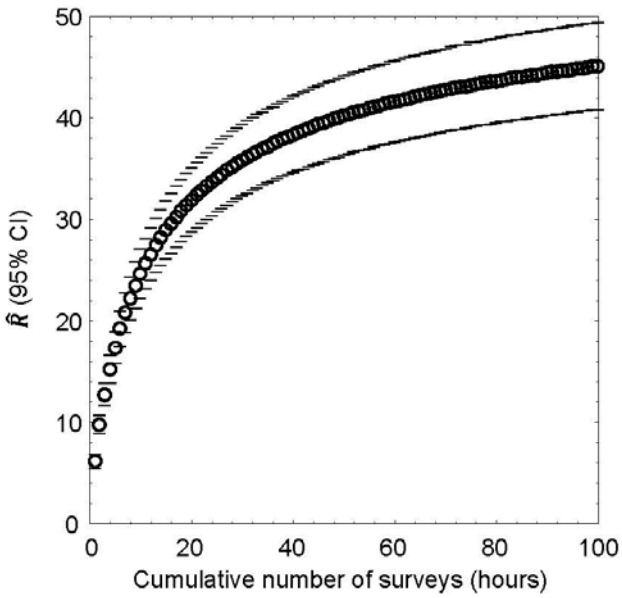

Figure 2. *Mean (95% CI) predicted wildlife species richness, $\hat{R}$, as a nonlinear function of hour-long survey increments across 46 visual-scan survey stations across the Altamont Pass Wind Resource Area, Alameda and Contra Costa Counties, 2015–2019.*

EXISTING ENVIRNMENTAL SETTING

The first step in analysis of potential project impacts to biological resources is to accurately characterize the existing environmental setting, including the biological species that use the site, their relative abundances, how they use the site, key ecological relationships, and known and ongoing threats to those species with special status. A reasonably accurate characterization of the environmental setting can provide the basis for determining whether the site holds habitat value to wildlife, as well as a baseline against which to analyze potential project impacts. For these reasons, characterization of the environmental setting, including the project site's regional setting, is one of CEQA's essential analytical steps. Methods to achieve this first step typically include (1) surveys of the site for biological resources, and (2) reviews of literature, databases and local experts for documented occurrences of special-status species. In the case of the proposed project, these required steps remain incomplete and misleading.

11-47

Environmental Setting informed by Field Surveys

To CEQA's primary objective to disclose potential environmental impacts of a proposed project, the analysis should be informed of which biological species are known to occur at the proposed project site, which special-status species are likely to occur, as well as the limitations of the survey effort directed to the site. Analysts need this information to characterize the environmental setting as a basis for opining on, or predicting, potential project impacts to biological resources.

11-48

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Two biologists from Madrone (2024) performed three reconnaissance surveys of the project site on 13 April 2022, 27 September 2023, and 6 October 2023 to classify vegetation, assess habitat suitability to special-status species, "conduct the protocol-level surveys" for plants, survey for aquatic resources, and inventory the oaks. In short, the two biologists pursued five objectives over three survey dates covering 81.8 acres on complex terrain, and 27.6 acres of which meander over 6.4 km of alternative sewer and water lines. The effort needed to satisfactorily achieve the stated objectives would have required either many more biologists or much more time than was committed. Madrone did not commit the time and effort needed to achieve its stated objectives. 11-49

Furthermore, Madrone (2024) fails to report essential methodological details, such as the survey start times and survey durations. Both of these details affect the number of species detected (see Figures 1 and 2), as well as which species are detected. No checklist is shared of habitat elements that the biologists might have used during their surveys to assess likelihoods of occurrence of special-status species, leaving one to assume that the biologists exercised a skill that few if any biologists possess at determining whether the project site supports habitat of each of the many special-status species that could conceivably occur at the project site. Without reporting of these essential details, it is impossible for the reader to put the survey findings into context of the methods used and levels of effort committed to the surveys. 11-50

Madrone (2024) reports having detected 15 species of vertebrate wildlife, including six species of raptor, or one or two species more than half the number I detected, and this difference was despite the fact that Madrone's surveys numbered six times the person-days. I detected nearly 11 times the number of species detected per person-day of survey, even though I surveyed only from the perimeter whereas Madrone's biologists enjoyed full access to the project site. Part of the reason for the difference was that Madron's biologists had to split their focus to too many objectives, and were therefore unable to focus attention to detecting wildlife. This is unfortunate because the detection of wildlife species is the surest means of assessing whether a site supports habitat. 11-51

Madrone detected six species of vertebrate wildlife that I did not detect during my survey, whereas I detected 21 species of vertebrate wildlife that Madrone failed to detect. It is not surprising that one survey team would detect species missed by another survey team. The 33 combined species of vertebrate wildlife detected by both Madrone and myself number fewer than a third of the species that my findings bridged to my Altamont Pass research site predicts based on diurnal visual-scan surveys. More surveys are warranted. The project site remains grossly under-surveyed. More surveys are needed to characterize the wildlife community with reasonable accuracy as an important component of the existing environmental setting of the project site. 11-52

Moreover, no protocol-level detection surveys have been implemented for special-status species of wildlife, nor have the minimum standards been met for having implemented the survey guidelines for special-status species of plants (CDFW 2018). 11-53

Environmental Setting informed by Desktop Review

The purpose of literature and database review and of consulting with local experts is to inform the field survey, and to augment interpretation of its outcome. Analysts need this information to identify which species are known to have occurred at or near the project site, and to identify which other special-status species could conceivably occur at the site due to geographic range overlap and migration flight paths. Unfortunately, the desktop review prepared for this DEIR is fundamentally flawed and unreliable. 11-54

Madrone (2024) did not reportedly review eBird (https://eBird.org) or iNaturalist (https://www.inaturalist.org) for documented occurrence records at or near the project site. Instead, Madrone (2024) queried the California Natural Diversity Data Base (CNDDB) for documented occurrences of special-status species within five miles of the project site. By doing so, Madrone (2024) screened out many special-status species from further consideration in the characterization of the wildlife community as part of the existing environmental setting. CNDDB is not designed to support absence determinations or to screen out species from characterization of a site's wildlife community. As noted by the CNDDB, "*The CNDDB is a positive sighting database. It does not predict where something may be found. We map occurrences only where we have documentation that the species was found at the site. There are many areas of the state where no surveys have been conducted and therefore there is nothing on the map. That does not mean that there are no special status species present.*" Madrone (2024) misused CNDDB. 11-55

The CNDDB relies entirely on volunteer reporting from biologists who were allowed access to whatever properties they report from. Many properties have never been surveyed by biologists. Many properties have been surveyed, but the survey outcomes never reported to the CNDDB. Many properties have been surveyed multiple times, but not all survey outcomes reported to the CNDDB. Furthermore, the CNDDB is interested only in the findings of special-status species, which means that species more recently assigned special status will have been reported many fewer times to CNDDB than were species assigned special status since the inception of the CNDDB. The lack of many CNDDB records for species recently assigned special status had nothing to do with whether the species' geographic ranges overlapped the project site, but rather more to do with the brief time for records to have accumulated since the species were assigned special status. And because negative findings are not reported to the CNDDB, the CNDDB cannot provide the basis for estimating occurrence likelihoods, either. 11-56

In my assessment based on database reviews and site visits, 106 special-status species of wildlife are known to occur near enough to the site to warrant analysis of occurrence potential (Table 2). Of these 106 species, 11 have been recorded on the project site (10%), and another 37 (35%) species have been documented within 1.5 miles of the site ('Very close'), another 14 (13%) within 1.5 and 4 miles ('Nearby'), and another 41 (39%) within 4 to 30 miles ('In region'). More than half (58%) of the species in Table 2 have been reportedly seen within 4 miles of the project site. The site therefore supports multiple special-status species of wildlife and carries the potential for supporting many 11-57

15

more special-status species of wildlife based on proximity of recorded occurrences. The site is far richer in special-status species than is characterized in Madrone (2024).

11-57 cont.

Only 23 (32%) of the species in Table 2 are analyzed for occurrence potential in Madrone (2024), having omitted from its analysis 83 (68%) of the species in Table 2. Of the species omitted from Madrone's analysis, nine (11%) have been recorded on the project site, 31 (37%) have been recorded within 1.5 miles of the site, 12 have been recorded within four miles of the site, and 28 have been recorded between 4 and 30 miles of the site. Of the 23 species analyzed for occurrence likelihood by Madrone (2024), one had been observed on site, 10 are determined to have high occurrence potential, 2 are assigned moderate potential, 5 are assigned low potential, and 5 are determined to have no habitat on the project site. Of the 5 species Madrone (2024) determines absent due to lack of habitat, one – Swainson's hawk – has been recorded very close to the project site, and I do not see any reason why Madrone would conclude the project provides no habitat to this species. I have recorded Swainson's hawks nesting in a similar environment in Vasco Caves Regional Preserve, Contra Costa County. Of the 5 species Madrone assigns low likelihood of occurrence, 2 have been recorded very close to the project site, and another has been recorded between 1.5 and 4 miles away. On the whole, Madrone's (2024) analyses of occurrence likelihoods are inaccurate. In only one very brief survey, I found five special-status species on the site that were left out of Madrone's analysis.

11-58

POTENTIAL BIOLOGICAL IMPACTS

An impacts analysis should consider whether and how a proposed project would affect members of a species, larger demographic units of the species, the whole of a species, and ecological communities. The accuracy of this analysis depends on an accurate characterization of the existing environmental setting. In the case of the proposed project, the existing environmental setting has not been accurately characterized, and several important types of potential project impacts have been inadequately analyzed. These types of impacts include habitat loss, interference with wildlife movement, wildlife-automobile collision mortality, and bird-window collision mortality.

11-59

HABITAT LOSS

Habitat loss results in a reduced productive capacity of affected wildlife species, but Madrone (2024) makes no attempt to estimate this lost capacity for any of the wildlife species potentially affected. In the case of birds, two methods exist for estimating the loss of productive capacity that would be caused by the project. One method would involve surveys to count the number of bird nests and chicks produced. The alternative method would be to infer productive capacity from estimates of total nest density elsewhere.

11-60

Table 2. *Occurrence likelihoods of special-status bird species at or near the proposed project site, according to eBird/iNaturalist records (https://eBird.org, https://www.inaturalist.org) and on-site survey findings, where 'Very close' indicates within 1.5 miles of the site, "nearby" indicates within 1.5 and 4 miles, and "in region" indicates within 4 and 30 miles, and 'in range' means the species' geographic range overlaps the site. Entries in bold font identify species I detected.*

Common name	*Species name*	Status[1]	Madrone 2024 occurrence likelihoods	Data base records, Site visits
Vernal pool fairy shrimp	*Branchinecta lynchi*	FT	Low	In region
Vernal pool tadpole shrimp	*Lepidurus packardi*	FE	No habitat	In region
Monarch	*Danaus plexippus*	FC	Present	On site
Crotch's bumble bee	*Bombus crotchii*	CCE	High	In region
Western spadefoot	*Spea hammondii*	SSC	No habitat	In region
Foothill yellow-legged frog	*Rana boylii*	CT, SSC	Low	In region
Western pond turtle	*Emys marmorata*	SSC	High	Very close
Blainville's horned lizard	*Phrynosoma blainvillii*	SSC	No habitat	In region
Brant	*Branta bernicla*	SSC2		In region
Cackling goose (Aleutian)	*Branta hutchinsii leucopareia*	WL		Very close
Redhead	*Aythya americana*	SSC2		Very close
Barrow's goldeneye	*Bucephala islandica*	SSC		Nearby
Western grebe	*Aechmophorus occidentalis*	BCC		Nearby
Clark's grebe	*Aechmophorus clarkii*	BCC		Very close
Western yellow-billed cuckoo	*Coccyzus americanus occidentalis*	FT, CE, BCC	No habitat	In region
Black swift	*Cypseloides niger*	SSC3, BCC		Nearby
Vaux's swift	*Chaetura vauxi*	SSC2, BCC		Very close
Costa's hummingbird	*Calypte costae*	BCC		Very close
Rufous hummingbird	*Selasphorus rufus*	BCC		Very close
Allen's hummingbird	*Selasphorus sasin*	BCC		In region
Lesser sandhill crane	*Antigone canadensis canadensis*	SSC3		In region
Greater sandhill crane	*Antigone canadensis tabida*	CT, FP		In region
American avocet[2]	*Recurvirostra americana*	BCC		Nearby
Mountain plover	*Charadrius montanus*	SSC2, BCC		In region
Snowy plover	*Charadrius nivosus*	BCC		In region
Western snowy plover	*Charadrius nivosus nivosus*	FT, SSC, BCC		In region

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Common name	*Species name*	Status[1]	Madrone 2024 occurrence likelihoods	Data base records, Site visits
Whimbrel[2]	*Numenius phaeopus*	BCC		In region
Long-billed curlew	*Numenius americanus*	WL		Nearby
Marbled godwit	*Limosa fedoa*	BCC		Nearby
Red knot (Pacific)	*Calidris canutus*	BCC		In region
Short-billed dowitcher	*Limnodromus griseus*	BCC		In region
Willet	*Tringa semipalmata*	BCC		Nearby
Western gull	*Larus occidentalis*	BCC		In region
California gull	*Larus californicus*	BCC, WL		Very close
California least tern	*Sternula antillarum browni*	FE, CE, FP		In region
Black tern	*Chlidonias niger*	SSC2, BCC		Very close
Common loon	*Gavia immer*	SSC		Nearby
Double-crested cormorant	*Phalacrocorax auritus*	WL		Very close
American white pelican	*Pelacanus erythrorhynchos*	SSC1, BCC		Very close
California brown pelican	*Pelecanus occidentalis californicus*	FP		In region
Least bittern	*Ixobrychus exilis*	SSC2		In region
White-faced ibis	*Plegadis chihi*	WL		Very close
Turkey vulture	*Cathartes aura*	BOP		**On site**
Osprey	*Pandion haliaetus*	WL, BOP		Very close
White-tailed kite	*Elanus luecurus*	CFP, BOP	High	On site
Golden eagle	*Aquila chrysaetos*	BGEPA, CFP, BOP, WL	High	Very close
Northern harrier	*Circus cyaneus*	BCC, SSC3, BOP		Very close
Sharp-shinned hawk	*Accipiter striatus*	WL, BOP		Very close
Cooper's hawk	*Accipiter cooperii*	WL, BOP		**On site**
American goshawk	*Accipiter atricapillus*	SSC2, BOP		In region
Bald eagle	*Haliaeetus leucocephalus*	CE, BGEPA, BOP	Low	Very close
Red-shouldered hawk	*Buteo lineatus*	BOP		On site
Swainson's hawk	*Buteo swainsoni*	CT, BOP	No habitat	Very close
Red-tailed hawk	*Buteo jamaicensis*	BOP		**On site**
Ferruginous hawk	*Buteo regalis*	WL, BOP		Very close
Rough-legged hawk	*Buteo lagopus*	BOP		Very close

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Common name	*Species name*	Status[1]	Madrone 2024 occurrence likelihoods	Data base records, Site visits
Barn owl	*Tyto alba*	BOP		On site
Western screech-owl	*Megascops kennicotti*	BOP		Very close
Great horned owl	*Bubo virginianus*	BOP		Very close
Burrowing owl	*Athene cunicularia*	BCC, SSC2, BOP	Low	Nearby
Long-eared owl	*Asio otus*	BCC, SSC3, BOP		In region
Short-eared owl	*Asia flammeus*	BCC, SSC3, BOP		In region
Lewis's woodpecker	*Melanerpes lewis*	BCC		Very close
Nuttall's woodpecker	*Picoides nuttallii*	BCC		On site
American kestrel	*Falco sparverius*	BOP		On site
Merlin	*Falco columbarius*	WL, BOP		Very close
Peregrine falcon	*Falco peregrinus*	BOP		Very close
Prairie falcon	*Falco mexicanus*	WL, BOP		Very close
Olive-sided flycatcher	*Contopus cooperi*	BCC, SSC2		Nearby
Willow flycatcher	*Empidonax trailii*	CE		Nearby
Vermilion flycatcher	*Pyrocephalus rubinus*	SSC2		In region
Least Bell's vireo	*Vireo bellii pusillus*	FE, CE		In region
Loggerhead shrike	*Lanius ludovicianus*	SSC2	High	Very close
Yellow-billed magpie	*Pica nuttalli*	BCC		Very close
Oak titmouse	*Baeolophus inornatus*	BCC		**On site**
California horned lark	*Eremophila alpestris actia*	WL		Very close
Bank swallow	*Riparia riparia*	CT		Very close
Purple martin	*Progne subis*	SSC2		In region
Wrentit	*Chamaea fasciata*	BCC		Very close
California thrasher	*Toxostoma redivivum*	BCC		Very close
Cassin's finch	*Haemorhous cassinii*	BCC		Very close
Lawrence's goldfinch	*Spinus lawrencei*	BCC		Very close
Grasshopper sparrow	*Ammodramus savannarum*	SSC2		Nearby
Black-chinned sparrow	*Spizella atrogularis*	BCC		In region
Gray-headed junco	*Junco hyemalis caniceps*	WL		In region
Bell's sparrow	*Amphispiza b. belli*	WL		In region

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Common name	*Species name*	Status[1]	Madrone 2024 occurrence likelihoods	Data base records, Site visits
Oregon vesper sparrow	*Pooecetes gramineus affinis*	SSC2, BCC		In range
Yellow-breasted chat	*Icteria virens*	SSC3	Moderate	Nearby
Yellow-headed blackbird	*Xanthocephalus xanthocephalus*	SSC3		**On site**
Bullock's oriole	*Icterus bullockii*	BCC		Very close
Tricolored blackbird	*Agelaius tricolor*	CT, BCC, SSC1	Low	Very close
Virginia's warbler	*Leiothlypis virginiae*	WL, BCC		In region
Yellow warbler	*Setophaga petechia*	SSC2		Very close
Summer tanager	*Piranga rubra*	SSC1		Nearby
Pallid bat	*Antrozous pallidus*	SSC, WBWG:H	High	In region
Townsend's big-eared bat	*Corynorhinus townsendii*	SSC, WBWG:H	High	In region
Silver-haired bat	*Lasionycteris noctivagans*	WBWG:M	High	In region
Western red bat	*Lasiurus blossevillii*	SSC, WBWG:H	Moderate	In region
Hoary bat	*Lasiurus cinereus*	WBWG:M	High	In region
Western small-footed myotis	*Myotis ciliabrum*	WBWG:M		In range
Yuma myotis	*Myotis yumanensis*	WBWG:LM		In region
Western mastiff bat	*Eumops perotis*	SSC, WBWG:H		In range
Mexican free-tailed bat	*Tadarida brasiliensis*	WBWG:L		In region
Ringtail	*Bassariscus astutus*	CFP	High	In region
American badger	*Taxidea taxus*	SSC		In region
Mountain lion	*Puma concolor*	CCT		In region

[1] Listed as FT or FE = federal threatened or endangered, FC = federal candidate for listing, BCC = U.S. Fish and Wildlife Service Bird of Conservation Concern, CT or CE = California threatened or endangered, CCT or CCE = Candidate California threatened or endangered, CFP = California Fully Protected (California Fish and Game Code 3511), SSC = California Species of Special Concern (not threatened with extinction, but rare, very restricted in range, declining throughout range, peripheral portion of species' range, associated with habitat that is declining in extent), SSC1, SSC2 and SSC3 = California Bird Species of Special Concern priorities 1, 2 and 3, respectively (Shuford and Gardali 2008), WL = Taxa to Watch List (Shuford and Gardali 2008), and BOP = Birds of Prey (CFG Code 3503.5), and WBWG = Western Bat Working Group with priority rankings, of low (L), moderate (M), and high (H).
[2] Uncertain if BCC based on 2021 Bird of Conservation Concern list.

Because the project is located within an area that is undergoing severe habitat fragmentation, the habitat that remains in fragmented patches probably no longer supports its original productive capacity of wildlife (Smallwood 2015). However, several studies have estimated total avian nest density at locations that had likewise been highly fragmented. Two study sites in grassland/wetland/woodland complexes within agricultural matrices had total bird nesting densities of 32.8 and 35.8 nests per acre (Young 1948, Yahner 1982) for an average 34.3 nests per acre. To acquire a total nest density closer to conditions in California, I surveyed various patches of vegetation cover in northern California throughout the breeding seasons of 2023 and 2024. The most relevant study site to the vegetation covers on the project site consisted of a 12.74-acre study area in Rancho Cordova, which consisted of a 9.42-acre portion of an abandoned walnut orchard with a floor of annual grassland and 1.32 acres of riparian forest and 2 acres of hedges of bordering a residential area. After 30 surveys throughout the 2023 breeding season, I estimated 18.05 nests/acre. Averaging this nest density with the estimates of Young (1948) and Yahner (1982) gives 28.9 nests/acre. Applying this mean nest density to the 81.8 acres of the project site would estimate nest sites would estimate 2,364 nest sites per year. Assuming 1.39 broods per nest site, which is the average among 322 North American bird species I asked Noriko Smallwood to review, then I predict the project would cost California 3,286 nest attempts/year.

11-61

The loss of 2,364 nest sites and 3,286 nest attempts per year would qualify as significant impacts that have not been analyzed in the DEIR. But the impacts would not end with the immediate loss of nest sites. The reproductive capacity of the site would be lost. The average number of fledglings per nest in Young's (1948) study was 2.9. Assuming Young's (1948) study site typifies bird productivity, the project would prevent the production of 9,529 fledglings per year. Assuming an average bird generation time of 5 years, the lost capacity of both breeders and annual fledgling production can be estimated from an equation in Smallwood (2022): {(nests/year × chicks/nest × number of years) + (2 adults/nest × nests/year) × (number of years ÷ years/generation)} ÷ (number of years) = 10,475 birds per year denied to California.

11-62

The loss of 10,475 birds per year would be a substantial loss. Most if not all of these birds are protected by the federal Migratory Bird Treaty Act and by California's Migratory Bird Protection Act. Therefore, the project's impacts to bird would be substantial and highly significant.

11-63

INTERFERENCE WITH WILDLIFE MOVEMENT

One of CEQA's principal concerns regarding potential project impacts is whether a proposed project would interfere with wildlife movement in the region. Unfortunately, Madrone's (2024) analysis of whether the project would interfere with wildlife movement in the region is flawed and misleading. According to Madrone (2024:43), "The majority of the Project Area is comprised of Annual Brome Grasslands and paved roadways virtually identical to surrounding areas, and largely conducive to wildlife movement, but not necessarily corridors." In other words, if the grasslands of the site serve as wildlife movement corridor, then the Project would leave ample wildlife movement corridor across the undeveloped areas. But this is not the case. Suburban

11-64

residential development surrounds the Project area in all directions but the south, but U.S. 50 borders the south side of the Project. As habitat fragmentation has progressed in the area, the area's capacity to support wildlife movement in the region has declined, while at the same time it has elevated the importance of the project site to wildlife movement.

11-64 cont.

Madrone (2024:43) adds that the "Oak Woodlands around the intermittent drainage could serve as a low-quality wildlife corridor," opining that it is low-quality because the culverts under the Bass Lake Road are too small for large animals to use. One problem with this explanation is that species of large animals compose only a small fraction of non-volant wildlife, and the culverts have no bearing on volant wildlife of which there are many species. In my review of the wildlife movement corridor concept, I found no basis for assigning levels of quality to corridors based on the sizes of attached culverts (Smallwood 2015), which gives me the impression that Madrone is contriving limitations to corridor function, or at least exaggerating the importance of culverts. Mule deer, for example, do not need culverts to move across roads; deer have no problem jumping over barbed wire fences and running across roads (Photos 16 and 17), except for those that get hit by automobiles, which has been an ongoing problem of other species of wildlife at the project site (Photos 13 and 14).

11-65

Photo 16. *A deer jumps a fence...*

22

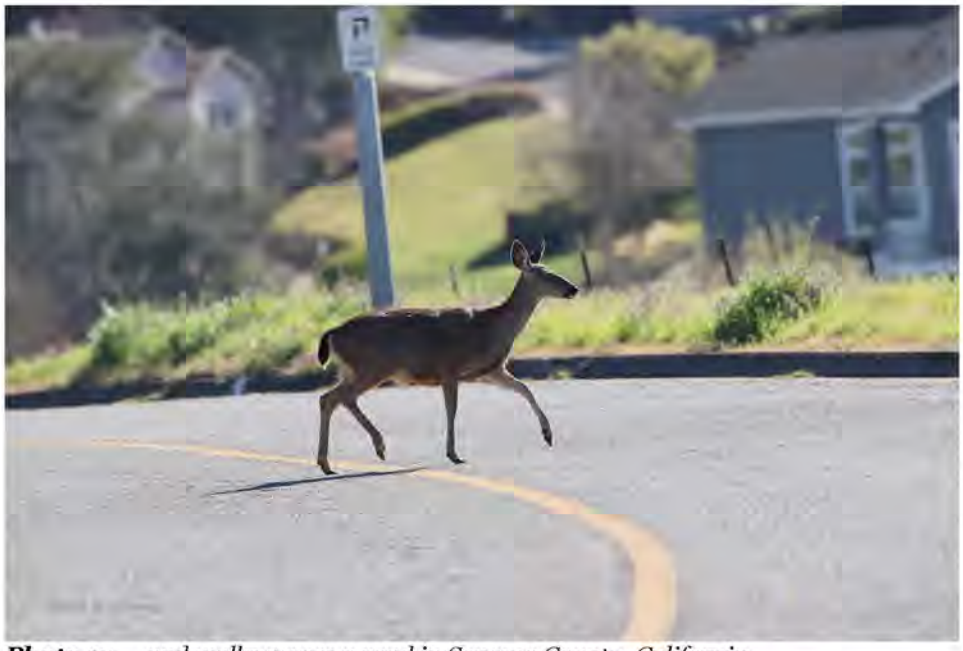

Photo 17. *...and walks across a road in Sonoma County, California.*

Madrone 's (2024) analysis is clearly focused on deer and perhaps other large mammals, giving no consideration to small mammals, herpetofauna and birds. It is also focused solely on corridors and corridor quality determined by the degrees to which deer can cross roads. However, whether the site's drainages function as wildlife movement corridors is not the only consideration when it comes to the standard CEQA Checklist question of whether the project would interfere with wildlife movement in the region. The primary phrase of the CEQA standard goes to wildlife movement regardless of whether the movement is channeled by a corridor. Birds are obviously using the site, so they are able to travel to and from the site. Most of the birds recorded at the site are migratory birds, and the site is one of the last remaining patches of open space available to birds that need to move through the region. Indeed, I observed yellow-headed blackbirds, Brewer's blackbirds and common raven using the site for transit. The project site is important to wildlife movement in the region. 11-66

Moreover, the conclusions regarding whether the site functions as a corridor or is located within a corridor lack supporting evidence. Madrone (2024) reports no survey methodology designed to determine whether wildlife rely on the site for movement in the region. There was no sampling regime. There was no program of observation to record wildlife movement patterns, nor to quantify them or to qualitatively assess them. Based on what is reported, Madrone (2024) did not record or measure wildlife movement in any way. The conclusions of Madrone (2024) regarding wildlife movement on the project site are speculative and conclusory. 11-67

23

TRAFFIC IMPACTS TO WILDLIFE

Project-generated traffic would endanger wildlife that must, for various reasons, cross roads used by the project's traffic to get to and from the project site (Photos 13 and 14, and 18–20), including along roads far from the project footprint. Vehicle collisions have accounted for the deaths of many thousands of amphibian, reptile, mammal, bird, and arthropod fauna, and the impacts have often been found to be significant at the population level (Forman et al. 2003). Across North America traffic impacts have taken devastating tolls on wildlife (Forman et al. 2003). In Canada, 3,562 birds were estimated killed per 100 km of road per year (Bishop and Brogan 2013), and the US estimate of avian mortality on roads is 2,200 to 8,405 deaths per 100 km per year, or 89 million to 340 million total per year (Loss et al. 2014). Local impacts can be more intense than nationally. 11-68

The nearest study of traffic-caused wildlife mortality was performed along a 2.5-mile stretch of Vasco Road in Contra Costa County, California. Fatality searches in this study found 1,275 carcasses of 49 species of mammals, birds, amphibians and reptiles over 15 months of searches (Mendelsohn et al. 2009). This fatality number needs to be adjusted for the proportion of fatalities that were not found due to scavenger removal and searcher error. This adjustment is typically made by placing carcasses for searchers to find (or not find) during their routine periodic fatality searches. This step was not taken at Vasco Road (Mendelsohn et al. 2009), but it was taken as part of another study next to Vasco Road (Brown et al. 2016). Brown et al.'s (2016) adjustment factors for carcass persistence resembled those of Santos et al. (2011). Also applying searcher detection rates from Brown et al. (2016), the adjusted total number of fatalities was estimated at 12,187 animals killed by traffic on the road. This fatality number over 1.25 years and 2.5 miles of road translates to 3,900 wild animals per mile per year. In terms comparable to the national estimates, the estimates from the Mendelsohn et al. (2009) study would translate to 243,740 animals killed per 100 km of road per year, or 29 times that of Loss et al.'s (2014) upper bound estimate and 68 times the Canadian estimate. An analysis is needed of whether increased traffic generated by the project site would similarly result in local impacts on wildlife. 11-69

Photo 18. *A Gambel's quail dashes across a road* on *3 April 2021. Such road crossings are usually successful, but too often prove fatal to the animal. Photo by Noriko Smallwood.*

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Photo 19. *Mourning dove killed by vehicle on a California road. Photo by Noriko Smallwood, 21 June 2020.*

Photo 20. *Raccoon killed on Road 31 just east of Highway 505 in Solano County. Photo taken on 10 November 2018.*

For wildlife vulnerable to front-end collisions and crushing under tires, road mortality can be predicted from the study of Mendelsohn et al. (2009) as a basis, although it would be helpful to have the availability of more studies like that of Mendelsohn et al. (2009) at additional locations. My analysis of the Mendelsohn et al. (2009) data resulted in an estimated 3,900 animals killed per mile along a county road in Contra Costa County. Two percent of the estimated number of fatalities were birds, and the balance was composed of 34% mammals (many mice and pocket mice, but also ground squirrels, desert cottontails, striped skunks, American badgers, raccoons, and others), 52.3% amphibians (large numbers of California tiger salamanders and California red-legged frogs, but also Sierran treefrogs, western toads, arboreal salamanders, slender salamanders and others), and 11.7% reptiles (many western fence lizards, but also skinks, alligator lizards, and snakes of various species). VMT is useful for predicting wildlife mortality because I was able to quantify miles traveled along the studied reach of Vasco Road during the time period of the Mendelsohn et al. (2009), hence enabling a rate of fatalities per VMT that can be projected to other sites, assuming similar collision fatality rates. 11-70

Predicting project-generated traffic impacts to wildlife

The DEIR predicts 2,367,025 annual VMT. During the Mendelsohn et al. (2009) study, 19,500 cars traveled Vasco Road daily, so the vehicle miles that contributed to my estimate of non-volant fatalities was 19,500 cars and trucks × 2.5 miles × 365 days/year × 1.25 years = 22,242,187.5 vehicle miles per 12,187 wildlife fatalities, or 1,825 vehicle miles per fatality. This rate divided into the predicted annual VMT would predict 1,297 vertebrate wildlife fatalities per year. 11-71

Based on my analysis, the project-generated traffic would cause substantial, significant impacts to wildlife. The DEIR does not analyze this potential impact, nor does it propose 11-72

25

to mitigate it. Mitigation measures to improve wildlife safety along roads are available and are feasible, and they need exploration for their suitability with the proposed project. Given the predicted level of project-generated, traffic-caused mortality, and the lack of any proposed mitigation, it is my opinion that the proposed project would result in potentially significant adverse biological impacts. The DEIR needs to be revised.

11-72 cont.

BIRD-WINDOW COLLISIONS

The project would add two hotels, an event center, and 112 residential cottages to open space that is currently habitat to many birds. The cottages would present to birds less extensive external glass than occurs on most homes, but the window space nonetheless adds up among 112 cottages. The hotels and event center would add considerably more external glass on a per-unit basis.

11-73

Many special-status species of birds have been recorded at or near the aerosphere of the project site. My database review and my and Madrone's site visits indicate there are 86 special-status species of birds with potential to use the site's aerosphere (Table 2). All of the birds represented in Table 2 can quickly fly from wherever they have been documented to the project site, so they would all be within brief flights to the proposed project's windows. At the California Academy of Sciences, the glass facades facing adjacent gardens killed 0.077 and 0.086 birds per m^2 of glass per year (Kahle et al. 2016), which might look like small numbers at first read, but which translate to large numbers of dead birds when projected to the extent of glass on the project (see below).

11-74

Window collisions are often characterized as either the second or third largest source or human-caused bird mortality. The numbers behind these characterizations are often attributed to Klem's (1990) and Dunn's (1993) estimates of about 100 million to 1 billion bird fatalities in the USA, or more recently by Loss et al.'s (2014) estimate of 365-988 million bird fatalities in the USA or Calvert et al.'s (2013) and Machtans et al.'s (2013) estimates of 22.4 million and 25 million bird fatalities in Canada, respectively. The proposed project would impose windows in the airspace normally used by birds.

Glass-façades of buildings intercept and kill many birds, but are differentially hazardous to birds based on spatial extent, contiguity, orientation, and other factors. At Washington State University, Johnson and Hudson (1976) found 266 bird fatalities of 41 species within 73 months of monitoring of a three-story glass walkway (no fatality adjustments attempted). Prior to marking the windows to warn birds of the collision hazard, the collision rate was 84.7 per year. At that rate, and not attempting to adjust the fatality estimate for the proportion of fatalities not found, 4,574 birds were likely killed over the 54 years since the start of their study, and that's at a relatively small building façade. Accounting for the proportion of fatalities not found, the number of birds killed by this walkway over the last 54 years would have been about 14,270. And this is just for one 3-story, glass-sided walkway between two college campus buildings.

11-75

Klem's (1990) estimate was based on speculation that 1 to 10 birds are killed per building per year, and this speculated range was extended to the number of buildings estimated by the US Census Bureau in 1986. Klem's speculation was supported by

fatality monitoring at only two houses, one in Illinois and the other in New York. Also, the basis of his fatality rate extension has changed greatly since 1986. Whereas his estimate served the need to alert the public of the possible magnitude of the bird-window collision issue, it was highly uncertain at the time and undoubtedly outdated more than three decades hence. Indeed, by 2010 Klem (2010) characterized the upper end of his estimated range – 1 billion bird fatalities – as conservative. Furthermore, the estimate lumped species together as if all birds are the same and the loss of all birds to windows has the same level of impact.

By the time Loss et al. (2014) performed their effort to estimate annual USA bird-window fatalities, many more fatality monitoring studies had been reported or were underway. Loss et al. (2014) incorporated many more fatality rates based on scientific monitoring, and they were more careful about which fatality rates to include. However, they included estimates based on fatality monitoring by homeowners, which in one study were found to detect only 38% of the available window fatalities (Bracey et al. 2016). Loss et al. (2014) excluded all fatality records lacking a dead bird in hand, such as injured birds or feather or blood spots on windows. Loss et al.'s (2014) fatality metric was the number of fatalities per building (where in this context a building can include a house, low-rise, or high-rise structure), but they assumed that this metric was based on window collisions. Because most of the bird-window collision studies were limited to migration seasons, Loss et al. (2014) developed an admittedly assumption-laden correction factor for making annual estimates. Also, only 2 of the studies included adjustments for carcass persistence and searcher detection error, and it was unclear how and to what degree fatality rates were adjusted for these factors. Although Loss et al. (2014) attempted to account for some biases as well as for large sources of uncertainty mostly resulting from an opportunistic rather than systematic sampling data source, their estimated annual fatality rate across the USA was highly uncertain and vulnerable to multiple biases, most of which would have resulted in fatality estimates biased low.

11-75 cont.

In my review of bird-window collision monitoring, I found that the search radius around homes and buildings was very narrow, usually 2 meters. Based on my experience with bird collisions in other contexts, I would expect that a large portion of bird-window collision victims would end up farther than 2 m from the windows, especially when the windows are higher up on tall buildings. In my experience, searcher detection rates tend to be low for small birds deposited on ground with vegetation cover or woodchips or other types of organic matter. Also, vertebrate scavengers entrain on anthropogenic sources of mortality and quickly remove many of the carcasses, thereby preventing the fatality searcher from detecting these fatalities. Adjusting fatality rates for these factors – search radius bias, searcher detection error, and carcass persistence rates – would greatly increase nationwide estimates of bird-window collision fatalities.

11-76

Buildings can intercept many nocturnal migrants as well as birds flying in daylight. As mentioned above, Johnson and Hudson (1976) found 266 bird fatalities of 41 species within 73 months of monitoring of a four-story glass walkway at Washington State University (no adjustments attempted for undetected fatalities). Somerlot (2003) found 21 bird fatalities among 13 buildings on a university campus within only 61 days. Monitoring twice per week, Hager at al. (2008) found 215 bird fatalities of 48 species, or

11-77

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55 birds/building/year, and at another site they found 142 bird fatalities of 37 species for 24 birds/building/year. Gelb and Delacretaz (2009) recorded 5,400 bird fatalities under buildings in New York City, based on a decade of monitoring only during migration periods, and some of the high-rises were associated with hundreds of fatalities each. Klem et al. (2009) monitored 73 building façades in New York City during 114 days of two migratory periods, tallying 549 collision victims, nearly 5 birds per day. Borden et al. (2010) surveyed a 1.8 km route 3 times per week during 12-month period and found 271 bird fatalities of 50 species. Parkins et al. (2015) found 35 bird fatalities of 16 species within only 45 days of monitoring under 4 building façades. From 24 days of survey over a 48-day span, Porter and Huang (2015) found 47 fatalities under 8 buildings on a university campus. Sabo et al. (2016) found 27 bird fatalities over 61 days of searches under 31 windows. In San Francisco, Kahle et al. (2016) found 355 collision victims within 1,762 days under a 5-story building. Ocampo-Peñuela et al. (2016) searched the perimeters of 6 buildings on a university campus, finding 86 fatalities after 63 days of surveys. One of these buildings produced 61 of the 86 fatalities, and another building with collision-deterrent glass caused only 2 of the fatalities, thereby indicating a wide range in impacts likely influenced by various factors. There is ample evidence available to support my prediction that the proposed project would result in many collision fatalities of birds.

11-77 cont.

Project Impact Prediction

By the time of these comments, I had reviewed and processed results of bird collision monitoring at 213 buildings and façades for which bird collisions per m² of glass per year could be calculated and averaged (Johnson and Hudson 1976, O'Connell 2001, Somerlot 2003, Hager et al. 2008, Borden et al. 2010, Hager et al. 2013, Porter and Huang 2015, Parkins et al. 2015, Kahle et al. 2016, Ocampo-Peñuela et al. 2016, Sabo et al. 2016, Barton et al. 2017, Gomez-Moreno et al. 2018, Schneider et al. 2018, Loss et al. 2019, Brown et al. 2020, City of Portland Bureau of Environmental Services and Portland Audubon 2020, Riding et al. 2020). These study results averaged 0.073 bird deaths per m² of glass per year (95% CI: 0.042-0.102). This average and its 95% confidence interval provide a robust basis for predicting fatality rates at a proposed new project.

11-78

Based on the renderings of the proposed hotels, event center and cottages, I measured window and glass rail extents to estimate the building would expose birds to 4,514 m² of exterior glass. Applying the mean fatality rate (above) to my estimate of 4,514 m² of window glass in the project, I predict annual bird deaths of 330 (95% CI: 196–464).

11-79

The vast majority of these predicted deaths would be of birds protected under the Migratory Bird Treaty Act and under the California Migratory Bird Protection Act, thus causing significant unmitigated impacts. Given the predicted level of bird-window collision mortality, and the lack of any proposed mitigation, it is my opinion that the proposed project would result in potentially significant adverse biological impacts, including the unmitigated take of both terrestrial and aerial habitat of birds and other sensitive species. Not only would the project take habitat of rare and sensitive species of birds, but it would transform the building's airspace into a lethal collision trap to birds.

11-80

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CUMULATIVE IMPACTS

The DEIR's cumulative effects analysis is somewhat inconsistent and confused, but I agree with its ultimate finding. At p. 4.3-72, the DEIR states, "Implementation of the proposed project, in combination with other reasonably foreseeable development in the County, would result in a significant cumulative impact related to the loss of special-status species habitat." The DEIR then lists the types of vegetation communities and wetlands on site, then states that direct impacts would be mitigated by preconstruction surveys and acquisition of applicable agency permits as if to argue that the project would contribute nothing significant to cumulative impacts to wildlife. However, at p. 4.3-73, the DEIR finally concludes, "Overall, with incorporation of the mitigation measures set forth herein, the proposed project's incremental contribution to cumulative biological resources impacts would be reduced." Nevertheless, "the project's contribution to the cumulative loss of habitat for special-status species and oak woodlands identified in the El Dorado County General Plan EIR and the Bass Lake EIR would be ***cumulatively considerable*** and ***significant***." Whereas, I do not agree that the proposed mitigation measures would reduce the project's incremental contributions to cumulative impacts, I do agree with the ultimate conclusion that cumulative impacts would be considerable and significant. I will add that the impacts would be devastating, because the loss of this habitat fragment would leave little wildlife habitat remaining in the region. 11-81

INSUFFICIENT MITIGATION

The mitigation measures detailed in the DEIR are deficient for several reasons. First, they largely consist of the types of information-gathering surveys that needed to be completed in support of the DEIR. Second, the surveys consist of preconstruction surveys that might result in limited salvaging and hence direct take-avoidance, but would otherwise fail to prevent permanent loss of productive capacities of the species at issue, and would fail to compensate for impacts. 11-82

4.3-1 Special-status plant surveys: The surveys already completed for special-status species of plants failed to meet the minimum standards of the survey guidelines (CDFW (2018). For example, there was only one survey completed in the blooming period, and there were no surveys at reference site. The proposed measure is inappropriate as a mitigation measure, and needs to be implemented to the standards of CDFW (2018) in support of a revised and recirculated DEIR. 11-83

Another problem with the measure is that it defers the formulation of mitigation directed to special-status species that might be detected by the survey. The mitigation language allows a single individual to make subjective decisions, outside the public's view, to determine take-avoidance measures for each species. This measure lacks objective criteria, and is unenforceable 11-84

4.3-2 Crotch's bumble bee: The DEIR proposes a preconstruction survey as a surrogate to what should be a more rigorous detection survey. Preconstruction surveys performed under a restricted time period cannot provide the same probability of 11-85

detection as a well-timed protocol-level detection survey. It is therefore improper to require a preconstruction survey without having completed a detection survey. 11-85 cont.

4.3-3 Vernal pool fairy shrimp: The DEIR proposes an optional preconstruction survey as a surrogate to what should be a more rigorous detection survey. Preconstruction surveys performed under a restricted time period cannot provide the same probability of detection as a well-timed protocol-level detection survey. It is therefore improper to require a preconstruction survey without having completed a detection survey. A protocol-level detection survey is needed in support of a revised and recirculated DEIR 11-86

4.3-4 Monarch: The DEIR proposes a preconstruction survey as a surrogate to what should be a more rigorous detection survey. Preconstruction surveys performed under a restricted time period cannot provide the same probability of detection as a well-timed protocol-level detection survey. It is therefore improper to require a preconstruction survey without having completed a detection survey.

If the preconstruction survey detects eggs, caterpillars or chrysalises, a designated biologist shall either establish a 50-foot construction avoidance buffer or translocate the eggs, caterpillars or chrysalises to a site at least 50 feet outside the construction zone. Whereas these steps are straightforward, they would be more effective if based on the outcome of a detection survey. The biologists performing the preconstruction survey need to know where to weight their search efforts for milkweed and Monarchs. 11-87

4.3-5 Foothill yellow-legged frog along offsite sewer pipe alignments: The attainment of required state and federal take-permits is not a legitimate form of mitigation. Furthermore, the measure leaves uncertain whether the frog would even be included in the take permit. What is needed is for detection surveys to be suitably completed so that their findings can help to inform the public and decision-makers of the presence and relative abundance of foothill yellow-legged frogs in harm's way. This information needs to be included in a revised and recirculated DEIR. 11-88

4.3-6 Northwestern pond turtle along off-site sewer pipe alignments: The DEIR proposes a preconstruction survey as a surrogate to what should be a more rigorous detection survey. Preconstruction surveys performed under a restricted time period cannot provide the same probability of detection as a well-timed protocol-level detection survey. It is therefore improper to require a preconstruction survey without having completed a detection survey. 11-89

Furthermore, the attainment of required state and federal take-permits is not a legitimate form of mitigation, nor should it determine whether or how mitigation measures should be formulated for northwestern pond turtle. 11-90

4.3-7 Nesting birds: The DEIR proposes a preconstruction survey as a surrogate to what should be a more rigorous detection survey. Preconstruction surveys performed under a restricted time period cannot provide the same probability of detection as a well-timed protocol-level detection survey. Having completed multiple survey efforts to 11-91

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estimate total nest density of small study areas, I am confident in pointing out that birds are highly adept at concealing their nest sites. The nests of some birds are relatively easy to find, such as nests of large raptors and cavity-nesters that can defend their nests from inside, but the vast majority of nests are very difficult to find due to nest concealment and deceptive behaviors of parent birds. Ground-nests are some of the most difficult to find, and these are going to be abundant on the project site.

11-91 cont.

A good example is burrowing owl. Adult males typically guard their nest burrows, so many people might believe that burrowing owl nest sites are easy to find. However, males often guard their nest sites from afar, and they often flee to, and alarm-call from, satellite burrows rather than from the nest burrows. In my experience, many surveys are needed along with hours of observations of the owls' behavior patterns before the nest sites can be accurately located (Smallwood et al. 2013). It is also noteworthy that the DEIR claims the preconstruction survey would be consistent with CDFW's (2012) survey guidelines, but CDFW (2012) does not recommend preconstruction surveys in place of breeding-season detection survey. These types of surveys are not the same, and they do not carry the same probabilities of detection; therefore, implementing the latter without having completed the former would not be consistent with CDFW (2012).

Another problem with the measure is that applies only to direct take of nesting birds fortunate enough to be seen by preconstruction survey personnel, but it entirely neglects the losses of productive capacity resulting from habitat destruction. I earlier predicted that the habitat loss would deny California 10,475 birds per year. This prediction should be used to inform the formulation of appropriate compensatory mitigation, because a preconstruction nesting bird survey would do nothing to avoid this massive impact.

11-92

4.3-8 Bat roosts: The DEIR proposes a preconstruction survey as a surrogate to what should be a more rigorous detection survey. Preconstruction surveys performed under a restricted time period cannot provide the same probability of detection as a well-timed protocol-level detection survey. It is therefore improper to require a preconstruction survey without having completed a detection survey. In fact, no survey of any kind has yet to be completed for bats on the project site.

11-93

4.3-9 Ringtail: The DEIR proposes a preconstruction survey as a surrogate to what should be a more rigorous detection survey. Preconstruction surveys performed under a restricted time period cannot provide the same probability of detection as a well-timed protocol-level detection survey. It is therefore improper to require a preconstruction survey without having completed a detection survey. A detection survey is needed in support of a revised and recirculated DEIR.

11-94

4.3-10 Section 1600 Lake or Streambed Alteration Agreement along off-site sewer pipe alignments: The attainment of required state and federal take-permits is not a legitimate form of mitigation.

11-95

4.3-11(a) State and Federal Wetlands Take Permits: The attainment of required state and federal take-permits is not a legitimate form of mitigation.

11-96

31

Interference with wildlife movement: The DEIR asserts that no mitigation is required. However, as I commented earlier, the analysis of the potential impacts is flawed and unreliable. The project would obviously interfere with wildlife movement in the region. Measures are available to mitigate this type of impact, such as the planning of the project around a portion of the site dedicated to facilitating wildlife movement, and the construction of wildlife over- and under-crossings that are more substantial than the small plastic culverts currently in place. Another form of mitigation is compensatory. 11-97 11-98

Mitigation Measure(s) for cumulative impacts: The DEIR lists the measures it requires for direct impacts, but offers nothing for cumulative effects, which the DEIR acknowledges would be significant and unavoidable. However, this is insufficient. Many options are available to mitigate cumulative impacts, such as protecting habitat at strategic locations to ensure that wildlife conservation benefits persist through the current period of rapid habitat fragmentation of the region. Another measure would be the funding of wildlife monitoring at a regional scale sufficient for measuring cumulative effects (see Smallwood and Smallwood 2023). 11-99

RECOMMENDED MEASURES

Construction Monitoring: Should the project go forward, qualified biologists should be required to monitor construction impacts to wildlife. However, it should also be required that the monitor completes a report of the findings of construction monitoring. All cases of potential construction harm to wildlife should be reported to US Fish and Wildlife/California Department of Fish and Wildlife, and to the County, along with what was done to prevent or minimize or rectify injuries. All injuries and fatalities should be reported to the same parties, along with the disposition of any remains. The report be made available to the public. 11-100

Pest Control: The Project should commit to no use of rodenticides and avicides. It should commit to no placement of poison bait stations outside the building. 11-101

Guidelines on Building Design to Minimize Bird-Window Collisions: If the Project goes forward, it should adhere to available Bird-Safe Guidelines, such as those prepared by American Bird Conservancy and New York and San Francisco. The American Bird Conservancy (ABC) produced an excellent set of guidelines recommending actions to: (1) Minimize use of glass; (2) Placing glass behind some type of screening (grilles, shutters, exterior shades); (3) Using glass with inherent properties to reduce collisions, such as patterns, window films, decals or tape; and (4) Turning off lights during migration seasons (Sheppard and Phillips 2015). The City of San Francisco (San Francisco Planning Department 2011) also has a set of building design guidelines, based on the excellent guidelines produced by the New York City Audubon Society (Orff et al. 2007). The ABC document and both the New York and San Francisco documents provide excellent alerting of potential bird-collision hazards as well as many visual examples. 11-102

New research results inform of the efficacy of marking windows. Whereas Klem (1990) found no deterrent effect from decals on windows, Johnson and Hudson (1976) reported a fatality reduction of about 69% after placing decals on windows. In an experiment of opportunity, Ocampo-Peñuela et al. (2016) found only 2 of 86 fatalities at one of 6 buildings – the only building with windows treated with a bird deterrent film. At the building with fritted glass, bird collisions were 82% lower than at other buildings with untreated windows. Kahle et al. (2016) added external window shades to some windowed façades to reduce fatalities 82% and 95%. Brown et al. (2020) reported an 84% lower collision probability among fritted glass windows and windows treated with ORNILUX R UV. City of Portland Bureau of Environmental Services and Portland Audubon (2020) reduced bird collision fatalities 94% by affixing marked Solyx window film to existing glass panels of Portland's Columbia Building. Many external and internal glass markers have been tested experimentally, some showing no effect and some showing strong deterrent effects (Klem 1989, 1990, 2009, 2011; Klem and Saenger 2013; Rössler et al. 2015). For example, Feather Friendly® circular adhesive markers applied in a grid pattern across all windows reduced bird-window collision mortality by 95% in one study (Riggs et al. 2023) and by 95% in another (de Groot et al. 2021). Another study tested the efficacy of two filmshades to be applied exteriorly to windows prior to installations: BirdShades increased bird-window avoidance by 47% and Haverkamp increased avoidance by 39% (Swaddle et al. 2023).

Monitoring and the use of compensatory mitigation should be incorporated at any new building project because the measures recommended in the available guidelines remain of uncertain efficacy, and even if these measures are effective, they will not reduce collision fatalities to zero. The only way to assess mitigation efficacy and to quantify post-construction fatalities is to monitor newly constructed buildings or homes for fatalities.

11-102 cont.

Road Mortality: Compensatory mitigation is needed for the increased wildlife mortality that would be caused by project-generated road traffic in the region. I suggest that this mitigation be directed toward funding research to identify fatality patterns and effective impact reduction measures such as reduced speed limits and wildlife under-crossings or overcrossings of particularly dangerous road segments. Compensatory mitigation can also be provided in the form of donations to wildlife rehabilitation facilities (see below).

11-103

Fund Wildlife Rehabilitation Facilities: Compensatory mitigation ought also to include funding contributions to wildlife rehabilitation facilities to cover the costs of injured animals that will be delivered to these facilities for care. Many animals would likely be injured by collisions with automobiles and windows and by depredation attempts by house cats and dogs.

11-104

Landscaping: If the Project goes forward, the oaks of the site should be left in place (Photo 21) and preserved to the degree feasible. California native plant landscaping (i.e., grassland and locally appropriate scrub plants) should be considered to be used as opposed to landscaping with lawn and exotic shrubs and trees. Native plants offer more

11-105

structure, cover, food resources, and nesting substrate for wildlife than landscaping with lawn and ornamental trees. Native plant landscaping has been shown to increase the abundance of arthropods which act as importance sources of food for wildlife and are crucial for pollination and plant reproduction (Narango et al. 2017, Adams et al. 2020, Smallwood and Wood 2022.). Further, many endangered and threated insects require native host plants for reproduction and migration, e.g., monarch butterfly. Around the world, landscaping with native plants over exotic plants increases the abundance and diversity of birds, and is particularly valuable to native birds (Lerman and Warren 2011, Burghardt et al. 2008, Berthon et al. 2021, Smallwood and Wood 2022). Landscaping with native plants is a way to maintain or to bring back some of the natural habitat and lessen the footprint of urbanization by acting as interconnected patches of habitat for wildlife (Goddard et al. 2009, Tallamy 2020). Lastly, not only does native plant landscaping benefit wildlife, it requires less water and maintenance than traditional landscaping with lawn and hedges.

11-105 cont.

Photo 21. *Oaks of the site should be left in place and preserved.*

Thank you for your consideration,

Shawn Smallwood

Shawn Smallwood, Ph.D.

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Photo 22. *Mourning dove on the project site, 28 August 2024.*

Kenneth Shawn Smallwood
Curriculum Vitae

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Born May 3, 1963 in
Sacramento, California.
Married, father of two.

Ecologist

Expertise

- Finding solutions to controversial problems related to wildlife interactions with human industry, infrastructure, and activities;
- Wildlife monitoring and field study using GPS, thermal imaging, behavior surveys;
- Using systems analysis and experimental design principles to identify meaningful ecological patterns that inform management decisions.

Education

Ph.D. Ecology, University of California, Davis. September 1990.
M.S. Ecology, University of California, Davis. June 1987.
B.S. Anthropology, University of California, Davis. June 1985.
Corcoran High School, Corcoran, California. June 1981.

Experience

- 762 professional reports, including:
- 90 peer reviewed publications
- 24 in non-reviewed proceedings
- 646 reports, declarations, posters and book reviews
- 8 in mass media outlets
- 92 public presentations of research results

Editing for scientific journals: Guest Editor, *Wildlife Society Bulletin*, 2012-2013, of invited papers representing international views on the impacts of wind energy on wildlife and how to mitigate the impacts. Associate Editor, *Journal of Wildlife Management*, March 2004 to 30 June 2007. Editorial Board Member, *Environmental Management*, 10/1999 to 8/2004. Associate Editor, *Biological Conservation*, 9/1994 to 9/1995.

Member, Alameda County Scientific Review Committee (SRC), August 2006 to April 2011. The five-member committee investigated causes of bird and bat collisions in the Altamont Pass Wind Resource Area, and recommended mitigation and monitoring measures. The SRC reviewed the science underlying the Alameda County Avian Protection Program, and advised

the County on how to reduce wildlife fatalities.

Consulting Ecologist, 2004-2007, California Energy Commission (CEC). Provided consulting services as needed to the CEC on renewable energy impacts, monitoring and research, and produced several reports. Also collaborated with Lawrence-Livermore National Lab on research to understand and reduce wind turbine impacts on wildlife.

Consulting Ecologist, 1999-2013, U.S. Navy. Performed endangered species surveys, hazardous waste site monitoring, and habitat restoration for the endangered San Joaquin kangaroo rat, California tiger salamander, California red-legged frog, California clapper rail, western burrowing owl, salt marsh harvest mouse, and other species at Naval Air Station Lemoore; Naval Weapons Station, Seal Beach, Detachment Concord; Naval Security Group Activity, Skaggs Island; National Radio Transmitter Facility, Dixon; and, Naval Outlying Landing Field Imperial Beach.

Part-time Lecturer, 1998-2005, California State University, Sacramento. Instructed Mammalogy, Behavioral Ecology, and Ornithology Lab, Contemporary Environmental Issues, Natural Resources Conservation.

Senior Ecologist, 1999-2005, BioResource Consultants. Designed and implemented research and monitoring studies related to avian fatalities at wind turbines, avian electrocutions on electric distribution poles across California, and avian fatalities at transmission lines.

Chairman, Conservation Affairs Committee, The Wildlife Society--Western Section, 1999-2001. Prepared position statements and led efforts directed toward conservation issues, including travel to Washington, D.C. to lobby Congress for more wildlife conservation funding.

Systems Ecologist, 1995-2000, Institute for Sustainable Development. Headed ISD's program on integrated resources management. Developed indicators of ecological integrity for large areas, using remotely sensed data, local community involvement and GIS.

Associate, 1997-1998, Department of Agronomy and Range Science, University of California, Davis. Worked with Shu Geng and Mingua Zhang on several studies related to wildlife interactions with agriculture and patterns of fertilizer and pesticide residues in groundwater across a large landscape.

Lead Scientist, 1996-1999, National Endangered Species Network. Informed academic scientists and environmental activists about emerging issues regarding the Endangered Species Act and other environmental laws. Testified at public hearings on endangered species issues.

Ecologist, 1997-1998, Western Foundation of Vertebrate Zoology. Conducted field research to determine the impact of past mercury mining on the status of California red-legged frogs in Santa Clara County, California.

Senior Systems Ecologist, 1994-1995, EIP Associates, Sacramento, California. Provided consulting services in environmental planning, and quantitative assessment of land units for their conservation and restoration opportunities basedon ecological resource requirements of 29 special-status species. Developed ecological indicators for prioritizing areas within Yolo County

to receive mitigation funds for habitat easements and restoration.

Post-Graduate Researcher, 1990-1994, Department of Agronomy and Range Science, *U.C. Davis*. Under Dr. Shu Geng's mentorship, studied landscape and management effects on temporal and spatial patterns of abundance among pocket gophers and species of Falconiformes and Carnivora in the Sacramento Valley. Managed and analyzed a data base of energy use in California agriculture. Assisted with landscape (GIS) study of groundwater contamination across Tulare County, California.

Work experience in graduate school: Co-taught Conservation Biology with Dr. Christine Schonewald, 1991 & 1993, UC Davis Graduate Group in Ecology; Reader for Dr. Richard Coss's course on Psychobiology in 1990, UC Davis Department of Psychology; Research Assistant to Dr. Walter E. Howard, 1988-1990, UC Davis Department of Wildlife and Fisheries Biology, testing durable baits for pocket gopher management in forest clearcuts; Research Assistant to Dr. Terrell P. Salmon, 1987-1988, UC Wildlife Extension, Department of Wildlife and Fisheries Biology, developing empirical models of mammal and bird invasions in North America, and a rating system for priority research and control of exotic species based on economic, environmental and human health hazards in California. Student Assistant to Dr. E. Lee Fitzhugh, 1985-1987, UC Cooperative Extension, Department of Wildlife and Fisheries Biology, developing and implementing statewide mountain lion track count for long-term monitoring.

Fulbright Research Fellow, Indonesia, 1988. Tested use of new sampling methods for numerical monitoring of Sumatran tiger and six other species of endemic felids, and evaluated methods used by other researchers.

Projects

Repowering wind energy projects through careful siting of new wind turbines using map-based collision hazard models to minimize impacts to volant wildlife. Funded by wind companies (principally NextEra Renewable Energy, Inc.), California Energy Commission and East Bay Regional Park District, I have collaborated with a GIS analyst and managed a crew of five field biologists performing golden eagle behavior surveys and nocturnal surveys on bats and owls. The goal is to quantify flight patterns for development of predictive models to more carefully site new wind turbines in repowering projects. Focused behavior surveys began May 2012 and continue. Collision hazard models have been prepared for seven wind projects, three of which were built. Planning for additional repowering projects is underway.

Test avian safety of new mixer-ejector wind turbine (MEWT). Designed and implemented a before-after, control-impact experimental design to test the avian safety of a new, shrouded wind turbine developed by Ogin Inc. (formerly known as FloDesign Wind Turbine Corporation). Supported by a $718,000 grant from the California Energy Commission's Public Interest Energy Research program and a 20% match share contribution from Ogin, I managed a crew of seven field biologists who performed periodic fatality searches and behavior surveys, carcass detection trials, nocturnal behavior surveys using a thermal camera, and spatial analyses with the collaboration of a GIS analyst. Field work began 1 April 2012 and ended 30 March 2015 without Ogin installing its MEWTs, but we still achieved multiple important scientific advances.

Reduce avian mortality due to wind turbines at Altamont Pass. Studied wildlife impacts caused by 5,400 wind turbines at the world's most notorious wind resource area. Studied how impacts are perceived by monitoring and how they are affected by terrain, wind patterns, food resources, range management practices, wind turbine operations, seasonal patterns, population cycles, infrastructure management such as electric distribution, animal behavior and social interactions.

Reduce avian mortality on electric distribution poles. Directed research toward reducing bird electrocutions on electric distribution poles, 2000-2007. Oversaw 5 founds of fatality searches at 10,000 poles from Orange County to Glenn County, California, and produced two large reports.

Cook *et al.* v. Rockwell International *et al.*, No. 90-K-181 (D. Colorado). Provided expert testimony on the role of burrowing animals in affecting the fate of buried and surface-deposited radioactive and hazardous chemical wastes at the Rocky Flats Plant, Colorado. Provided expert reports based on four site visits and an extensive document review of burrowing animals. Conducted transect surveys for evidence of burrowing animals and other wildlife on and around waste facilities. Discovered substantial intrusion of waste structures by burrowing animals. I testified in federal court in November 2005, and my clients were subsequently awarded a $553,000,000 judgment by a jury. After appeals the award was increased to two billion dollars.

Hanford Nuclear Reservation Litigation. Provided expert testimony on the role of burrowing animals in affecting the fate of buried radioactive wastes at the Hanford Nuclear Reservation, Washington. Provided three expert reports based on three site visits and extensive document review. Predicted and verified a certain population density of pocket gophers on buried waste structures, as well as incidence of radionuclide contamination in body tissue. Conducted transect surveys for evidence of burrowing animals and other wildlife on and around waste facilities. Discovered substantial intrusion of waste structures by burrowing animals.

Expert testimony and declarations on proposed residential and commercial developments, gas-fired power plants, wind, solar and geothermal projects, water transfers and water transfer delivery systems, endangered species recovery plans, Habitat Conservation Plans and Natural Communities Conservation Programs. Testified before multiple government agencies, Tribunals, Boards of Supervisors and City Councils, and participated with press conferences and depositions. Prepared expert witness reports and court declarations, which are summarized under Reports (below).

Protocol-level surveys for special-status species. Used California Department of Fish and Wildlife and US Fish and Wildlife Service protocols to search for California red-legged frog, California tiger salamander, arroyo southwestern toad, blunt-nosed leopard lizard, western pond turtle, giant kangaroo rat, San Joaquin kangaroo rat, San Joaquin kit fox, western burrowing owl, Swainson's hawk, Valley elderberry longhorn beetle and other special-status species.

Conservation of San Joaquin kangaroo rat. Performed research to identify factors responsible for the decline of this endangered species at Lemoore Naval Air Station, 2000-2013, and implemented habitat enhancements designed to reverse the trend and expand the population.

Impact of West Nile Virus on yellow-billed magpies. Funded by Sacramento-Yolo Mosquito and Vector Control District, 2005-2008, compared survey results pre- and post-West Nile Virus epidemic for multiple bird species in the Sacramento Valley, particularly on yellow-billed magpie and American crow due to susceptibility to WNV.

Workshops on HCPs. Assisted Dr. Michael Morrison with organizing and conducting a 2-day workshop on Habitat Conservation Plans, sponsored by Southern California Edison, and another 1-day workshop sponsored by PG&E. These Workshops were attended by academics, attorneys, and consultants with HCP experience. We guest-edited a Proceedings published in Environmental Management.

Mapping of biological resources along Highways 101, 46 and 41. Used GPS and GIS to delineate vegetation complexes and locations of special-status species along 26 miles of highway in San Luis Obispo County, 14 miles of highway and roadway in Monterey County, and in a large area north of Fresno, including within reclaimed gravel mining pits.

GPS mapping and monitoring at restoration sites and at Caltrans mitigation sites. Monitored the success of elderberry shrubs at one location, the success of willows at another location, and the response of wildlife to the succession of vegetation at both sites. Also used GPS to monitor the response of fossorial animals to yellow star-thistle eradication and natural grassland restoration efforts at Bear Valley in Colusa County and at the decommissioned Mather Air Force Base in Sacramento County.

Mercury effects on Red-legged Frog. Assisted Dr. Michael Morrison and US Fish and Wildlife Service in assessing the possible impacts of historical mercury mining on the federally listed California red-legged frog in Santa Clara County. Also measured habitat variables in streams.

Opposition to proposed No Surprises rule. Wrote a white paper and summary letter explaining scientific grounds for opposing the incidental take permit (ITP) rules providing ITP applicants and holders with general assurances they will be free of compliance with the Endangered Species Act once they adhere to the terms of a "properly functioning HCP." Submitted 188 signatures of scientists and environmental professionals concerned about No Surprises rule US Fish and Wildlife Service, National Marine Fisheries Service, all US Senators.

Natomas Basin Habitat Conservation Plan alternative. Designed narrow channel marsh to increase the likelihood of survival and recovery in the wild of giant garter snake, Swainson's hawk and Valley Elderberry Longhorn Beetle. The design included replication and interspersion of treatments for experimental testing of critical habitat elements. I provided a report to Northern Territories, Inc.

Assessments of agricultural production system and environmental technology transfer to China. Twice visited China and interviewed scientists, industrialists, agriculturalists, and the Directors of the Chinese Environmental Protection Agency and the Department of Agriculture to assess the need and possible pathways for environmental clean-up technologies and trade opportunities between the US and China.

Yolo County Habitat Conservation Plan. Conducted landscape ecology study of Yolo County to spatially prioritize allocation of mitigation efforts to improve ecosystem functionality within the County from the perspective of 29 special-status species of wildlife and plants. Used a hierarchically structured indicators approach to apply principles of landscape and ecosystem ecology, conservation biology, and local values in rating land units. Derived GIS maps to help guide the conservation area design, and then developed implementation strategies.

Mountain lion track count. Developed and conducted a carnivore monitoring program throughout California since 1985. Species counted include mountain lion, bobcat, black bear, coyote, red and gray fox, raccoon, striped skunk, badger, and black-tailed deer. Vegetation and land use are also monitored. Track survey transect was established on dusty, dirt roads within randomly selected quadrats.

Sumatran tiger and other felids. Upon award of Fulbright Research Fellowship. I designed and initiated track counts for seven species of wild cats in Sumatra, including Sumatran tiger, fishing cat, and golden cat. Spent four months on Sumatra and Java in 1988, and learned Bahasa Indonesia, the official Indonesian language.

Wildlife in agriculture. Beginning as post-graduate research, I studied pocket gophers and other wildlife in 40 alfalfa fields throughout the Sacramento Valley, and I surveyed for wildlife along a 200 mile road transect since 1989 with a hiatus of 1996-2004. The data are analyzed using GIS and methods from landscape ecology, and the results published and presented orally to farming groups in California and elsewhere. I also conducted the first study of wildlife in cover crops used on vineyards and orchards.

Agricultural energy use and Tulare County groundwater study. Developed and analyzed a data base of energy use in California agriculture, and collaborated on a landscape (GIS) study of groundwater contamination across Tulare County, California.

Pocket gopher damage in forest clear-cuts. Developed gopher sampling methods and tested various poison baits and baiting regimes in the largest-ever field study of pocket gopher management in forest plantations, involving 68 research plots in 55 clear-cuts among 6 National Forests in northern California.

Risk assessment of exotic species in North America. Developed empirical models of mammal and bird species invasions in North America, as well as a rating system for assigning priority research and control to exotic species in California, based on economic, environmental, and human health hazards.

Peer Reviewed Publications

Smallwood, K. S. 2022. Utility-scale solar impacts to volant wildlife. Journal of Wildlife Management: e22216. https://doi.org/10.1002/jwmg.22216

Smallwood, K. S., and N. L. Smallwood. 2021. Breeding Density and Collision Mortality of Loggerhead Shrike (*Lanius ludovicianus*) in the Altamont Pass Wind Resource Area. Diversity 13, 540. https://doi.org/10.3390/d13110540.

Smallwood, K. S. 2020. USA wind energy-caused bat fatalities increase with shorter fatality search intervals. Diversity 12(98): https://doi.org/10.3390/d12030098

Smallwood, K. S., D. A. Bell, and S. Standish. 2020. Dogs detect larger wind energy impacts on bats and birds. Journal of Wildlife Management 84:852-864. DOI: 10.1002/jwmg.21863.

Smallwood, K. S., and D. A. Bell. 2020. Relating bat passage rates to wind turbine fatalities.

Diversity 12(84); doi:10.3390/d12020084.

Smallwood, K. S., and D. A. Bell. 2020. Effects of wind turbine curtailment on bird and bat fatalities. Journal of Wildlife Management 84:684-696. DOI: 10.1002/jwmg.21844

Kitano, M., M. Ino, K. S. Smallwood, and S. Shiraki. 2020. Seasonal difference in carcass persistence rates at wind farms with snow, Hokkaido, Japan. Ornithological Science 19: 63 – 71.

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Smallwood, K. S., D. A. Bell, E. L. Walther, E. Leyvas, S. Standish, J. Mount, B. Karas. 2018. Estimating wind turbine fatalities using integrated detection trials. Journal of Wildlife Management 82:1169-1184.

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May, R., Gill, A. B., Köppel, J. Langston, R. H.W., Reichenbach, M., Scheidat, M., Smallwood, S., Voigt, C. C., Hüppop, O., and Portman, M. 2017. Future research directions to reconcile wind turbine–wildlife interactions. Pages 255-276 in Köppel, J., Editor, Wind Energy and Wildlife Impacts: Proceedings from the CWW2015 Conference. Springer. Cham, Switzerland.

Smallwood, K. S. 2017. Monitoring birds. M. Perrow, Ed., Wildlife and Wind Farms - Conflicts and Solutions, Volume 2. Pelagic Publishing, Exeter, United Kingdom. www.bit.ly/2v3cR9Q

Smallwood, K. S., L. Neher, and D. A. Bell. 2017. Turbine siting for raptors: an example from Repowering of the Altamont Pass Wind Resource Area. M. Perrow, Ed., Wildlife and Wind Farms - Conflicts and Solutions, Volume 2. Pelagic Publishing, Exeter, United Kingdom. www.bit.ly/2v3cR9Q

Johnson, D. H., S. R. Loss, K. S. Smallwood, W. P. Erickson. 2016. Avian fatalities at wind energy facilities in North America: A comparison of recent approaches. Human–Wildlife Interactions 10(1):7-18.

Sadar, M. J., D. S.-M. Guzman, A. Mete, J. Foley, N. Stephenson, K. H. Rogers, C. Grosset, K. S. Smallwood, J. Shipman, A. Wells, S. D. White, D. A. Bell, and M. G. Hawkins. 2015. Mange Caused by a novel Micnemidocoptes mite in a Golden Eagle (*Aquila chrysaetos*). Journal of Avian Medicine and Surgery 29(3):231-237.

Smallwood, K. S. 2015. Habitat fragmentation and corridors. Pages 84-101 in M. L. Morrison and H. A. Mathewson, Eds., Wildlife habitat conservation: concepts, challenges, and solutions. John Hopkins University Press, Baltimore, Maryland, USA.

EXHIBIT B

SWAPE Technical Consultation, Data Analysis and Litigation Support for the Environment

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August 29, 2024

Kylah Staley
Lozeau | Drury LLP
1939 Harrison Street, Suite 150
Oakland, CA 94618

Subject: Comments on the Town and Country Village El Dorado Project (SCH No. 2023070297)

Dear Ms. Staley,

We have reviewed the July 2024 Draft Environmental Impact Report ("DEIR") for the Town and Country Village El Dorado Project ("Project") located in the City of El Dorado Hills ("City"). The Project proposes to construct 271,000-square-feet ("SF") of commercial space and 160,000-SF of residential space, including 262 dwelling units and 587 parking spaces, on the 60.5-acre site. 11-106

Our review concludes that the DEIR fails to adequately evaluate the Project's air quality, health risk, and greenhouse gas impacts. As a result, emissions and health risk impacts associated with construction and operation of the proposed Project may be underestimated and inadequately addressed. A revised Environmental Impact Report ("EIR") should be prepared to adequately assess and mitigate the potential air quality, health risk, and greenhouse gas impacts that the project may have on the environment. 11-107

Air Quality

Failure to Provide Complete CalEEMod Output Files

Land use development projects under the California Environmental Quality Act ("CEQA") typically evaluate air quality impacts and calculate potential criteria air pollutant emissions using the California Emissions Estimator Model ("CalEEMod").[1] CalEEMod provides recommended default values based on site-specific information, such as land use type, meteorological data, total lot acreage, project type and typical equipment associated with project type. If more specific project information is known, the user 11-108

[1] "CalEEMod User's Guide." California Air Pollution Control Officers Association (CAPCOA), May 2021, *available at:* https://www.aqmd.gov/caleemod/user's-guide.

can change the default values and input project-specific values, but CEQA requires that such changes be justified by substantial evidence. Once all of the values are inputted into the model, the Project's construction and operational emissions are calculated, and "output files" are generated. These output files disclose to the reader what parameters are used in calculating the Project's air pollutant emissions and demonstrate which default values are changed. Justifications are provided for the selected values.

11-108 cont.

According to the DEIR, CalEEMod Version 2022.1 is relied upon to estimate Project emissions (p. 4.2-45). However, this poses a problem, as the "User Changes to Default Data" table no longer provides the quantitative counterparts to the changes to the default values (see excerpt below) (Appendix D, pp. 1088):

11-109

8. User Changes to Default Data

Screen	Justification
Land Use	Land use adjustments were made based on project-specific data provided by the project applicant.
Construction: Construction Phases	Phase timing adjustments were made based on project-specific data provided by the project applicant. Based on typical construction practices, architectural coating assumed to start two weeks after the start of building construction and last for the same number of days.
Construction: Off-Road Equipment	Adjustments made to linear off-road equipment assumptions to account for "user defined linear" land use and based on standard industry practice.
Construction: On-Road Fugitive Dust	All roads in project area are paved.
Construction: Architectural Coatings	Based on guidance from EDCAQMD and in compliance with Rule 215
Operations: Vehicle Data	Trip Generation and VMT consistent with project-specific data from T. Near Transportation
Operations: Hearths	All cottages would include a natural gas fireplace.
Operations: Architectural Coatings	Based on guidance from EDCAQMD and in compliance with Rule 215
Operations: Road Dust	All roads in project area are paved.

However, previous CalEEMod Versions, such as 2020.4.0, include the specific numeric changes to the model's default values (see example excerpt below):

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	230.00	167.00
tblConstructionPhase	PhaseEndDate	11/22/2023	8/25/2023
tblConstructionPhase	PhaseEndDate	9/27/2023	6/30/2023
tblConstructionPhase	PhaseEndDate	10/25/2023	7/28/2023
tblConstructionPhase	PhaseStartDate	10/26/2023	7/29/2023
tblConstructionPhase	PhaseStartDate	9/28/2023	7/1/2023
tblLandUse	LandUseSquareFeet	160,000.00	160,371.00
tblLandUse	LandUseSquareFeet	119,000.00	41,155.00
tblLandUse	LotAcreage	3.67	3.68
tblLandUse	LotAcreage	2.73	2.74

The output files associated with CalEEMod Version 2022.1 fail to present the exact parameters used to calculate Project emissions. To remedy this issue, the DEIR should have provided access to the model's ".JSON" output files, which allow third parties to review the model's revised input parameters.[2] Without access to the complete output files, including the specific numeric changes to the default values, we cannot verify that the DEIR air modeling and subsequent analysis is an accurate reflection of the

11-110

[2] "Video Tutorials for CalEEMod Version 2022.1." California Air Pollution Control Officers Association (CAPCOA), May 2022, *available at:* https://www.caleemod.com/tutorials.

proposed Project. As a result, a revised EIR should be prepared to include an updated air quality analysis that correctly provides the complete output files for CalEEMod Version 2022.1, or includes an updated air model using an older release of CalEEMod.[3]

11-110 cont.

Unsubstantiated Input Parameters Used to Estimate Project Emissions

As previously discussed, the DEIR relies on CalEEMod Version 2022.1 to estimate the Project's air quality emissions and fails to provide the complete output files required to adequately evaluate the model's analysis (p. 4.2-45). Regardless, when reviewing the Project's CalEEMod output files, provided as Appendix D to the DEIR, we were able to identify several model inputs that are inconsistent with information disclosed in the DEIR. The Project's construction and operational emissions may consequently be underestimated. A revised EIR should be prepared to include an updated air quality analysis that adequately evaluates the impacts that construction and operation of the Project will have on local and regional air quality.

11-111

Unsubstantiated Changes to Individual Construction Phase Lengths

Review of the CalEEMod output files demonstrates that the "Town and Country Village - Project Development Area" model includes changes to the default construction schedule (see excerpt below) (Appendix D, pp. 1088).

8. User Changes to Default Data

Screen	Justification
Land Use	Land use adjustments were made based on project-specific data provided by the project applicant.
Construction: Construction Phases	Phase timing adjustments were made based on project-specific data provided by the project applicant. Based on typical construction practices, architectural coating assumed to start two weeks after the start of building construction and last for the same number of days.
Construction: Off-Road Equipment	Adjustments made to linear off-road equipment assumptions to account for "user defined linear" land use and based on standard industry practice.
Construction: On-Road Fugitive Dust	All roads in project area are paved.
Construction: Architectural Coatings	Based on guidance from EDCAQMD and in compliance with Rule 215.
Operations: Vehicle Data	Trip Generation and VMT consistent with project-specific data from T. Kear Transportation.
Operations: Hearths	All cottages would include a natural gas fireplace.
Operations: Architectural Coatings	Based on guidance from EDCAQMD and in compliance with Rule 215.
Operations: Road Dust	All roads in project area are paved.

11-112

As a result of these changes, the model includes the following construction schedule (see excerpt below) (Appendix B, pp. 1070, 1071):

[3] "CalEEMod Version 2020.4.0." California Air Pollution Control Officers Association (CAPCOA), May 2021, *available at:* http://www.aqmd.gov/caleemod/download-model.

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase
Site Preparation	Site Preparation	4/1/2025	6/23/2025	5.00	60.0
Grading	Grading	6/24/2025	3/2/2026	5.00	180
Building Construction	Building Construction	6/23/2026	2/1/2027	5.00	160
Paving	Paving	3/3/2026	6/22/2026	5.00	80.0
Architectural Coating	Architectural Coating	7/7/2026	2/15/2027	5.00	160
Linear, Grubbing & Land Clearing	Linear, Grubbing & Land Clearing	4/1/2025	4/3/2025	5.00	2.00
Linear, Grading & Excavation	Linear, Grading & Excavation	4/4/2025	4/19/2025	5.00	11.0
Linear, Drainage, Utilities, & Sub-Grade	Linear, Drainage, Utilities, & Sub-Grade	4/20/2025	4/29/2025	5.00	7.00
Linear, Paving	Linear, Paving	4/30/2025	5/5/2025	5.00	4.00

As previously mentioned, the CalEEMod User's Guide requires any changes to model defaults be justified.[4] As demonstrated above in the "User Changes to Default Data" table, the justification provided for these changes is:

> "Phase timing adjustments were made based on project-specific data provided by the project applicant. Based on typical construction practices, architectural coating assumed to start two weeks after the start of building construction and last for the same number of days" (Appendix D, pp. 1088).

Regarding the Project's development area construction duration, the DEIR states:

> "The modeling for the Project Development Area Scenario assumed that construction would begin in April 2025 and occur over an approximately two-year period" (p. 4.2-45).

While the DEIR justifies a total length of Project construction of 22 months, the DEIR fails to mention the individual construction phase lengths. Until the individual construction phase lengths are substantiated, the model should have included proportionately altered individual phase lengths to match the proposed construction duration of 22 months.[5]

11-113

CalEEMod uses construction phase lengths to calculate the Project's construction emissions. Specifically, each construction phase is associated with different emissions activities (see excerpt below).[6]

11-114

[4] "CalEEMod User's Guide." California Air Pollution Control Officers Association (CAPCOA), May 2021, *available at:* https://www.aqmd.gov/caleemod/user's-guide, p. 1, 14.
[5] See Attachment A for proportionately altered construction schedule.
[6] "CalEEMod User's Guide." California Air Pollution Control Officers Association (CAPCOA), May 2021, *available at:* https://www.aqmd.gov/caleemod/user's-guide, p. 32.

Demolition involves removing buildings or structures.

Site Preparation involves clearing vegetation (grubbing and tree/stump removal) and removing stones and other unwanted material or debris prior to grading.

Grading involves the cut and fill of land to ensure that the proper base and slope is created for the foundation.

Building Construction involves the construction of the foundation, structures and buildings.

Architectural Coating involves the application of coatings to both the interior and exterior of buildings or structures, the painting of parking lot or parking garage striping, associated signage and curbs, and the painting of the walls or other components such as stair railings inside parking structures.

Paving involves the laying of concrete or asphalt such as in parking lots, roads, driveways, or sidewalks.

11-114 cont.

By disproportionately altering and extending some of the individual construction phase lengths without proper justification, the model assumes there are a greater number of days to complete the construction activities required by the prolonged phases. As a result, there will be less construction activities required per day and fewer pollutants emitted per day. Until we are able to verify the revised construction schedule, the model may underestimate the peak daily emissions associated with some phases of construction and should not be relied upon to determine Project significance.

Unsubstantiated Changes to Architectural Coating Emission Factors

Review of the CalEEMod output files demonstrates that the "Town and Country Village - Project Development Area" model includes changes to the default architectural coating emission factors (see excerpt below) (Appendix D, pp. 1088).

8. User Changes to Default Data

Screen	Justification
Land Use	Land use adjustments were made based on project-specific data provided by the project applicant.
Construction: Construction Phases	Phase timing adjustments were made based on project-specific data provided by the project applicant. Based on typical construction practices, architectural coating assumed to start two weeks after the start of building construction and last for the same number of days.
Construction: Off-Road Equipment	Adjustments made to linear off-road equipment assumptions to account for "user defined linear" land use and based on standard industry practice.
Construction: On-Road Fugitive Dust	All roads in project area are paved.
Construction: Architectural Coatings	Based on guidance from EDCAQMD and in compliance with Rule 215.
Operations: Vehicle Data	Trip Generation and VMT consistent with project-specific data from T. Kear Transportation
Operations: Hearths	All cottages would include a natural gas fireplace.
Operations: Architectural Coatings	Based on guidance from EDCAQMD and in compliance with Rule 215.
Operations: Road Dust	All roads in project area are paved.

11-115

The "User Changes to Default Data" table provides the following justification for these changes:

> "Based on guidance from EDCAQMD and in compliance with Rule 215" (Appendix D, pp. 1088).

The DEIR relies on El Dorado County Air Quality Management District ("EDCAQMD") Rule 215 as a justification for the changes made to architectural coatings values in the model, however, these changes remain unsubstantiated for two reasons.

First, we cannot verify the accuracy of the revised architectural coating emission factors based on EDCAQMD Rule 215 alone. The EDCAQMD Rule 215 Table of Standards provides the required volatile

11-116

organic compound ("VOC") limits (grams of VOC per liter of coating) for 42 different coating categories.[7] The VOC limits for each coating varies from a minimum value of 50 g/L to a maximum value of 730 g/L. As such, we cannot verify that EDCAQMD Rule 215 substantiates reductions to the default coating values without more information regarding what category of coating will be used. As the DEIR fails to explicitly require the use of a specific type of coating which would adhere to a specific VOC limit, we are unable to verify the model's revised coating emission factors.

11-116 cont.

Second, as previously discussed, the output files for CalEEMod 2022.1 do not present the numeric changes to any model defaults. Upon further review of the output files, Table 5.5 contains the only mention of architectural coatings (see excerpt below) (Appendix D, pp. 1079, 1083):

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
Architectural Coating	93,504	31,168	218,640	156,160	21,432

Table 5.5, however, only provides the square footage of area to be coated. Since the output files fail to demonstrate the architectural coating emission factors that the model relies on, we cannot verify that the values included in the model are accurate. As previously stated, the DEIR should have provided access to the model's ".JSON" output files, which allow third parties to review the model's revised input parameters.[8]

11-117

These unsubstantiated reductions present an issue, as CalEEMod uses the architectural coating emission factors to calculate the Project's reactive organic gases ("ROG")/VOC emissions.[9] By including unsubstantiated reductions to the default architectural coating emission factors, the model may underestimate the Project's construction-related ROG/VOC emissions and should not be relied upon to determine Project significance.

Updated Analysis Indicates a Potentially Significant Air Quality Impact

In an effort to more accurately estimate the Project's construction-related emissions, we prepared an updated construction CalEEMod model, using the Project-specific information provided by the DEIR. In our updated model we omitted the unsubstantiated changes to architectural coating values and proportionately altered the individual construction phase lengths to match the total construction duration of 22 months. All other values, including the linear land use construction schedule, were left as default.[10]

11-118

[7] "Rule 101 – General Provisions and Definitions." EDCAQMD, June 2017, *available at:* https://www.epa.gov/system/files/documents/2022-09/epa-approved-edcaqmd-sips-compilation.pdf, p. 1, 2; Table of Standards - VOC Content Limits for Architectural Coatings.
[8] "Video Tutorials for CalEEMod Version 2022.1." California Air Pollution Control Officers Association (CAPCOA), May 2022, *available at:* https://www.caleemod.com/tutorials.
[9] "CalEEMod User's Guide." California Air Pollution Control Officers Association (CAPCOA), May 2021, *available at:* https://www.aqmd.gov/caleemod/user's-guide, p. 35, 40.
[10] See Attachment B for CalEEMod output files.

Our updated analysis estimates that the Project's construction-related ROG and NO_X emissions would exceed the applicable EDCAQMD threshold of 82-pounds per day ("lbs/day"), as referenced by the DEIR (p. 4.2-47, Table 4.2-8) (see table below).[11]

Project Criteria Air Pollutant Emissions

Construction	ROG (lbs/day)	NO_X (lbs/day)
DEIR	24.6	79.2
SWAPE	201	120
% Increase	717%	142%
EDCAQMD Threshold	**82**	**82**
Exceeds?	***Yes***	***Yes***

As demonstrated above, the Project's construction-related ROG and NO_X emissions, as estimated by SWAPE, increase by approximately 717% and 412%, respectively, and exceed the applicable EDCAQMD significance thresholds. The updated model demonstrates that the Project would result in a potentially significant air quality impact that was not previously identified or addressed in the DEIR. A revised EIR should be prepared to adequately assess and mitigate the potential air quality impacts that the Project may have on the environment.

11-118 cont.

Diesel Particulate Matter Emissions Inadequately Evaluated

The DEIR concludes that the Project would have a less-than-significant health risk impact without conducting a quantified construction or operational health risk analysis ("HRA"). Regarding the health risk impacts associated with the Project construction, the DEIR states:

> "Considering the intermittent nature of construction equipment operating within an influential distance to the nearest sensitive receptors, the duration of construction activities in comparison to the operational lifetime of the project, the typical long-term exposure periods associated with conducting health risk assessments, the highly dispersive nature of DPM, and compliance with regulations, the likelihood that any one nearby sensitive receptor would be exposed to high concentrations of DPM for any extended period of time would be low. Based on the above, the proposed project would not expose sensitive receptors to substantial concentrations of DPM during construction" (p. 4.2-54).

11-119

The DEIR asserts that the Project is not likely to cause a significant construction health risk impact due to the intermittent use of construction equipment and limited construction phase duration. Furthermore, regarding the health risk impacts associated with the Project operation, the DEIR states:

[11] "Thresholds of Significance." EDCAQMD, February 2002, *available at*: https://www.eldoradocounty.ca.gov/files/assets/county/v/1/documents/government/air-quality/guide-to-air-quality-assessment/chapter3_rf6.pdf.

> "As discussed previously, the CARB Handbook provides recommended setback distances for sensitive land uses from major sources of TACs, including, but not limited to, freeways and high traffic roads, distribution centers, and rail yards. The Project Development Area would not involve any land uses or operations that would be considered major sources of TACs, including DPM. As such, the proposed project would not generate any substantial pollutant concentrations related to TAC emissions during operations" (p. 4.2-54).

11-119 cont.

As demonstrated above, the DEIR states that the Project would result in a less-than-significant operational health risk impact as it would not include land uses that are "major sources" of toxic air contaminants ("TAC"). The DEIR's evaluation of the Project's potential health risk impacts, as well as the subsequent less-than-significant impact conclusion, however, is unsupported for two reasons.

First, by failing to prepare a quantified construction HRA, the DEIR is inconsistent with CEQA's requirement to correlate the increase in emissions that the Project would generate to the adverse impacts on human health caused by those emissions.[12] This is incorrect, as construction of the proposed Project will produce diesel particulate matter ("DPM") emissions through the exhaust stacks of heavy equipment operations and heavy-duty trucks over a total construction duration of 22 months (Appendix D, pp. 1070). Additionally, according to the DEIR, the Project operations would produce emissions resulting from resident and hotel employee vehicle trips (p. 4.11-23, Table 4.11-5). However, the DEIR fails to evaluate the potential Project-generated toxic air contaminants ("TACs") or indicate the concentrations at which such pollutants would trigger adverse health effects. Without making a reasonable effort to connect the Project's construction-related TAC emissions to the potential health risks posed to nearby receptors, the DEIR is inconsistent with CEQA's requirement to correlate the increase in emissions generated by the Project with the potential adverse impacts on human health.

11-120

Second, by claiming a less-than-significant impact without conducting a quantified construction or operational HRA for nearby, existing sensitive receptors, the DEIR fails to compare the Project's excess cancer risk to the EDCAQMD's specific numeric threshold of 10 in one million.[13] In accordance with the most relevant guidance, an assessment of the health risk posed to nearby, existing receptors as a result of Project construction and operation should be conducted.

11-121

Screening-Level Analysis Demonstrates Potentially Significant Health Risk Impact

We prepared a screening-level risk assessment using AERSCREEN, which is a screening level air quality dispersion model.[14] AERSCREEN uses a limited amount of site-specific information to generate maximum reasonable downwind concentrations of air contaminants to which nearby sensitive receptors may be

11-122

[12] "Sierra Club v. County of Fresno." Supreme Court of California, December 2018, *available at:* https://ceqaportal.org/decisions/1907/Sierra%20Club%20v.%20County%20of%20Fresno.pdf.
[13] "Thresholds of Significance" EDCAQMD, February 2002 *available at:* https://www.eldoradocounty.ca.gov/files/assets/county/v/1/documents/government/air-quality/guide-to-air-quality-assessment/chapter3_rf6.pdf, p. 7.
[14] "AERSCREEN Released as the EPA Recommended Screening Model," U.S. EPA, April 2011, *available at:* https://www.epa.gov/sites/default/files/2020-10/documents/20110411_aerscreen_release_memo.pdf.

exposed. If an unacceptable air quality hazard is estimated using AERSCREEN, a more refined modeling approach should be conducted prior to approval of the Project.

11-122 cont.

We prepared a preliminary HRA of the Project's construction and operational health risk impact to residential sensitive receptors using the annual PM_{10} exhaust estimates from the DEIR's CalEEMod "Town and Country Village - Project Development" model's output files. Consistent with recommendations set forth by Office of Environmental Health Hazard Assessment ("OEHHA"), we assumed residential exposure begins during the third trimester stage of life. The DEIR's construction CalEEMod emissions indicate that construction activities will generate approximately 351 pounds of DPM over the 685-day construction period.[15] The AERSCREEN model relies on a continuous average emission rate to simulate maximum downward concentrations from point, area, and volume emission sources. To account for the variability in equipment usage and truck trips over Project construction, we calculated an average DPM emission rate by the following equation:

11-123

$$\text{Emission Rate}\left(\frac{\text{grams}}{\text{second}}\right) = \frac{351.1\ \text{lbs}}{685\ \text{days}} \times \frac{453.6\ \text{grams}}{\text{lbs}} \times \frac{1\ \text{day}}{24\ \text{hours}} \times \frac{1\ \text{hour}}{3{,}600\ \text{seconds}} = \mathbf{0.00269\ g/s}$$

Using this equation, we estimated a construction emission rate of 0.00269 grams per second ("g/s"). Subtracting the 685-day construction period from the total residential duration of 30 years, we assumed that after Project construction, the sensitive receptor would be exposed to the Project's operational DPM for an additional 28.12 years. The DEIR's operational CalEEMod emissions indicate that operational activities will generate approximately 1420 pounds of DPM per year throughout operation. Applying the same equation used to estimate the construction DPM rate, we estimated the following emission rate for Project operation:

$$\text{Emission Rate}\left(\frac{\text{grams}}{\text{second}}\right) = \frac{100\ \text{lbs}}{360\ \text{days}} \times \frac{453.6\ \text{grams}}{\text{lbs}} \times \frac{1\ \text{day}}{24\ \text{hours}} \times \frac{1\ \text{hour}}{3{,}600\ \text{seconds}} = \mathbf{0.00144\ g/s}$$

Using this equation, we estimated an operational emission rate of 0.00144 g/s. Construction and operation were simulated as a 60.5-acre rectangular area source in AERSCREEN, with approximate dimensions of 700- by 350-meters. A release height of three meters was selected to represent the height of stacks of operational equipment and other heavy-duty vehicles, and an initial vertical dimension of one and a half meters was used to simulate instantaneous plume dispersion upon release. An urban meteorological setting was selected with model-default inputs for wind speed and direction distribution. The population of the City of El Dorado Hills was obtained from U.S. 2022 Census data.[16]

The AERSCREEN model generates maximum reasonable estimates of single-hour DPM concentrations from the Project Site. Environmental Protection Agency ("EPA") guidance suggests that in screening procedures, the annualized average concentration of an air pollutant to be estimated by multiplying the single-hour concentration by 10%.[17] According to the DEIR, the nearest sensitive receptor is a residence

[15] See Attachment C for health risk calculations.
[16] "El Dorado Hills" U.S. Census Bureau, 2022, *available at:* https://datacommons.org/place/geoId/0621880.
[17] "Screening Procedures for Estimating the Air Quality Impact of Stationary Sources Revised." U.S. EPA, October 1992, *available at:* https://www.epa.gov/sites/default/files/2020-09/documents/epa-454r-92-019_ocr.pdf.

located approximately 500 feet, or 152 meters, away from the Project site (p. 4.2-13). However, according to the AERSCREEN output files, the MEIR is located approximately 350 meters downwind of the Project site. The single-hour concentration estimated by AERSCREEN for Project construction is therefore approximately 0.6729 µg/m^3 DPM at approximately 350 meters downwind. Multiplying this single-hour concentration by 10%, we get an annualized average concentration of 0.0672 µg/m^3 for Project construction at the MEIR. For Project operation, the single-hour concentration estimated by AERSCREEN is 0.3597 µg/m^3 DPM at approximately 350 meters downwind. Multiplying this single-hour concentration by 10%, we get an annualized average concentration of 0.0360 µg/m^3 for Project operation at the MEIR.[18]

11-123 cont.

We calculated the excess cancer risk to the MEIR using applicable HRA methodologies prescribed by OEHHA and recommended by EDCAQMD.[19] Specifically, guidance from OEHHA and the CARB recommends the use of a standard point estimate approach, including high-point estimate (i.e. 95th percentile) breathing rates and age sensitivity factors ("ASF") in order to account for the increased sensitivity to carcinogens during early-in-life exposure and accurately assess risk for susceptible subpopulations such as children. The residential exposure parameters, such as the daily breathing rates ("BR/BW"), exposure duration ("ED"), ASFs, fraction of time at home ("FAH"), and exposure frequency ("EF") utilized for the various age groups in our screening-level HRA are as follows:

11-124

[18] See Attachment D for AERSCREEN output files.
[19] "Air Toxics "Hot Spots" Information & Assessment Act" EDCAQMD, 2023, *available at:* https://www.eldoradocounty.ca.gov/files/assets/county/v/3/documents/land-use/air-quality-management/2023-annual-ab2588-report.pdf, p. 4, 5; see also "Risk Assessment Guidelines Guidance Manual for Preparation of Health Risk Assessments." OEHHA, February 2015, available at: https://oehha.ca.gov/media/downloads/crnr/2015guidancemanual.pdf.

Exposure Assumptions for Residential Individual Cancer Risk

Age Group	Breathing Rate (L/kg-day)[20]	Age Sensitivity Factor[21]	Exposure Duration (years)	Fraction of Time at Home[22]	Exposure Frequency (days/year)[23]	Exposure Time (hours/day)
3rd Trimester	361	10	0.25	0.85	350	24
Infant (0 - 2)	1090	10	2	0.85	350	24
Child (2 - 16)	572	3	14	0.72	350	24
Adult (16 - 30)	261	1	14	0.73	350	24

11-124 cont.

For the inhalation pathway, the procedure requires the incorporation of several discrete variates to effectively quantify dose for each age group. Once determined, contaminant dose is multiplied by the cancer potency factor ("CPF") in units of inverse dose expressed in milligrams per kilogram per day (mg/kg/day^{-1}) to derive the cancer risk estimate. To assess exposures, we utilized the following dose algorithm:

$$\text{Dose}_{\text{AIR,per age group}} = C_{\text{air}} \times EF \times \left[\frac{BR}{BW}\right] \times A \times CF$$

where:

Dose_{AIR} = dose by inhalation (mg/kg/day), per age group
C_{air} = concentration of contaminant in air (µg/m3)
EF = exposure frequency (number of days/365 days)
BR/BW = daily breathing rate normalized to body weight (L/kg/day)
A = inhalation absorption factor (default = 1)
CF = conversion factor (1x10-6, µg to mg, L to m3)

To calculate the overall cancer risk, we used the following equation for each appropriate age group:

$$\text{Cancer Risk}_{\text{AIR}} = \text{Dose}_{\text{AIR}} \times CPF \times ASF \times FAH \times \frac{ED}{AT}$$

where:

[20] "Risk Assessment Guidelines Guidance Manual for Preparation of Health Risk Assessments." OEHHA, February 2015, available at: https://oehha.ca.gov/media/downloads/crnr/2015guidancemanual.pdf.
[21] "Risk Assessment Guidelines Guidance Manual for Preparation of Health Risk Assessments." OEHHA, February 2015, available at: https://oehha.ca.gov/media/downloads/crnr/2015guidancemanual.pdf, p. 8-5 Table 8.3.
[22] "Risk Assessment Guidelines Guidance Manual for Preparation of Health Risk Assessments." OEHHA, February 2015, available at: https://oehha.ca.gov/media/downloads/crnr/2015guidancemanual.pdf, p. 8-5, Table 8.4.
[23] "Risk Assessment Guidelines Guidance Manual for Preparation of Health Risk Assessments." OEHHA, February 2015, available at: https://oehha.ca.gov/media/downloads/crnr/2015guidancemanual.pdf, p. 5-24.

$Dose_{AIR}$ = dose by inhalation (mg/kg/day), per age group
CPF = cancer potency factor, chemical-specific $(mg/kg/day)^{-1}$
ASF = age sensitivity factor, per age group
FAH = fraction of time at home, per age group (for residential receptors only)
ED = exposure duration (years)
AT = averaging time period over which exposure duration is averaged (always 70 years)

Consistent with the 374-day construction schedule, the annualized average concentration for construction was used for the entire third trimester of pregnancy (0.25 years) and the first 1.25 years of the infantile stage of life (0 – 2 years). The annual annualized average concentration for operation was used for the remainder of the 30-year exposure period, which makes up the latter 0.75 years of the infantile stage of life, as well as the entire child stage of life (2 – 16 years) and adult stage of life (16 – 30 years). The results of our calculations are shown in the table below.

11-124 cont.

Age Group	Emissions Source	Duration (years)	Concentration (ug/m3)	Cancer Risk
3rd Trimester	Construction	0.25	0.0606	7.01E-07
	Construction	*1.63*	*0.0573*	*1.53E-05*
	Operation	*0.37*	*0.0360*	*1.88E-06*
Infant (0 - 2)	Total	2		1.72E-05
Child (2 - 16)	Operation	14	0.0360	9.38E-06
Adult (16 - 30)	Operation	14	0.0360	1.45E-06
Lifetime		**30**		**2.87E-05**

As demonstrated in the table above, the excess cancer risks for the 3rd trimester of pregnancy, infants, children, and adults at the MEIR located approximately 350 meters away, over the course of Project construction and operation, are approximately 0.701, 17.2, 9.38, and 1.45 in one million, respectively. The excess cancer risk over the course of the residential lifetime (30 years) is approximately 28.7 in one million. As such, the infant, child, and lifetime cancer risks exceed the EDCAQMD threshold of 10 in one million, resulting in a potentially significant impact not previously addressed or identified in the DEIR.

The purpose of the screening-level HRA is to demonstrate the potential link between Project-generated emissions and adverse health risk impacts. According to the U.S. EPA:

> "EPA's Exposure Assessment Guidelines recommend completing exposure assessments iteratively using a tiered approach to 'strike a balance between the costs of adding detail and

11-125

refinement to an assessment and the benefits associated with that additional refinement' (U.S. EPA, 1992).

In other words, an assessment using basic tools (e.g., simple exposure calculations, default values, rules of thumb, conservative assumptions) can be conducted as the first phase (or tier) of the overall assessment (i.e., a screening-level assessment).

The exposure assessor or risk manager can then determine whether the results of the screening-level assessment warrant further evaluation through refinements of the input data and exposure assumptions or by using more advanced models."

11-125 cont.

Screening-level analyses warrant further evaluation in a refined modeling approach. Our screening-level HRA demonstrates that construction and operation of the Project could result in a potentially significant health risk impact, and therefore an EIR should be prepared to include a refined health risk analysis which adequately and accurately evaluates health risk impacts associated with both Project construction and operation. If the refined analysis similarly concludes that the Project would result in a significant health risk impact, then mitigation measures should be incorporated, as described in our "Feasible Mitigation Measures Available to Reduce Emissions" section below.

Greenhouse Gas

Failure to Adequately Evaluate Greenhouse Gas Impacts

The DEIR estimates that the Project would result in net unmitigated annual greenhouse gas ("GHG") emissions of 1,385 metric tons of carbon dioxide equivalents per year ("MT CO_2e/year"), which would exceed the applicable Sacramento Metropolitan Air Quality Management District ("SMAQMD") threshold of 1,100 MT CO_2e/year (see excerpt below) (p. 4.2-73, Table 4.2-14).

Table 4.2-14
Maximum Unmitigated Construction GHG Emissions – Program Study Area

	GHG Emissions ($MTCO_2e$/yr)
Program Study Area Emissions	1,385.00
SMAQMD Threshold	**1,100.00**
Exceeds Threshold?	**YES**

Source: CalEEMod, April 2024 (see Appendix D).

11-126

The DEIR concludes that the Project would result in a less-than-significant GHG impact due to the implementation of mitigation measures ("MM") 4.2-7(a) through MM 4.2-7(c), stating:

"Implementation of the following mitigation measures would reduce the above potential impacts related to construction GHG emissions, as well as BMP-1 and BMP-2 to a less-than-significant level. As a result, the Project Development Area's incremental contribution to the cumulatively significant effects of GHG emissions and global climate change would be reduced to a less than cumulatively considerable level" (p. 4.2-76).

The DEIR, however, fails to quantify the measures that would lead to a less-than-significant GHG impact. Without a quantitative analysis of the GHG emissions that includes the implementation of these mitigation measures, we are not able to verify the less-than-significant determination. Until the updated analysis is verified, the GHG analysis should not be relied upon. We have provided further applicable mitigation measures below. 11-127

Mitigation

Feasible Mitigation Measures Available to Reduce Emissions

According to California Environmental Quality Act ("CEQA") Guidelines § 15096(g)(2): 11-128

> "When an updated EIR has been prepared for a project, the Responsible Agency shall not approve the project as proposed if the agency finds any feasible alternative or feasible mitigation measures within its powers that would substantially lessen or avoid any significant effect the project would have on the environment."

The DEIR is consequently required under CEQA to implement all feasible mitigation to reduce the Project's potential impacts. As demonstrated in the sections above, the Project would result in potentially significant air quality, health risk, and GHG impacts that should be mitigated further. 11-129

The EPA explains that NO_x emissions originate from "motor vehicle internal combustion engines and fossil fuel-fired electric utility and industrial boilers" and sources of PM_{10} emissions include "vehicle exhaust and road dust."[24,25] As NO_x and PM_{10} are emitted from mobile source engines we will provide mitigation measure that apply to both pollutants. In order to reduce the NO_x and PM_{10} emissions associated with Project construction and operation, we recommend the DEIR consider incorporating several mitigation measures (see list below). 11-130

Southern California Association of Governments ("SCAG")'s 2020 *RTP/SCS* Program Environmental Impact Report ("PEIR") recommends the following Air Quality Project Level Mitigation Measure ("PMM-AQ-1"), which is applicable to the Project: [26]

- Require contractors to assemble a comprehensive inventory list (i.e., make, model, engine year, horsepower, emission rates) of all heavy-duty off-road (portable and mobile) equipment (50

[24] "Proposed Revisions to the National Ambient Air Quality Standards for Nitrogen Dioxide." EPA, July 2009, *available at*: https://www.gpo.gov/fdsys/pkg/FR-2009-07-15/pdf/E9-15944.pdf.
[25] "Particle Pollution and your Health." EPA, September 2003, *available at*: https://www.airnow.gov/sites/default/files/2018-03/pm-color.pdf.
[26] "4.0 Mitigation Measures." Connect SoCal Program Environmental Impact Report Addendum #1, September 2020, available at: https://scag.ca.gov/sites/main/files/file-attachments/fpeir_connectsocal_addendum_4_mitigationmeasures.pdf?1606004420, p. 4.0-2 – 4.0-10; 4.0-19 – 4.0-23; See also: "Certified Final Connect SoCal Program Environmental Impact Report." SCAG, May 2020, *available at:* https://scag.ca.gov/peir.

horsepower and greater) that could be used an aggregate of 40 or more hours for the construction project.

11-130 cont.

In order to reduce the GHG emissions associated with the Project, we recommend several mitigation measures (see list below).

SCAG's 2020 RTP/SCS PEIR's Greenhouse Gas Project Level Mitigation Measures ("PMM-GHG-1") recommends:

11-131

- Measures that encourage transit use, carpooling, bike-share and car-share programs, active transportation, and parking strategies, including, but not limited to the following:
  - Increase bicycle carrying capacity on transit and rail vehicles,
  - Improve or increase access to transit,
  - Increase access to common goods and services, such as groceries, schools, and day care,
  - Incorporate the neighborhood electric vehicle network,
  - Orient the project toward transit, bicycle and pedestrian facilities,
  - Improve pedestrian or bicycle networks, or transit service,
  - Provide traffic calming measures,
  - Limit or eliminate park supply,
  - Provide parking cash-out programs, and
  - Implement or provide access to commute reduction program;
- Require at least five percent of all vehicle parking spaces include electric vehicle charging stations, or at a minimum, require the appropriate infrastructure to facilitate sufficient electric charging for passenger vehicles and trucks to plug-in;
- Implement preferential parking permit program;
- Implement commute trip reduction marketing, such as:
  - New employee orientation of trip reduction and alternative mode options,
  - Event promotions, and
  - Publications;
- Price workplace parking, such as:
  - Explicitly charging for parking for its employees,
  - Implementing above market rate pricing,
  - Validating parking only for invited guests,
  - Not providing employee parking and transportation allowances, and
  - Educating employees about available alternatives; and
- Adopting employer trip reduction measures to reduce employee trips such as vanpool and carpool programs, providing end-of-trip facilities, and telecommuting programs including but not limited to measures that:
  - Provide incentives or subsidies that increase that use of modes other than single-occupancy vehicle.

CEQA Guidelines 15126.4 (p;jkc)(3) include "[o]ffsite measures, including offsets that are not otherwise required, to mitigate a project's emissions" as an option for GHG mitigation.[27] An example of this was in the case of the Oakland Sports and Mixed-Use Project, where off-site reduction measures in the neighboring communities were recommended.[28] We recommend consideration of local carbon offset programs to reduce the Project's GHG impacts as a measure of last result. 11-132

As demonstrated above, we have provided several mitigation measures that would reduce Project-related ROG, NO_x and PM_{10}, DPM, and GHG emissions developed from sources including SCAG, the DOJ and others. These measures offer a cost-effective, feasible way to incorporate lower-emitting design features into the proposed Project, which subsequently reduce emissions released during Project construction and operation. 11-133

A revised EIR should be prepared that includes all feasible mitigation measures, as well as updated air quality, health risk and GHG analyses to ensure that the necessary mitigation measures are implemented to reduce emissions to the maximum extent feasible. The revised EIR should also demonstrate a commitment to the implementation of these measures prior to Project approval, to ensure that the Project's potentially significant emissions are reduced to the maximum extent possible. 11-134

Disclaimer

SWAPE has received limited discovery regarding this project. Additional information may become available in the future; thus, we retain the right to revise or amend this report when additional information becomes available. Our professional services have been performed using that degree of care and skill ordinarily exercised, under similar circumstances, by reputable environmental consultants practicing in this or similar localities at the time of service. No other warranty, expressed or implied, is made as to the scope of work, work methodologies and protocols, site conditions, analytical testing results, and findings presented. This report reflects efforts which were limited to information that was reasonably accessible at the time of the work, and may contain informational gaps, inconsistencies, or otherwise be incomplete due to the unavailability or uncertainty of information obtained or provided by third parties. 11-135

Sincerely,

[27] "Cal. Code Regs. tit. 14 § 15126.4." CEQA Guidelines, May 2024, *available at*: https://casetext.com/regulation/california-code-of-regulations/title-14-natural-resources/division-6-resources-agency/chapter-3-guidelines-for-implementation-of-the-california-environmental-quality-act/article-9-contents-of-environmental-impact-reports/section-151264-consideration-and-discussion-of-mitigation-measures-proposed-to-minimize-significant-effects.

[28] "Cal. Pub. Resources Code § 21168.6.7." 2023, *available at*: https://casetext.com/statute/california-codes/california-public-resources-code/division-13-environmental-quality/chapter-6-limitations/section-2116867-oakland-sports-and-mixed-use-project-conditions-for-approval-certification-of-project-for-streamlining.

Matt Hagemann, P.G., C.Hg.

Paul E. Rosenfeld, Ph.D.

Attachment A: Construction Calculations
Attachment B: CalEEMod Output Files
Attachment C: Health Risk Calculations
Attachment D: AERSCREEN Output Files
Attachment E: Matt Hagemann CV
Attachment F: Paul Rosenfeld CV

Attachment A

Construction Schedule Calculations

Phase	Default Phase Length	Construction Duration	%	Construction Duration	Revised Phase Length
Site Preparation	20	802	0.0249	685	17
Grading	30	802	0.0374	685	26
Construction	45	802	0.0561	685	38
Paving	440	802	0.5486	685	376
Architectural Coating	35	802	0.0436	685	30

	Total Default Construction Duration	Revised Construction Duration
Start Date	4/1/2025	4/1/2025
End Date	6/12/2027	2/15/2027
Total Days	802	685

Attachment B

Town and Country Village - Project Development Area Detailed Report

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Town and Country Village - Project Development Area Detailed Report, 8/28/2024

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Town and Country Village - Project Development Area
Construction Start Date	4/1/2025
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.70
Precipitation (days)	10.4
Location	38.65806475379412, -121.0289202355399
County	El Dorado-Mountain County
City	Unincorporated
Air District	El Dorado County AQMD
Air Basin	Mountain Counties
TAZ	413
EDFZ	4
Electric Utility	Pacific Gas & Electric Company
Gas Utility	Pacific Gas & Electric
App Version	2022.1.1.26

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Single Family Housing	56.0	Dwelling Unit	3.95	31,360	41,955	—	142	—
Hotel	356	Room	13.8	212,360	146,045	—	—	—

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Parking Lot	466	Space	4.50	0.00	0.00	—	—	—
Other Asphalt Surfaces	3.70	Acre	3.70	0.00	0.00	—	—	—
Road Widening	0.30	Mile	1.50	0.00	—	—	—	—
Bridge/Overpass Construction	0.03	Mile	0.03	0.00	—	—	—	—
User Defined Linear	3.25	Mile	1.58	0.00	—	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

UnMit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	16.4	13.8	120	132	0.24	5.30	30.8	36.1	4.87	11.4	16.3	—	27,686	27,686	1.13	0.32	8.68	27,799
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	201	201	7.91	12.7	0.02	0.35	0.37	0.69	0.32	0.09	0.38	—	2,004	2,004	0.08	0.03	0.03	2,014
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	16.5	16.5	11.0	13.0	0.02	0.47	2.27	2.73	0.43	0.84	1.27	—	2,704	2,704	0.10	0.05	0.55	2,722
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	3.01	3.01	2.01	2.37	< 0.005	0.09	0.41	0.50	0.08	0.15	0.23	—	448	448	0.02	0.01	0.09	451

2.2. Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	16.4	13.8	120	132	0.24	5.30	30.8	36.1	4.87	11.4	16.3	—	27,686	27,686	1.13	0.32	8.68	27,799
2026	1.06	0.91	7.16	10.8	0.01	0.32	0.15	0.47	0.29	0.04	0.33	—	1,676	1,676	0.06	0.02	0.60	1,683
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	1.10	0.94	7.52	10.7	0.01	0.35	0.15	0.50	0.32	0.04	0.36	—	1,663	1,663	0.07	0.02	0.02	1,670
2026	1.05	0.90	7.18	10.6	0.01	0.32	0.15	0.47	0.29	0.04	0.33	—	1,659	1,659	0.06	0.02	0.02	1,666
2027	201	201	7.91	12.7	0.02	0.32	0.37	0.69	0.29	0.09	0.38	—	2,004	2,004	0.08	0.03	0.03	2,014
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	1.52	1.29	11.0	13.0	0.02	0.47	2.27	2.73	0.43	0.84	1.27	—	2,704	2,704	0.10	0.05	0.55	2,722
2026	0.75	0.64	5.12	7.60	0.01	0.23	0.11	0.34	0.21	0.03	0.24	—	1,187	1,187	0.05	0.01	0.18	1,193
2027	16.5	16.5	0.38	0.63	< 0.005	0.01	0.02	0.04	0.01	0.01	0.02	—	100	100	< 0.005	< 0.005	0.04	101
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	0.28	0.24	2.01	2.37	< 0.005	0.09	0.41	0.50	0.08	0.15	0.23	—	448	448	0.02	0.01	0.09	451
2026	0.14	0.12	0.94	1.39	< 0.005	0.04	0.02	0.06	0.04	< 0.005	0.04	—	197	197	0.01	< 0.005	0.03	197
2027	3.01	3.01	0.07	0.11	< 0.005	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	—	16.6	16.6	< 0.005	< 0.005	0.01	16.7

3. Construction Emissions Details

3.1. Site Preparation (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

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Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.94	3.31	31.6	30.2	0.05	1.37	—	1.37	1.26	—	1.26	—	5,295	5,295	0.21	0.04	—	5,314
Dust From Material Movement	—	—	—	—	—	—	19.7	19.7	—	10.1	10.1	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.18	0.15	1.47	1.41	< 0.005	0.06	—	0.06	0.06	—	0.06	—	247	247	0.01	< 0.005	—	247
Dust From Material Movement	—	—	—	—	—	—	0.92	0.92	—	0.47	0.47	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.03	0.27	0.26	< 0.005	0.01	—	0.01	0.01	—	0.01	—	40.8	40.8	< 0.005	< 0.005	—	41.0
Dust From Material Movement	—	—	—	—	—	—	0.17	0.17	—	0.09	0.09	—	—	—	—	—	—	—

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Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09	0.08	0.06	1.10	0.00	0.00	0.18	0.18	0.00	0.04	0.04	—	196	196	0.01	0.01	0.76	199
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.04	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	8.41	8.41	< 0.005	< 0.005	0.02	8.52
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.39	1.39	< 0.005	< 0.005	< 0.005	1.41
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.3. Grading (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

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Off-Road Equipment	3.80	3.20	29.7	28.3	0.06	1.23	—	1.23	1.14	—	1.14	—	6,599	6,599	0.27	0.05	—	6,622
Dust From Material Movement	—	—	—	—	—	—	9.20	9.20	—	3.65	3.65	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.27	0.23	2.11	2.02	< 0.005	0.09	—	0.09	0.08	—	0.08	—	470	470	0.02	< 0.005	—	472
Dust From Material Movement	—	—	—	—	—	—	0.66	0.66	—	0.26	0.26	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	0.04	0.39	0.37	< 0.005	0.02	—	0.02	0.01	—	0.01	—	77.8	77.8	< 0.005	< 0.005	—	78.1
Dust From Material Movement	—	—	—	—	—	—	0.12	0.12	—	0.05	0.05	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

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Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.10	0.10	0.07	1.26	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	224	224	0.01	0.01	0.87	228
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.07	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	14.7	14.7	< 0.005	< 0.005	0.03	14.9
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.43	2.43	< 0.005	< 0.005	< 0.005	2.47
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.5. Construction (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.35	1.13	10.4	13.0	0.02	0.43	—	0.43	0.40	—	0.40	—	2,398	2,398	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

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Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.14	0.12	1.09	1.36	< 0.005	0.04	—	0.04	0.04	—	0.04	—	250	250	0.01	< 0.005	—	250
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.02	0.20	0.25	< 0.005	0.01	—	0.01	0.01	—	0.01	—	41.3	41.3	< 0.005	< 0.005	—	41.5
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.57	0.52	0.36	6.88	0.00	0.00	1.10	1.10	0.00	0.26	0.26	—	1,227	1,227	0.06	0.04	4.74	1,246
Vendor	0.05	0.04	1.95	0.34	0.01	0.02	0.31	0.32	0.02	0.08	0.10	—	1,285	1,285	< 0.005	0.20	3.07	1,347
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.05	0.05	0.57	0.00	0.00	0.11	0.11	0.00	0.03	0.03	—	117	117	< 0.005	< 0.005	0.21	119
Vendor	< 0.005	< 0.005	0.21	0.04	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	134	134	< 0.005	0.02	0.14	140
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

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Worker	0.01	0.01	0.01	0.10	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	19.4	19.4	< 0.005	< 0.005	0.04	19.7
Vendor	< 0.005	< 0.005	0.04	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	22.2	22.2	< 0.005	< 0.005	0.02	23.2
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.7. Paving (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.95	0.80	7.45	9.98	0.01	0.35	—	0.35	0.32	—	0.32	—	1,511	1,511	0.06	0.01	—	1,517
Paving	0.08	0.08	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.95	0.80	7.45	9.98	0.01	0.35	—	0.35	0.32	—	0.32	—	1,511	1,511	0.06	0.01	—	1,517
Paving	0.08	0.08	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.26	0.22	2.03	2.72	< 0.005	0.09	—	0.09	0.09	—	0.09	—	411	411	0.02	< 0.005	—	413

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Paving	0.02	0.02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	0.04	0.37	0.50	< 0.005	0.02	—	0.02	0.02	—	0.02	—	68.1	68.1	< 0.005	< 0.005	—	68.3
Paving	< 0.005	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.07	0.05	0.94	0.00	0.00	0.15	0.15	0.00	0.04	0.04	—	168	168	0.01	0.01	0.65	171
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.06	0.07	0.74	0.00	0.00	0.15	0.15	0.00	0.04	0.04	—	151	151	< 0.005	0.01	0.02	153
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.02	0.21	0.00	0.00	0.04	0.04	0.00	0.01	0.01	—	42.1	42.1	< 0.005	< 0.005	0.08	42.7
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.04	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	6.97	6.97	< 0.005	< 0.005	0.01	7.06
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

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Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.9. Paving (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.91	0.76	7.12	9.94	0.01	0.32	—	0.32	0.29	—	0.29	—	1,511	1,511	0.06	0.01	—	1,516
Paving	0.08	0.08	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.91	0.76	7.12	9.94	0.01	0.32	—	0.32	0.29	—	0.29	—	1,511	1,511	0.06	0.01	—	1,516
Paving	0.08	0.08	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.65	0.54	5.08	7.10	0.01	0.23	—	0.23	0.21	—	0.21	—	1,079	1,079	0.04	0.01	—	1,083
Paving	0.06	0.06	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

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Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.12	0.10	0.93	1.30	< 0.005	0.04	—	0.04	0.04	—	0.04	—	179	179	0.01	< 0.005	—	179
Paving	0.01	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.07	0.04	0.88	0.00	0.00	0.15	0.15	0.00	0.04	0.04	—	165	165	< 0.005	0.01	0.60	168
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.06	0.06	0.69	0.00	0.00	0.15	0.15	0.00	0.04	0.04	—	149	149	< 0.005	0.01	0.02	151
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.04	0.04	0.50	0.00	0.00	0.11	0.11	0.00	0.03	0.03	—	108	108	< 0.005	< 0.005	0.18	110
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.09	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	18.0	18.0	< 0.005	< 0.005	0.03	18.2
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

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3.11. Paving (2027) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.88	0.74	6.94	9.95	0.01	0.30	—	0.30	0.27	—	0.27	—	1,511	1,511	0.06	0.01	—	1,516
Paving	0.08	0.08	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.03	0.30	0.43	< 0.005	0.01	—	0.01	0.01	—	0.01	—	65.1	65.1	< 0.005	< 0.005	—	65.3
Paving	< 0.005	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.05	0.08	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	10.8	10.8	< 0.005	< 0.005	—	10.8
Paving	< 0.005	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.06	0.06	0.65	0.00	0.00	0.15	0.15	0.00	0.04	0.04	—	146	146	< 0.005	0.01	0.01	148
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	6.43	6.43	< 0.005	< 0.005	0.01	6.52
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.06	1.06	< 0.005	< 0.005	< 0.005	1.08
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.13. Architectural Coating (2027) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

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Off-Road Equipm	0.14	0.11	0.83	1.13	< 0.005	0.02	—	0.02	0.02	—	0.02	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	200	200	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.07	0.09	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	11.0	11.0	< 0.005	< 0.005	—	11.0
Architectural Coatings	16.4	16.4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.82	1.82	< 0.005	< 0.005	—	1.82
Architectural Coatings	3.00	3.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09	0.09	0.08	0.94	0.00	0.00	0.22	0.22	0.00	0.05	0.05	—	213	213	0.01	0.01	0.02	216
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.08	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	17.9	17.9	< 0.005	< 0.005	0.03	18.2
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.96	2.96	< 0.005	< 0.005	< 0.005	3.01
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.15. Linear, Grubbing & Land Clearing (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.16	0.97	8.44	9.01	0.01	0.47	—	0.47	0.43	—	0.43	—	1,264	1,264	0.05	0.01	—	1,268
Dust From Material Movement	—	—	—	—	—	—	1.06	1.06	—	0.11	0.11	—	—	—	—	—	—	—

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Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.05	0.05	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	6.93	6.93	< 0.005	< 0.005	—	6.95
Dust From Material Movement	—	—	—	—	—	—	0.01	0.01	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.15	1.15	< 0.005	< 0.005	—	1.15
Dust From Material Movement	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09	0.08	0.06	1.10	0.00	0.00	0.18	0.18	0.00	0.04	0.04	—	196	196	0.01	0.01	0.76	199
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.99	0.99	< 0.005	< 0.005	< 0.005	1.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.16	0.16	< 0.005	< 0.005	< 0.005	0.17
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.17. Linear, Grading & Excavation (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	11.9	9.97	87.6	95.1	0.20	3.93	—	3.93	3.61	—	3.61	—	21,122	21,122	0.86	0.17	—	21,195
Dust From Material Movement	—	—	—	—	—	—	10.1	10.1	—	1.09	1.09	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

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Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.36	0.30	2.64	2.87	0.01	0.12	—	0.12	0.11	—	0.11	—	637	637	0.03	0.01	—	639
Dust From Material Movement	—	—	—	—	—	—	0.30	0.30	—	0.03	0.03	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.07	0.05	0.48	0.52	< 0.005	0.02	—	0.02	0.02	—	0.02	—	105	105	< 0.005	< 0.005	—	106
Dust From Material Movement	—	—	—	—	—	—	0.06	0.06	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.47	0.43	0.30	5.66	0.00	0.00	0.91	0.91	0.00	0.21	0.21	—	1,010	1,010	0.05	0.04	3.90	1,025
Vendor	< 0.005	< 0.005	0.10	0.02	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	< 0.005	—	63.0	63.0	< 0.005	0.01	0.15	66.0
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.14	0.00	0.00	0.03	0.03	0.00	0.01	0.01	—	28.0	28.0	< 0.005	< 0.005	0.05	28.4

Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.90	1.90	< 0.005	< 0.005	< 0.005	1.99
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	4.63	4.63	< 0.005	< 0.005	0.01	4.70
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.31	0.31	< 0.005	< 0.005	< 0.005	0.33
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.19. Linear, Drainage, Utilities, & Sub-Grade (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	8.01	6.71	60.9	63.7	0.14	2.46	—	2.46	2.26	—	2.26	—	14,890	14,890	0.60	0.12	—	14,941
Dust From Material Movement	—	—	—	—	—	—	6.89	6.89	—	0.74	0.74	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.15	0.13	1.17	1.22	< 0.005	0.05	—	0.05	0.04	—	0.04	—	286	286	0.01	< 0.005	—	287

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Dust From Material Movement	—	—	—	—	—	—	0.13	0.13	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.02	0.21	0.22	< 0.005	0.01	—	0.01	0.01	—	0.01	—	47.3	47.3	< 0.005	< 0.005	—	47.4
Dust From Material Movement	—	—	—	—	—	—	0.02	0.02	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.34	0.31	0.21	4.09	0.00	0.00	0.66	0.66	0.00	0.15	0.15	—	729	729	0.03	0.03	2.82	741
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.06	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	12.9	12.9	< 0.005	< 0.005	0.02	13.0
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.13	2.13	< 0.005	< 0.005	< 0.005	2.16

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Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.21. Linear, Paving (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.75	1.47	13.8	20.5	0.03	0.60	—	0.60	0.55	—	0.55	—	3,105	3,105	0.13	0.03	—	3,116
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.15	0.22	< 0.005	0.01	—	0.01	0.01	—	0.01	—	34.0	34.0	< 0.005	< 0.005	—	34.1
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.03	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	5.63	5.63	< 0.005	< 0.005	—	5.65
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.16	0.14	0.10	1.89	0.00	0.00	0.30	0.30	0.00	0.07	0.07	—	337	337	0.02	0.01	1.30	342
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	3.39	3.39	< 0.005	< 0.005	0.01	3.44
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.56	0.56	< 0.005	< 0.005	< 0.005	0.57
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

4. Operations Emissions Details

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Sequest	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Remove d	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequest ered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Remove d	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequest ered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Remove d	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

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5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Site Preparation	Site Preparation	4/1/2025	4/23/2025	5.00	17.0	—
Grading	Grading	4/24/2025	5/29/2025	5.00	26.0	—
Construction	Building Construction	5/14/2025	7/4/2025	5.00	38.0	—
Paving	Paving	8/15/2025	1/22/2027	5.00	376	—
Architectural Coating	Architectural Coating	1/5/2027	2/15/2027	5.00	30.0	—
Linear, Grubbing & Land Clearing	Linear, Grubbing & Land Clearing	4/1/2025	4/3/2025	5.00	2.00	—
Linear, Grading & Excavation	Linear, Grading & Excavation	4/4/2025	4/19/2025	5.00	11.0	—
Linear, Drainage, Utilities, & Sub-Grade	Linear, Drainage, Utilities, & Sub-Grade	4/20/2025	4/29/2025	5.00	7.00	—
Linear, Paving	Linear, Paving	4/30/2025	5/5/2025	5.00	4.00	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Site Preparation	Rubber Tired Dozers	Diesel	Average	3.00	8.00	367	0.40
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Average	4.00	8.00	84.0	0.37
Grading	Excavators	Diesel	Average	2.00	8.00	36.0	0.38
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Grading	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading	Scrapers	Diesel	Average	2.00	8.00	423	0.48
Grading	Tractors/Loaders/Backhoes	Diesel	Average	2.00	8.00	84.0	0.37
Construction	Tractors/Loaders/Backhoes	Diesel	Average	3.00	7.00	84.0	0.37

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Construction	Cranes	Diesel	Average	1.00	7.00	367	0.29
Construction	Forklifts	Diesel	Average	3.00	8.00	82.0	0.20
Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Construction	Welders	Diesel	Average	1.00	8.00	46.0	0.45
Paving	Pavers	Diesel	Average	2.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Average	2.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Average	2.00	8.00	36.0	0.38
Architectural Coating	Air Compressors	Diesel	Average	1.00	6.00	37.0	0.48
Linear, Grubbing & Land Clearing	Crawler Tractors	Diesel	Average	2.00	8.00	87.0	0.43
Linear, Grubbing & Land Clearing	Excavators	Diesel	Average	4.00	8.00	36.0	0.38
Linear, Grubbing & Land Clearing	Signal Boards	Electric	Average	0.00	8.00	6.00	0.82
Linear, Grubbing & Land Clearing	Signal Boards	Electric	Average	1.00	8.00	6.00	0.82
Linear, Grading & Excavation	Crawler Tractors	Diesel	Average	3.00	8.00	87.0	0.43
Linear, Grading & Excavation	Excavators	Diesel	Average	7.00	8.00	36.0	0.38
Linear, Grading & Excavation	Graders	Diesel	Average	4.00	8.00	148	0.41
Linear, Grading & Excavation	Rollers	Diesel	Average	5.00	8.00	36.0	0.38
Linear, Grading & Excavation	Rubber Tired Loaders	Diesel	Average	4.00	8.00	150	0.36
Linear, Grading & Excavation	Scrapers	Diesel	Average	6.00	8.00	423	0.48
Linear, Grading & Excavation	Signal Boards	Electric	Average	0.00	8.00	6.00	0.82
Linear, Grading & Excavation	Tractors/Loaders/Backhoes	Diesel	Average	6.00	8.00	84.0	0.37

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Linear, Grading & Excavation	Cranes	Diesel	Average	1.00	8.00	367	0.29
Linear, Drainage, Utilities, & Sub-Grade	Air Compressors	Diesel	Average	2.00	8.00	37.0	0.48
Linear, Drainage, Utilities, & Sub-Grade	Generator Sets	Diesel	Average	2.00	8.00	14.0	0.74
Linear, Drainage, Utilities, & Sub-Grade	Graders	Diesel	Average	3.00	8.00	148	0.41
Linear, Drainage, Utilities, & Sub-Grade	Plate Compactors	Diesel	Average	2.00	8.00	8.00	0.43
Linear, Drainage, Utilities, & Sub-Grade	Pumps	Diesel	Average	2.00	8.00	11.0	0.74
Linear, Drainage, Utilities, & Sub-Grade	Rough Terrain Forklifts	Diesel	Average	2.00	8.00	96.0	0.40
Linear, Drainage, Utilities, & Sub-Grade	Scrapers	Diesel	Average	5.00	8.00	423	0.48
Linear, Drainage, Utilities, & Sub-Grade	Signal Boards	Electric	Average	0.00	8.00	6.00	0.82
Linear, Drainage, Utilities, & Sub-Grade	Tractors/Loaders/Backhoes	Diesel	Average	5.00	8.00	84.0	0.37
Linear, Drainage, Utilities, & Sub-Grade	Trenchers	Diesel	Average	1.00	8.00	40.0	0.50
Linear, Drainage, Utilities, & Sub-Grade	Paving Equipment	Diesel	Average	1.00	8.00	89.0	0.36
Linear, Drainage, Utilities, & Sub-Grade	Concrete/Industrial Saws	Diesel	Average	1.00	8.00	33.0	0.73
Linear, Paving	Pavers	Diesel	Average	2.00	8.00	81.0	0.42
Linear, Paving	Paving Equipment	Diesel	Average	2.00	8.00	89.0	0.36
Linear, Paving	Rollers	Diesel	Average	3.00	8.00	36.0	0.38
Linear, Paving	Signal Boards	Electric	Average	0.00	8.00	6.00	0.82
Linear, Paving	Tractors/Loaders/Backhoes	Diesel	Average	5.00	8.00	84.0	0.37

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5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Grading	—	—	—	—
Grading	Worker	20.0	14.3	LDA,LDT1,LDT2
Grading	Vendor	—	8.80	HHDT,MHDT
Grading	Hauling	0.00	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Site Preparation	—	—	—	—
Site Preparation	Worker	17.5	14.3	LDA,LDT1,LDT2
Site Preparation	Vendor	—	8.80	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Construction	—	—	—	—
Construction	Worker	109	14.3	LDA,LDT1,LDT2
Construction	Vendor	40.8	8.80	HHDT,MHDT
Construction	Hauling	0.00	20.0	HHDT
Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	15.0	14.3	LDA,LDT1,LDT2
Paving	Vendor	—	8.80	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	21.9	14.3	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	8.80	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT

Architectural Coating	Onsite truck	—	—	HHDT
Linear, Grubbing & Land Clearing	—	—	—	—
Linear, Grubbing & Land Clearing	Worker	17.5	14.3	LDA,LDT1,LDT2
Linear, Grubbing & Land Clearing	Vendor	0.00	8.80	HHDT,MHDT
Linear, Grubbing & Land Clearing	Hauling	0.00	20.0	HHDT
Linear, Grubbing & Land Clearing	Onsite truck	—	—	HHDT
Linear, Grading & Excavation	—	—	—	—
Linear, Grading & Excavation	Worker	90.0	14.3	LDA,LDT1,LDT2
Linear, Grading & Excavation	Vendor	2.00	8.80	HHDT,MHDT
Linear, Grading & Excavation	Hauling	0.00	20.0	HHDT
Linear, Grading & Excavation	Onsite truck	—	—	HHDT
Linear, Drainage, Utilities, & Sub-Grade	—	—	—	—
Linear, Drainage, Utilities, & Sub-Grade	Worker	65.0	14.3	LDA,LDT1,LDT2
Linear, Drainage, Utilities, & Sub-Grade	Vendor	0.00	8.80	HHDT,MHDT
Linear, Drainage, Utilities, & Sub-Grade	Hauling	0.00	20.0	HHDT
Linear, Drainage, Utilities, & Sub-Grade	Onsite truck	—	—	HHDT
Linear, Paving	—	—	—	—
Linear, Paving	Worker	30.0	14.3	LDA,LDT1,LDT2
Linear, Paving	Vendor	0.00	8.80	HHDT,MHDT
Linear, Paving	Hauling	0.00	20.0	HHDT
Linear, Paving	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
Architectural Coating	63,504	21,168	318,540	106,180	21,432

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (cy)	Material Exported (cy)	Acres Graded (acres)	Material Demolished (sq. ft.)	Acres Paved (acres)
Site Preparation	—	—	25.5	0.00	—
Grading	—	—	78.0	0.00	—
Paving	0.00	0.00	0.00	0.00	11.9
Linear, Grubbing & Land Clearing	—	—	3.11	0.00	—
Linear, Grading & Excavation	—	—	3.11	0.00	—
Linear, Drainage, Utilities, & Sub-Grade	—	—	3.11	0.00	—

5.6.2. Construction Earthmoving Control Strategies

Non-applicable. No control strategies activated by user.

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Single Family Housing	0.62	0%
Hotel	0.00	0%
Parking Lot	4.50	100%
Other Asphalt Surfaces	3.70	100%
Road Widening	1.50	100%

Bridge/Overpass Construction	0.03	100%
User Defined Linear	1.58	100%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2025	29.4	204	0.03	< 0.005
2026	0.00	204	0.03	< 0.005
2027	0.00	204	0.03	< 0.005

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	29.9	annual days of extreme heat
Extreme Precipitation	9.30	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	9.60	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters
Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	2	0	0	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	1	0	0	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	0	0	0	N/A
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	2	1	1	3
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	1	1	1	2
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	1	1	1	2
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	76.9
AQ-PM	17.7

AQ-DPM	14.3
Drinking Water	15.7
Lead Risk Housing	5.20
Pesticides	0.00
Toxic Releases	14.0
Traffic	32.4
Effect Indicators	—
CleanUp Sites	0.00
Groundwater	22.1
Haz Waste Facilities/Generators	0.00
Impaired Water Bodies	0.00
Solid Waste	0.00
Sensitive Population	—
Asthma	33.3
Cardio-vascular	29.8
Low Birth Weights	2.22
Socioeconomic Factor Indicators	—
Education	10.8
Housing	18.5
Linguistic	13.3
Poverty	6.73
Unemployment	48.3

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	89.72154498

Town and Country Village - Project Development Area Detailed Report, 8/28/2024

Employed	55.33170794
Median HI	87.66842038
Education	—
Bachelor's or higher	62.20967535
High school enrollment	100
Preschool enrollment	87.10381111
Transportation	—
Auto Access	59.70742974
Active commuting	24.84280765
Social	—
2-parent households	23.09765174
Voting	88.11754138
Neighborhood	—
Alcohol availability	81.8298473
Park access	43.6160657
Retail density	31.90042346
Supermarket access	2.399589375
Tree canopy	94.30257924
Housing	—
Homeownership	82.0993199
Housing habitability	97.60041062
Low-inc homeowner severe housing cost burden	89.74720903
Low-inc renter severe housing cost burden	95.534454
Uncrowded housing	86.21840113
Health Outcomes	—
Insured adults	96.29154369
Arthritis	0.0
Asthma ER Admissions	70.2

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Town and Country Village - Project Development Area Detailed Report, 8/28/2024

High Blood Pressure	0.0
Cancer (excluding skin)	0.0
Asthma	0.0
Coronary Heart Disease	0.0
Chronic Obstructive Pulmonary Disease	0.0
Diagnosed Diabetes	0.0
Life Expectancy at Birth	64.9
Cognitively Disabled	94.6
Physically Disabled	77.4
Heart Attack ER Admissions	47.8
Mental Health Not Good	0.0
Chronic Kidney Disease	0.0
Obesity	0.0
Pedestrian Injuries	19.6
Physical Health Not Good	0.0
Stroke	0.0
Health Risk Behaviors	—
Binge Drinking	0.0
Current Smoker	0.0
No Leisure Time for Physical Activity	0.0
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0
Children	90.2
Elderly	46.6
English Speaking	98.1
Foreign-born	3.8
Outdoor Workers	72.4

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Climate Change Adaptive Capacity	—
Impervious Surface Cover	87.1
Traffic Density	48.5
Traffic Access	0.0
Other Indices	—
Hardship	27.4
Other Decision Support	—
2016 Voting	80.4

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	2.00
Healthy Places Index Score for Project Location (b)	84.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification

Town and Country Village - Project Development Area Detailed Report, 8/28/2024

Land Use	Consistent with DEIR's model.
Construction: Construction Phases	See comment on: "Unsubstantiated Changes to Individual Construction Phase Lengths".
Operations: Hearths	Consistent with DEIR's model.
Construction: Off-Road Equipment	Consistent with DEIR's model.
Construction: On-Road Fugitive Dust	Consistent with DEIR's model.

Attachment C

Construction

2025	
Annual Emissions (tons/year)	0.14
Daily Emissions (lbs/day)	0.767123288
Construction Duration (days)	275
Total DPM (lbs)	210.9589041
Total DPM (g)	95690.9589
Start Date	4/1/2025
End Date	1/1/2026
Construction Days	275
2026	
Annual Emissions (tons/year)	0.07
Daily Emissions (lbs/day)	0.383561644
Construction Duration (days)	365
Total DPM (lbs)	140
Total DPM (g)	63504
Start Date	1/1/2026
End Date	1/1/2027
Construction Days	365
2027	
Annual Emissions (tons/year)	0.004
Daily Emissions (lbs/day)	0.005
Construction Duration (days)	45
Total DPM (lbs)	0.225
Total DPM (g)	102.06
Start Date	1/1/2027
End Date	2/15/2027
Construction Days	45

Total	
Total DPM (lbs)	351.1839041
Total DPM (g)	159287.0189
Emission Rate (g/s)	0.002691555
Release Height (meters)	3
Total Acreage	60.5
Max Horizontal (meters)	699.76
Min Horizontal (meters)	349.88
Initial Vertical Dimension (meters)	1.5
Setting	El Dorado Hills
Population	49,082
Start Date	4/1/2025
End Date	2/15/2027
Total Construction Days	685
Total Years of Construction	1.88
Total Years of Operation	28.12

Operation

Emission Rate	
Annual Emissions (tons/year)	0.05
Daily Emissions (lbs/day)	0.273972603
Total DPM (lbs)	100
Emission Rate (g/s)	0.001438356
Release Height (meters)	3
Total Acreage	60.5
Max Horizontal (meters)	699.76
Min Horizontal (meters)	349.88
Initial Vertical Dimension (meters)	1.5
Setting	El Dorado Hills
Population	49,082

The Maximally Exposed Individual at an Existing Residential Receptor				
Age Group	**Emissions Source**	**Duration (years)**	**Concentration (ug/m3)**	**Cancer Risk**
3rd Trimester	Construction	0.25	0.0606	7.01E-07
	Construction	*1.63*	*0.0673*	*1.53E-05*
	Operation	*0.37*	*0.0360*	*1.88E-06*
Infant (0 - 2)	Total	2		1.72E-05
Child (2 - 16)	Operation	14	0.0360	9.38E-06
Adult (16 - 30)	Operation	14	0.0360	1.45E-06
Lifetime		**30**		**2.87E-05**

Attachment D

```
AERSCREEN 21112 / AERMOD 21112                                        08/28/24
                                                                      14:31:50

TITLE: TownandCountryVillage, Construction


------------------------------------------------------------------------------
*****************************  AREA PARAMETERS  ****************************
------------------------------------------------------------------------------

SOURCE EMISSION RATE:         0.269E-02 g/s             0.214E-01 lb/hr

AREA EMISSION RATE:           0.110E-07 g/(s-m2)        0.872E-07 lb/(hr-m2)
AREA HEIGHT:                       3.00 meters               9.84 feet
AREA SOURCE LONG SIDE:           699.76 meters            2295.80 feet
AREA SOURCE SHORT SIDE:          349.88 meters            1147.90 feet
INITIAL VERTICAL DIMENSION:        1.50 meters               4.92 feet
RURAL OR URBAN:                   URBAN
POPULATION:                       49082

INITIAL PROBE DISTANCE =           5000. meters             16404. feet


------------------------------------------------------------------------------
***********************  BUILDING DOWNWASH PARAMETERS  ***********************
------------------------------------------------------------------------------

               BUILDING DOWNWASH NOT USED FOR NON-POINT SOURCES


------------------------------------------------------------------------------
**************************  FLOW SECTOR ANALYSIS  ***************************
                 25 meter receptor spacing: 1. meters - 5000. meters
------------------------------------------------------------------------------


   MAXIMUM  IMPACT  RECEPTOR

   Zo        SURFACE   1-HR CONC  RADIAL  DIST   TEMPORAL
   SECTOR    ROUGHNESS  (ug/m3)    (deg)   (m)    PERIOD
  ---------------------------------------------------
      1*       1.000    0.6729       0   350.0     WIN
* = worst case diagonal


------------------------------------------------------------------------------
```

```
**********  MAKEMET METEOROLOGY PARAMETERS  **********
--------------------------------------------------------------------------------

MIN/MAX TEMPERATURE:    250.0 / 310.0 (K)

MINIMUM WIND SPEED:       0.5 m/s

ANEMOMETER HEIGHT:     10.000 meters

SURFACE CHARACTERISTICS INPUT: AERMET SEASONAL TABLES

DOMINANT SURFACE PROFILE: Urban
DOMINANT CLIMATE TYPE:    Average Moisture
DOMINANT SEASON:          Winter

ALBEDO:                  0.35
BOWEN RATIO:             1.50
ROUGHNESS LENGTH:       1.000 (meters)

SURFACE FRICTION VELOCITY (U*) NOT ADUSTED


       METEOROLOGY CONDITIONS USED TO PREDICT OVERALL MAXIMUM IMPACT
       ------------------------------------------------------------

 YR MO DY JDY HR
 -- -- -- --- --
 10 01 10  10 01

    H0     U*     W*  DT/DZ ZICNV ZIMCH  M-O LEN    Z0  BOWEN ALBEDO  REF WS
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
 -1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50

    HT  REF TA     HT
- - - - - - - - - - -
  10.0   310.0    2.0



--------------------------------------------------------------------------------
********************** AERSCREEN AUTOMATED DISTANCES **********************
                  OVERALL MAXIMUM CONCENTRATIONS BY DISTANCE
--------------------------------------------------------------------------------

                    MAXIMUM                             MAXIMUM
          DIST      1-HR CONC               DIST      1-HR CONC
           (m)       (ug/m3)                 (m)       (ug/m3)
        ---------------------               ---------------------
           1.00     0.5143                2525.00     0.5915E-01
```

25.00	0.5285	2550.00	0.5841E-01
50.00	0.5426	2575.00	0.5769E-01
75.00	0.5561	2600.00	0.5699E-01
100.00	0.5689	2625.00	0.5629E-01
125.00	0.5813	2650.00	0.5562E-01
150.00	0.5931	2675.00	0.5496E-01
175.00	0.6044	2700.00	0.5431E-01
200.00	0.6153	2725.00	0.5368E-01
225.00	0.6259	2750.00	0.5306E-01
250.00	0.6359	2775.00	0.5245E-01
275.00	0.6457	2800.00	0.5185E-01
300.00	0.6551	2825.00	0.5125E-01
325.00	0.6641	2850.00	0.5067E-01
350.00	0.6729	2875.00	0.5011E-01
375.00	0.6671	2900.00	0.4955E-01
400.00	0.5988	2925.00	0.4901E-01
425.00	0.4941	2950.00	0.4847E-01
450.00	0.4386	2975.00	0.4795E-01
475.00	0.4020	3000.00	0.4743E-01
500.00	0.3755	3025.00	0.4692E-01
525.00	0.3550	3050.00	0.4642E-01
550.00	0.3350	3075.00	0.4593E-01
575.00	0.3178	3100.00	0.4545E-01
600.00	0.3023	3125.00	0.4498E-01
625.00	0.2899	3150.00	0.4452E-01
650.00	0.2791	3175.00	0.4406E-01
675.00	0.2690	3200.00	0.4362E-01
700.00	0.2595	3225.00	0.4318E-01
725.00	0.2506	3250.00	0.4275E-01
750.00	0.2423	3275.00	0.4233E-01
775.00	0.2344	3300.00	0.4191E-01
800.00	0.2269	3325.00	0.4151E-01
825.00	0.2199	3350.00	0.4111E-01
850.00	0.2132	3375.00	0.4071E-01
875.00	0.2068	3400.00	0.4032E-01
900.00	0.2007	3425.00	0.3994E-01
925.00	0.1950	3450.00	0.3956E-01
950.00	0.1895	3475.00	0.3918E-01
975.00	0.1843	3500.00	0.3882E-01
1000.00	0.1793	3525.00	0.3846E-01
1025.00	0.1745	3550.00	0.3810E-01
1050.00	0.1699	3575.00	0.3775E-01
1075.00	0.1656	3600.00	0.3741E-01
1100.00	0.1614	3625.00	0.3707E-01
1125.00	0.1574	3650.00	0.3674E-01
1150.00	0.1536	3675.00	0.3641E-01
1175.00	0.1499	3700.00	0.3609E-01
1200.00	0.1463	3725.00	0.3577E-01
1225.00	0.1429	3750.00	0.3546E-01
1250.00	0.1396	3775.00	0.3515E-01

1275.00	0.1365	3800.00	0.3485E-01
1300.00	0.1334	3825.00	0.3455E-01
1325.00	0.1305	3850.00	0.3426E-01
1350.00	0.1277	3875.00	0.3397E-01
1375.00	0.1250	3900.00	0.3369E-01
1400.00	0.1224	3925.00	0.3341E-01
1425.00	0.1198	3950.00	0.3313E-01
1450.00	0.1174	3975.00	0.3286E-01
1475.00	0.1150	4000.00	0.3259E-01
1500.00	0.1127	4025.00	0.3232E-01
1525.00	0.1106	4050.00	0.3206E-01
1550.00	0.1085	4075.00	0.3180E-01
1575.00	0.1064	4100.00	0.3154E-01
1600.00	0.1044	4125.00	0.3129E-01
1625.00	0.1024	4150.00	0.3104E-01
1650.00	0.1005	4175.00	0.3080E-01
1675.00	0.9871E-01	4200.00	0.3056E-01
1700.00	0.9696E-01	4225.00	0.3032E-01
1725.00	0.9526E-01	4250.00	0.3009E-01
1750.00	0.9361E-01	4275.00	0.2986E-01
1775.00	0.9198E-01	4300.00	0.2963E-01
1800.00	0.9041E-01	4325.00	0.2940E-01
1825.00	0.8889E-01	4350.00	0.2918E-01
1850.00	0.8741E-01	4375.00	0.2896E-01
1875.00	0.8599E-01	4400.00	0.2874E-01
1900.00	0.8460E-01	4425.00	0.2852E-01
1925.00	0.8325E-01	4450.00	0.2831E-01
1950.00	0.8194E-01	4475.00	0.2810E-01
1975.00	0.8066E-01	4500.00	0.2789E-01
2000.00	0.7940E-01	4525.00	0.2769E-01
2025.00	0.7817E-01	4550.00	0.2749E-01
2050.00	0.7697E-01	4575.00	0.2729E-01
2075.00	0.7580E-01	4600.00	0.2709E-01
2100.00	0.7467E-01	4625.00	0.2690E-01
2125.00	0.7357E-01	4650.00	0.2670E-01
2150.00	0.7250E-01	4675.00	0.2651E-01
2175.00	0.7145E-01	4700.00	0.2633E-01
2200.00	0.7044E-01	4725.00	0.2614E-01
2225.00	0.6945E-01	4750.00	0.2596E-01
2250.00	0.6849E-01	4775.00	0.2578E-01
2275.00	0.6755E-01	4800.00	0.2560E-01
2300.00	0.6664E-01	4825.00	0.2543E-01
2325.00	0.6574E-01	4850.00	0.2525E-01
2350.00	0.6486E-01	4875.00	0.2508E-01
2375.00	0.6398E-01	4900.00	0.2491E-01
2400.00	0.6313E-01	4925.00	0.2474E-01
2425.00	0.6230E-01	4950.00	0.2458E-01
2450.00	0.6148E-01	4975.00	0.2441E-01
2475.00	0.6069E-01	5000.00	0.2425E-01
2500.00	0.5991E-01		

```
--------------------------------------------------------------------------------
**********  AERSCREEN MAXIMUM IMPACT SUMMARY  **********
--------------------------------------------------------------------------------

3-hour, 8-hour, and 24-hour scaled
concentrations are equal to the 1-hour concentration as referenced in
SCREENING PROCEDURES FOR ESTIMATING THE AIR QUALITY
IMPACT OF STATIONARY SOURCES, REVISED (Section 4.5.4)
Report number EPA-454/R-92-019
http://www.epa.gov/scram001/guidance_permit.htm
under Screening Guidance

                    MAXIMUM      SCALED      SCALED      SCALED      SCALED
                     1-HOUR      3-HOUR      8-HOUR      24-HOUR     ANNUAL
  CALCULATION          CONC        CONC        CONC        CONC        CONC
   PROCEDURE         (ug/m3)     (ug/m3)     (ug/m3)     (ug/m3)     (ug/m3)
---------------    ----------  ----------  ----------  ----------  ----------
FLAT TERRAIN       0.6729      0.6729      0.6729      0.6729        N/A

DISTANCE FROM SOURCE        350.00 meters


IMPACT AT THE
AMBIENT BOUNDARY   0.5143      0.5143      0.5143      0.5143        N/A

DISTANCE FROM SOURCE          1.00 meters
```

```
AERSCREEN 21112 / AERMOD 21112                                        08/27/24
                                                                      16:32:58

TITLE: TownandCountryVilliage, Operational


------------------------------------------------------------------------------
*****************************  AREA PARAMETERS  ****************************
------------------------------------------------------------------------------

SOURCE EMISSION RATE:         0.144E-02 g/s             0.114E-01 lb/hr

AREA EMISSION RATE:           0.587E-08 g/(s-m2)        0.466E-07 lb/(hr-m2)
AREA HEIGHT:                       3.00 meters               9.84 feet
AREA SOURCE LONG SIDE:           699.76 meters            2295.80 feet
AREA SOURCE SHORT SIDE:          349.88 meters            1147.90 feet
INITIAL VERTICAL DIMENSION:        1.50 meters               4.92 feet
RURAL OR URBAN:                   URBAN
POPULATION:                       49082

INITIAL PROBE DISTANCE =           5000. meters             16404. feet


------------------------------------------------------------------------------
***********************  BUILDING DOWNWASH PARAMETERS  ***********************
------------------------------------------------------------------------------

               BUILDING DOWNWASH NOT USED FOR NON-POINT SOURCES


------------------------------------------------------------------------------
**************************  FLOW SECTOR ANALYSIS  ***************************
                  25 meter receptor spacing: 1. meters - 5000. meters
------------------------------------------------------------------------------


   MAXIMUM  IMPACT  RECEPTOR

   Zo        SURFACE   1-HR CONC  RADIAL  DIST   TEMPORAL
   SECTOR    ROUGHNESS  (ug/m3)    (deg)   (m)    PERIOD
  ----------------------------------------------------
      1*       1.000    0.3597       0   350.0     WIN
* = worst case diagonal


------------------------------------------------------------------------------
```

```
**********  MAKEMET METEOROLOGY PARAMETERS  **********
--------------------------------------------------------------------------------

MIN/MAX TEMPERATURE:    250.0 / 310.0 (K)

MINIMUM WIND SPEED:       0.5 m/s

ANEMOMETER HEIGHT:     10.000 meters

SURFACE CHARACTERISTICS INPUT: AERMET SEASONAL TABLES

DOMINANT SURFACE PROFILE: Urban
DOMINANT CLIMATE TYPE:    Average Moisture
DOMINANT SEASON:          Winter

ALBEDO:                  0.35
BOWEN RATIO:             1.50
ROUGHNESS LENGTH:       1.000 (meters)

SURFACE FRICTION VELOCITY (U*) NOT ADUSTED


       METEOROLOGY CONDITIONS USED TO PREDICT OVERALL MAXIMUM IMPACT
       ------------------------------------------------------------

 YR MO DY JDY HR
 -- -- -- --- --
 10 01 10  10 01

    H0     U*     W*  DT/DZ ZICNV ZIMCH  M-O LEN    Z0  BOWEN ALBEDO  REF WS
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
 -1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50

    HT  REF TA     HT
- - - - - - - - - - -
  10.0   310.0    2.0



--------------------------------------------------------------------------------
********************** AERSCREEN AUTOMATED DISTANCES **********************
                  OVERALL MAXIMUM CONCENTRATIONS BY DISTANCE
--------------------------------------------------------------------------------

                    MAXIMUM                          MAXIMUM
          DIST     1-HR CONC               DIST     1-HR CONC
           (m)      (ug/m3)                 (m)      (ug/m3)
        ---------------------            ---------------------
           1.00    0.2749                2525.00    0.3162E-01
```

25.00	0.2825	2550.00	0.3123E-01
50.00	0.2901	2575.00	0.3084E-01
75.00	0.2973	2600.00	0.3046E-01
100.00	0.3041	2625.00	0.3009E-01
125.00	0.3107	2650.00	0.2973E-01
150.00	0.3171	2675.00	0.2938E-01
175.00	0.3231	2700.00	0.2903E-01
200.00	0.3290	2725.00	0.2870E-01
225.00	0.3346	2750.00	0.2836E-01
250.00	0.3400	2775.00	0.2804E-01
275.00	0.3452	2800.00	0.2772E-01
300.00	0.3502	2825.00	0.2740E-01
325.00	0.3550	2850.00	0.2709E-01
350.00	0.3597	2875.00	0.2679E-01
375.00	0.3566	2900.00	0.2649E-01
400.00	0.3201	2925.00	0.2620E-01
425.00	0.2642	2950.00	0.2591E-01
450.00	0.2344	2975.00	0.2563E-01
475.00	0.2149	3000.00	0.2536E-01
500.00	0.2008	3025.00	0.2508E-01
525.00	0.1898	3050.00	0.2482E-01
550.00	0.1791	3075.00	0.2456E-01
575.00	0.1699	3100.00	0.2430E-01
600.00	0.1616	3125.00	0.2405E-01
625.00	0.1550	3150.00	0.2380E-01
650.00	0.1492	3175.00	0.2356E-01
675.00	0.1438	3200.00	0.2332E-01
700.00	0.1387	3225.00	0.2308E-01
725.00	0.1340	3250.00	0.2285E-01
750.00	0.1295	3275.00	0.2263E-01
775.00	0.1253	3300.00	0.2241E-01
800.00	0.1213	3325.00	0.2219E-01
825.00	0.1175	3350.00	0.2197E-01
850.00	0.1140	3375.00	0.2176E-01
875.00	0.1106	3400.00	0.2156E-01
900.00	0.1073	3425.00	0.2135E-01
925.00	0.1042	3450.00	0.2115E-01
950.00	0.1013	3475.00	0.2095E-01
975.00	0.9853E-01	3500.00	0.2075E-01
1000.00	0.9586E-01	3525.00	0.2056E-01
1025.00	0.9328E-01	3550.00	0.2037E-01
1050.00	0.9085E-01	3575.00	0.2018E-01
1075.00	0.8852E-01	3600.00	0.2000E-01
1100.00	0.8627E-01	3625.00	0.1982E-01
1125.00	0.8414E-01	3650.00	0.1964E-01
1150.00	0.8211E-01	3675.00	0.1946E-01
1175.00	0.8011E-01	3700.00	0.1929E-01
1200.00	0.7820E-01	3725.00	0.1912E-01
1225.00	0.7638E-01	3750.00	0.1896E-01
1250.00	0.7464E-01	3775.00	0.1879E-01

1275.00	0.7296E-01	3800.00	0.1863E-01
1300.00	0.7133E-01	3825.00	0.1847E-01
1325.00	0.6977E-01	3850.00	0.1832E-01
1350.00	0.6827E-01	3875.00	0.1816E-01
1375.00	0.6683E-01	3900.00	0.1801E-01
1400.00	0.6542E-01	3925.00	0.1786E-01
1425.00	0.6405E-01	3950.00	0.1771E-01
1450.00	0.6274E-01	3975.00	0.1756E-01
1475.00	0.6148E-01	4000.00	0.1742E-01
1500.00	0.6027E-01	4025.00	0.1728E-01
1525.00	0.5910E-01	4050.00	0.1714E-01
1550.00	0.5798E-01	4075.00	0.1700E-01
1575.00	0.5687E-01	4100.00	0.1686E-01
1600.00	0.5579E-01	4125.00	0.1673E-01
1625.00	0.5475E-01	4150.00	0.1660E-01
1650.00	0.5374E-01	4175.00	0.1646E-01
1675.00	0.5277E-01	4200.00	0.1634E-01
1700.00	0.5183E-01	4225.00	0.1621E-01
1725.00	0.5092E-01	4250.00	0.1608E-01
1750.00	0.5004E-01	4275.00	0.1596E-01
1775.00	0.4917E-01	4300.00	0.1584E-01
1800.00	0.4833E-01	4325.00	0.1572E-01
1825.00	0.4752E-01	4350.00	0.1560E-01
1850.00	0.4673E-01	4375.00	0.1548E-01
1875.00	0.4597E-01	4400.00	0.1536E-01
1900.00	0.4523E-01	4425.00	0.1525E-01
1925.00	0.4451E-01	4450.00	0.1513E-01
1950.00	0.4380E-01	4475.00	0.1502E-01
1975.00	0.4312E-01	4500.00	0.1491E-01
2000.00	0.4245E-01	4525.00	0.1480E-01
2025.00	0.4179E-01	4550.00	0.1469E-01
2050.00	0.4114E-01	4575.00	0.1459E-01
2075.00	0.4052E-01	4600.00	0.1448E-01
2100.00	0.3992E-01	4625.00	0.1438E-01
2125.00	0.3933E-01	4650.00	0.1428E-01
2150.00	0.3875E-01	4675.00	0.1417E-01
2175.00	0.3820E-01	4700.00	0.1407E-01
2200.00	0.3765E-01	4725.00	0.1398E-01
2225.00	0.3713E-01	4750.00	0.1388E-01
2250.00	0.3661E-01	4775.00	0.1378E-01
2275.00	0.3611E-01	4800.00	0.1369E-01
2300.00	0.3562E-01	4825.00	0.1359E-01
2325.00	0.3514E-01	4850.00	0.1350E-01
2350.00	0.3467E-01	4875.00	0.1341E-01
2375.00	0.3420E-01	4900.00	0.1332E-01
2400.00	0.3375E-01	4925.00	0.1323E-01
2425.00	0.3330E-01	4950.00	0.1314E-01
2450.00	0.3287E-01	4975.00	0.1305E-01
2475.00	0.3244E-01	5000.00	0.1296E-01
2500.00	0.3203E-01		

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**********  AERSCREEN MAXIMUM IMPACT SUMMARY  **********
--------------------------------------------------------------------------------

3-hour, 8-hour, and 24-hour scaled
concentrations are equal to the 1-hour concentration as referenced in
SCREENING PROCEDURES FOR ESTIMATING THE AIR QUALITY
IMPACT OF STATIONARY SOURCES, REVISED (Section 4.5.4)
Report number EPA-454/R-92-019
http://www.epa.gov/scram001/guidance_permit.htm
under Screening Guidance

                    MAXIMUM      SCALED      SCALED      SCALED      SCALED
                     1-HOUR      3-HOUR      8-HOUR     24-HOUR      ANNUAL
  CALCULATION          CONC        CONC        CONC        CONC        CONC
   PROCEDURE         (ug/m3)     (ug/m3)     (ug/m3)     (ug/m3)     (ug/m3)
---------------    ----------  ----------  ----------  ----------  ----------
FLAT TERRAIN       0.3597      0.3597      0.3597      0.3597        N/A

DISTANCE FROM SOURCE        350.00 meters


IMPACT AT THE
AMBIENT BOUNDARY   0.2749      0.2749      0.2749      0.2749        N/A

DISTANCE FROM SOURCE          1.00 meters
```

Attachment E

SWAPE Technical Consultation, Data Analysis and Litigation Support for the Environment

2656 29th Street, Suite 201
Santa Monica, CA 90405

Matt Hagemann, P.G, C.Hg.
(949) 887-9013
mhagemann@swape.com

Matthew F. Hagemann, P.G., C.Hg., QSD, QSP

Geologic and Hydrogeologic Characterization
Investigation and Remediation Strategies
Litigation Support and Testifying Expert
Industrial Stormwater Compliance
CEQA Review

Education:

M.S. Degree, Geology, California State University Los Angeles, Los Angeles, CA, 1984.
B.A. Degree, Geology, Humboldt State University, Arcata, CA, 1982.

Professional Certifications:

California Professional Geologist
California Certified Hydrogeologist
Qualified SWPPP Developer and Practitioner

Professional Experience:

Matt has 30 years of experience in environmental policy, contaminant assessment and remediation, stormwater compliance, and CEQA review. He spent nine years with the U.S. EPA in the RCRA and Superfund programs and served as EPA's Senior Science Policy Advisor in the Western Regional Office where he identified emerging threats to groundwater from perchlorate and MTBE. While with EPA, Matt also served as a Senior Hydrogeologist in the oversight of the assessment of seven major military facilities undergoing base closure. He led numerous enforcement actions under provisions of the Resource Conservation and Recovery Act (RCRA) and directed efforts to improve hydrogeologic characterization and water quality monitoring. For the past 15 years, as a founding partner with SWAPE, Matt has developed extensive client relationships and has managed complex projects that include consultation as an expert witness and a regulatory specialist, and a manager of projects ranging from industrial stormwater compliance to CEQA review of impacts from hazardous waste, air quality and greenhouse gas emissions.

Positions Matt has held include:

- Founding Partner, Soil/Water/Air Protection Enterprise (SWAPE) (2003 – present);
- Geology Instructor, Golden West College, 2010 – 2104, 2017;
- Senior Environmental Analyst, Komex H2O Science, Inc. (2000 -- 2003);

- Executive Director, Orange Coast Watch (2001 – 2004);
- Senior Science Policy Advisor and Hydrogeologist, U.S. Environmental Protection Agency (1989–1998);
- Hydrogeologist, National Park Service, Water Resources Division (1998 – 2000);
- Adjunct Faculty Member, San Francisco State University, Department of Geosciences (1993 – 1998);
- Instructor, College of Marin, Department of Science (1990 – 1995);
- Geologist, U.S. Forest Service (1986 – 1998); and
- Geologist, Dames & Moore (1984 – 1986).

Senior Regulatory and Litigation Support Analyst:

With SWAPE, Matt's responsibilities have included:

- Lead analyst and testifying expert in the review of over 300 environmental impact reports and negative declarations since 2003 under CEQA that identify significant issues with regard to hazardous waste, water resources, water quality, air quality, greenhouse gas emissions, and geologic hazards. Make recommendations for additional mitigation measures to lead agencies at the local and county level to include additional characterization of health risks and implementation of protective measures to reduce worker exposure to hazards from toxins and Valley Fever.
- Stormwater analysis, sampling and best management practice evaluation at more than 100 industrial facilities.
- Expert witness on numerous cases including, for example, perfluorooctanoic acid (PFOA) contamination of groundwater, MTBE litigation, air toxins at hazards at a school, CERCLA compliance in assessment and remediation, and industrial stormwater contamination.
- Technical assistance and litigation support for vapor intrusion concerns.
- Lead analyst and testifying expert in the review of environmental issues in license applications for large solar power plants before the California Energy Commission.
- Manager of a project to evaluate numerous formerly used military sites in the western U.S.
- Manager of a comprehensive evaluation of potential sources of perchlorate contamination in Southern California drinking water wells.
- Manager and designated expert for litigation support under provisions of Proposition 65 in the review of releases of gasoline to sources drinking water at major refineries and hundreds of gas stations throughout California.

With Komex H2O Science Inc., Matt's duties included the following:

- Senior author of a report on the extent of perchlorate contamination that was used in testimony by the former U.S. EPA Administrator and General Counsel.
- Senior researcher in the development of a comprehensive, electronically interactive chronology of MTBE use, research, and regulation.
- Senior researcher in the development of a comprehensive, electronically interactive chronology of perchlorate use, research, and regulation.
- Senior researcher in a study that estimates nationwide costs for MTBE remediation and drinking water treatment, results of which were published in newspapers nationwide and in testimony against provisions of an energy bill that would limit liability for oil companies.
- Research to support litigation to restore drinking water supplies that have been contaminated by MTBE in California and New York.

- Expert witness testimony in a case of oil production-related contamination in Mississippi.
- Lead author for a multi-volume remedial investigation report for an operating school in Los Angeles that met strict regulatory requirements and rigorous deadlines.
- Development of strategic approaches for cleanup of contaminated sites in consultation with clients and regulators.

Executive Director:

As Executive Director with Orange Coast Watch, Matt led efforts to restore water quality at Orange County beaches from multiple sources of contamination including urban runoff and the discharge of wastewater. In reporting to a Board of Directors that included representatives from leading Orange County universities and businesses, Matt prepared issue papers in the areas of treatment and disinfection of wastewater and control of the discharge of grease to sewer systems. Matt actively participated in the development of countywide water quality permits for the control of urban runoff and permits for the discharge of wastewater. Matt worked with other nonprofits to protect and restore water quality, including Surfrider, Natural Resources Defense Council and Orange County CoastKeeper as well as with business institutions including the Orange County Business Council.

Hydrogeology:

As a Senior Hydrogeologist with the U.S. Environmental Protection Agency, Matt led investigations to characterize and cleanup closing military bases, including Mare Island Naval Shipyard, Hunters Point Naval Shipyard, Treasure Island Naval Station, Alameda Naval Station, Moffett Field, Mather Army Airfield, and Sacramento Army Depot. Specific activities were as follows:

- Led efforts to model groundwater flow and contaminant transport, ensured adequacy of monitoring networks, and assessed cleanup alternatives for contaminated sediment, soil, and groundwater.
- Initiated a regional program for evaluation of groundwater sampling practices and laboratory analysis at military bases.
- Identified emerging issues, wrote technical guidance, and assisted in policy and regulation development through work on four national U.S. EPA workgroups, including the Superfund Groundwater Technical Forum and the Federal Facilities Forum.

At the request of the State of Hawaii, Matt developed a methodology to determine the vulnerability of groundwater to contamination on the islands of Maui and Oahu. He used analytical models and a GIS to show zones of vulnerability, and the results were adopted and published by the State of Hawaii and County of Maui.

As a hydrogeologist with the EPA Groundwater Protection Section, Matt worked with provisions of the Safe Drinking Water Act and NEPA to prevent drinking water contamination. Specific activities included the following:

- Received an EPA Bronze Medal for his contribution to the development of national guidance for the protection of drinking water.
- Managed the Sole Source Aquifer Program and protected the drinking water of two communities through designation under the Safe Drinking Water Act. He prepared geologic reports, conducted

public hearings, and responded to public comments from residents who were very concerned about the impact of designation.

- Reviewed a number of Environmental Impact Statements for planned major developments, including large hazardous and solid waste disposal facilities, mine reclamation, and water transfer.

Matt served as a hydrogeologist with the RCRA Hazardous Waste program. Duties were as follows:

- Supervised the hydrogeologic investigation of hazardous waste sites to determine compliance with Subtitle C requirements.
- Reviewed and wrote "part B" permits for the disposal of hazardous waste.
- Conducted RCRA Corrective Action investigations of waste sites and led inspections that formed the basis for significant enforcement actions that were developed in close coordination with U.S. EPA legal counsel.
- Wrote contract specifications and supervised contractor's investigations of waste sites.

With the National Park Service, Matt directed service-wide investigations of contaminant sources to prevent degradation of water quality, including the following tasks:

- Applied pertinent laws and regulations including CERCLA, RCRA, NEPA, NRDA, and the Clean Water Act to control military, mining, and landfill contaminants.
- Conducted watershed-scale investigations of contaminants at parks, including Yellowstone and Olympic National Park.
- Identified high-levels of perchlorate in soil adjacent to a national park in New Mexico and advised park superintendent on appropriate response actions under CERCLA.
- Served as a Park Service representative on the Interagency Perchlorate Steering Committee, a national workgroup.
- Developed a program to conduct environmental compliance audits of all National Parks while serving on a national workgroup.
- Co-authored two papers on the potential for water contamination from the operation of personal watercraft and snowmobiles, these papers serving as the basis for the development of nation-wide policy on the use of these vehicles in National Parks.
- Contributed to the Federal Multi-Agency Source Water Agreement under the Clean Water Action Plan.

Policy:

Served senior management as the Senior Science Policy Advisor with the U.S. Environmental Protection Agency, Region 9.

Activities included the following:

- Advised the Regional Administrator and senior management on emerging issues such as the potential for the gasoline additive MTBE and ammonium perchlorate to contaminate drinking water supplies.
- Shaped EPA's national response to these threats by serving on workgroups and by contributing to guidance, including the Office of Research and Development publication, Oxygenates in Water: Critical Information and Research Needs.
- Improved the technical training of EPA's scientific and engineering staff.
- Earned an EPA Bronze Medal for representing the region's 300 scientists and engineers in negotiations with the Administrator and senior management to better integrate scientific

principles into the policy-making process.
- Established national protocol for the peer review of scientific documents.

Geology:

With the U.S. Forest Service, Matt led investigations to determine hillslope stability of areas proposed for timber harvest in the central Oregon Coast Range. Specific activities were as follows:

- Mapped geology in the field, and used aerial photographic interpretation and mathematical models to determine slope stability.
- Coordinated his research with community members who were concerned with natural resource protection.
- Characterized the geology of an aquifer that serves as the sole source of drinking water for the city of Medford, Oregon.

As a consultant with Dames and Moore, Matt led geologic investigations of two contaminated sites (later listed on the Superfund NPL) in the Portland, Oregon, area and a large hazardous waste site in eastern Oregon. Duties included the following:

- Supervised year-long effort for soil and groundwater sampling.
- Conducted aquifer tests.
- Investigated active faults beneath sites proposed for hazardous waste disposal.

Teaching:

From 1990 to 1998, Matt taught at least one course per semester at the community college and university levels:

- At San Francisco State University, held an adjunct faculty position and taught courses in environmental geology, oceanography (lab and lecture), hydrogeology, and groundwater contamination.
- Served as a committee member for graduate and undergraduate students.
- Taught courses in environmental geology and oceanography at the College of Marin.

Matt is currently a part time geology instructor at Golden West College in Huntington Beach, California where he taught from 2010 to 2014 and in 2017.

Invited Testimony, Reports, Papers and Presentations:

Hagemann, M.F., 2008. Disclosure of Hazardous Waste Issues under CEQA. Presentation to the Public Environmental Law Conference, Eugene, Oregon.

Hagemann, M.F., 2008. Disclosure of Hazardous Waste Issues under CEQA. Invited presentation to U.S. EPA Region 9, San Francisco, California.

Hagemann, M.F., 2005. Use of Electronic Databases in Environmental Regulation, Policy Making and Public Participation. Brownfields 2005, Denver, Coloradao.

Hagemann, M.F., 2004. Perchlorate Contamination of the Colorado River and Impacts to Drinking Water in Nevada and the Southwestern U.S. Presentation to a meeting of the American Groundwater Trust, Las Vegas, NV (served on conference organizing committee).

Hagemann, M.F., 2004. Invited testimony to a California Senate committee hearing on air toxins at schools in Southern California, Los Angeles.

Brown, A., Farrow, J., Gray, A. and **Hagemann, M.**, 2004. An Estimate of Costs to Address MTBE Releases from Underground Storage Tanks and the Resulting Impact to Drinking Water Wells. Presentation to the Ground Water and Environmental Law Conference, National Groundwater Association.

Hagemann, M.F., 2004. Perchlorate Contamination of the Colorado River and Impacts to Drinking Water in Arizona and the Southwestern U.S. Presentation to a meeting of the American Groundwater Trust, Phoenix, AZ (served on conference organizing committee).

Hagemann, M.F., 2003. Perchlorate Contamination of the Colorado River and Impacts to Drinking Water in the Southwestern U.S. Invited presentation to a special committee meeting of the National Academy of Sciences, Irvine, CA.

Hagemann, M.F., 2003. Perchlorate Contamination of the Colorado River. Invited presentation to a tribal EPA meeting, Pechanga, CA.

Hagemann, M.F., 2003. Perchlorate Contamination of the Colorado River. Invited presentation to a meeting of tribal repesentatives, Parker, AZ.

Hagemann, M.F., 2003. Impact of Perchlorate on the Colorado River and Associated Drinking Water Supplies. Invited presentation to the Inter-Tribal Meeting, Torres Martinez Tribe.

Hagemann, M.F., 2003. The Emergence of Perchlorate as a Widespread Drinking Water Contaminant. Invited presentation to the U.S. EPA Region 9.

Hagemann, M.F., 2003. A Deductive Approach to the Assessment of Perchlorate Contamination. Invited presentation to the California Assembly Natural Resources Committee.

Hagemann, M.F., 2003. Perchlorate: A Cold War Legacy in Drinking Water. Presentation to a meeting of the National Groundwater Association.

Hagemann, M.F., 2002. From Tank to Tap: A Chronology of MTBE in Groundwater. Presentation to a meeting of the National Groundwater Association.

Hagemann, M.F., 2002. A Chronology of MTBE in Groundwater and an Estimate of Costs to Address Impacts to Groundwater. Presentation to the annual meeting of the Society of Environmental Journalists.

Hagemann, M.F., 2002. An Estimate of the Cost to Address MTBE Contamination in Groundwater (and Who Will Pay). Presentation to a meeting of the National Groundwater Association.

Hagemann, M.F., 2002. An Estimate of Costs to Address MTBE Releases from Underground Storage Tanks and the Resulting Impact to Drinking Water Wells. Presentation to a meeting of the U.S. EPA and State Underground Storage Tank Program managers.

Hagemann, M.F., 2001. From Tank to Tap: A Chronology of MTBE in Groundwater. Unpublished report.

Hagemann, M.F., 2001. Estimated Cleanup Cost for MTBE in Groundwater Used as Drinking Water. Unpublished report.

Hagemann, M.F., 2001. Estimated Costs to Address MTBE Releases from Leaking Underground Storage Tanks. Unpublished report.

Hagemann, M.F., and VanMouwerik, M., 1999. Potential Water Quality Concerns Related to Snowmobile Usage. Water Resources Division, National Park Service, Technical Report.

VanMouwerik, M. and **Hagemann, M.F.** 1999, Water Quality Concerns Related to Personal Watercraft Usage. Water Resources Division, National Park Service, Technical Report.

Hagemann, M.F., 1999, Is Dilution the Solution to Pollution in National Parks? The George Wright Society Biannual Meeting, Asheville, North Carolina.

Hagemann, M.F., 1997, The Potential for MTBE to Contaminate Groundwater. U.S. EPA Superfund Groundwater Technical Forum Annual Meeting, Las Vegas, Nevada.

Hagemann, M.F., and Gill, M., 1996, Impediments to Intrinsic Remediation, Moffett Field Naval Air Station, Conference on Intrinsic Remediation of Chlorinated Hydrocarbons, Salt Lake City.

Hagemann, M.F., Fukunaga, G.L., 1996, The Vulnerability of Groundwater to Anthropogenic Contaminants on the Island of Maui, Hawaii. Hawaii Water Works Association Annual Meeting, Maui, October 1996.

Hagemann, M. F., Fukanaga, G. L., 1996, Ranking Groundwater Vulnerability in Central Oahu, Hawaii. Proceedings, Geographic Information Systems in Environmental Resources Management, Air and Waste Management Association Publication VIP-61.

Hagemann, M.F., 1994. Groundwater Characterization and Cleanup at Closing Military Bases in California. Proceedings, California Groundwater Resources Association Meeting.

Hagemann, M.F. and Sabol, M.A., 1993. Role of the U.S. EPA in the High Plains States Groundwater Recharge Demonstration Program. Proceedings, Sixth Biennial Symposium on the Artificial Recharge of Groundwater.

Hagemann, M.F., 1993. U.S. EPA Policy on the Technical Impracticability of the Cleanup of DNAPL-contaminated Groundwater. California Groundwater Resources Association Meeting.

Hagemann, M.F., 1992. Dense Nonaqueous Phase Liquid Contamination of Groundwater: An Ounce of Prevention... Proceedings, Association of Engineering Geologists Annual Meeting, v. 35.

Other Experience:

Selected as subject matter expert for the California Professional Geologist licensing examinations, 2009-2011.

Attachment F

SWAPE Technical Consultation, Data Analysis and Litigation Support for the Environment

SOIL WATER AIR PROTECTION ENTERPRISE
2656 29th Street, Suite 201
Santa Monica, California 90405
Attn: Paul Rosenfeld, Ph.D.
Mobil: (310) 795-2335
Office: (310) 452-5555
Fax: (310) 452-5550
Email: prosenfeld@swape.com

Paul Rosenfeld, Ph.D.

Chemical Fate and Transport & Air Dispersion Modeling

Principal Environmental Chemist

Risk Assessment & Remediation Specialist

Education

Ph.D. Soil Chemistry, University of Washington, 1999. Dissertation on volatile organic compound filtration.

M.S. Environmental Science, U.C. Berkeley, 1995. Thesis on organic waste economics.

B.A. Environmental Studies, U.C. Santa Barbara, 1991. Focus on wastewater treatment.

Professional Experience

Dr. Rosenfeld has over 25 years of experience conducting environmental investigations and risk assessments for evaluating impacts to human health, property, and ecological receptors. His expertise focuses on the fate and transport of environmental contaminants, human health risk, exposure assessment, and ecological restoration. Dr. Rosenfeld has evaluated and modeled emissions from oil spills, landfills, boilers and incinerators, process stacks, storage tanks, confined animal feeding operations, industrial, military and agricultural sources, unconventional oil drilling operations, and locomotive and construction engines. His project experience ranges from monitoring and modeling of pollution sources to evaluating impacts of pollution on workers at industrial facilities and residents in surrounding communities. Dr. Rosenfeld has also successfully modeled exposure to contaminants distributed by water systems and via vapor intrusion.

Dr. Rosenfeld has investigated and designed remediation programs and risk assessments for contaminated sites containing lead, heavy metals, mold, bacteria, particulate matter, petroleum hydrocarbons, chlorinated solvents, pesticides, radioactive waste, dioxins and furans, semi- and volatile organic compounds, PCBs, PAHs, creosote, perchlorate, asbestos, per- and poly-fluoroalkyl substances (PFOA/PFOS), unusual polymers, fuel oxygenates (MTBE), among other pollutants. Dr. Rosenfeld also has experience evaluating greenhouse gas emissions from various projects and is an expert on the assessment of odors from industrial and agricultural sites, as well as the evaluation of odor nuisance impacts and technologies for abatement of odorous emissions. As a principal scientist at SWAPE, Dr. Rosenfeld directs air dispersion modeling and exposure assessments. He has served as an expert witness and testified about pollution sources causing nuisance and/or personal injury at sites and has testified as an expert witness on numerous cases involving exposure to soil, water and air contaminants from industrial, railroad, agricultural, and military sources.

Professional History:

Soil Water Air Protection Enterprise (SWAPE); 2003 to present; Principal and Founding Partner
UCLA School of Public Health; 2007 to 2011; Lecturer (Assistant Researcher)
UCLA School of Public Health; 2003 to 2006; Adjunct Professor
UCLA Environmental Science and Engineering Program, 2002-2004; Doctoral Intern Coordinator
UCLA Institute of the Environment, 2001-2002; Research Associate
Komex H_2O Science, 2001 to 2003; Senior Remediation Scientist
National Groundwater Association, 2002-2004; Lecturer
San Diego State University, 1999-2001; Adjunct Professor
Anteon Corp., San Diego, 2000-2001; Remediation Project Manager
Ogden (now Amec), San Diego, 2000-2000; Remediation Project Manager
Bechtel, San Diego, California, 1999 – 2000; Risk Assessor
King County, Seattle, 1996 – 1999; Scientist
James River Corp., Washington, 1995-96; Scientist
Big Creek Lumber, Davenport, California, 1995; Scientist
Plumas Corp., California and USFS, Tahoe 1993-1995; Scientist
Peace Corps and World Wildlife Fund, St. Kitts, West Indies, 1991-1993; Scientist

Publications:

Rosenfeld P. E., Spaeth K., Hallman R., Bressler R., Smith, G., (2022) Cancer Risk and Diesel Exhaust Exposure Among Railroad Workers. *Water Air Soil Pollution.* **233,** 171.

Remy, L.L., Clay T., Byers, V., **Rosenfeld P. E.** (2019) Hospital, Health, and Community Burden After Oil Refinery Fires, Richmond, California 2007 and 2012. *Environmental Health.* 18:48

Simons, R.A., Seo, Y. **Rosenfeld, P**., (2015) Modeling the Effect of Refinery Emission On Residential Property Value. Journal of Real Estate Research. 27(3):321-342

Chen, J. A, Zapata A. R., Sutherland A. J., Molmen, D.R., Chow, B. S., Wu, L. E., **Rosenfeld, P. E.,** Hesse, R. C., (2012) Sulfur Dioxide and Volatile Organic Compound Exposure To A Community In Texas City Texas Evaluated Using Aermod and Empirical Data. *American Journal of Environmental Science*, 8(6), 622-632.

Rosenfeld, P.E. & Feng, L. (2011). *The Risks of Hazardous Waste.* Amsterdam: Elsevier Publishing.

Cheremisinoff, N.P., & **Rosenfeld, P.E.** (2011). *Handbook of Pollution Prevention and Cleaner Production: Best Practices in the Agrochemical Industry*, Amsterdam: Elsevier Publishing.

Gonzalez, J., Feng, L., Sutherland, A., Waller, C., Sok, H., Hesse, R., **Rosenfeld, P.** (2010). PCBs and Dioxins/Furans in Attic Dust Collected Near Former PCB Production and Secondary Copper Facilities in Sauget, IL. *Procedia Environmental Sciences*, 113–125.

Feng, L., Wu, C., Tam, L., Sutherland, A.J., Clark, J.J., **Rosenfeld, P.E.** (2010). Dioxin and Furan Blood Lipid and Attic Dust Concentrations in Populations Living Near Four Wood Treatment Facilities in the United States. *Journal of Environmental Health*. 73(6), 34-46.

Cheremisinoff, N.P., & **Rosenfeld, P.E.** (2010). *Handbook of Pollution Prevention and Cleaner Production: Best Practices in the Wood and Paper Industries.* Amsterdam: Elsevier Publishing.

Cheremisinoff, N.P., & **Rosenfeld, P.E.** (2009). *Handbook of Pollution Prevention and Cleaner Production: Best Practices in the Petroleum Industry*. Amsterdam: Elsevier Publishing.

Wu, C., Tam, L., Clark, J., **Rosenfeld, P.** (2009). Dioxin and furan blood lipid concentrations in populations living near four wood treatment facilities in the United States. *WIT Transactions on Ecology and the Environment, Air Pollution*, 123 (17), 319-327.

Tam L. K.., Wu C. D., Clark J. J. and **Rosenfeld, P.E.** (2008). A Statistical Analysis Of Attic Dust And Blood Lipid Concentrations Of Tetrachloro-p-Dibenzodioxin (TCDD) Toxicity Equivalency Quotients (TEQ) In Two Populations Near Wood Treatment Facilities. *Organohalogen Compounds*, 70, 002252-002255.

Tam L. K.., Wu C. D., Clark J. J. and **Rosenfeld, P.E.** (2008). Methods For Collect Samples For Assessing Dioxins And Other Environmental Contaminants In Attic Dust: A Review. *Organohalogen Compounds*, 70, 000527-000530.

Hensley, A.R. A. Scott, J. J. J. Clark, **Rosenfeld, P.E.** (2007). Attic Dust and Human Blood Samples Collected near a Former Wood Treatment Facility. *Environmental Research*. 105, 194-197.

Rosenfeld, P.E., J. J. J. Clark, A. R. Hensley, M. Suffet. (2007). The Use of an Odor Wheel Classification for Evaluation of Human Health Risk Criteria for Compost Facilities. *Water Science & Technology* 55(5), 345-357.

Rosenfeld, P. E., M. Suffet. (2007). The Anatomy Of Odour Wheels For Odours Of Drinking Water, Wastewater, Compost And The Urban Environment. *Water Science & Technology* 55(5), 335-344.

Sullivan, P. J. Clark, J.J.J., Agardy, F. J., **Rosenfeld, P.E.** (2007). *Toxic Legacy, Synthetic Toxins in the Food, Water, and Air in American Cities*. Boston Massachusetts: Elsevier Publishing

Rosenfeld, P.E., and Suffet I.H. (2004). Control of Compost Odor Using High Carbon Wood Ash. *Water Science and Technology*. 49(9),171-178.

Rosenfeld P. E., J.J. Clark, I.H. (Mel) Suffet (2004). The Value of An Odor-Quality-Wheel Classification Scheme For The Urban Environment. *Water Environment Federation's Technical Exhibition and Conference (WEFTEC) 2004*. New Orleans, October 2-6, 2004.

Rosenfeld, P.E., and Suffet, I.H. (2004). Understanding Odorants Associated With Compost, Biomass Facilities, and the Land Application of Biosolids. *Water Science and Technology*, 49(9), 193-199.

Rosenfeld, P.E., and Suffet I.H. (2004). Control of Compost Odor Using High Carbon Wood Ash, *Water Science and Technology*, 49(9), 171-178.

Rosenfeld, P. E., Grey, M. A., Sellew, P. (2004). Measurement of Biosolids Odor and Odorant Emissions from Windrows, Static Pile and Biofilter. *Water Environment Research*. 76(4), 310-315.

Rosenfeld, P.E., Grey, M and Suffet, M. (2002). Compost Demonstration Project, Sacramento California Using High-Carbon Wood Ash to Control Odor at a Green Materials Composting Facility. *Integrated Waste Management Board Public Affairs Office*, Publications Clearinghouse (MS- 6), Sacramento, CA Publication #442-02-008.

Rosenfeld, P.E., and C.L. Henry. (2001). Characterization of odor emissions from three different biosolids. *Water Soil and Air Pollution*. 127(1-4), 173-191.

Rosenfeld, P.E., and Henry C. L., (2000). Wood ash control of odor emissions from biosolids application. *Journal of Environmental Quality*. 29, 1662-1668.

Rosenfeld, P.E., C.L. Henry and D. Bennett. (2001). Wastewater dewatering polymer affect on biosolids odor emissions and microbial activity. *Water Environment Research*. 73(4), 363-367.

Rosenfeld, P.E., and C.L. Henry. (2001). Activated Carbon and Wood Ash Sorption of Wastewater, Compost, and Biosolids Odorants. *Water Environment Research*, 73, 388-393.

Rosenfeld, P.E., and Henry C. L., (2001). High carbon wood ash effect on biosolids microbial activity and odor. *Water Environment Research*. 131(1-4), 247-262.

Chollack, T. and **P. Rosenfeld. (**1998). Compost Amendment Handbook For Landscaping. Prepared for and distributed by the City of Redmond, Washington State.

Rosenfeld, P. E. (1992). The Mount Liamuiga Crater Trail. *Heritage Magazine of St. Kitts*, 3(2).

Rosenfeld, P. E. (1993). High School Biogas Project to Prevent Deforestation On St. Kitts. *Biomass Users Network*, 7(1).

Rosenfeld, P. E. (1998). Characterization, Quantification, and Control of Odor Emissions From Biosolids Application To Forest Soil. Doctoral Thesis. University of Washington College of Forest Resources.

Rosenfeld, P. E. (1994). Potential Utilization of Small Diameter Trees on Sierra County Public Land. Masters thesis reprinted by the Sierra County Economic Council. Sierra County, California.

Rosenfeld, P. E. (1991). How to Build a Small Rural Anaerobic Digester & Uses Of Biogas In The First And Third World. Bachelors Thesis. University of California.

Presentations:

Rosenfeld, P.E., "The science for Perfluorinated Chemicals (PFAS): What makes remediation so hard?" Law Seminars International, (May 9-10, 2018) 800 Fifth Avenue, Suite 101 Seattle, WA.

Rosenfeld, P.E., Sutherland, A; Hesse, R.; Zapata, A. (October 3-6, 2013). Air dispersion modeling of volatile organic emissions from multiple natural gas wells in Decatur, TX. *44th Western Regional Meeting, American Chemical Society*. Lecture conducted from Santa Clara, CA.

Sok, H.L.; Waller, C.C.; Feng, L.; Gonzalez, J.; Sutherland, A.J.; Wisdom-Stack, T.; Sahai, R.K.; Hesse, R.C.; **Rosenfeld, P.E.** (June 20-23, 2010). Atrazine: A Persistent Pesticide in Urban Drinking Water. *Urban Environmental Pollution*. Lecture conducted from Boston, MA.

Feng, L.; Gonzalez, J.; Sok, H.L.; Sutherland, A.J.; Waller, C.C.; Wisdom-Stack, T.; Sahai, R.K.; La, M.; Hesse, R.C.; **Rosenfeld, P.E.** (June 20-23, 2010). Bringing Environmental Justice to East St. Louis, Illinois. *Urban Environmental Pollution*. Lecture conducted from Boston, MA.

Rosenfeld, P.E. (April 19-23, 2009). Perfluoroctanoic Acid (PFOA) and Perfluoroactane Sulfonate (PFOS) Contamination in Drinking Water From the Use of Aqueous Film Forming Foams (AFFF) at Airports in the United States. *2009 Ground Water Summit and 2009 Ground Water Protection Council Spring Meeting*, Lecture conducted from Tuscon, AZ.

Rosenfeld, P.E. (April 19-23, 2009). Cost to Filter Atrazine Contamination from Drinking Water in the United States" Contamination in Drinking Water From the Use of Aqueous Film Forming Foams (AFFF) at Airports in the United States. *2009 Ground Water Summit and 2009 Ground Water Protection Council Spring Meeting*. Lecture conducted from Tuscon, AZ.

Wu, C., Tam, L., Clark, J., **Rosenfeld, P**. (20-22 July, 2009). Dioxin and furan blood lipid concentrations in populations living near four wood treatment facilities in the United States. Brebbia, C.A. and Popov, V., eds., *Air Pollution XVII: Proceedings of the Seventeenth International Conference on Modeling, Monitoring and Management of Air Pollution*. Lecture conducted from Tallinn, Estonia.

Rosenfeld, P. E. (October 15-18, 2007). Moss Point Community Exposure To Contaminants From A Releasing Facility. *The 23rd Annual International Conferences on Soils Sediment and Water*. Platform lecture conducted from University of Massachusetts, Amherst MA.

Rosenfeld, P. E. (October 15-18, 2007). The Repeated Trespass of Tritium-Contaminated Water Into A Surrounding Community Form Repeated Waste Spills From A Nuclear Power Plant. *The 23rd Annual International Conferences on Soils Sediment and Water*. Platform lecture conducted from University of Massachusetts, Amherst MA.

Rosenfeld, P. E. (October 15-18, 2007). Somerville Community Exposure To Contaminants From Wood Treatment Facility Emissions. The *23rd Annual International Conferences on Soils Sediment and Water*. Lecture conducted from University of Massachusetts, Amherst MA.

Rosenfeld P. E. (March 2007). Production, Chemical Properties, Toxicology, & Treatment Case Studies of 1,2,3-Trichloropropane (TCP). *The Association for Environmental Health and Sciences (AEHS) Annual Meeting*. Lecture conducted from San Diego, CA.

Rosenfeld P. E. (March 2007). Blood and Attic Sampling for Dioxin/Furan, PAH, and Metal Exposure in Florala, Alabama. *The AEHS Annual Meeting*. Lecture conducted from San Diego, CA.

Hensley A.R., Scott, A., **Rosenfeld P.E.,** Clark, J.J.J. (August 21 – 25, 2006). Dioxin Containing Attic Dust And Human Blood Samples Collected Near A Former Wood Treatment Facility. *The 26th International Symposium on Halogenated Persistent Organic Pollutants – DIOXIN2006*. Lecture conducted from Radisson SAS Scandinavia Hotel in Oslo Norway.

Hensley A.R., Scott, A., **Rosenfeld P.E.,** Clark, J.J.J. (November 4-8, 2006). Dioxin Containing Attic Dust And Human Blood Samples Collected Near A Former Wood Treatment Facility. *APHA 134 Annual Meeting & Exposition*. Lecture conducted from Boston Massachusetts.

Paul Rosenfeld Ph.D. (October 24-25, 2005). Fate, Transport and Persistence of PFOA and Related Chemicals. Mealey's C8/PFOA. *Science, Risk & Litigation Conference*. Lecture conducted from The Rittenhouse Hotel, Philadelphia, PA.

Paul Rosenfeld Ph.D. (September 19, 2005). Brominated Flame Retardants in Groundwater: Pathways to Human Ingestion, *Toxicology and Remediation PEMA Emerging Contaminant Conference*. Lecture conducted from Hilton Hotel, Irvine California.

Paul Rosenfeld Ph.D. (September 19, 2005). Fate, Transport, Toxicity, And Persistence of 1,2,3-TCP. *PEMA Emerging Contaminant Conference*. Lecture conducted from Hilton Hotel in Irvine, California.

Paul Rosenfeld Ph.D. (September 26-27, 2005). Fate, Transport and Persistence of PDBEs. *Mealey's Groundwater Conference*. Lecture conducted from Ritz Carlton Hotel, Marina Del Ray, California.

Paul Rosenfeld Ph.D. (June 7-8, 2005). Fate, Transport and Persistence of PFOA and Related Chemicals. *International Society of Environmental Forensics: Focus On Emerging Contaminants*. Lecture conducted from Sheraton Oceanfront Hotel, Virginia Beach, Virginia.

Paul Rosenfeld Ph.D. (July 21-22, 2005). Fate Transport, Persistence and Toxicology of PFOA and Related Perfluorochemicals. *2005 National Groundwater Association Ground Water And Environmental Law Conference*. Lecture conducted from Wyndham Baltimore Inner Harbor, Baltimore Maryland.

Paul Rosenfeld Ph.D. (July 21-22, 2005). Brominated Flame Retardants in Groundwater: Pathways to Human Ingestion, Toxicology and Remediation. *2005 National Groundwater Association Ground Water and Environmental Law Conference*. Lecture conducted from Wyndham Baltimore Inner Harbor, Baltimore Maryland.

Paul Rosenfeld, Ph.D. and James Clark Ph.D. and Rob Hesse R.G. (May 5-6, 2004). Tert-butyl Alcohol Liability and Toxicology, A National Problem and Unquantified Liability. *National Groundwater Association. Environmental Law Conference*. Lecture conducted from Congress Plaza Hotel, Chicago Illinois.

Paul Rosenfeld, Ph.D. (March 2004). Perchlorate Toxicology. *Meeting of the American Groundwater Trust.* Lecture conducted from Phoenix Arizona.

Hagemann, M.F., **Paul Rosenfeld, Ph.D.** and Rob Hesse (2004). Perchlorate Contamination of the Colorado River. *Meeting of tribal representatives.* Lecture conducted from Parker, AZ.

Paul Rosenfeld, Ph.D. (April 7, 2004). A National Damage Assessment Model For PCE and Dry Cleaners. *Drycleaner Symposium. California Ground Water Association.* Lecture conducted from Radison Hotel, Sacramento, California.

Rosenfeld, P. E., Grey, M., (June 2003) Two stage biofilter for biosolids composting odor control. *Seventh International In Situ And On Site Bioremediation Symposium Battelle Conference* Orlando, FL.

Paul Rosenfeld, Ph.D. and James Clark Ph.D. (February 20-21, 2003) Understanding Historical Use, Chemical Properties, Toxicity and Regulatory Guidance of 1,4 Dioxane. *National Groundwater Association. Southwest Focus Conference. Water Supply and Emerging Contaminants.*, Lecture conducted from Hyatt Regency Phoenix Arizona.

Paul Rosenfeld, Ph.D. (February 6-7, 2003). Underground Storage Tank Litigation and Remediation. *California CUPA Forum.* Lecture conducted from Marriott Hotel, Anaheim California.

Paul Rosenfeld, Ph.D. (October 23, 2002) Underground Storage Tank Litigation and Remediation. *EPA Underground Storage Tank Roundtable.* Lecture conducted from Sacramento California.

Rosenfeld, P.E. and Suffet, M. (October 7- 10, 2002). Understanding Odor from Compost, *Wastewater and Industrial Processes. Sixth Annual Symposium On Off Flavors in the Aquatic Environment. International Water Association.* Lecture conducted from Barcelona Spain.

Rosenfeld, P.E. and Suffet, M. (October 7- 10, 2002). Using High Carbon Wood Ash to Control Compost Odor. *Sixth Annual Symposium On Off Flavors in the Aquatic Environment. International Water Association.* Lecture conducted from Barcelona Spain.

Rosenfeld, P.E. and Grey, M. A. (September 22-24, 2002). Biocycle Composting For Coastal Sage Restoration. *Northwest Biosolids Management Association.* Lecture conducted from Vancouver Washington.

Rosenfeld, P.E. and Grey, M. A. (November 11-14, 2002). Using High-Carbon Wood Ash to Control Odor at a Green Materials Composting Facility. *Soil Science Society Annual Conference.* Lecture conducted from Indianapolis, Maryland.

Rosenfeld. P.E. (September 16, 2000). Two stage biofilter for biosolids composting odor control. *Water Environment Federation.* Lecture conducted from Anaheim California.

Rosenfeld. P.E. (October 16, 2000). Wood ash and biofilter control of compost odor. *Biofest.* Lecture conducted from Ocean Shores, California.

Rosenfeld, P.E. (2000). Bioremediation Using Organic Soil Amendments. *California Resource Recovery Association.* Lecture conducted from Sacramento California.

Rosenfeld, P.E., C.L. Henry, R. Harrison. (1998). Oat and Grass Seed Germination and Nitrogen and Sulfur Emissions Following Biosolids Incorporation With High-Carbon Wood-Ash. *Water Environment Federation 12th Annual Residuals and Biosolids Management Conference Proceedings.* Lecture conducted from Bellevue Washington.

Rosenfeld, P.E., and C.L. Henry. (1999). An evaluation of ash incorporation with biosolids for odor reduction. *Soil Science Society of America.* Lecture conducted from Salt Lake City Utah.

Rosenfeld, P.E., C.L. Henry, R. Harrison. (1998). Comparison of Microbial Activity and Odor Emissions from Three Different Biosolids Applied to Forest Soil. *Brown and Caldwell.* Lecture conducted from Seattle Washington.

Rosenfeld, P.E., C.L. Henry. (1998). Characterization, Quantification, and Control of Odor Emissions from Biosolids Application To Forest Soil. *Biofest.* Lecture conducted from Lake Chelan, Washington.

Rosenfeld, P.E, C.L. Henry, R. Harrison. (1998). Oat and Grass Seed Germination and Nitrogen and Sulfur Emissions Following Biosolids Incorporation With High-Carbon Wood-Ash. Water Environment Federation 12th Annual Residuals and Biosolids Management Conference Proceedings. Lecture conducted from Bellevue Washington.

Rosenfeld, P.E., C.L. Henry, R. B. Harrison, and R. Dills. (1997). Comparison of Odor Emissions From Three Different Biosolids Applied to Forest Soil. *Soil Science Society of America*. Lecture conducted from Anaheim California.

Teaching Experience:

UCLA Department of Environmental Health (Summer 2003 through 20010) Taught Environmental Health Science 100 to students, including undergrad, medical doctors, public health professionals and nurses. Course focused on the health effects of environmental contaminants.

National Ground Water Association, Successful Remediation Technologies. Custom Course in Sante Fe, New Mexico. May 21, 2002. Focused on fate and transport of fuel contaminants associated with underground storage tanks.

National Ground Water Association, Successful Remediation Technologies Course in Chicago Illinois. April 1, 2002. Focused on fate and transport of contaminants associated with Superfund and RCRA sites.

California Integrated Waste Management Board, April and May, 2001. Alternative Landfill Caps Seminar in San Diego, Ventura, and San Francisco. Focused on both prescriptive and innovative landfill cover design.

UCLA Department of Environmental Engineering, February 5, 2002. Seminar on Successful Remediation Technologies focusing on Groundwater Remediation.

University Of Washington, Soil Science Program, Teaching Assistant for several courses including: Soil Chemistry, Organic Soil Amendments, and Soil Stability.

U.C. Berkeley, Environmental Science Program Teaching Assistant for Environmental Science 10.

Academic Grants Awarded:

California Integrated Waste Management Board. $41,000 grant awarded to UCLA Institute of the Environment. Goal: To investigate effect of high carbon wood ash on volatile organic emissions from compost. 2001.

Synagro Technologies, Corona California: $10,000 grant awarded to San Diego State University.
Goal: investigate effect of biosolids for restoration and remediation of degraded coastal sage soils. 2000.

King County, Department of Research and Technology, Washington State. $100,000 grant awarded to University of Washington: Goal: To investigate odor emissions from biosolids application and the effect of polymers and ash on VOC emissions. 1998.

Northwest Biosolids Management Association, Washington State. $20,000 grant awarded to investigate effect of polymers and ash on VOC emissions from biosolids. 1997.

James River Corporation, Oregon: $10,000 grant was awarded to investigate the success of genetically engineered Poplar trees with resistance to round-up. 1996.

United State Forest Service, Tahoe National Forest: $15,000 grant was awarded to investigating fire ecology of the Tahoe National Forest. 1995.

Kellogg Foundation, Washington D.C. $500 grant was awarded to construct a large anaerobic digester on St. Kitts in West Indies. 1993

Deposition and/or Trial Testimony:

In the Superior Court of the State of California, County of San Bernardino
Billy Wildrick, Plaintiff vs. BNSF Railway Company
Case No. CIVDS1711810
Rosenfeld Deposition 10-17-2022

In the State Court of Bibb County, State of Georgia
Richard Hutcherson, Plaintiff vs Norfolk Southern Railway Company
Case No. 10-SCCV-092007
Rosenfeld Deposition 10-6-2022

In the Civil District Court of the Parish of Orleans, State of Louisiana
Millard Clark, Plaintiff vs. Dixie Carriers, Inc. et al.
Case No. 2020-03891
Rosenfeld Deposition 9-15-2022

In The Circuit Court of Livingston County, State of Missouri, Circuit Civil Division
Shirley Ralls, Plaintiff vs. Canadian Pacific Railway and Soo Line Railroad
Case No. 18-LV-CC0020
Rosenfeld Deposition 9-7-2022

In The Circuit Court of the 13th Judicial Circuit Court, Hillsborough County, Florida Civil Division
Jonny C. Daniels, Plaintiff vs. CSX Transportation Inc.
Case No. 20-CA-5502
Rosenfeld Deposition 9-1-2022

In The Circuit Court of St. Louis County, State of Missouri
Kieth Luke et. al. Plaintiff vs. Monsanto Company et. al.
Case No. 19SL-CC03191
Rosenfeld Deposition 8-25-2022

In The Circuit Court of the 13th Judicial Circuit Court, Hillsborough County, Florida Civil Division
Jeffery S. Lamotte, Plaintiff vs. CSX Transportation Inc.
Case No. NO. 20-CA-0049
Rosenfeld Deposition 8-22-2022

In State of Minnesota District Court, County of St. Louis Sixth Judicial District
Greg Bean, Plaintiff vs. Soo Line Railroad Company
Case No. 69-DU-CV-21-760
Rosenfeld Deposition 8-17-2022

In United States District Court Western District of Washington at Tacoma, Washington
John D. Fitzgerald Plaintiff vs. BNSF
Case No. 3:21-cv-05288-RJB
Rosenfeld Deposition 8-11-2022

In Circuit Court of the Sixth Judicial Circuit, Macon Illinois
Rocky Bennyhoff Plaintiff vs. Norfolk Southern
Case No. 20-L-56
Rosenfeld Deposition 8-3-2022

In Court of Common Pleas, Hamilton County Ohio
Joe Briggins Plaintiff vs. CSX
Case No. A2004464
Rosenfeld Deposition 6-17-2022

In the Superior Court of the State of California, County of Kern
George LaFazia vs. BNSF Railway Company.
Case No. BCV-19-103087
Rosenfeld Deposition 5-17-2022

In the Circuit Court of Cook County Illinois
Bobby Earles vs. Penn Central et. al.
Case No. 2020-L-000550
Rosenfeld Deposition 4-16-2022

In United States District Court Easter District of Florida
Albert Hartman Plaintiff vs. Illinois Central
Case No. 2:20-cv-1633
Rosenfeld Deposition 4-4-2022

In the Circuit Court of the 4th Judicial Circuit, in and For Duval County, Florida
Barbara Steele vs. CSX Transportation
Case No.16-219-Ca-008796
Rosenfeld Deposition 3-15-2022

In United States District Court Easter District of New York
Romano et al. vs. Northrup Grumman Corporation
Case No. 16-cv-5760
Rosenfeld Deposition 3-10-2022

In the Circuit Court of Cook County Illinois
Linda Benjamin vs. Illinois Central
Case No. No. 2019 L 007599
Rosenfeld Deposition 1-26-2022

In the Circuit Court of Cook County Illinois
Donald Smith vs. Illinois Central
Case No. No. 2019 L 003426
Rosenfeld Deposition 1-24-2022

In the Circuit Court of Cook County Illinois
Jan Holeman vs. BNSF
Case No. 2019 L 000675
Rosenfeld Deposition 1-18-2022

In the State Court of Bibb County State of Georgia
Dwayne B. Garrett vs. Norfolk Southern
Case No. 20-SCCV-091232
Rosenfeld Deposition 11-10-2021

In the Circuit Court of Cook County Illinois
Joseph Ruepke vs. BNSF
Case No. 2019 L 007730
Rosenfeld Deposition 11-5-2021

In the United States District Court For the District of Nebraska
Steven Gillett vs. BNSF
Case No. 4:20-cv-03120
Rosenfeld Deposition 10-28-2021

In the Montana Thirteenth District Court of Yellowstone County
James Eadus vs. Soo Line Railroad and BNSF
Case No. DV 19-1056
Rosenfeld Deposition 10-21-2021

In the Circuit Court Of The Twentieth Judicial Circuit, St Clair County, Illinois
Martha Custer et al.cvs. Cerro Flow Products, Inc.
Case No. 0i9-L-2295
Rosenfeld Deposition 5-14-2021
Trial October 8-4-2021

In the Circuit Court of Cook County Illinois
Joseph Rafferty vs. Consolidated Rail Corporation and National Railroad Passenger Corporation d/b/a AMTRAK,
Case No. 18-L-6845
Rosenfeld Deposition 6-28-2021

In the United States District Court For the Northern District of Illinois
Theresa Romcoe vs. Northeast Illinois Regional Commuter Railroad Corporation d/b/a METRA Rail
Case No. 17-cv-8517
Rosenfeld Deposition 5-25-2021

In the Superior Court of the State of Arizona In and For the Cunty of Maricopa
Mary Tryon et al. vs. The City of Pheonix v. Cox Cactus Farm, L.L.C., Utah Shelter Systems, Inc.
Case No. CV20127-094749
Rosenfeld Deposition 5-7-2021

In the United States District Court for the Eastern District of Texas Beaumont Division
Robinson, Jeremy et al vs. CNA Insurance Company et al.
Case No. 1:17-cv-000508
Rosenfeld Deposition 3-25-2021

In the Superior Court of the State of California, County of San Bernardino
Gary Garner, Personal Representative for the Estate of Melvin Garner vs. BNSF Railway Company.
Case No. 1720288
Rosenfeld Deposition 2-23-2021

In the Superior Court of the State of California, County of Los Angeles, Spring Street Courthouse
Benny M Rodriguez vs. Union Pacific Railroad, A Corporation, et al.
Case No. 18STCV01162
Rosenfeld Deposition 12-23-2020

In the Circuit Court of Jackson County, Missouri
Karen Cornwell, Plaintiff, vs. Marathon Petroleum, LP, Defendant.
Case No. 1716-CV10006
Rosenfeld Deposition 8-30-2019

In the United States District Court For The District of New Jersey
Duarte et al, Plaintiffs, vs. United States Metals Refining Company et. al. Defendant
Case No. 2:17-cv-01624-ES-SCM
Rosenfeld Deposition 6-7-2019

In the United States District Court of Southern District of Texas Galveston Division
M/T Carla Maersk vs. Conti 168., Schiffahrts-GMBH & Co. Bulker KG MS "Conti Perdido" Defendant
Case No. 3:15-CV-00106 consolidated with 3:15-CV-00237
Rosenfeld Deposition 5-9-2019

In The Superior Court of the State of California In And For The County Of Los Angeles – Santa Monica
Carole-Taddeo-Bates et al., vs. Ifran Khan et al., Defendants
Case No. BC615636
Rosenfeld Deposition 1-26-2019

In The Superior Court of the State of California In And For The County Of Los Angeles – Santa Monica
The San Gabriel Valley Council of Governments et al. vs El Adobe Apts. Inc. et al., Defendants
Case No. BC646857
Rosenfeld Deposition 10-6-2018; Trial 3-7-19

In United States District Court For The District of Colorado
Bells et al. Plaintiffs vs. The 3M Company et al., Defendants
Case No. 1:16-cv-02531-RBJ
Rosenfeld Deposition 3-15-2018 and 4-3-2018

In The District Court Of Regan County, Texas, 112th Judicial District
Phillip Bales et al., Plaintiff vs. Dow Agrosciences, LLC, et al., Defendants
Cause No. 1923
Rosenfeld Deposition 11-17-2017

In The Superior Court of the State of California In And For The County Of Contra Costa
Simons et al., Plaintifs vs. Chevron Corporation, et al., Defendants
Cause No. C12-01481
Rosenfeld Deposition 11-20-2017

In The Circuit Court Of The Twentieth Judicial Circuit, St Clair County, Illinois
Martha Custer et al., Plaintiff vs. Cerro Flow Products, Inc., Defendants
Case No.: No. 0i9-L-2295
Rosenfeld Deposition 8-23-2017

In United States District Court For The Southern District of Mississippi
Guy Manuel vs. The BP Exploration et al., Defendants
Case No. 1:19-cv-00315-RHW
Rosenfeld Deposition 4-22-2020

In The Superior Court of the State of California, For The County of Los Angeles
Warm Gilbert and Penny Gilber, Plaintiff vs. BMW of North America LLC
Case No. LC102019 (c/w BC582154)
Rosenfeld Deposition 8-16-2017, Trail 8-28-2018

In the Northern District Court of Mississippi, Greenville Division
Brenda J. Cooper, et al., Plaintiffs, vs. Meritor Inc., et al., Defendants
Case No. 4:16-cv-52-DMB-JVM
Rosenfeld Deposition July 2017

In The Superior Court of the State of Washington, County of Snohomish
Michael Davis and Julie Davis et al., Plaintiff vs. Cedar Grove Composting Inc., Defendants
Case No. 13-2-03987-5
Rosenfeld Deposition, February 2017
Trial March 2017

In The Superior Court of the State of California, County of Alameda
Charles Spain., Plaintiff vs. Thermo Fisher Scientific, et al., Defendants
Case No. RG14711115
Rosenfeld Deposition September 2015

In The Iowa District Court In And For Poweshiek County
Russell D. Winburn, et al., Plaintiffs vs. Doug Hoksbergen, et al., Defendants
Case No. LALA002187
Rosenfeld Deposition August 2015

In The Circuit Court of Ohio County, West Virginia
Robert Andrews, et al. v. Antero, et al.
Civil Action No. 14-C-30000
Rosenfeld Deposition June 2015

In The Iowa District Court for Muscatine County
Laurie Freeman et. al. Plaintiffs vs. Grain Processing Corporation, Defendant
Case No. 4980
Rosenfeld Deposition May 2015

In the Circuit Court of the 17th Judicial Circuit, in and For Broward County, Florida
Walter Hinton, et. al. Plaintiff, vs. City of Fort Lauderdale, Florida, a Municipality, Defendant.
Case No. CACE07030358 (26)
Rosenfeld Deposition December 2014

In the County Court of Dallas County Texas
Lisa Parr et al, Plaintiff, vs. Aruba et al. Defendant.
Case No. cc-11-01650-E
Rosenfeld Deposition: March and September 2013
Rosenfeld Trial April 2014

In the Court of Common Pleas of Tuscarawas County Ohio
John Michael Abicht, et al., Plaintiffs, vs. Republic Services, Inc., et al., Defendants
Case No. 2008 CT 10 0741 (Cons. w/ 2009 CV 10 0987)
Rosenfeld Deposition October 2012

In the United States District Court for the Middle District of Alabama, Northern Division
James K. Benefield, et al., Plaintiffs, vs. International Paper Company, Defendant.
Civil Action No. 2:09-cv-232-WHA-TFM
Rosenfeld Deposition July 2010, June 2011

In the Circuit Court of Jefferson County Alabama
Jacanette Moss Anthony, et al., Plaintiffs, vs. Drummond Company Inc., et al., Defendants
Civil Action No. CV 2008-2076
Rosenfeld Deposition September 2010

In the United States District Court, Western District Lafayette Division
Ackle et al., Plaintiffs, vs. Citgo Petroleum Corporation, et al., Defendants.
Case No. 2:07CV1052
Rosenfeld Deposition July 2009

SWAPE Technical Consultation, Data Analysis and Litigation Support for the Environment

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Matthew F. Hagemann, P.G., C.Hg., QSD, QSP

Geologic and Hydrogeologic Characterization
Industrial Stormwater Compliance
Investigation and Remediation Strategies
Litigation Support and Testifying Expert
CEQA Review

Education:

M.S. Degree, Geology, California State University Los Angeles, Los Angeles, CA, 1984.
B.A. Degree, Geology, Humboldt State University, Arcata, CA, 1982.

Professional Certification:

California Professional Geologist
California Certified Hydrogeologist
Qualified SWPPP Developer and Practitioner

Professional Experience:

Matt has 25 years of experience in environmental policy, assessment and remediation. He spent nine years with the U.S. EPA in the RCRA and Superfund programs and served as EPA's Senior Science Policy Advisor in the Western Regional Office where he identified emerging threats to groundwater from perchlorate and MTBE. While with EPA, Matt also served as a Senior Hydrogeologist in the oversight of the assessment of seven major military facilities undergoing base closure. He led numerous enforcement actions under provisions of the Resource Conservation and Recovery Act (RCRA) while also working with permit holders to improve hydrogeologic characterization and water quality monitoring.

Matt has worked closely with U.S. EPA legal counsel and the technical staff of several states in the application and enforcement of RCRA, Safe Drinking Water Act and Clean Water Act regulations. Matt has trained the technical staff in the States of California, Hawaii, Nevada, Arizona and the Territory of Guam in the conduct of investigations, groundwater fundamentals, and sampling techniques.

Positions Matt has held include:

- Founding Partner, Soil/Water/Air Protection Enterprise (SWAPE) (2003 – present);
- Geology Instructor, Golden West College, 2010 – present;
- Senior Environmental Analyst, Komex H2O Science, Inc (2000 – 2003);

- Executive Director, Orange Coast Watch (2001 – 2004);
- Senior Science Policy Advisor and Hydrogeologist, U.S. Environmental Protection Agency (1989–1998);
- Hydrogeologist, National Park Service, Water Resources Division (1998 – 2000);
- Adjunct Faculty Member, San Francisco State University, Department of Geosciences (1993 – 1998);
- Instructor, College of Marin, Department of Science (1990 – 1995);
- Geologist, U.S. Forest Service (1986 – 1998); and
- Geologist, Dames & Moore (1984 – 1986).

Senior Regulatory and Litigation Support Analyst:

With SWAPE, Matt's responsibilities have included:

- Lead analyst and testifying expert in the review of numerous environmental impact reports under CEQA that identify significant issues with regard to hazardous waste, water resources, water quality, air quality, greenhouse gas emissions and geologic hazards.
- Lead analyst and testifying expert in the review of environmental issues in license applications for large solar power plants before the California Energy Commission.
- Stormwater analysis, sampling and best management practice evaluation at industrial facilities.
- Manager of a project to provide technical assistance to a comunity adjacent to a former Naval shipyard under a grant from the U.S. EPA.
- Technical assistance and litigation support for vapor intrusion concerns.
- Manager of a project to evaluate numerous formerly used military sites in the western U.S.
- Manager of a comprehensive evaluation of potential sources of perchlorate contamination in Southern California drinking water wells.
- Manager and designated expert for litigation support under provisions of Proposition 65 in the review of releases of gasoline to sources drinking water at major refineries and hundreds of gas stations throughout California.
- Expert witness on two cases involving MTBE litigation.
- Expert witness and litigation support on the impact of air toxins and hazards at a school.
- Expert witness in litigation at a former plywood plant.

With Komex H2O Science Inc., Matt's duties included the following:

- Senior author of a report on the extent of perchlorate contamination that was used in testimony by the former U.S. EPA Administrator and General Counsel.
- Senior researcher in the development of a comprehensive, electronically interactive chronology of MTBE use, research, and regulation.
- Senior researcher in the development of a comprehensive, electronically interactive chronology of perchlorate use, research, and regulation.
- Senior researcher in a study that estimates nationwide costs for MTBE remediation and drinking water treatment, results of which were published in newspapers nationwide and in testimony against provisions of an energy bill that would limit liability for oil companies.
- Research to support litigation to restore drinking water supplies that have been contaminated by MTBE in California and New York.
- Expert witness testimony in a case of oil production-related contamination in Mississippi.
- Lead author for a multi-volume remedial investigation report for an operating school in Los Angeles that met strict regulatory requirements and rigorous deadlines.

- Development of strategic approaches for cleanup of contaminated sites in consultation with clients and regulators.

Executive Director:

As Executive Director with Orange Coast Watch, Matt led efforts to restore water quality at Orange County beaches from multiple sources of contamination including urban runoff and the discharge of wastewater. In reporting to a Board of Directors that included representatives from leading Orange County universities and businesses, Matt prepared issue papers in the areas of treatment and disinfection of wastewater and control of the dischrge of grease to sewer systems. Matt actively participated in the development of countywide water quality permits for the control of urban runoff and permits for the discharge of wastewater. Matt worked with other nonprofits to protect and restore water quality, including Surfrider, Natural Resources Defense Council and Orange County CoastKeeper as well as with business institutions including the Orange County Business Council.

Hydrogeology:

As a Senior Hydrogeologist with the U.S. Environmental Protection Agency, Matt led investigations to characterize and cleanup closing military bases, including Mare Island Naval Shipyard, Hunters Point Naval Shipyard, Treasure Island Naval Station, Alameda Naval Station, Moffett Field, Mather Army Airfield, and Sacramento Army Depot. Specific activities were as follows:

- Led efforts to model groundwater flow and contaminant transport, ensured adequacy of monitoring networks, and assessed cleanup alternatives for contaminated sediment, soil, and groundwater.
- Initiated a regional program for evaluation of groundwater sampling practices and laboratory analysis at military bases.
- Identified emerging issues, wrote technical guidance, and assisted in policy and regulation development through work on four national U.S. EPA workgroups, including the Superfund Groundwater Technical Forum and the Federal Facilities Forum.

At the request of the State of Hawaii, Matt developed a methodology to determine the vulnerability of groundwater to contamination on the islands of Maui and Oahu. He used analytical models and a GIS to show zones of vulnerability, and the results were adopted and published by the State of Hawaii and County of Maui.

As a hydrogeologist with the EPA Groundwater Protection Section, Matt worked with provisions of the Safe Drinking Water Act and NEPA to prevent drinking water contamination. Specific activities included the following:

- Received an EPA Bronze Medal for his contribution to the development of national guidance for the protection of drinking water.
- Managed the Sole Source Aquifer Program and protected the drinking water of two communities through designation under the Safe Drinking Water Act. He prepared geologic reports, conducted public hearings, and responded to public comments from residents who were very concerned about the impact of designation.

- Reviewed a number of Environmental Impact Statements for planned major developments, including large hazardous and solid waste disposal facilities, mine reclamation, and water transfer.

Matt served as a hydrogeologist with the RCRA Hazardous Waste program. Duties were as follows:

- Supervised the hydrogeologic investigation of hazardous waste sites to determine compliance with Subtitle C requirements.
- Reviewed and wrote "part B" permits for the disposal of hazardous waste.
- Conducted RCRA Corrective Action investigations of waste sites and led inspections that formed the basis for significant enforcement actions that were developed in close coordination with U.S. EPA legal counsel.
- Wrote contract specifications and supervised contractor's investigations of waste sites.

With the National Park Service, Matt directed service-wide investigations of contaminant sources to prevent degradation of water quality, including the following tasks:

- Applied pertinent laws and regulations including CERCLA, RCRA, NEPA, NRDA, and the Clean Water Act to control military, mining, and landfill contaminants.
- Conducted watershed-scale investigations of contaminants at parks, including Yellowstone and Olympic National Park.
- Identified high-levels of perchlorate in soil adjacent to a national park in New Mexico and advised park superintendent on appropriate response actions under CERCLA.
- Served as a Park Service representative on the Interagency Perchlorate Steering Committee, a national workgroup.
- Developed a program to conduct environmental compliance audits of all National Parks while serving on a national workgroup.
- Co-authored two papers on the potential for water contamination from the operation of personal watercraft and snowmobiles, these papers serving as the basis for the development of nation-wide policy on the use of these vehicles in National Parks.
- Contributed to the Federal Multi-Agency Source Water Agreement under the Clean Water Action Plan.

Policy:

Served senior management as the Senior Science Policy Advisor with the U.S. Environmental Protection Agency, Region 9. Activities included the following:

- Advised the Regional Administrator and senior management on emerging issues such as the potential for the gasoline additive MTBE and ammonium perchlorate to contaminate drinking water supplies.
- Shaped EPA's national response to these threats by serving on workgroups and by contributing to guidance, including the Office of Research and Development publication, Oxygenates in Water: Critical Information and Research Needs.
- Improved the technical training of EPA's scientific and engineering staff.
- Earned an EPA Bronze Medal for representing the region's 300 scientists and engineers in negotiations with the Administrator and senior management to better integrate scientific principles into the policy-making process.
- Established national protocol for the peer review of scientific documents.

Geology:

With the U.S. Forest Service, Matt led investigations to determine hillslope stability of areas proposed for timber harvest in the central Oregon Coast Range. Specific activities were as follows:

- Mapped geology in the field, and used aerial photographic interpretation and mathematical models to determine slope stability.
- Coordinated his research with community members who were concerned with natural resource protection.
- Characterized the geology of an aquifer that serves as the sole source of drinking water for the city of Medford, Oregon.

As a consultant with Dames and Moore, Matt led geologic investigations of two contaminated sites (later listed on the Superfund NPL) in the Portland, Oregon, area and a large hazardous waste site in eastern Oregon. Duties included the following:

- Supervised year-long effort for soil and groundwater sampling.
- Conducted aquifer tests.
- Investigated active faults beneath sites proposed for hazardous waste disposal.

Teaching:

From 1990 to 1998, Matt taught at least one course per semester at the community college and university levels:

- At San Francisco State University, held an adjunct faculty position and taught courses in environmental geology, oceanography (lab and lecture), hydrogeology, and groundwater contamination.
- Served as a committee member for graduate and undergraduate students.
- Taught courses in environmental geology and oceanography at the College of Marin.

Matt currently teaches Physical Geology (lecture and lab) to students at Golden West College in Huntington Beach, California.

Invited Testimony, Reports, Papers and Presentations:

Hagemann, M.F., 2008. Disclosure of Hazardous Waste Issues under CEQA. Presentation to the Public Environmental Law Conference, Eugene, Oregon.

Hagemann, M.F., 2008. Disclosure of Hazardous Waste Issues under CEQA. Invited presentation to U.S. EPA Region 9, San Francisco, California.

Hagemann, M.F., 2005. Use of Electronic Databases in Environmental Regulation, Policy Making and Public Participation. Brownfields 2005, Denver, Coloradao.

Hagemann, M.F., 2004. Perchlorate Contamination of the Colorado River and Impacts to Drinking Water in Nevada and the Southwestern U.S. Presentation to a meeting of the American Groundwater Trust, Las Vegas, NV (served on conference organizing committee).

Hagemann, M.F., 2004. Invited testimony to a California Senate committee hearing on air toxins at schools in Southern California, Los Angeles.

Brown, A., Farrow, J., Gray, A. and **Hagemann, M.**, 2004. An Estimate of Costs to Address MTBE Releases from Underground Storage Tanks and the Resulting Impact to Drinking Water Wells. Presentation to the Ground Water and Environmental Law Conference, National Groundwater Association.

Hagemann, M.F., 2004. Perchlorate Contamination of the Colorado River and Impacts to Drinking Water in Arizona and the Southwestern U.S. Presentation to a meeting of the American Groundwater Trust, Phoenix, AZ (served on conference organizing committee).

Hagemann, M.F., 2003. Perchlorate Contamination of the Colorado River and Impacts to Drinking Water in the Southwestern U.S. Invited presentation to a special committee meeting of the National Academy of Sciences, Irvine, CA.

Hagemann, M.F., 2003. Perchlorate Contamination of the Colorado River. Invited presentation to a tribal EPA meeting, Pechanga, CA.

Hagemann, M.F., 2003. Perchlorate Contamination of the Colorado River. Invited presentation to a meeting of tribal repesentatives, Parker, AZ.

Hagemann, M.F., 2003. Impact of Perchlorate on the Colorado River and Associated Drinking Water Supplies. Invited presentation to the Inter-Tribal Meeting, Torres Martinez Tribe.

Hagemann, M.F., 2003. The Emergence of Perchlorate as a Widespread Drinking Water Contaminant. Invited presentation to the U.S. EPA Region 9.

Hagemann, M.F., 2003. A Deductive Approach to the Assessment of Perchlorate Contamination. Invited presentation to the California Assembly Natural Resources Committee.

Hagemann, M.F., 2003. Perchlorate: A Cold War Legacy in Drinking Water. Presentation to a meeting of the National Groundwater Association.

Hagemann, M.F., 2002. From Tank to Tap: A Chronology of MTBE in Groundwater. Presentation to a meeting of the National Groundwater Association.

Hagemann, M.F., 2002. A Chronology of MTBE in Groundwater and an Estimate of Costs to Address Impacts to Groundwater. Presentation to the annual meeting of the Society of Environmental Journalists.

Hagemann, M.F., 2002. An Estimate of the Cost to Address MTBE Contamination in Groundwater (and Who Will Pay). Presentation to a meeting of the National Groundwater Association.

Hagemann, M.F., 2002. An Estimate of Costs to Address MTBE Releases from Underground Storage Tanks and the Resulting Impact to Drinking Water Wells. Presentation to a meeting of the U.S. EPA and State Underground Storage Tank Program managers.

Hagemann, M.F., 2001. From Tank to Tap: A Chronology of MTBE in Groundwater. Unpublished report.

Hagemann, M.F., 2001. Estimated Cleanup Cost for MTBE in Groundwater Used as Drinking Water. Unpublished report.

Hagemann, M.F., 2001. Estimated Costs to Address MTBE Releases from Leaking Underground Storage Tanks. Unpublished report.

Hagemann, M.F., and VanMouwerik, M., 1999. Potential Water Quality Concerns Related to Snowmobile Usage. Water Resources Division, National Park Service, Technical Report.

VanMouwerik, M. and **Hagemann, M.F.** 1999, Water Quality Concerns Related to Personal Watercraft Usage. Water Resources Division, National Park Service, Technical Report.

Hagemann, M.F., 1999, Is Dilution the Solution to Pollution in National Parks? The George Wright Society Biannual Meeting, Asheville, North Carolina.

Hagemann, M.F., 1997, The Potential for MTBE to Contaminate Groundwater. U.S. EPA Superfund Groundwater Technical Forum Annual Meeting, Las Vegas, Nevada.

Hagemann, M.F., and Gill, M., 1996, Impediments to Intrinsic Remediation, Moffett Field Naval Air Station, Conference on Intrinsic Remediation of Chlorinated Hydrocarbons, Salt Lake City.

Hagemann, M.F., Fukunaga, G.L., 1996, The Vulnerability of Groundwater to Anthropogenic Contaminants on the Island of Maui, Hawaii. Hawaii Water Works Association Annual Meeting, Maui, October 1996.

Hagemann, M. F., Fukanaga, G. L., 1996, Ranking Groundwater Vulnerability in Central Oahu, Hawaii. Proceedings, Geographic Information Systems in Environmental Resources Management, Air and Waste Management Association Publication VIP-61.

Hagemann, M.F., 1994. Groundwater Characterization and Cleanup at Closing Military Bases in California. Proceedings, California Groundwater Resources Association Meeting.

Hagemann, M.F. and Sabol, M.A., 1993. Role of the U.S. EPA in the High Plains States Groundwater Recharge Demonstration Program. Proceedings, Sixth Biennial Symposium on the Artificial Recharge of Groundwater.

Hagemann, M.F., 1993. U.S. EPA Policy on the Technical Impracticability of the Cleanup of DNAPL-contaminated Groundwater. California Groundwater Resources Association Meeting.

Hagemann, M.F., 1992. Dense Nonaqueous Phase Liquid Contamination of Groundwater: An Ounce of Prevention... Proceedings, Association of Engineering Geologists Annual Meeting, v. 35.

Other Experience:

Selected as subject matter expert for the California Professional Geologist licensing examination, 2009-2011.

EXHIBIT C

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Date: August 19, 2024

To: Kylah Staley
Lozeau | Drury LLP
1939 Harrison Street, Suite 150
Oakland, California 94612

From: Francis J. Offermann PE CIH

Subject: Indoor Air Quality: Town & Country El Dorado Project, El Dorado, CA
(IEE File Reference: P-4825)

Pages: 18

Indoor Air Quality Impacts

Indoor air quality (IAQ) directly impacts the comfort and health of building occupants, and the achievement of acceptable IAQ in newly constructed and renovated buildings is a well-recognized design objective. For example, IAQ is addressed by major high-performance building rating systems and building codes (California Building Standards Commission, 2014; USGBC, 2014). Indoor air quality in homes is particularly important because occupants, on average, spend approximately ninety percent of their time indoors with the majority of this time spent at home (EPA, 2011). Some segments of the population that are most susceptible to the effects of poor IAQ, such as the very young and the elderly, occupy their homes almost continuously. Additionally, an increasing number of adults are working from home at least some of the time during the workweek. Indoor air quality also is a serious concern for workers in hotels, offices and other business establishments.

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The concentrations of many air pollutants often are elevated in homes and other buildings relative to outdoor air because many of the materials and products used indoors contain and release a variety of pollutants to air (Hodgson et al., 2002; Offermann and Hodgson,

2011). With respect to indoor air contaminants for which inhalation is the primary route of exposure, the critical design and construction parameters are the provision of adequate ventilation and the reduction of indoor sources of the contaminants.

11-136 cont.

Indoor Formaldehyde Concentrations Impact. In the California New Home Study (CNHS) of 108 new homes in California (Offermann, 2009), 25 air contaminants were measured, and formaldehyde was identified as the indoor air contaminant with the highest cancer risk as determined by the California Proposition 65 Safe Harbor Levels (OEHHA, 2017a), No Significant Risk Levels (NSRL) for carcinogens. The NSRL is the daily intake level calculated to result in one excess case of cancer in an exposed population of 100,000 (i.e., ten in one million cancer risk) and for formaldehyde is 40 µg/day. The NSRL concentration of formaldehyde that represents a daily dose of 40 µg is 2 µg/m^3, assuming a continuous 24-hour exposure, a total daily inhaled air volume of 20 m^3, and 100% absorption by the respiratory system. All of the CNHS homes exceeded this NSRL concentration of 2 µg/m^3. The median indoor formaldehyde concentration was 36 µg/m^3, and ranged from 4.8 to 136 µg/m^3, which corresponds to a median exceedance of the 2 µg/m^3 NSRL concentration of 18 and a range of 2.3 to 68.

11-137

Therefore, the cancer risk of a resident living in a California home with the median indoor formaldehyde concentration of 36 µg/m^3, is 180 per million as a result of formaldehyde alone. The CEQA significance threshold for airborne cancer risk is 10 per million, as established by the El Dorado Air Quality Management District.

Besides being a human carcinogen, formaldehyde is also a potent eye and respiratory irritant. In the CNHS, many homes exceeded the non-cancer reference exposure levels (RELs) prescribed by California Office of Environmental Health Hazard Assessment (OEHHA, 2017b). The percentage of homes exceeding the RELs ranged from 98% for the Chronic REL of 9 µg/m^3 to 28% for the Acute REL of 55 µg/m^3.

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The primary source of formaldehyde indoors is composite wood products manufactured with urea-formaldehyde resins, such as plywood, medium density fiberboard, and

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particleboard. These materials are commonly used in building construction for flooring, cabinetry, baseboards, window shades, interior doors, and window and door trims.

In January 2009, the California Air Resources Board (CARB) adopted an airborne toxics control measure (ATCM) to reduce formaldehyde emissions from composite wood products, including hardwood plywood, particleboard, medium density fiberboard, and also furniture and other finished products made with these wood products (California Air Resources Board 2009). While this formaldehyde ATCM has resulted in reduced emissions from composite wood products sold in California, they do not preclude that homes built with composite wood products meeting the CARB ATCM will have indoor formaldehyde concentrations below cancer and non-cancer exposure guidelines.

11-139 cont.

A follow up study to the California New Home Study (CNHS) was conducted in 2016-2018 (Singer et. al., 2019), and found that the median indoor formaldehyde in new homes built after 2009 with CARB Phase 2 Formaldehyde ATCM materials had lower indoor formaldehyde concentrations, with a median indoor concentrations of 22.4 $\mu g/m^3$ (18.2 ppb) as compared to a median of 36 $\mu g/m^3$ found in the 2007 CNHS. Unlike in the CNHS study where formaldehyde concentrations were measured with pumped DNPH samplers, the formaldehyde concentrations in the HENGH study were measured with passive samplers, which were estimated to under-measure the true indoor formaldehyde concentrations by approximately 7.5%. Applying this correction to the HENGH indoor formaldehyde concentrations results in a median indoor concentration of 24.1 $\mu g/m^3$, which is 33% lower than the 36 $\mu g/m^3$ found in the 2007 CNHS.

Thus, while new homes built after the 2009 CARB formaldehyde ATCM have a 33% lower median indoor formaldehyde concentration and cancer risk, the median lifetime cancer risk is still 120 per million for homes built with CARB compliant composite wood products. This median lifetime cancer risk is more than 12 times the OEHHA 10 in a million cancer risk threshold (OEHHA, 2017a).

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The Town & Country El Dorado Project, El Dorado, CA Project consists of residential and commercial building spaces.

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The residential occupants will potentially have continuous exposure (e.g. 24 hours per day, 52 weeks per year). These exposures are anticipated to result in significant cancer risks resulting from exposures to formaldehyde released by the building materials and furnishing commonly found in residential construction.

11-141 cont.

Because these residences will be constructed with CARB Phase 2 Formaldehyde ATCM materials and ventilated with the minimum code required amount of outdoor air, the indoor residential formaldehyde concentrations are likely similar to those concentrations observed in residences built with CARB Phase 2 Formaldehyde ATCM materials, which is a median of 24.1 $\mu g/m^3$ (Singer et. al., 2020)

Assuming that the residential occupants inhale 20 m^3 of air per day, the average 70-year lifetime formaldehyde daily dose is 482 µg/day for continuous exposure in the residences. This exposure represents a cancer risk of 120 per million, which is more than 12 times the CEQA cancer risk of 10 per million. For occupants that do not have continuous exposure, the cancer risk will be proportionally less but still substantially over the CEQA cancer risk of 10 per million (e.g. for 12/hour/day occupancy, more than 6 times the CEQA cancer risk of 10 per million).

The employees of the commercial building spaces are expected to experience significant indoor exposures (e.g., 40 hours per week, 50 weeks per year). These exposures for employees are anticipated to result in significant cancer risks resulting from exposures to formaldehyde released by the building materials and furnishing commonly found in offices, warehouses, residences and hotels.

11-142

Because these commercial building spaces will be constructed with CARB Phase 2 Formaldehyde ATCM materials, and be ventilated with the minimum code required amount of outdoor air, the indoor formaldehyde concentrations are likely similar to those concentrations observed in residences built with CARB Phase 2 Formaldehyde ATCM materials, which is a median of 24.1 $\mu g/m^3$ (Singer et. al., 2020)

Assuming that the commercial building space employees work 8 hours per day and inhale 20 m^3 of air per day, the formaldehyde dose per work-day is 161 µg/day.

Assuming that these employees work 5 days per week and 50 weeks per year for 45 years (start at age 20 and retire at age 65) the average 70-year lifetime formaldehyde daily dose is 70.9 µg/day.

This is 1.77 times the NSRL (OEHHA, 2017a) of 40 µg/day and represents a cancer risk of 17.7 per million, which exceeds the CEQA cancer risk of 10 per million. This impact should be analyzed in an environmental impact report ("EIR"), and the agency should impose all feasible mitigation measures to reduce this impact. Several feasible mitigation measures are discussed below and these and other measures should be analyzed in an EIR.

11-142 cont.

In addition, we note that the average outdoor air concentration of formaldehyde in California is 3 ppb, or 3.7 µg/m^3, (California Air Resources Board, 2004), and thus represents an average pre-existing background airborne cancer risk of 1.85 per million. Thus, the indoor air formaldehyde exposures describe above exacerbate this pre-existing risk resulting from outdoor air formaldehyde exposures.

11-143

Appendix A, Indoor Formaldehyde Concentrations and the CARB Formaldehyde ATCM, provides analyses that show utilization of CARB Phase 2 Formaldehyde ATCM materials will not ensure acceptable cancer risks with respect to formaldehyde emissions from composite wood products.

Even composite wood products manufactured with CARB certified ultra low emitting formaldehyde (ULEF) resins do not insure that the indoor air will have concentrations of formaldehyde the meet the OEHHA cancer risks that substantially exceed 10 per million. The permissible emission rates for ULEF composite wood products are only 11-15% lower than the CARB Phase 2 emission rates. Only use of composite wood products made with no-added formaldehyde resins (NAF), such as resins made from soy, polyvinyl acetate, or methylene diisocyanate can insure that the OEHHA cancer risk of 10 per million is met.

11-144

The following describes a method that should be used, prior to construction in the environmental review under CEQA, for determining whether the indoor concentrations resulting from the formaldehyde emissions of specific building materials/furnishings selected exceed cancer and non-cancer guidelines. Such a design analyses can be used to identify those materials/furnishings prior to the completion of the City's CEQA review and project approval, that have formaldehyde emission rates that contribute to indoor concentrations that exceed cancer and non-cancer guidelines, so that alternative lower emitting materials/furnishings may be selected and/or higher minimum outdoor air ventilation rates can be increased to achieve acceptable indoor concentrations and incorporated as mitigation measures for this project.

11-145

Pre-Construction Building Material/Furnishing Formaldehyde Emissions Assessment

This formaldehyde emissions assessment should be used in the environmental review under CEQA to assess the indoor formaldehyde concentrations from the proposed loading of building materials/furnishings, the area-specific formaldehyde emission rate data for building materials/furnishings, and the design minimum outdoor air ventilation rates. This assessment allows the applicant (and the City) to determine, before the conclusion of the environmental review process and the building materials/furnishings are specified, purchased, and installed, if the total chemical emissions will exceed cancer and non-cancer guidelines, and if so, allow for changes in the selection of specific material/furnishings and/or the design minimum outdoor air ventilations rates such that cancer and non-cancer guidelines are not exceeded.

11-146

1.) Define Indoor Air Quality Zones. Divide the building into separate indoor air quality zones, (IAQ Zones). IAQ Zones are defined as areas of well-mixed air. Thus, each ventilation system with recirculating air is considered a single zone, and each room or group of rooms where air is not recirculated (e.g. 100% outdoor air) is considered a separate zone. For IAQ Zones with the same construction material/furnishings and design minimum outdoor air ventilation rates. (e.g. hotel rooms, apartments, condominiums, etc.) the formaldehyde emission rates need only be assessed for a single IAQ Zone of that type.

11-147

2.) Calculate Material/Furnishing Loading. For each IAQ Zone, determine the building material and furnishing loadings (e.g., m^2 of material/m^2 floor area, units of furnishings/m^2 floor area) from an inventory of all potential indoor formaldehyde sources, including flooring, ceiling tiles, furnishings, finishes, insulation, sealants, adhesives, and any products constructed with composite wood products containing urea-formaldehyde resins (e.g., plywood, medium density fiberboard, particleboard). 11-148

3.) Calculate the Formaldehyde Emission Rate. For each building material, calculate the formaldehyde emission rate (µg/h) from the product of the area-specific formaldehyde emission rate (µg/m^2-h) and the area (m^2) of material in the IAQ Zone, and from each furnishing (e.g. chairs, desks, etc.) from the unit-specific formaldehyde emission rate (µg/unit-h) and the number of units in the IAQ Zone. 11-149

NOTE: As a result of the high-performance building rating systems and building codes (California Building Standards Commission, 2014; USGBC, 2014), most manufacturers of building materials furnishings sold in the United States conduct chemical emission rate tests using the California Department of Health "Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions for Indoor Sources Using Environmental Chambers," (CDPH, 2017), or other equivalent chemical emission rate testing methods. Most manufacturers of building furnishings sold in the United States conduct chemical emission rate tests using ANSI/BIFMA M7.1 Standard Test Method for Determining VOC Emissions (BIFMA, 2018), or other equivalent chemical emission rate testing methods. 11-150

CDPH, BIFMA, and other chemical emission rate testing programs, typically certify that a material or furnishing does not create indoor chemical concentrations in excess of the maximum concentrations permitted by their certification. For instance, the CDPH emission rate testing requires that the measured emission rates when input into an office, school, or residential model do not exceed one-half of the OEHHA Chronic Exposure Guidelines (OEHHA, 2017b) for the 35 specific VOCs, including formaldehyde, listed in Table 4-1 of the CDPH test method (CDPH, 2017). These certifications themselves do not provide the actual area-specific formaldehyde emission rate (i.e., µg/m^2-h) of the product, but rather provide data that the formaldehyde emission rates do not exceed the maximum rate allowed

for the certification. Thus, for example, the data for a certification of a specific type of flooring may be used to calculate that the area-specific emission rate of formaldehyde is less than 31 µg/m^2-h, but not the actual measured specific emission rate, which may be 3, 18, or 30 µg/m^2-h. These area-specific emission rates determined from the product certifications of CDPH, BIFA, and other certification programs can be used as an initial estimate of the formaldehyde emission rate. 11-150 cont.

If the actual area-specific emission rates of a building material or furnishing is needed (i.e. the initial emission rates estimates from the product certifications are higher than desired), then that data can be acquired by requesting from the manufacturer the complete chemical emission rate test report. For instance if the complete CDPH emission test report is requested for a CDHP certified product, that report will provide the actual area-specific emission rates for not only the 35 specific VOCs, including formaldehyde, listed in Table 4-1 of the CDPH test method (CDPH, 2017), but also all of the cancer and reproductive/developmental chemicals listed in the California Proposition 65 Safe Harbor Levels (OEHHA, 2017a), all of the toxic air contaminants (TACs) in the California Air Resources Board Toxic Air Contamination List (CARB, 2011), and the 10 chemicals with the greatest emission rates.

Alternatively, a sample of the building material or furnishing can be submitted to a chemical emission rate testing laboratory, such as Berkeley Analytical Laboratory (https://berkeleyanalytical.com), to measure the formaldehyde emission rate. 11-151

4.) Calculate the Total Formaldehyde Emission Rate. For each IAQ Zone, calculate the total formaldehyde emission rate (i.e. µg/h) from the individual formaldehyde emission rates from each of the building material/furnishings as determined in Step 3. 11-152

5.) Calculate the Indoor Formaldehyde Concentration. For each IAQ Zone, calculate the indoor formaldehyde concentration (µg/m^3) from Equation 1 by dividing the total formaldehyde emission rates (i.e. µg/h) as determined in Step 4, by the design minimum outdoor air ventilation rate (m^3/h) for the IAQ Zone. 11-153

$$C_{in} = \frac{E_{total}}{Q_{oa}}$$ (Equation 1)

where:

C_{in} = indoor formaldehyde concentration ($\mu g/m^3$)

E_{total} = total formaldehyde emission rate ($\mu g/h$) into the IAQ Zone.

Q_{oa} = design minimum outdoor air ventilation rate to the IAQ Zone (m^3/h)

The above Equation 1 is based upon mass balance theory, and is referenced in Section 3.10.2 "Calculation of Estimated Building Concentrations" of the California Department of Health "Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions for Indoor Sources Using Environmental Chambers", (CDPH, 2017).

11-153 cont.

6.) Calculate the Indoor Exposure Cancer and Non-Cancer Health Risks. For each IAQ Zone, calculate the cancer and non-cancer health risks from the indoor formaldehyde concentrations determined in Step 5 and as described in the OEHHA Air Toxics Hot Spots Program Risk Assessment Guidelines; Guidance Manual for Preparation of Health Risk Assessments (OEHHA, 2015).

11-154

7.) Mitigate Indoor Formaldehyde Exposures of exceeding the CEQA Cancer and/or Non-Cancer Health Risks. In each IAQ Zone, provide mitigation for any formaldehyde exposure risk as determined in Step 6, that exceeds the CEQA cancer risk of 10 per million or the CEQA non-cancer Hazard Quotient of 1.0.

11-155

Provide the source and/or ventilation mitigation required in all IAQ Zones to reduce the health risks of the chemical exposures below the CEQA cancer and non-cancer health risks.

Source mitigation for formaldehyde may include:

1.) reducing the amount materials and/or furnishings that emit formaldehyde
2.) substituting a different material with a lower area-specific emission rate of formaldehyde

11-156

Ventilation mitigation for formaldehyde emitted from building materials and/or furnishings may include:

9 of 18

1.) increasing the design minimum outdoor air ventilation rate to the IAQ Zone.

11-156 cont.

NOTE: Mitigating the formaldehyde emissions through use of less material/furnishings, or use of lower emitting materials/furnishings, is the preferred mitigation option, as mitigation with increased outdoor air ventilation increases initial and operating costs associated with the heating/cooling systems.

Further, we are not asking that the builder "speculate" on what and how much composite materials be used, but rather at the design stage to select composite wood materials based on the formaldehyde emission rates that manufacturers routinely conduct using the California Department of Health "Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions for Indoor Sources Using Environmental Chambers," (CDPH, 2017), and use the procedure described earlier above (i.e. Pre-Construction Building Material/Furnishing Formaldehyde Emissions Assessment) to insure that the materials selected achieve acceptable cancer risks from material off gassing of formaldehyde.

11-157

Outdoor Air Ventilation Impact. Another important finding of the CNHS, was that the outdoor air ventilation rates in the homes were very low. Outdoor air ventilation is a very important factor influencing the indoor concentrations of air contaminants, as it is the primary removal mechanism of all indoor air generated contaminants. Lower outdoor air exchange rates cause indoor generated air contaminants to accumulate to higher indoor air concentrations. Many homeowners rarely open their windows or doors for ventilation as a result of their concerns for security/safety, noise, dust, and odor concerns (Price, 2007). In the CNHS field study, 32% of the homes did not use their windows during the 24-hour Test Day, and 15% of the homes did not use their windows during the entire preceding week. Most of the homes with no window usage were homes in the winter field session. Thus, a substantial percentage of homeowners never open their windows, especially in the winter season. The median 24-hour measurement was 0.26 air changes per hour (ach), with a range of 0.09 ach to 5.3 ach. A total of 67% of the homes had outdoor air exchange rates below the minimum California Building Code (2001) requirement of 0.35 ach. Thus, the relatively tight envelope construction, combined with the fact that many people never open their

11-158

windows for ventilation, results in homes with low outdoor air exchange rates and higher indoor air contaminant concentrations.

11-158 cont.

According to the Draft Environmental Impact Report - Town & Country El Dorado Project, El Dorado, CA (Raney Planning & Management, 2024) the Project is located close to roads with moderate to high traffic including; Highway 50, Bass Lake Road, County Club Drive, etc.

According to Table 4.9-1 of the Draft Environmental Impact Report - Town & Country El Dorado Project, El Dorado, CA (Raney Planning & Management, 2024) the existing long term ambient noise levels ranged from 49-65 dBA CNEL. In order to design the building for this Project such that interior noise levels are acceptable, an analyses of future ambient noise levels, dBA CNEL or Ldn, needs to be conducted. This study will allow for the selection of a building envelope and windows with a sufficient STC such that the indoor noise levels are acceptable. A mechanical supply of outdoor air ventilation to allow for a habitable interior environment with closed windows and doors will also be required. Such a ventilation system would allow windows and doors to be kept closed at the occupant's discretion to control exterior noise within building interiors.

11-159

$PM_{2.5}$ Outdoor Concentrations Impact. An additional impact of the nearby motor vehicle traffic associated with this project, are the outdoor concentrations of $PM_{2.5}$. According to the Draft Environmental Impact Report - Town & Country El Dorado Project, El Dorado, CA (Raney Planning & Management, 2024), the Project is located in the El Dorado Air Quality Management District, which is a State and Federal non-attainment area for $PM_{2.5}$.

11-160

An air quality analyses should be conducted to determine the concentrations of $PM_{2.5}$ in the outdoor and indoor air that people inhale each day. This air quality analyses needs to consider the cumulative impacts of the project related emissions, existing and projected future emissions from local $PM_{2.5}$ sources (e.g. stationary sources, motor vehicles, and airport traffic) upon the outdoor air concentrations at the Project site. If the outdoor concentrations are determined to exceed the California and National annual average $PM_{2.5}$ exceedence concentration of 12 $\mu g/m^3$, or the National 24-hour average exceedence

concentration of 35 µg/m^3, then the buildings need to have a mechanical supply of outdoor air that has air filtration with sufficient removal efficiency, such that the indoor concentrations of outdoor $PM_{2.5}$ particles is less than the California and National $PM_{2.5}$ annual and 24-hour standards. 11-160 cont.

It is my experience that based on the projected high traffic noise levels, the annual average concentration of $PM_{2.5}$ will exceed the California and National $PM_{2.5}$ annual and 24-hour standards and warrant installation of high efficiency air filters (i.e. MERV 13 or higher) in all mechanically supplied outdoor air ventilation systems. 11-161

Indoor Air Quality Impact Mitigation Measures

The following are recommended mitigation measures to minimize the impacts upon indoor quality:

Indoor Formaldehyde Concentrations Mitigation. Use only composite wood materials (e.g. hardwood plywood, medium density fiberboard, particleboard) for all interior finish systems that are made with CARB approved no-added formaldehyde (NAF) resins (CARB, 2009). CARB Phase 2 certified composite wood products, or ultra-low emitting formaldehyde (ULEF) resins, do not insure indoor formaldehyde concentrations that are below the CEQA cancer risk of 10 per million. Only composite wood products manufactured with CARB approved no-added formaldehyde (NAF) resins, such as resins made from soy, polyvinyl acetate, or methylene diisocyanate can insure that the OEHHA cancer risk of 10 per million is met (see Appendix A). 11-162

Alternatively, conduct the previously described Pre-Construction Building Material/Furnishing Chemical Emissions Assessment, to determine that the combination of formaldehyde emissions from building materials and furnishings do not create indoor formaldehyde concentrations that exceed the CEQA cancer and non-cancer health risks. 11-163

It is important to note that we are not asking that the builder "speculate" on what and how much composite materials be used, but rather at the design stage to select composite wood 11-164

materials based on the formaldehyde emission rates that manufacturers routinely conduct using the California Department of Health "Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions for Indoor Sources Using Environmental Chambers", (CDPH, 2017), and use the procedure described above (i.e. Pre-Construction Building Material/Furnishing Formaldehyde Emissions Assessment) to insure that the materials selected achieve acceptable cancer risks from material off gassing of formaldehyde.

11-164 cont.

Outdoor Air Ventilation Mitigation. Provide each habitable room with a continuous mechanical supply of outdoor air that meets or exceeds the California 2016 Building Energy Efficiency Standards (California Energy Commission, 2015) requirements of the greater of 15 cfm/occupant or 0.15 cfm/ft^2 of floor area. Following installation of the system conduct testing and balancing to insure that required amount of outdoor air is entering each habitable room and provide a written report documenting the outdoor airflow rates. Do not use exhaust only mechanical outdoor air systems, use only balanced outdoor air supply and exhaust systems or outdoor air supply only systems. Provide a manual for the occupants or maintenance personnel, that describes the purpose of the mechanical outdoor air system and the operation and maintenance requirements of the system.

11-165

$PM_{2.5}$ Outdoor Air Concentration Mitigation. Install air filtration with sufficient $PM_{2.5}$ removal efficiency (e.g. MERV 13 or higher) to filter the outdoor air entering the mechanical outdoor air supply systems, such that the indoor concentrations of outdoor $PM_{2.5}$ particles are less than the California and National $PM_{2.5}$ annual and 24-hour standards. Install the air filters in the system such that they are accessible for replacement by the occupants or maintenance personnel. Include in the mechanical outdoor air ventilation system manual instructions on how to replace the air filters and the estimated frequency of replacement.

11-166

Ground Contamination Mitigation. A ground contamination survey needs to be conducted at the Project site to determine the extent of the ground contamination and the required mitigation, such as a sub-slab exhaust system, to maintain indoor concentrations of TCE

11-167

and PCE at acceptable indoor concentrations (i.e., 2.5 µg/m^3 for TCE and 0.7 µg/m^3 for PCE for less than 1 in 100,000 cancer risk).

11-167 cont.

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APPENDIX A

INDOOR FORMALDEHYDE CONCENTRATIONS
AND THE
CARB FORMALDEHYDE ATCM

With respect to formaldehyde emissions from composite wood products, the CARB ATCM regulations of formaldehyde emissions from composite wood products, do not assure healthful indoor air quality. The following is the stated purpose of the CARB ATCM regulation - *The purpose of this airborne toxic control measure is to "reduce formaldehyde emissions from composite wood products, and finished goods that contain composite wood products, that are sold, offered for sale, supplied, used, or manufactured for sale in California".* In other words, the CARB ATCM regulations do not "assure healthful indoor air quality", but rather "reduce formaldehyde emissions from composite wood products".

Just how much protection do the CARB ATCM regulations provide building occupants from the formaldehyde emissions generated by composite wood products? Definitely some, but certainly the regulations do not "*assure healthful indoor air quality*" when CARB Phase 2 products are utilized. As shown in the Chan 2019 study of new California homes, the median indoor formaldehyde concentration was of 22.4 $\mu g/m^3$ (18.2 ppb), which corresponds to a cancer risk of 112 per million for occupants with continuous exposure, which is more than 11 times the CEQA cancer risk of 10 per million.

Another way of looking at how much protection the CARB ATCM regulations provide building occupants from the formaldehyde emissions generated by composite wood products is to calculate the maximum number of square feet of composite wood product that can be in a residence without exceeding the CEQA cancer risk of 10 per million for occupants with continuous occupancy.

For this calculation I utilized the floor area (2,272 ft^2), the ceiling height (8.5 ft), and the number of bedrooms (4) as defined in Appendix B (New Single-Family Residence Scenario) of the Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions for Indoor Sources Using Environmental Chambers, Version 1.1, 2017, California Department of Public Health,

Richmond, CA. https://www.cdph.ca.gov/Programs/CCDPHP/DEODC/EHLB/IAQ/Pages/VOC.aspx.

For the outdoor air ventilation rate I used the 2019 Title 24 code required mechanical ventilation rate (ASHRAE 62.2) of 106 cfm (180 m^3/h) calculated for this model residence. For the composite wood formaldehyde emission rates I used the CARB ATCM Phase 2 rates.

The calculated maximum number of square feet of composite wood product that can be in a residence, without exceeding the CEQA cancer risk of 10 per million for occupants with continuous occupancy are as follows for the different types of regulated composite wood products.

Medium Density Fiberboard (MDF) – 15 ft^2 (0.7% of the floor area), or
Particle Board – 30 ft^2 (1.3% of the floor area), or
Hardwood Plywood – 54 ft^2 (2.4% of the floor area), or
Thin MDF – 46 ft^2 (2.0 % of the floor area).

For offices and hotels the calculated maximum amount of composite wood product (% of floor area) that can be used without exceeding the CEQA cancer risk of 10 per million for occupants, assuming 8 hours/day occupancy, and the California Mechanical Code minimum outdoor air ventilation rates are as follows for the different types of regulated composite wood products.

Medium Density Fiberboard (MDF) – 3.6 % (offices) and 4.6% (hotel rooms), or
Particle Board – 7.2 % (offices) and 9.4% (hotel rooms), or
Hardwood Plywood – 13 % (offices) and 17% (hotel rooms), or
Thin MDF – 11 % (offices) and 14 % (hotel rooms)

Clearly the CARB ATCM does not regulate the formaldehyde emissions from composite wood products such that the potentially large areas of these products, such as for flooring, baseboards, interior doors, window and door trims, and kitchen and bathroom cabinetry, could be used without causing indoor formaldehyde concentrations that result in CEQA

cancer risks that substantially exceed 10 per million for occupants with continuous occupancy.

Even composite wood products manufactured with CARB certified ultra low emitting formaldehyde (ULEF) resins do not insure that the indoor air will have concentrations of formaldehyde the meet the OEHHA cancer risks that substantially exceed 10 per million. The permissible emission rates for ULEF composite wood products are only 11-15% lower than the CARB Phase 2 emission rates. Only use of composite wood products made with no-added formaldehyde resins (NAF), such as resins made from soy, polyvinyl acetate, or methylene diisocyanate can insure that the OEHHA cancer risk of 10 per million is met.

If CARB Phase 2 compliant or ULEF composite wood products are utilized in construction, then the resulting indoor formaldehyde concentrations should be determined in the design phase using the specific amounts of each type of composite wood product, the specific formaldehyde emission rates, and the volume and outdoor air ventilation rates of the indoor spaces, and all feasible mitigation measures employed to reduce this impact (e.g. use less formaldehyde containing composite wood products and/or incorporate mechanical systems capable of higher outdoor air ventilation rates). See the procedure described earlier (i.e. Pre-Construction Building Material/Furnishing Formaldehyde Emissions Assessment) to insure that the materials selected achieve acceptable cancer risks from material off gassing of formaldehyde.

Alternatively, and perhaps a simpler approach, is to use only composite wood products (e.g. hardwood plywood, medium density fiberboard, particleboard) for all interior finish systems that are made with CARB approved no-added formaldehyde (NAF) resins.

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Education

M.S. Mechanical Engineering (1985)
Stanford University, Stanford, CA.

Graduate Studies in Air Pollution Monitoring and Control (1980)
University of California, Berkeley, CA.

B.S. in Mechanical Engineering (1976)
Rensselaer Polytechnic Institute, Troy, N.Y.

Professional Experience

President: Indoor Environmental Engineering, San Francisco, CA. December, 1981 - present.

Direct team of environmental scientists, chemists, and mechanical engineers in conducting State and Federal research regarding indoor air quality instrumentation development, building air quality field studies, ventilation and air cleaning performance measurements, and chemical emission rate testing.

Provide design side input to architects regarding selection of building materials and ventilation system components to ensure a high quality indoor environment.

Direct Indoor Air Quality Consulting Team for the winning design proposal for the new State of Washington Ecology Department building.

Develop a full-scale ventilation test facility for measuring the performance of air diffusers; ASHRAE 129, Air Change Effectiveness, and ASHRAE 113, Air Diffusion Performance Index.

Develop a chemical emission rate testing laboratory for measuring the chemical emissions from building materials, furnishings, and equipment.

Principle Investigator of the California New Homes Study (2005-2007). Measured ventilation and indoor air quality in 108 new single family detached homes in northern and southern California.

Develop and teach IAQ professional development workshops to building owners, managers, hygienists, and engineers.

Air Pollution Engineer: Earth Metrics Inc., Burlingame, CA, October, 1985 to March, 1987.

Responsible for development of an air pollution laboratory including installation a forced choice olfactometer, tracer gas electron capture chromatograph, and associated calibration facilities. Field team leader for studies of fugitive odor emissions from sewage treatment plants, entrainment of fume hood exhausts into computer chip fabrication rooms, and indoor air quality investigations.

Staff Scientist: Building Ventilation and Indoor Air Quality Program, Energy and Environment Division, Lawrence Berkeley Laboratory, Berkeley, CA. January, 1980 to August, 1984.

Deputy project leader for the Control Techniques group; responsible for laboratory and field studies aimed at evaluating the performance of indoor air pollutant control strategies (i.e. ventilation, filtration, precipitation, absorption, adsorption, and source control).

Coordinated field and laboratory studies of air-to-air heat exchangers including evaluation of thermal performance, ventilation efficiency, cross-stream contaminant transfer, and the effects of freezing/defrosting.

Developed an *in situ* test protocol for evaluating the performance of air cleaning systems and introduced the concept of effective cleaning rate (ECR) also known as the Clean Air Delivery Rate (CADR).

Coordinated laboratory studies of portable and ducted air cleaning systems and their effect on indoor concentrations of respirable particles and radon progeny.

Co-designed an automated instrument system for measuring residential ventilation rates and radon concentrations.

Designed hardware and software for a multi-channel automated data acquisition system used to evaluate the performance of air-to-air heat transfer equipment.

Assistant Chief Engineer: Alta Bates Hospital, Berkeley, CA, October, 1979 to January, 1980.

Responsible for energy management projects involving installation of power factor correction capacitors on large inductive electrical devices and installation of steam meters on physical plant steam lines. Member of Local 39, International Union of Operating Engineers.

Manufacturing Engineer: American Precision Industries, Buffalo, NY, October, 1977 to October, 1979.

Responsible for reorganizing the manufacturing procedures regarding production of shell and tube heat exchangers. Designed customized automatic assembly, welding, and testing equipment. Designed a large paint spray booth. Prepared economic studies justifying new equipment purchases. Safety Director.

Project Engineer: Arcata Graphics, Buffalo, N.Y. June, 1976 to October, 1977.

Responsible for the design and installation of a bulk ink storage and distribution system and high speed automatic counting and marking equipment. Also coordinated material handling studies which led to the purchase and installation of new equipment.

PROFESSIONAL ORGANIZATION MEMBERSHIP

American Society of Heating, Refrigeration and Air Conditioning Engineers (ASHRAE)

- Chairman of SPC-145P, Standards Project Committee - Test Method for Assessing the Performance of Gas Phase Air Cleaning Equipment (1991-1992)
- Member SPC-129P, Standards Project Committee - Test Method for Ventilation Effectiveness (1986-97)
  - Member of Drafting Committee
- Member Environmental Health Committee (1992-1994, 1997-2001, 2007-2010)
  - Chairman of EHC Research Subcommittee
  - Member of Man Made Mineral Fiber Position Paper Subcommittee
  - Member of the IAQ Position Paper Committee
  - Member of the Legionella Position Paper Committee
  - Member of the Limiting Indoor Mold and Dampness in Buildings Position Paper Committee
- Member SSPC-62, Standing Standards Project Committee - Ventilation for Acceptable Indoor Air Quality (1992 to 2000)
  - Chairman of Source Control and Air Cleaning Subcommittee
- Chairman of TC-4.10, Indoor Environmental Modeling (1988-92)
  - Member of Research Subcommittee
- Chairman of TC-2.3, Gaseous Air Contaminants and Control Equipment (1989-92)
  - Member of Research Subcommittee

American Society for Testing and Materials (ASTM)

- D-22 Sampling and Analysis of Atmospheres
  - Member of Indoor Air Quality Subcommittee
- E-06 Performance of Building Constructions

American Board of Industrial Hygiene (ABIH)

American Conference of Governmental Industrial Hygienists (ACGIH)

- Bioaerosols Committee (2007-2013)

American Industrial Hygiene Association (AIHA)

Cal-OSHA Indoor Air Quality Advisory Committee

International Society of Indoor Air Quality and Climate (ISIAQ)

- Co-Chairman of Task Force on HVAC Hygiene

U. S. Green Building Council (USGBC)
- Member of the IEQ Technical Advisory Group (2007-2009)
- Member of the IAQ Performance Testing Work Group (2010-2012)

Western Construction Consultants (WESTCON)

PROFESSIONAL CREDENTIALS

Licensed Professional Engineer - Mechanical Engineering

Certified Industrial Hygienist - American Board of Industrial Hygienists

SCIENTIFIC MEETINGS AND SYMPOSIA

Biological Contamination, Diagnosis, and Mitigation, Indoor Air'90, Toronto, Canada, August, 1990.

Models for Predicting Air Quality, Indoor Air'90, Toronto, Canada, August, 1990.

Microbes in Building Materials and Systems, Indoor Air '93, Helsinki, Finland, July, 1993.

Microorganisms in Indoor Air Assessment and Evaluation of Health Effects and Probable Causes, Walnut Creek, CA, February 27, 1997.

Controlling Microbial Moisture Problems in Buildings, Walnut Creek, CA, February 27, 1997.

Scientific Advisory Committee, Roomvent 98, 6th International Conference on Air Distribution in Rooms, KTH, Stockholm, Sweden, June 14-17, 1998.

Moisture and Mould, Indoor Air '99, Edinburgh, Scotland, August, 1999.

Ventilation Modeling and Simulation, Indoor Air '99, Edinburgh, Scotland, August, 1999.

Microbial Growth in Materials, Healthy Buildings 2000, Espoo, Finland, August, 2000.

Co-Chair, Bioaerosols X- Exposures in Residences, Indoor Air 2002, Monterey, CA, July 2002.

Healthy Indoor Environments, Anaheim, CA, April 2003.

Chair, Environmental Tobacco Smoke in Multi-Family Homes, Indoor Air 2008, Copenhagen, Denmark, July 2008.

Co-Chair, ISIAQ Task Force Workshop; HVAC Hygiene, Indoor Air 2002, Monterey, CA, July 2002.

Chair, ETS in Multi-Family Housing: Exposures, Controls, and Legalities Forum, Healthy Buildings 2009, Syracuse, CA, September 14, 2009.

Chair, Energy Conservation and IAQ in Residences Workshop, Indoor Air 2011, Austin, TX, June 6, 2011.

Chair, Electronic Cigarettes: Chemical Emissions and Exposures Colloquium, Indoor Air 2016, Ghent, Belgium, July 4, 2016.

SPECIAL CONSULTATION

Provide consultation to the American Home Appliance Manufacturers on the development of a standard for testing portable air cleaners, AHAM Standard AC-1.

Served as an expert witness and special consultant for the U.S. Federal Trade Commission regarding the performance claims found in advertisements of portable air cleaners and residential furnace filters.

Conducted a forensic investigation for a San Mateo, CA pro se defendant, regarding an alleged homicide where the victim was kidnapped in a steamer trunk. Determined the air exchange rate in the steamer trunk and how long the person could survive.

Conducted *in situ* measurement of human exposure to toluene fumes released during nailpolish application for a plaintiffs attorney pursuing a California Proposition 65 product labeling case. June, 1993.

Conducted a forensic *in situ* investigation for the Butte County, CA Sheriff's Department of the emissions of a portable heater used in the bedroom of two twin one year old girls who suffered simultaneous crib death.

Consult with OSHA on the 1995 proposed new regulation regarding indoor air quality and environmental tobacco smoke.

Consult with EPA on the proposed Building Alliance program and with OSHA on the proposed new OSHA IAQ regulation.

Johnson Controls Audit/Certification Expert Review; Milwaukee, WI. May 28-29, 1997.

Winner of the nationally published 1999 Request for Proposals by the State of Washington to conduct a comprehensive indoor air quality investigation of the Washington State Department of Ecology building in Lacey, WA.

Selected by the State of California Attorney General's Office in August, 2000 to conduct a comprehensive indoor air quality investigation of the Tulare County Court House.

Lawrence Berkeley Laboratory IAQ Experts Workshop: "Cause and Prevention of Sick Building Problems in Offices: The Experience of Indoor Environmental Quality Investigators", Berkeley, California, May 26-27, 2004.

Provide consultation and chemical emission rate testing to the State of California Attorney General's Office in 2013-2015 regarding the chemical emissions from e-cigarettes.

PEER-REVIEWED PUBLICATIONS :

F.J.Offermann, C.D.Hollowell, and G.D.Roseme, "Low-Infiltration Housing in Rochester, New York: A Study of Air Exchange Rates and Indoor Air Quality," *Environment International*, *8*, pp. 435-445, 1982.

W.W.Nazaroff, F.J.Offermann, and A.W.Robb, "Automated System for Measuring Air Exchange Rate and Radon Concentration in Houses," *Health Physics*, *45*, pp. 525-537, 1983.

F.J.Offermann, W.J.Fisk, D.T.Grimsrud, B.Pedersen, and K.L.Revzan, "Ventilation Efficiencies of Wall- or Window-Mounted Residential Air-to-Air Heat Exchangers," *ASHRAE Annual Transactions*, *89-2B*, pp 507-527, 1983.

W.J.Fisk, K.M.Archer, R.E Chant, D. Hekmat, F.J.Offermann, and B.Pedersen, "Onset of Freezing in Residential Air-to-Air Heat Exchangers," *ASHRAE Annual Transactions*, *91-1B*, 1984.

W.J.Fisk, K.M.Archer, R.E Chant, D. Hekmat, F.J.Offermann, and B.Pedersen, "Performance of Residential Air-to-Air Heat Exchangers During Operation with Freezing and Periodic Defrosts," *ASHRAE Annual Transactions*, *91-1B*, 1984.

F.J.Offermann, R.G.Sextro, W.J.Fisk, D.T.Grimsrud, W.W.Nazaroff, A.V.Nero, and K.L.Revzan, "Control of Respirable Particles with Portable Air Cleaners," *Atmospheric Environment*, Vol. 19, pp.1761-1771, 1985.

R.G.Sextro, F.J.Offermann, W.W.Nazaroff, A.V.Nero, K.L.Revzan, and J.Yater, "Evaluation of Indoor Control Devices and Their Effects on Radon Progeny Concentrations," *Atmospheric Environment*, *12*, pp. 429-438, 1986.

W.J. Fisk, R.K.Spencer, F.J.Offermann, R.K.Spencer, B.Pedersen, R.Sextro, "Indoor Air Quality Control Techniques," *Noyes Data Corporation*, Park Ridge, New Jersey, (1987).

F.J.Offermann, "Ventilation Effectiveness and ADPI Measurements of a Forced Air Heating System," *ASHRAE Transactions* , Volume 94, Part 1, pp 694-704, 1988.

F.J.Offermann and D. Int-Hout "Ventilation Effectiveness Measurements of Three Supply/Return Air Configurations," *Environment International* , Volume 15, pp 585-592 1989.

F.J. Offermann, S.A. Loiselle, M.C. Quinlan, and M.S. Rogers, "A Study of Diesel Fume Entrainment in an Office Building," *IAQ '89*, The Human Equation: Health and Comfort, pp 179-183, ASHRAE, Atlanta, GA, 1989.

R.G.Sextro and F.J.Offermann, "Reduction of Residential Indoor Particle and Radon Progeny Concentrations with Ducted Air Cleaning Systems," submitted to *Indoor Air*, 1990.

S.A.Loiselle, A.T.Hodgson, and F.J.Offermann, "Development of An Indoor Air Sampler for Polycyclic Aromatic Compounds", *Indoor Air* , Vol 2, pp 191-210, 1991.

F.J.Offermann, S.A.Loiselle, A.T.Hodgson, L.A. Gundel, and J.M. Daisey, "A Pilot Study to Measure Indoor Concentrations and Emission Rates of Polycyclic Aromatic Compounds", *Indoor Air* , Vol 4, pp 497-512, 1991.

F.J. Offermann, S. A. Loiselle, R.G. Sextro, "Performance Comparisons of Six Different Air Cleaners Installed in a Residential Forced Air Ventilation System," *IAQ'91*, Healthy Buildings, pp 342-350, ASHRAE, Atlanta, GA (1991).

F.J. Offermann, J. Daisey, A. Hodgson, L. Gundell, and S. Loiselle, "Indoor Concentrations and Emission Rates of Polycyclic Aromatic Compounds", *Indoor Air*, Vol 4, pp 497-512 (1992).

F.J. Offermann, S. A. Loiselle, R.G. Sextro, "Performance of Air Cleaners Installed in a Residential Forced Air System," *ASHRAE Journal*, pp 51-57, July, 1992.

F.J. Offermann and S. A. Loiselle, "Performance of an Air-Cleaning System in an Archival Book Storage Facility," *IAQ'92*, ASHRAE, Atlanta, GA, 1992.

S.B. Hayward, K.S. Liu, L.E. Alevantis, K. Shah, S. Loiselle, F.J. Offermann, Y.L. Chang, L. Webber, "Effectiveness of Ventilation and Other Controls in Reducing Exposure to ETS in Office Buildings," Indoor Air '93, Helsinki, Finland, July 4-8, 1993.

F.J. Offermann, S. A. Loiselle, G. Ander, H. Lau, "Indoor Contaminant Emission Rates Before and After a Building Bake-out," *IAQ'93*, Operating and Maintaining Buildings for Health, Comfort, and Productivity, pp 157-163, ASHRAE, Atlanta, GA, 1993.

L.E. Alevantis, Hayward, S.B., Shah, S.B., Loiselle, S., and Offermann, F.J. "Tracer Gas Techniques for Determination of the Effectiveness of Pollutant Removal From Local Sources," *IAQ '93*, Operating and Maintaining Buildings for Health, Comfort, and Productivity, pp 119-129, ASHRAE, Atlanta, GA, 1993.

L.E. Alevantis, Liu, L.E., Hayward, S.B., Offermann, F.J., Shah, S.B., Leiserson, K. Tsao, E., and Huang, Y., "Effectiveness of Ventilation in 23 Designated Smoking Areas in California Buildings," *IAQ '94*, Engineering Indoor Environments, pp 167-181, ASHRAE, Atlanta, GA, 1994.

L.E. Alevantis, Offermann, F.J., Loiselle, S., and Macher, J.M., "Pressure and Ventilation Requirements of Hospital Isolation Rooms for Tuberculosis (TB) Patients: Existing Guidelines in the United States and a Method for Measuring Room Leakage", Ventilation and Indoor air quality in Hospitals, M. Maroni, editor, Kluwer Academic publishers, Netherlands, 1996.

F.J. Offermann, M. A. Waz, A.T. Hodgson, and H.M. Ammann, "Chemical Emissions from a Hospital Operating Room Air Filter," *IAQ'96*, Paths to Better Building Environments, pp 95-99, ASHRAE, Atlanta, GA, 1996.

F.J. Offermann, "Professional Malpractice and the Sick Building Investigator," *IAQ'96*, Paths to Better Building Environments, pp 132-136, ASHRAE, Atlanta, GA, 1996.

F.J. Offermann, "Standard Method of Measuring Air Change Effectiveness," *Indoor Air*, Vol 1, pp.206-211, 1999.

F. J. Offermann, A. T. Hodgson, and J. P. Robertson, "Contaminant Emission Rates from PVC Backed Carpet Tiles on Damp Concrete", Healthy Buildings 2000, Espoo, Finland, August 2000.

K.S. Liu, L.E. Alevantis, and F.J. Offermann, "A Survey of Environmental Tobacco Smoke Controls in California Office Buildings", *Indoor Air*, Vol 11, pp. 26-34, 2001.

F.J. Offermann, R. Colfer, P. Radzinski, and J. Robertson, "Exposure to Environmental Tobacco Smoke in an Automobile", Indoor Air 2002, Monterey, California, July 2002.

F. J. Offermann, J.P. Robertson, and T. Webster, "The Impact of Tracer Gas Mixing on Airflow Rate Measurements in Large Commercial Fan Systems", Indoor Air 2002, Monterey, California, July 2002.

M. J. Mendell, T. Brennan, L. Hathon, J.D. Odom, F.J.Offermann, B.H. Turk, K.M. Wallingford, R.C. Diamond, W.J. Fisk, "Causes and prevention of Symptom Complaints

in Office Buildings: Distilling the Experience of Indoor Environmental Investigators", submitted to Indoor Air 2005, Beijing, China, September 4-9, 2005.

F.J. Offermann, "Ventilation and IAQ in New Homes With and Without Mechanical Outdoor Air Systems", Healthy Buildings 2009, Syracuse, CA, September 14, 2009.

F.J. Offermann, "ASHRAE 62.2 Intermittent Residential Ventilation: What's It Good For, Intermittently Poor IAQ", IAQVEC 2010, Syracuse, CA, April 21, 2010.

F.J. Offermann and A.T. Hodgson, "Emission Rates of Volatile Organic Compounds in New Homes", Indoor Air 2011, Austin, TX, June, 2011.

P. Jenkins, R. Johnson, T. Phillips, and F. Offermann, "Chemical Concentrations in New California Homes and Garages", Indoor Air 2011, Austin, TX, June, 2011.

W. J. Mills, B. J. Grigg, F. J. Offermann, B. E. Gustin, and N. E. Spingarm, "Toluene and Methyl Ethyl Ketone Exposure from a Commercially Available Contact Adhesive", Journal of Occupational and Environmental Hygiene, 9:D95-D102 May, 2012.

F. J. Offermann, R. Maddalena, J. C. Offermann, B. C. Singer, and H. Wilhelm, "The Impact of Ventilation on the Emission Rates of Volatile Organic Compounds in Residences", HB 2012, Brisbane, AU, July, 2012.

F. J. Offermann, A. T. Hodgson, P. L. Jenkins, R. D. Johnson, and T. J. Phillips, "Attached Garages as a Source of Volatile Organic Compounds in New Homes", HB 2012, Brisbane, CA, July, 2012.

R. Maddalena, N. Li, F. Offermann, and B. Singer, "Maximizing Information from Residential Measurements of Volatile Organic Compounds", HB 2012, Brisbane, AU, July, 2012.

W. Chen, A. Persily, A. Hodgson, F. Offermann, D. Poppendieck, and K. Kumagai, "Area-Specific Airflow Rates for Evaluating the Impacts of VOC emissions in U.S. Single-Family Homes", Building and Environment, Vol. 71, 204-211, February, 2014.

F. J. Offermann, A. Eagan A. C. Offermann, and L. J. Radonovich, "Infectious Disease Aerosol Exposures With and Without Surge Control Ventilation System Modifications", Indoor Air 2014, Hong Kong, July, 2014.

F. J. Offermann, "Chemical Emissions from E-Cigarettes: Direct and Indirect Passive Exposures", Building and Environment, Vol. 93, Part 1, 101-105, November, 2015.

F. J. Offermann, "Formaldehyde Emission Rates From Lumber Liquidators Laminate Flooring Manufactured in China", Indoor Air 2016, Belgium, Ghent, July, 2016.

F. J. Offermann, "Formaldehyde and Acetaldehyde Emission Rates for E-Cigarettes", Indoor Air 2016, Belgium, Ghent, July, 2016.

OTHER REPORTS:

W.J.Fisk, P.G.Cleary, and F.J.Offermann, "Energy Saving Ventilation with Residential Heat Exchangers," a Lawrence Berkeley Laboratory brochure distributed by the Bonneville Power Administration, 1981.

F.J.Offermann, J.R.Girman, and C.D.Hollowell, "Midway House Tightening Project: A Study of Indoor Air Quality," Lawrence Berkeley Laboratory, Berkeley, CA, Report LBL-12777, 1981.

F.J.Offermann, J.B.Dickinson, W.J.Fisk, D.T.Grimsrud, C.D.Hollowell, D.L.Krinkle, and G.D.Roseme, "Residential Air-Leakage and Indoor Air Quality in Rochester, New York," Lawrence Berkeley Laboratory, Berkeley, CA, Report LBL-13100, 1982.

F.J.Offermann, W.J.Fisk, B.Pedersen, and K.L.Revzan, Residential Air-to-Air Heat Exchangers: A Study of the Ventilation Efficiencies of Wall- or Window- Mounted Units," Lawrence Berkeley Laboratory, Berkeley, CA, Report LBL-14358, 1982.

F.J.Offermann, W.J.Fisk, W.W.Nazaroff, and R.G.Sextro, "A Review of Portable Air Cleaners for Controlling Indoor Concentrations of Particulates and Radon Progeny," An interim report for the Bonneville Power Administration, 1983.

W.J.Fisk, K.M.Archer, R.E.Chant, D.Hekmat, F.J.Offermann, and B.S. Pedersen, "Freezing in Residential Air-to-Air Heat Exchangers: An Experimental Study," Lawrence Berkeley Laboratory, Berkeley, CA, Report LBL-16783, 1983.

R.G.Sextro, W.W.Nazaroff, F.J.Offermann, and K.L.Revzan, "Measurements of Indoor Aerosol Properties and Their Effect on Radon Progeny," Proceedings of the American Association of Aerosol Research Annual Meeting, April, 1983.

F.J.Offermann, R.G.Sextro, W.J.Fisk, W.W. Nazaroff, A.V.Nero, K.L.Revzan, and J.Yater, "Control of Respirable Particles and Radon Progeny with Portable Air Cleaners," Lawrence Berkeley Laboratory, Berkeley, CA, Report LBL-16659, 1984.

W.J.Fisk, R.K.Spencer, D.T.Grimsrud, F.J.Offermann, B.Pedersen, and R.G.Sextro, "Indoor Air Quality Control Techniques: A Critical Review," Lawrence Berkeley Laboratory, Berkeley, CA, Report LBL-16493, 1984.

F.J.Offermann, J.R.Girman, and R.G.Sextro, "Controlling Indoor Air Pollution from Tobacco Smoke: Models and Measurements,", Indoor Air, Proceedings of the 3rd International Conference on Indoor Air Quality and Climate, Vol 1, pp 257-264, Swedish Council for Building Research, Stockholm (1984), Lawrence Berkeley Laboratory, Berkeley, CA, Report LBL-17603, 1984.

R.Otto, J.Girman, F.Offermann, and R.Sextro,"A New Method for the Collection and Comparison of Respirable Particles in the Indoor Environment," Lawrence Berkeley Laboratory, Berkeley, CA, Special Director Fund's Study, 1984.

A.T.Hodgson and F.J.Offermann, "Examination of a Sick Office Building," Lawrence Berkeley Laboratory, Berkeley, CA, an informal field study, 1984.

R.G.Sextro, F.J.Offermann, W.W.Nazaroff, and A.V.Nero, "Effects of Aerosol Concentrations on Radon Progeny," Aerosols, Science, & Technology, and Industrial Applications of Airborne Particles, editors B.Y.H.Liu, D.Y.H.Pui, and H.J.Fissan, p525, Elsevier, 1984.

K.Sexton, S.Hayward, F.Offermann, R.Sextro, and L.Weber, "Characterization of Particulate and Organic Emissions from Major Indoor Sources, Proceedings of the Third International Conference on Indoor Air Quality and Climate, Stockholm, Sweden, August 20-24, 1984.

F.J.Offermann, "Tracer Gas Measurements of Laboratory Fume Entrainment at a Semi-Conductor Manufacturing Plant," an Indoor Environmental Engineering R&D Report, 1986.

F.J.Offermann, "Tracer Gas Measurements of Ventilation Rates in a Large Office Building," an Indoor Environmental Engineering R&D Report, 1986.

F.J.Offermann, "Measurements of Volatile Organic Compounds in a New Large Office Building with Adhesive Fastened Carpeting," an Indoor Environmental Engineering R&D Report, 1986.

F.J.Offermann, "Designing and Operating Healthy Buildings", an Indoor Environmental Engineering R&D Report, 1986.

F.J.Offermann, "Measurements and Mitigation of Indoor Spray-Applicated Pesticides", an Indoor Environmental Engineering R&D Report, 1988.

F.J.Offermann and S. Loiselle, "Measurements and Mitigation of Indoor Mold Contamination in a Residence", an Indoor Environmental Engineering R&D Report, 1989.

F.J.Offermann and S. Loiselle, "Performance Measurements of an Air Cleaning System in a Large Archival Library Storage Facility", an Indoor Environmental Engineering R&D Report, 1989.

F.J. Offermann, J.M. Daisey, L.A. Gundel, and A.T. Hodgson, S. A. Loiselle, "Sampling, Analysis, and Data Validation of Indoor Concentrations of Polycyclic Aromatic Hydrocarbons", Final Report, Contract No. A732-106, California Air Resources Board, March, 1990.

L.A. Gundel, J.M. Daisey, and F.J. Offermann, "A Sampling and Analytical Method for Gas Phase Polycyclic Aromatic Hydrocarbons", Proceedings of the 5th International Conference on Indoor Air Quality and Climate, Indoor Air '90, July 29-August 1990.

A.T. Hodgson, J.M. Daisey, and F.J. Offermann "Development of an Indoor Sampling and Analytical Method for Particulate Polycyclic Aromatic Hydrocarbons", Proceedings of the 5th International Conference on Indoor Air Quality and Climate, Indoor Air '90, July 29-August, 1990.

F.J. Offermann, J.O. Sateri, "Tracer Gas Measurements in Large Multi-Room Buildings", Indoor Air '93, Helsinki, Finland, July 4-8, 1993.

F.J.Offermann, M. T. O'Flaherty, and M. A. Waz "Validation of ASHRAE 129 - Standard Method of Measuring Air Change Effectiveness", Final Report of ASHRAE Research Project 891, December 8, 1997.

S.E. Guffey, F.J. Offermann et. al., "Proceedings of the Workshop on Ventilation Engineering Controls for Environmental Tobacco smoke in the Hospitality Industry", U.S. Department of Labor Occupational Safety and Health Administration and ACGIH, 1998.

F.J. Offermann, R.J. Fiskum, D. Kosar, and D. Mudaari, "A Practical Guide to Ventilation Practices & Systems for Existing Buildings", *Heating/Piping/Air Conditioning Engineering* supplement to April/May 1999 issue.

F.J. Offermann, P. Pasanen, "Workshop 18: Criteria for Cleaning of Air Handling Systems", Healthy Buildings 2000, Espoo, Finland, August 2000.

F.J. Offermann, Session Summaries: Building Investigations, and Design & Construction, Healthy Buildings 2000, Espoo, Finland, August 2000.

F.J. Offermann, "The IAQ Top 10", Engineered Systems, November, 2008.

L. Kincaid and F.J. Offermann, "Unintended Consequences: Formaldehyde Exposures in Green Homes, AIHA Synergist, February, 2010.

F.J. Offermann, " IAQ in Air Tight Homes", ASHRAE Journal, November, 2010.

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PRESENTATIONS :

"Low-Infiltration Housing in Rochester, New York: A Study of Air Exchange Rates and Indoor Air Quality," Presented at the International Symposium on Indoor Air Pollution, Health and Energy Conservation, Amherst, MA, October 13-16,1981.

"Ventilation Efficiencies of Wall- or Window-Mounted Residential Air-to-Air Heat Exchangers," Presented at the American Society of Heating, Refrigeration, and Air Conditioning Engineers Summer Meeting, Washington, DC, June, 1983.

"Controlling Indoor Air Pollution from Tobacco Smoke: Models and Measurements," Presented at the Third International Conference on Indoor Air Quality and Climate, Stockholm, Sweden, August 20-24, 1984.

"Indoor Air Pollution: An Emerging Environmental Problem", Presented to the Association of Environmental Professionals, Bar Area/Coastal Region 1, Berkeley, CA, May 29, 1986.

"Ventilation Measurement Techniques," Presented at the Workshop on Sampling and Analytical Techniques, Georgia Institute of Technology, Atlanta, Georgia, September 26, 1986 and September 25, 1987.

"Buildings That Make You Sick: Indoor Air Pollution", Presented to the Sacramento Association of Professional Energy Managers, Sacramento, CA, November 18, 1986.

"Ventilation Effectiveness and Indoor Air Quality", Presented to the American Society of Heating, Refrigeration, and Air Conditioning Engineers Northern Nevada Chapter, Reno, NV, February 18, 1987, Golden Gate Chapter, San Francisco, CA, October 1, 1987, and the San Jose Chapter, San Jose, CA, June 9, 1987.

"Tracer Gas Techniques for Studying Ventilation," Presented at the Indoor Air Quality Symposium, Georgia Tech Research Institute, Atlanta, GA, September 22-24, 1987.

"Indoor Air Quality Control: What Works, What Doesn't," Presented to the Sacramento Association of Professional Energy Managers, Sacramento, CA, November 17, 1987.

"Ventilation Effectiveness and ADPI Measurements of a Forced Air Heating System," Presented at the American Society of Heating, Refrigeration, and Air Conditioning Engineers Winter Meeting, Dallas, Texas, January 31, 1988.

"Indoor Air Quality, Ventilation, and Energy in Commercial Buildings", Presented at the Building Owners &Managers Association of Sacramento, Sacramento, CA, July 21, 1988.

"Controlling Indoor Air Quality: The New ASHRAE Ventilation Standards and How to Evaluate Indoor Air Quality", Presented at a conference "Improving Energy Efficiency and Indoor Air Quality in Commercial Buildings," National Energy Management Institute, Reno, Nevada, November 4, 1988.

"A Study of Diesel Fume Entrainment Into an Office Building," Presented at Indoor Air '89: The Human Equation: Health and Comfort, American Society of Heating, Refrigeration, and Air Conditioning Engineers, San Diego, CA, April 17-20, 1989.

"Indoor Air Quality in Commercial Office Buildings," Presented at the Renewable Energy Technologies Symposium and International Exposition, Santa Clara, CA June 20, 1989.

"Building Ventilation and Indoor Air Quality", Presented to the San Joaquin Chapter of the American Society of Heating, Refrigeration, and Air Conditioning Engineers, September 7, 1989.

"How to Meet New Ventilation Standards: Indoor Air Quality and Energy Efficiency," a workshop presented by the Association of Energy Engineers; Chicago, IL, March 20-21, 1989; Atlanta, GA, May 25-26, 1989; San Francisco, CA, October 19-20, 1989; Orlando, FL, December 11-12, 1989; Houston, TX, January 29-30, 1990; Washington D.C., February 26-27, 1990; Anchorage, Alaska, March 23, 1990; Las Vegas, NV, April 23-24, 1990; Atlantic City, NJ, September 27-28, 1991; Anaheim, CA, November 19-20, 1991; Orlando, FL, February 28 - March 1, 1991; Washington, DC, March 20-21, 1991; Chicago, IL, May 16-17, 1991; Lake Tahoe, NV, August 15-16, 1991; Atlantic City, NJ, November 18-19, 1991; San Jose, CA, March 23-24, 1992.

"Indoor Air Quality," a seminar presented by the Anchorage, Alaska Chapter of the American Society of Heating, Refrigeration, and Air Conditioning Engineers, March 23, 1990.

"Ventilation and Indoor Air Quality", Presented at the 1990 HVAC & Building Systems Congress, Santa, Clara, CA, March 29, 1990.

"Ventilation Standards for Office Buildings", Presented to the South Bay Property Managers Association, Santa Clara, May 9, 1990.

"Indoor Air Quality", Presented at the Responsive Energy Technologies Symposium & International Exposition (RETSIE), Santa Clara, CA, June 20, 1990.

"Indoor Air Quality - Management and Control Strategies", Presented at the Association of Energy Engineers, San Francisco Bay Area Chapter Meeting, Berkeley, CA, September 25, 1990.

"Diagnosing Indoor Air Contaminant and Odor Problems", Presented at the ASHRAE Annual Meeting, New York City, NY, January 23, 1991.

"Diagnosing and Treating the Sick Building Syndrome", Presented at the Energy 2001, Oklahoma, OK, March 19, 1991.

"Diagnosing and Mitigating Indoor Air Quality Problems" a workshop presented by the Association of Energy Engineers, Chicago, IL, October 29-30, 1990; New York, NY, January 24-25, 1991; Anaheim, April 25-26, 1991; Boston, MA, June 10-11, 1991; Atlanta, GA, October 24-25, 1991; Chicago, IL, October 3-4, 1991; Las Vegas, NV, December 16-17, 1991; Anaheim, CA, January 30-31, 1992; Atlanta, GA, March 5-6, 1992; Washington, DC, May 7-8, 1992; Chicago, IL, August 19-20, 1992; Las Vegas,

NV, October 1-2, 1992; New York City, NY, October 26-27, 1992, Las Vegas, NV, March 18-19, 1993; Lake Tahoe, CA, July 14-15, 1994; Las Vegas, NV, April 3-4, 1995; Lake Tahoe, CA, July 11-12, 1996; Miami, Fl. December 9-10, 1996.

"Sick Building Syndrome and the Ventilation Engineer", Presented to the San Jose Engineers Club, May, 21, 1991.

"Duct Cleaning: Who Needs It ? How Is It Done ? What Are The Costs ?" What Are the Risks ?, Moderator of Forum at the ASHRAE Annual Meeting, Indianapolis ID, June 23, 1991.

"Operating Healthy Buildings", Association of Plant Engineers, Oakland, CA, November 14, 1991.

"Duct Cleaning Perspectives", Moderator of Seminar at the ASHRAE Semi-Annual Meeting, Indianapolis, IN, June 24, 1991.

"Duct Cleaning: The Role of the Environmental Hygienist," ASHRAE Annual Meeting, Anaheim, CA, January 29, 1992.

"Emerging IAQ Issues", Fifth National Conference on Indoor Air Pollution, University of Tulsa, Tulsa, OK, April 13-14, 1992.

"International Symposium on Room Air Convection and Ventilation Effectiveness", Member of Scientific Advisory Board, University of Tokyo, July 22-24, 1992.

"Guidelines for Contaminant Control During Construction and Renovation Projects in Office Buildings," Seminar paper at the ASHRAE Annual Meeting, Chicago, IL, January 26, 1993.

"Outside Air Economizers: IAQ Friend or Foe", Moderator of Forum at the ASHRAE Annual Meeting, Chicago, IL, January 26, 1993.

"Orientation to Indoor Air Quality," an EPA two and one half day comprehensive indoor air quality introductory workshop for public officials and building property managers; Sacramento, September 28-30, 1992; San Francisco, February 23-24, 1993; Los Angeles, March 16-18, 1993; Burbank, June 23, 1993; Hawaii, August 24-25, 1993; Las Vegas, August 30, 1993; San Diego, September 13-14, 1993; Phoenix, October 18-19, 1993; Reno, November 14-16, 1995; Fullerton, December 3-4, 1996; Fresno, May 13-14, 1997.

"Building Air Quality: A Guide for Building Owners and Facility Managers," an EPA one half day indoor air quality introductory workshop for building owners and facility managers. Presented throughout Region IX 1993-1995.

"Techniques for Airborne Disease Control", EPRI Healthcare Initiative Symposium; San Francisco, CA; June 7, 1994.

"Diagnosing and Mitigating Indoor Air Quality Problems", CIHC Conference; San Francisco, September 29, 1994.

"Indoor Air Quality: Tools for Schools," an EPA one day air quality management workshop for school officials, teachers, and maintenance personnel; San Francisco, October 18-20, 1994; Cerritos, December 5, 1996; Fresno, February 26, 1997; San Jose, March 27, 1997; Riverside, March 5, 1997; San Diego, March 6, 1997; Fullerton, November 13, 1997; Santa Rosa, February 1998; Cerritos, February 26, 1998; Santa Rosa, March 2, 1998.

ASHRAE 62 Standard "Ventilation for Acceptable IAQ", ASCR Convention; San Francisco, CA, March 16, 1995.

"New Developments in Indoor Air Quality: Protocol for Diagnosing IAQ Problems", AIHA-NC; March 25, 1995.

"Experimental Validation of ASHRAE SPC 129, Standard Method of Measuring Air Change Effectiveness", 16th AIVC Conference, Palm Springs, USA, September 19-22, 1995.

"Diagnostic Protocols for Building IAQ Assessment", American Society of Safety Engineers Seminar: 'Indoor Air Quality – The Next Door'; San Jose Chapter, September 27, 1995; Oakland Chapter, 9, 1997.

"Diagnostic Protocols for Building IAQ Assessment", Local 39; Oakland, CA, October 3, 1995.

"Diagnostic Protocols for Solving IAQ Problems", CSU-PPD Conference; October 24, 1995.

"Demonstrating Compliance with ASHRAE 62-1989 Ventilation Requirements", AIHA; October 25, 1995.

"IAQ Diagnostics: Hands on Assessment of Building Ventilation and Pollutant Transport", EPA Region IX; Phoenix, AZ, March 12, 1996; San Francisco, CA, April 9, 1996; Burbank, CA, April 12, 1996.

"Experimental Validation of ASHRAE 129P: Standard Method of Measuring Air Change Effectiveness", Room Vent '96 / International Symposium on Room Air Convection and Ventilation Effectiveness"; Yokohama, Japan, July 16-19, 1996.

"IAQ Diagnostic Methodologies and RFP Development", CCEHSA 1996 Annual Conference, Humboldt State University, Arcata, CA, August 2, 1996.

"The Practical Side of Indoor Air Quality Assessments", California Industrial Hygiene Conference '96, San Diego, CA, September 2, 1996.

"ASHRAE Standard 62: Improving Indoor Environments", Pacific Gas and Electric Energy Center, San Francisco, CA, October 29, 1996.

"Operating and Maintaining Healthy Buildings", April 3-4, 1996, San Jose, CA; July 30, 1997, Monterey, CA.

"IAQ Primer", Local 39, April 16, 1997; Amdahl Corporation, June 9, 1997; State Compensation Insurance Fund's Safety & Health Services Department, November 21, 1996.

"Tracer Gas Techniques for Measuring Building Air Flow Rates", ASHRAE, Philadelphia, PA, January 26, 1997.

"How to Diagnose and Mitigate Indoor Air Quality Problems"; Women in Waste; March 19, 1997.

"Environmental Engineer: What Is It?", Monte Vista High School Career Day; April 10, 1997.

"Indoor Environment Controls: What's Hot and What's Not", Shaklee Corporation; San Francisco, CA, July 15, 1997.

"Measurement of Ventilation System Performance Parameters in the US EPA BASE Study", Healthy Buildings/IAQ'97, Washington, DC, September 29, 1997.

"Operations and Maintenance for Healthy and Comfortable Indoor Environments", PASMA; October 7, 1997.

"Designing for Healthy and Comfortable Indoor Environments", Construction Specification Institute, Santa Rosa, CA, November 6, 1997.

"Ventilation System Design for Good IAQ", University of Tulsa 10th Annual Conference, San Francisco, CA, February 25, 1998.

"The Building Shell", Tools For Building Green Conference and Trade Show, Alameda County Waste Management Authority and Recycling Board, Oakland, CA, February 28, 1998.

"Identifying Fungal Contamination Problems In Buildings", The City of Oakland Municipal Employees, Oakland, CA, March 26, 1998.

"Managing Indoor Air Quality in Schools: Staying Out of Trouble", CASBO, Sacramento, CA, April 20, 1998.

"Indoor Air Quality", CSOOC Spring Conference, Visalia, CA, April 30, 1998.

"Particulate and Gas Phase Air Filtration", ACGIH/OSHA, Ft. Mitchell, KY, June 1998.

"Building Air Quality Facts and Myths", The City of Oakland / Alameda County Safety Seminar, Oakland, CA, June 12, 1998.

"Building Engineering and Moisture", Building Contamination Workshop, University of California Berkeley, Continuing Education in Engineering and Environmental Management, San Francisco, CA, October 21-22, 1999.

"Identifying and Mitigating Mold Contamination in Buildings", Western Construction Consultants Association, Oakland, CA, March 15, 2000; AIG Construction Defect Seminar, Walnut Creek, CA, May 2, 2001; City of Oakland Public Works Agency, Oakland, CA, July 24, 2001; Executive Council of Homeowners, Alamo, CA, August 3, 2001.

"Using the EPA BASE Study for IAQ Investigation / Communication", Joint Professional Symposium 2000, American Industrial Hygiene Association, Orange County & Southern California Sections, Long Beach, October 19, 2000.

"Ventilation," Indoor Air Quality: Risk Reduction in the 21st Century Symposium, sponsored by the California Environmental Protection Agency/Air Resources Board, Sacramento, CA, May 3-4, 2000.

"Workshop 18: Criteria for Cleaning of Air Handling Systems", Healthy Buildings 2000, Espoo, Finland, August 2000.

"Closing Session Summary: 'Building Investigations' and 'Building Design & Construction', Healthy Buildings 2000, Espoo, Finland, August 2000.

"Managing Building Air Quality and Energy Efficiency, Meeting the Standard of Care", BOMA, MidAtlantic Environmental Hygiene Resource Center, Seattle, WA, May 23rd, 2000; San Antonio, TX, September 26-27, 2000.

"Diagnostics & Mitigation in Sick Buildings: When Good Buildings Go Bad," University of California Berkeley, September 18, 2001.

"Mold Contamination: Recognition and What To Do and Not Do", Redwood Empire Remodelers Association, Santa Rosa, CA, April 16, 2002.

"Investigative Tools of the IAQ Trade", Healthy Indoor Environments 2002; Austin, TX; April 22, 2002.

"Finding Hidden Mold: Case Studies in IAQ Investigations", AIHA Northern California Professionals Symposium; Oakland, CA, May 8, 2002.

"Assessing and Mitigating Fungal Contamination in Buildings", Cal/OSHA Training; Oakland, CA, February 14, 2003 and West Covina, CA, February 20-21, 2003.

"Use of External Containments During Fungal Mitigation", Invited Speaker, ACGIH Mold Remediation Symposium, Orlando, FL, November 3-5, 2003.

Building Operator Certification (BOC), 106-IAQ Training Workshops, Northwest Energy Efficiency Council; Stockton, CA, December 3, 2003; San Francisco, CA, December 9, 2003; Irvine, CA, January 13, 2004; San Diego, January 14, 2004; Irwindale, CA, January 27, 2004; Downey, CA, January 28, 2004; Santa Monica, CA, March 16, 2004; Ontario, CA, March 17, 2004; Ontario, CA, November 9, 2004, San Diego, CA, November 10, 2004; San Francisco, CA, November 17, 2004; San Jose, CA, November 18, 2004; Sacramento, CA, March 15, 2005.

"Mold Remediation: The National QUEST for Uniformity Symposium", Invited Speaker, Orlando, Florida, November 3-5, 2003.

"Mold and Moisture Control", Indoor Air Quality workshop for The Collaborative for High Performance Schools (CHPS), San Francisco, December 11, 2003.

"Advanced Perspectives In Mold Prevention & Control Symposium", Invited Speaker, Las Vegas, Nevada, November 7-9, 2004.

"Building Sciences: Understanding and Controlling Moisture in Buildings", American Industrial Hygiene Association, San Francisco, CA, February 14-16, 2005.

"Indoor Air Quality Diagnostics and Healthy Building Design", University of California Berkeley, Berkeley, CA, March 2, 2005.

"Improving IAQ – Reduced Tenant Complaints", Northern California Facilities Exposition, Santa Clara, CA, September 27, 2007.

"Defining Safe Building Air", Criteria for Safe Air and Water in Buildings, ASHRAE Winter Meeting, Chicago, IL, January 27, 2008.

"Update on USGBC LEED and Air Filtration", Invited Speaker, NAFA 2008 Convention, San Francisco, CA, September 19, 2008.

"Ventilation and Indoor air Quality in New California Homes", National Center of Healthy Housing, October 20, 2008.

"Indoor Air Quality in New Homes", California Energy and Air Quality Conference, October 29, 2008.

"Mechanical Outdoor air Ventilation Systems and IAQ in New Homes", ACI Home Performance Conference, Kansas City, MO, April 29, 2009.

"Ventilation and IAQ in New Homes with and without Mechanical Outdoor Air Systems", Healthy Buildings 2009, Syracuse, CA, September 14, 2009.

"Ten Ways to Improve Your Air Quality", Northern California Facilities Exposition, Santa Clara, CA, September 30, 2009.

"New Developments in Ventilation and Indoor Air Quality in Residential Buildings", Westcon meeting, Alameda, CA, March 17, 2010.

"Intermittent Residential Mechanical Outdoor Air Ventilation Systems and IAQ", ASHRAE SSPC 62.2 Meeting, Austin, TX, April 19, 2010.

"Measured IAQ in Homes", ACI Home Performance Conference, Austin, TX, April 21, 2010.

"Respiration: IEQ and Ventilation", AIHce 2010, How IH Can LEED in Green buildings, Denver, CO, May 23, 2010.

"IAQ Considerations for Net Zero Energy Buildings (NZEB)", Northern California Facilities Exposition, Santa Clara, CA, September 22, 2010.

"Energy Conservation and Health in Buildings", Berkeley High SchoolGreen Career Week, Berkeley, CA, April 12, 2011.

"What Pollutants are Really There ?", ACI Home Performance Conference, San Francisco, CA, March 30, 2011.

"Energy Conservation and Health in Residences Workshop", Indoor Air 2011, Austin, TX, June 6, 2011.

"Assessing IAQ and Improving Health in Residences", US EPA Weatherization Plus Health, September 7, 2011.

"Ventilation: What a Long Strange Trip It's Been", Westcon, May 21, 2014.

"Chemical Emissions from E-Cigarettes: Direct and Indirect Passive Exposures", Indoor Air 2014, Hong Kong, July, 2014.

"Infectious Disease Aerosol Exposures With and Without Surge Control Ventilation System Modifications", Indoor Air 2014, Hong Kong, July, 2014.

"Chemical Emissions from E-Cigarettes", IMF Health and Welfare Fair, Washington, DC, February 18, 2015.

"Chemical Emissions and Health Hazards Associated with E-Cigarettes", Roswell Park Cancer Institute, Buffalo, NY, August 15, 2014.

"Formaldehyde Indoor Concentrations, Material Emission Rates, and the CARB ATCM", Harris Martin's Lumber Liquidators Flooring Litigation Conference, WQ Minneapolis Hotel, May 27, 2015.

"Chemical Emissions from E-Cigarettes: Direct and Indirect Passive Exposure", FDA Public Workshop: Electronic Cigarettes and the Public Health, Hyattsville, MD June 2, 2015.

"Creating Healthy Homes, Schools, and Workplaces", Chautauqua Institution, Athenaeum Hotel, August 24, 2015.

"Diagnosing IAQ Problems and Designing Healthy Buildings", University of California Berkeley, Berkeley, CA, October 6, 2015.

"Diagnosing Ventilation and IAQ Problems in Commercial Buildings", BEST Center Annual Institute, Lawrence Berkeley National Laboratory, January 6, 2016.

"A Review of Studies of Ventilation and Indoor Air Quality in New Homes and Impacts of Environmental Factors on Formaldehyde Emission Rates From Composite Wood Products", AIHce2016, May, 21-26, 2016.

"Admissibility of Scientific Testimony", Science in the Court, Proposition 65 Clearinghouse Annual Conference, Oakland, CA, September 15, 2016.

"Indoor Air Quality and Ventilation", ASHRAE Redwood Empire, Napa, CA, December 1, 2016.

LETTER 11: LOZEAU AND DRURY

Response to Comment 11-1
The introductory comment does not address the adequacy of the Draft EIR.

Response to Comment 11-2
The comment provides an overview of select CEQA requirements and does not address the adequacy of the Draft EIR.

Response to Comment 11-3
The comment provides an overview of select CEQA requirements and does not address the adequacy of the Draft EIR.

Response to Comment 11-4
The comment provides an overview of select CEQA requirements and does not address the adequacy of the Draft EIR.

Response to Comment 11-5
As described in the BRA (see Appendix E to the Draft EIR), senior biologists from Madrone conducted multiple field surveys of the site to assess existing biological resources. The BRA also included special-status plant protocol surveys, an aquatic resources delineation, and an oak resources inventory in addition to the three field surveys. Specific responses to the claims summarized in this comment are provided in Response to Comment 11-6 below.

Response to Comment 11-6
The comment fails to present any evidence that the proposed project would have direct impacts to the species purportedly observed on site. Furthermore, CEQA does not require an EIR to provide an exhaustive list of every species that may be found on or near a project site, as an EIR is required to analyze environmental impacts only to the extent that it is reasonably feasible to do so.[4]

The Draft EIR evaluates biological resources known to occur or that have the potential to occur within the project site and surrounding environs based on the habitats observed on-site by Madrone. As discussed in Chapter 4.3, Biological Resources, of the Draft EIR, existing plant communities, wetlands, wildlife habitats, and potential for special-status species and communities are discussed for the Project region. The Draft EIR used the in-depth analysis provided in the BRA to analyze the proposed project's potential impacts on special-status species that were determined to have potential to occur on-site. The term "special-status species" is defined in the Draft EIR on page 4.3-1, and specifically includes only species that have been determined to be sufficiently rare to require analysis under CEQA. Species determined by USFWS to be "Birds of Conservation Concern" do not meet that threshold and are therefore not included in the Draft EIR. As noted on page 4.3-1 of the Draft EIR, the list of special-status species that were analyzed was derived from a combination of the CNDDB, maintained by the California Department of Fish and Wildlife (CDFW), the United States Fish and Wildlife Service (USFWS) Information for Planning and Conservation (IPaC) query, the California Native Plant Society (CNPS) Rare and Endangered

[4] See CEQA Guidelines, Section 15151; *Association of Irritated Residents v. County of Madera* (2003) 107 Cal.App.4th 1383, 1397 (biological report which discusses the field survey and the conclusions reached from collected data constitutes substantial evidence supporting the determination reached in an EIR).

Plant Inventory query of the "Clarksville, California" USGS topo quadrangle, and the eight surrounding quadrangles, WBWG Species Matrix, and biologist field observations, as well as any special-status species that Madrone biologists know occur in the region but were not otherwise identified on the list. A total of five species were added to the list by the biologists based on their knowledge of species in the region, including Crotch's bumblebee, vernal pool tadpole shrimp, yellow-breasted chat, loggerhead shrike, and Northern California ringtail.

The comment notes that six bird species were observed that were not analyzed for their potential to occur. Of the six bird species, five are not special-status species (i.e., not of sufficient rarity to require analysis under CEQA). The sixth, yellow-headed blackbird, could visit the site on occasion to forage during winter, but the project site is outside of the species' breeding range. Nevertheless, yellow-headed blackbird has been added to the list of species analyzed within the Revised BRA (see Appendix A of the Final EIR).

The 28 special-status wildlife species known to occur on-site or within five miles of the study area, 13 of which have been recorded within five miles of the study area (see Figure 4.3-4 of the Draft EIR), were analyzed for their potential to occur within the project site. Based on field observations and literature review, 18 of the 28 special-status wildlife species were determined to have the potential to occur within the study area. One species, monarch butterfly, was determined to be present. Species that are considered to have high potential to occur within the study area include the following: Crotch's bumble bee; northwestern pond turtle; golden eagle; white-tailed kite; loggerhead shrike; Northern California ringtail; pallid bat; Townsend's big-eared bat; silver-haired bat; and hoary bat.

Species that are considered to have moderate potential to occur within the study area include yellow-breasted chat and western red bat. Species that are considered to have low potential to occur within the study area include vernal pool fairy shrimp, foothill yellow-legged frog (FYLF) South Sierra Distinct Population Segment (DPS), tricolored blackbird, burrowing owl, and bald eagle. The study area was determined not to contain habitat for the remaining 10 species identified by the CNDDB, including valley elderberry longhorn beetle (VELB), California tiger salamander, California red-legged frog, western spadefoot, coast horned lizard, Swainson's hawk, western yellow-billed cuckoo, California black rail, and California spotted owl. The Draft EIR is supported by substantial evidence found in the BRA, and is not required to inventory all biological species within the project site boundaries where the Draft EIR provides sufficient explanation of the proposed project's effects.[5]

Response to Comment 11-7

Please see Response to Comments 11-55, 11-56, and 11-57.

The Draft EIR's reliance on the CNDDB database, among other resources, is supported by substantial evidence. CNDDB is a reliable resource often used to determine if special-status species may occur in a study area that is verified by public agencies and maintained by CDFW. As discussed in Response to Comment 11-6 above, the assessment of the species that are likely to occur at the project area is based on review of literature, habitat analysis, and field surveys conducted on various portions of the project area on April 13, 2022, September 27, 2023, and October 6, 2023.

[5] *Save Our Capitol! v. Department of General Services* (2023) 87 Cal.App.5th 655, 686-687 (EIR not required to inventory or identify every species a project may affect)

Response to Comment 11-8

CEQA requires the description of the environmental setting be no longer than is necessary to provide an understanding of the significant effects of the proposed project in order to give the most accurate and understandable picture of the project's likely near- and long-term impacts (CEQA Guidelines, Section 15125[a]). The commenter fails to allege any near- or long-term impacts the proposed project may have on the special-status species alleged to have been on-site. Furthermore, as discussed in detail in Response to Comments 11-6 and 11-7 above, the assessment of the species that are likely to occur at the project area based on review of literature, field surveys, and habitat analysis is supported by substantial evidence. The Draft EIR extensively describes the physical setting of the project area and the habitat extant therein on pages 4.3-2 to 4.3-8 to provide the public an understanding of the proposed project and any potential impacts to biological resources.

Field surveys were conducted on the project site, the existing conditions of the project area are well-documented, and the methods for research and field collection conducted for the BRA were consistent with standard methods. Accordingly, the analysis represents substantial evidence supporting the description of the existing environmental setting on the site, and the adequacy of the BRA that was conducted by expert biologists.

Response to Comment 11-9

As described in detail in Response to Comments 11-6, 11-7, and 11-8, the environmental setting is discussed in detail in the Draft EIR (e.g., on pages 4.3-1 through 4.3-27) and is supported by substantial evidence in the BRA.

Response to Comment 11-10

Please see Responses to Comments 11-60 and 11-61.

Response to Comment 11-11

Please see Responses to Comments 11-64, 11-66, and 11-67.

Response to Comment 11-12

Please see Responses to Comments 11-64 and 11-67.

Response to Comment 11-13

Please see Responses to Comments 11-68, 11-70 and 11-72.

Response to Comment 11-14

Please see Responses to Comments 11-78, 11-79, and 11-80.

Response to Comment 11-15

The commenter provides specifics regarding the general claims contained within the comment in subsequent comments. As such, responses to the substance of the comments are provided in responses below.

Response to Comment 11-16

Please see Responses to Comments 11-82 and 11-83.

Response to Comment 11-17
Please see Responses to Comments 11-64, 11-66, and 11-67.

In addition, consistent with CEQA Guidelines Section 15126.4(a)(3), mitigation is not required for impacts that are less than significant.

Response to Comment 11-18
Please see Response to Comment 11-99.

Response to Comment 11-19
The comment misstates the reasons for the Draft EIR's finding that the proposed project would have significant cumulative effects. The determination of significance was based on the proposed project's incremental contribution to cumulative impacts on special-status species, riparian habitat, State- and federally protected wetlands, and oak woodlands, and does not refer to potential interference with any wildlife corridor or for inhibiting wildlife movement. Please see Responses to Comments 11-64, 11-66, and 11-67.

Response to Comment 11-20
The comment summarizes arguments raised in the letter from SWAPE. The commenter provides specifics regarding these claims in subsequent comments; responses to the substance of the comments are given in response to the comments. Specific responses to SWAPE comments start with 11-108.

Response to Comment 11-21
The comment alleges that the Project's construction and architectural coating emissions may be underestimated due to the default parameters in the California Emissions Estimator Model (CalEEMod). The commenter provides specifics regarding these claims in subsequent comments; responses to the substance of the comments are given below.

Response to Comment 11-22
Please see Responses to Comments 11-109, 11-110, 11-111, 11-113, 11-116, and 11-117 below.

Response to Comment 11-23
Please see Response to Comment 11-118.

Response to Comment 11-24
Please see Responses to Comments 11-115 through 11-117.

Response to Comment 11-25
See Response to Comments 11-110 through 11-117.

Response to Comment 11-26
See Response to Comments 11-119 and 11-120.

Response to Comment 11-27
See Response to Comments 11-119 and 11-120.

Response to Comment 11-28
See Response to Comments 11-127 through 11-131.

Response to Comment 11-29
The comment introduces its indoor air quality expert and alleges that the proposed project's emission of formaldehyde will result in significant cancer risks to future residents and employees. The commenter provides specifics regarding these claims in subsequent comments; responses to the substance of the comments are given below (e.g., 11-141 through 11-144).

Response to Comment 11-30
Please see Responses 11-141, 11-142, and 11-144.

Response to Comment 11-31
Please see Responses 11-142 and 11-144.

Response to Comment 11-32
Please see Responses 11-141, 11-142, and 11-144.

Response to Comment 11-33
As demonstrated primarily in Responses to Comments 11-141 through 11-144, the proposed project would not exacerbate an existing environmental condition related to formaldehyde emissions. Therefore, there is no requirement to address formaldehyde emissions in the Draft EIR.

Response to Comment 11-34
Please see Responses 11-141, 11-142, and 11-144.

Response to Comment 11-35
Please see Responses 11-141, 11-142, and 11-144.

Response to Comment 11-36
Please see Responses 11-141, 11-142, and 11-144.

Response to Comment 11-37
The comment does not address the adequacy of the Draft EIR. The comment has been noted for the record and will be forwarded to the decision-makers for their consideration.

Response to Comment 11-38
The comment does not address the adequacy of the Draft EIR. The comment has been noted for the record and will be forwarded to the decision-makers for their consideration. In addition, with regard to describing the proposed project as a "piecemeal" project, please see Response to Comment 4-2.

Response to Comment 11-39
The comment does not address the adequacy of the Draft EIR. The comment has been noted for the record and will be forwarded to the decision-makers for their consideration.

Response to Comment 11-40

The comment does not address the adequacy of the Draft EIR. The comment has been noted for the record and will be forwarded to the decision-makers for their consideration.

Response to Comment 11-41

The comment does not address the adequacy of the Draft EIR. The comment has been noted for the record and will be forwarded to the decision-makers for their consideration.

Response to Comment 11-42

As discussed in more detail in Response to Comment 11-45, the Species Model that the commenter relies on to estimate the number of species on-site is inherently speculative, inaccurate, and lacks foundation. Accordingly, any use of this model to measure purported species "not detected" at the project site is not based on substantial evidence. CEQA Guidelines Section 15384(a) states the following: "Argument, speculation, unsubstantiated opinion or narrative, evidence which is clearly erroneous or inaccurate, or evidence of social or economic impacts which do not contribute to or are not caused by physical impacts on the environment does not constitute substantial evidence." In addition, CEQA Guidelines Section 15204 establishes that "an effect shall not be considered significant in the absence of substantial evidence" (see *Pocket Protectors v. City of Sacramento* (2004) 124 Cal.App.4th 903, 928; "mere argument, speculation, and unsubstantiated opinion, even expert opinion, is not substantial evidence.").

Response to Comment 11-43

As noted in Responses to Comments 11-42 and 11-45, the commenter's use of the Species Model does not represent substantial evidence, as the model is inherently speculative and not based on substantial evidence.

Response to Comment 11-44

As noted in Responses to Comments 11-42 and 11-45, the commenter's use of the Species Model to predict wildlife on the project site is inherently speculative and does not represent substantial evidence. Please also see Response to Comment 11-6 regarding the scope of the Draft EIR's identification of potential species on the project site, including reliance on the CNDBB database.

Species are reported to the CNDDB database year-round and are not restricted to a single site visit. Furthermore, senior expert biologists from Madrone conducted field surveys on various portions of the project area during different seasons (on April 13, 2022, September 27, 2023, and October 6, 2023) to assess the suitability of habitats therein to support special-status species. Accordingly, the Draft EIR's assessment of the special-status species that may occur on the project site is supported by substantial evidence.

Response to Comment 11-45

As stated above in Response to Comment 11-42, the commenter's use of the Species Model to predict wildlife on the project site is inherently speculative and not supported by substantial evidence.

The commenter notes that the Species Model was developed during previous research while surveying the annual grasslands of the Altamont Pass Wind Resources Area in Alameda County. However, the comment does not explain how a survey model for predicting wildlife in Alameda County is at all predictive of wildlife located in El Dorado County, where the proposed project is

located. Accordingly, in addition to the Species Model being inherently speculative, use of the Species Model to predict the amount of wildlife at the project site lacks the site-specific details necessary to rise to the level of substantial evidence under CEQA.

Response to Comment 11-46

Please see Responses to Comments 11-44 and 11-7.

The Draft EIR is not required to inventory all biological species within the project site boundaries where the Draft EIR provides sufficient explanation of the proposed project's effects.

Response to Comment 11-47

The commenter mischaracterizes what type of analysis is required in an EIR's discussion of existing environmental setting. According to CEQA, the description of the environmental setting shall be no longer than is necessary to provide an understanding of the significant effects of the proposed project in order to give the most accurate and understandable picture of the project's likely near- and long-term impacts (see CEQA Guidelines Section 15125[a]). The commenter fails to allege any near- or long-term impacts the proposed project may have on the special-status species allegedly located on the project site.

Furthermore, as discussed in detail in Responses to Comments 11-6, 11-7, 11-44, and 11-46, the assessment of the species likely to occur at the project area is supported by substantial evidence, including a review of literature, field surveys, and habitat analysis. The Draft EIR extensively describes the physical setting of the project area and the habitat extant therein (see page 4.3-2 to 4.3-8 of the Draft EIR) to provide the public an understanding of the proposed project and the potential impacts of the project on the biological resources found on-site. As noted in Responses to Comments 11-6 and 11-7, the analysis is based on review of relevant literature and databases, as well as multiple field surveys. The methods of evaluating the proposed project included a review of the project plans, literature review of biological resources occurring on the site and surrounding vicinity, multiple field visits, and an investigation of the various habitat conditions found on-site.

Field surveys were conducted on the project site, the existing conditions of the project area are well-documented, and the methods for research and field collection conducted for the BRA were consistent with accepted standards. Accordingly, the analysis represents substantial evidence supporting the description of the existing environmental setting on the site, and the adequacy of the BRA that was conducted by expert biologists.

Response to Comment 11-48

As noted in detail in Responses to Comments 11-6, 11-44 and 11-46, the Draft EIR's analysis of wildlife that may occur on the project site is informed by numerous visits to the site by expert biologists as well as extensive literature review. Accordingly, the Draft EIR's analysis regarding potential biological impacts at the project site, including its discussion of the environmental setting, is supported by substantial evidence.

Response to Comment 11-49

As noted in detail in Responses to Comments 11-6, 11-44 and 11-46, the Draft EIR contains extensive analysis and investigation of potential biological resources that may be located on the project site. The Draft EIR is supported by substantial evidence. In criticizing the adequacy of the environmental review, the comment mischaracterizes the requirements of CEQA, as CEQA does

not require an EIR to provide an exhaustive list of every species that may be found on or near a project site. Accordingly, the analysis of the project's potential impacts to biological resources is adequate and supported by substantial evidence.

Response to Comment 11-50

As stated in the BRA, Madrone conducted three protocol-level surveys: an aquatic resources delineation, a special-status plant survey, and an oak resources inventory. All three surveys document static resources; therefore, time of day and survey duration are not required to be recorded. Special-status plant surveys must be conducted at the time of year that the target plants are in bloom, and the report for that survey documented that component. The surveys conducted for the BRA were reconnaissance-level, and the BRA does not suggest that the surveys were comprehensive for all wildlife species on the site. With respect to a checklist of habitat elements, the Madrone biologists conducting the surveys have decades of experience with plant and wildlife species in the region, and are able to analyze habitat suitability without the aid of checklists.

The commenter mischaracterizes the type of analysis required by CEQA, as a lead agency is not required to conduct every recommended test and perform all recommended research to evaluate the impacts of a proposed project. As detailed in Responses to Comments 11-6, 11-44 and 11-46, the Draft EIR contains extensive analysis of the investigation of potential biological resources that may be located on the project site, which is supported by substantial evidence in both the Draft EIR and the BRA.

Response to Comment 11-51

The statement made in the comment on how "the detection of wildlife species is the surest means of assessing whether a site supports habitat" is untrue. The detection of wildlife species is the surest means of assessing whether a particular species is present. However, the analysis in the Draft EIR is not based on presence or absence of species, but rather on whether the species has the *potential* to be present. As stated in Response to Comment 11-50 above, the Madrone biologists were not conducting comprehensive wildlife species surveys, as such surveys are not a required component of a CEQA analysis. Instead, the biologists focused on documenting habitat for the species, which is a required component of a CEQA analysis.

As discussed in detail in Responses to Comments 11-6, 11-44, 11-46, and 11-50, the findings in the Draft EIR are supported by substantial evidence partially based on multiple site visits by biological experts from Madrone. Furthermore, a lead agency has discretion to employ the survey methodology of its choice so long as it is supported by substantial evidence.[6] CEQA does not require an EIR to provide an exhaustive list of every species that may be found on or near a project site; the commenter's assertions with regard to possible reasons the alternative model detected more species than during filed surveys conducted by Madrone biological experts is speculative and does not constitute substantial evidence.

Response to Comment 11-52

As detailed in Response to Comment 11-45, the commenter's use of the Species Model is inherently speculative and does not represent substantial evidence of wildlife types or amounts on the project site. Further, as discussed in Responses to Comments 11-6, 11-44, 11-46 and 11-50, CEQA does not require an EIR to provide an exhaustive list of every species that may be found on or near a project site and a lead agency has discretion to employ the survey methodology

[6] See *Save North Petaluma River & Wetlands v. City of Petaluma* (2022) 86 Cal.App.5th 207, 221-226.

of its choice so long as it is supported by substantial evidence. Despite the commenter's assertion that the project site requires further surveys, the environmental setting is properly characterized in the Draft EIR and is supported by substantial evidence.

Response to Comment 11-53

Madrone has conducted a full set of protocol-level special-status plant surveys; the report documenting the methodology and results of those surveys is included as Attachment E to the BRA (see Appendix E to the Draft EIR). As stated in the report, the surveys were conducted in accordance with the Guidelines for Conducting and Reporting Botanical Inventories for Federally Listed, Proposed, and Candidate Plants (USFWS 2000), the Botanical Survey Guidelines of the California Native Plant Society (CNPS 2001), and Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities (CDFW 2018). The survey included five survey dates and visits to available reference populations of target plant species to ensure that the target plants were identifiable at the time of the survey. In addition, the surveys were floristic in nature, which means that all plant species observed on-site were identified to the taxonomic level necessary to determine rarity. Thus, if a special-status plant was present but not on the target list, the plant would have been detected and documented. A total of 205 plant species were documented during the course of the surveys.

CEQA does not require an agency to undertake a protocol-level survey when assessing whether a project would affect special-status species, and a lead agency may employ other survey methodologies, such as reconnaissance-level surveys, as long as the methodology is supported by substantial evidence. As discussed in detail in Responses to Comments 11-44 and 11-46, the Draft EIR's findings, as supported by the BRA, constitute substantial evidence with respect to the project's analysis of potential impacts on special-status species that may be found on the site.

Response to Comment 11-54

As detailed in Responses to Comments 11-44 and 11-46, the analysis of biological resources on the project site, including the literature review, conducted by Madrone consistent with generally accepted industry standards and included in the Draft EIR and BRA, are extensive and constitute substantial evidence under CEQA.

Response to Comment 11-55

Lead agencies have discretion to employ survey methodologies of their choosing, so as long as the choice of methodology is supported by substantial evidence. As discussed in detail in Responses to Comments 11-6, 11-44 and 11-46, the Draft EIR's findings, as supported by the BRA, constitute substantial evidence about the project's analysis of potential impacts on special-status species that may be found on the project site. The additional databases noted in the comment letter (eBird and iNaturalist) provide occurrence data that is not confirmed or verified by the resource's agencies. As a result, the two databases are not generally reliable, and thus, are not used as references for understanding current site conditions. Furthermore, although not referenced in the Draft EIR, the BRA used the eBird website to examine whether bald eagles may be present near the site, in addition to the other desktop searches described above (see page 31 of the BRA).

Response to Comment 11-56

As discussed in detail in Response to Comment 11-55, the Draft EIR uses a variety of sources to determine whether special-status species would be significantly impacted by the proposed project, and the choice of methodology is within the sound discretion of the lead agency if backed

by substantial evidence, as is the case here. Furthermore, CEQA requires that information developed in EIRs be incorporated into a database, such as CNDDB, which may be used for subsequent or supplemental environmental determinations (see PRC Section 21003[e]).

Response to Comment 11-57

As noted in detail in Response to Comment 11-55, the information within the alternative databases cited by the commenter (i.e., eBird and iNaturalist) is unreliable, and not verified by any resource's agencies. Further, page eight of the BRA specifically states that the BRA conducted an additional review of any special-status species known to occur in the region, but not identified in any of the aforementioned database searches. CEQA does not require a lead agency to adopt any particular methodology so long as the methods used to determine significant impacts to biological resources are supported by substantial evidence, as is the case here.

Response to Comment 11-58

Please see Responses to Comments 11-55 and 11-57. Furthermore, analysis of Swainson's hawk habitat located in Contra Costa County is not substantial evidence that Swainson's hawk would be affected by the proposed project, which is located in El Dorado County.

Response to Comment 11-59

The comment alleges that the existing environmental setting for the proposed project has not been accurately characterized, and several important types of potential impacts have been inadequately analyzed, including impacts from habitat loss, interference with wildlife movement, wildlife automobile collision mortality, and bird-window collision mortality. The commenter provides specifics regarding these claims in subsequent comments; responses to the substance of the comments are provided below.

Response to Comment 11-60

The comment fails to present any evidence that the proposed project would have direct impacts to the reproductive capacity of any species in particular. In addition, as discussed throughout this chapter, a lead agency has discretion to employ survey methodologies of its choosing, so as long as the methodology is supported by substantial evidence.

Furthermore, Impact 4.3-7 of the Draft EIR analyzes potential impacts to nesting birds and raptors protected under the MBTA and CFGC either directly (e.g., cause a wildlife population to drop below self-sustaining levels, threaten to eliminate an animal community) or through substantial habitat modifications. The Draft EIR recognizes that the project area provides suitable nesting habitat to accommodate nesting songbirds and raptors protected under the MBTA and CFGC.

Because disturbance to or destruction of migratory bird eggs, young, or adults is in violation of the MBTA and is considered a potentially significant impact, the Draft EIR contains protections for nesting birds in Mitigation Measure 4.3-7, which requires conducting focused surveys for various types of protected bird species prior to ground disturbance or other construction activities. If birds are found during the focused surveys, then mandatory protections are put in place to protect these birds consistent with the MBTA. However, as discussed on page 4.3-52 of the Draft EIR and based on substantial evidence, the proposed project's impacts to nesting birds would be less-than-significant. In addition, the comment's concern with all bird species, including species that are not special-status, potentially nesting in the future is considered speculative.

As a final point in this response, it is noted that preconstruction nesting bird surveys are not solely focused on counting the number of bird nests, but also observing nesting behavior to detect nesting birds and aid in identifying nesting birds whose nests may otherwise be difficult to detect. Nesting bird behavior is readily observable by a qualified biologist, and such can include, carrying nest material, carrying food, frequent activity near a particular location (e.g., flights to/from), etc.

Response to Comment 11-61

The comment is not based on observations of actual nests on the project site and instead is based on a speculative estimate of nest attempts based off averaging the amount of nests in sites that are unrelated to the project site. The study site that the commenter chose to compare to the project site is not comparable to the project site. The vast majority of impacts associated with the proposed project would occur in annual grassland, while the study site the commenter chose is comprised of two types of tree-dominated communities (orchard and riparian), both of which support more nests than grasslands. The commenter then averages the results of his study site with two other prior studies: Young (1948) and Yahner (1982). Young analyzes a five-acre site comprised of a mowed lawn interspersed with hedges of medium to tall shrubs and trees. In addition, the entire site analyzed by Young is surrounded by a pond and lake. Overall, the Young site does not bear any resemblance to the on-site grasslands potentially impacted by the proposed project. Yahner analyzes nest densities in "farmstead shelterbelts," which are described in the article as "wooded islands." Similar to the Young study, such a description cannot be extrapolated as comparable to the grasslands within the project site. As such, none of the three study sites used to build the model discussed in the comment have any similarity to the project site; therefore, the results of the model are not applicable. Because the comment does not show any direct impacts on nesting sites as a result of the proposed project and fails to detail what types of nesting birds may be affected, the comment is inherently speculative and does not represent substantial evidence of a significant impact to nesting birds.

Further, as detailed in Response to Comment 11-60, because disturbance to or destruction of migratory bird eggs, young, or adults is in violation of the MBTA and is considered a potentially significant impact, the Draft EIR contains protections for nesting birds as provided in Mitigation Measure 4.3-7. The implementation of Mitigation Measure 4.3-7 involves conducting focused surveys for various types of protected bird species prior to ground disturbance or other construction activities. If birds are found during the focused surveys, then mandatory protections are put in place to protect these birds consistent with the MBTA. However, as discussed on page 4.3-52 of the Draft EIR and based on substantial evidence, the proposed project's impacts to nesting birds would be less-than-significant. In addition, the comment's concern with all bird species, including species that are not special-status, potentially nesting in the future is considered speculative.

Response to Comment 11-62

As detailed in Responses to Comments 11-60 and 11-61, the analysis contained in the comment fails to show any direct impact the project would have on any special-status bird species. The comment's use of formulaic estimates to determine the amount of birds that may be affected by the project is inherently speculative and therefore does not constitute substantial evidence.

Response to Comment 11-63

As detailed in Responses to Comments 11-60 and 11-61 above, the comment's estimates are inherently speculative and do not constitute substantial evidence of the project's potential impacts on nesting birds. Furthermore, the commenter's position is largely based on difficulties in

detecting nests, but see the survey methodology explained in Response to Comment 11-60 whereby it is explained that biologists rely on detecting readily observable nesting behavior to identify nesting birds. Please see Response to Comment 11-99 regarding compensatory mitigation for the project's oak woodland impacts.

Response to Comment 11-64

The Draft EIR examined the potential impacts the proposed project could potentially have on wildlife movement and whether development of the project would interfere *substantially* with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory corridors, or impede the use of native wildlife nursery sites, under Impact 4.3-12. The above emphasis on "substantially" is important and overlooked by the commenter. Appendix G of the CEQA Guidelines includes the following threshold question in Section IV, Biological Resources:

> Would the project:
>
> 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?

Importantly, the question being asked is whether the project would substantially interfere with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors. The commenter's neglect in recognizing this important distinction is instructive. The Draft EIR does not claim that the proposed project would not interfere with wildlife movement, but rather that the proposed project would not substantially interfere with wildlife movement, for the reasons set forth in the Draft EIR. The analysis is supported by substantial evidence in the Draft EIR using the analysis found in the BRA, which was based on both literature review and site visits.

The commenter states that "suburban residential development surrounds the Project area in all directions but the south, but U.S. 50 borders the south side of the Project. As habitat fragmentation has progressed in the area, the area's capacity to support wildlife movement in the region has declined, while at the same time it has elevated the importance of the project site to wildlife movement." The foregoing portrayal is disingenuous. Figure 4.3-2 of the Draft EIR shows an aerial view of all of the land surrounding the project site. The closest suburban development to the west and north of the project site is more than a half of a mile away, and is over a third of a mile from the eastern edge. Apart from US 50, the project site is entirely surrounded by grassland and scattered oak habitat nearly identical to the habitat located within the project site. The project site is part of an area of contiguous habitat spanning over 1,100 acres. The proposed project would convert less than 50 acres (less than five percent) of that habitat on the edge of the habitat block. As such, the commenter's conclusion that the habitat is fragmented and that this fragmentation has elevated the importance of the project site to wildlife movement is flawed.

Response to Comment 11-65

As detailed in Response to Comment 11-64, the Draft EIR's determination that the project site is not in a wildlife corridor and would not have a significant impact on wildlife movement is supported by substantial evidence in the Draft EIR using the analysis found in the BRA, which was based on both literature review and site visits.

As noted in Response to Comment 11-64 above, the project site is located in a large area of contiguous grasslands and scattered oak woodlands. The only barriers to wildlife movement are roadways, leading to the focus in the text on safe methods of transit across the roadways (i.e., culverts). As noted by the commenter, most wildlife is not restricted to drainageways or woodland corridors and would be able to easily move through annual grasslands. As such, the removal of the annual grassland area within the project site would not change the ability of wildlife to move through the large area of remaining grassland surrounding the site. The discussion of the oak woodland corridor was included to discuss an area where wildlife movement might be impacted. For example, deer may indeed cross Bass Lake Road; Madrone's discussion of culvert size was intended to highlight the fact that crossing the road is already the only way for deer to get from one side of the road to the other. All smaller wildlife that currently can and do travel through the culvert under the road would continue to be able to use the same culvert following project construction, and the adjacent oak woodland would be maintained.

Response to Comment 11-66

As detailed in Response to Comment 11-64, the Draft EIR's determination that the project site is not in a wildlife corridor and would not have a significant impact on wildlife movement is supported by substantial evidence in the Draft EIR using the analysis found in the BRA, which was based on both literature review and site visits.

Furthermore, although the comment opines that the presence of birds on-site shows that the site is important to wildlife movement in the region, the conclusion is speculative. The comment does not state what direct impacts the proposed project would have on particular bird species. In addition, as birds can fly, bird species do not require wildlife corridors to move through an area. All three species highlighted by the comment would still be able to use the surrounding grassland and oak savannah habitat, as well as the remaining oak woodland corridor. As such, the species' ability to move through the area would not be adversely impacted and further comment is not required.

Response to Comment 11-67

Please see Response to Comment 11-66 above.

In addition, as discussed in Responses to Comments 11-6, 11-44, 11-46, and 11-64, the BRA contains extensive discussion and investigation of the types of habitat extant on the project site, as well as the species that are likely to be present on-site. The analysis is supported by literature review and multiple field surveys. CEQA does not require any one particular method of analysis; rather, a lead agency has discretion to employ survey methodologies of their choosing, so as long as the choice of methodology is supported by substantial evidence. As such, the discussion of wildlife movement in the Draft EIR is supported by substantial evidence.

Response to Comment 11-68

The comment is speculative and does not show that the proposed project would have any direct impacts on any special-status species due to project-generated traffic. Please see Response to Comment 11-42 for specific CEQA Guidelines relevant to the comment.

Furthermore, although the proposed project would include off-site road improvements, new roads are not proposed beyond the internal roadways required for project circulation. While the project would widen Bass Lake Road from two- to four-lanes between US 50 and just north of Country Club Drive, this roadway improvement is already planned and a component of the County's

Capital Improvement Program. The proposed on-site parking areas and roadways would be traveled on at low speeds, leading to very few wildlife deaths. Therefore, the proposed project would not result in wildlife deaths on roadways substantially above what already occurs.

Response to Comment 11-69

Please see Response to Comment 11-68 above. As discussed therein, the comment fails to show any direct impacts of the proposed project on special-status species, and is inherently speculative. As such, further response is not required.

Response to Comment 11-70

With respect to the Traffic Fatality Model, any results obtained are inherently speculative, as the results apply survey-sample results from Contra Costa County to all areas generically, regardless of the amount of traffic and of the surrounding environment and wildlife in any particular area. Because the use of the Traffic Fatality Model is inherently speculative and invites generic results that lack foundation and could contain inaccuracies, the application of the Traffic Fatality Model to the potential impacts of the proposed project does not constitute substantial evidence of a significant impact to wildlife under CEQA.

Furthermore, the commenter does not present evidence specific to the project site that increased traffic in the project area would result in a significant increase in wildlife roadkill or increased significant impacts to special-status species.

Response to Comment 11-71

As detailed in Responses to Comments 11-68 and 11-70 above, the use of the Traffic Fatality Model is inherently speculative, and the Draft EIR's findings related to potentially significant impacts to special-status species and other wildlife is supported by substantial evidence.

Response to Comment 11-72

As detailed in Responses to Comments 11-68 and 11-70, the use of the Traffic Fatality Model is inherently speculative, and the Draft EIR's findings with respect to potentially significant impacts to special-status species and other wildlife is supported by substantial evidence. Because significant impacts to special-status species or other wildlife would not occur due to project-related traffic, mitigation is not required. See PRC Section 21100(b)(3), as well as CEQA Guidelines Section 15126.4(a)(3) ("Mitigation measures are not required for effects which are not found to be significant.").

Response to Comment 11-73

The comment does not address the adequacy of the Draft EIR.

Response to Comment 11-74

As detailed in Responses to Comments 11-6, 11-44, and 11-46, the Draft EIR's analysis of the proposed project's potentially significant impacts to special-status bird species was based on the extensive literature review and numerous field surveys conducted as part of the project-specific BRA. The Draft EIR's determinations were based on substantial evidence that the proposed project's impact on special-status birds would be less than significant with mitigation in place. Furthermore, studies on bird strikes on the California Academy of Sciences in heavily urbanized San Francisco are not directly analogous to El Dorado County or the project site.

Please see Responses to Comments 11-78, 11-79, and 11-80 below for a detailed discussion of bird fatalities due to window collisions.

Response to Comment 11-75

Please see Responses to Comments 11-78, 11-79, and 11-80 below for a detailed discussion of bird fatalities due to window collisions.

Response to Comment 11-76

Please see Responses to Comments 11-78, 11-79, and 11-80 below for a detailed discussion of bird fatalities due to window collisions.

Response to Comment 11-77

Please see Responses to Comments 11-78, 11-79, and 11-80 below for a detailed discussion of bird fatalities due to window collisions.

Response to Comment 11-78

The Bird Strike Fatality Model is inherently speculative and lacks the foundation needed to represent substantial evidence of impacts of the proposed project.[7] Furthermore, the Bird Strike Fatality Model does not take into account the locations where the associated modeling surveys were conducted, and does not mention the types of species killed during the surveys. As such, the use of the model to generically predict an estimate of bird strikes on any particular building or place, or to suggest that any particular special-status species would be affected, is baseless and does not represent substantial evidence of a significant impact.

Response to Comment 11-79

As detailed in Response to Comment 11-78 above, the Bird Strike Fatality Model is inherently flawed, speculative, and does not represent substantial evidence. Furthermore, the comment does not present evidence of a direct significant impact to any special-statues species. Urban-adapted and common birds are the most likely to collide with windows due to their higher frequency of occurrence and likelihood of interaction along the built environment interface. Moreover, as reported in the San Francisco Standards for Bird Safe Buildings and other documents, the typical bird strike zone is from grade to 60 feet, the primary concern is with any uninterrupted glazing 24 square feet or larger in size, and the likelihood of strike depends on various factors, including the glazing used, the angle of the glass, the orientation of the building, and landscaping. As shown in Figures 3-8 through 3-11 in Chapter 3, Project Description, of the Draft EIR, the proposed building facades include many materials other than glass that are visible to birds. Such materials include cement plaster, fiber cement siding, porcelain tile, and vinyl windows, which would serve to minimize operation impacts related to the risk of bird strikes.

Response to Comment 11-80

As detailed in Responses to Comments 11-78 and 11-79, the commenter's predictions regarding the project's potential impacts due to bird strike are inherently speculative and do not constitute substantial evidence. Furthermore, as detailed in Responses to Comment 11-60, Impact 4.3-7 determined, based on substantial evidence, that the proposed project's potential impact to birds protected by the MBTA and CFGC would be less-than-significant with the implementation of Mitigation Measure 4.3-7. Please see Response to Comment 9-16 for revisions to Mitigation Measure 4.3-7.

[7] See CEQA Guidelines, Sections 15384(a) and 15204.

Response to Comment 11-81

Please see Response to Comment 11-99.

Response to Comment 11-82

Under CEQA, for projects for which an EIR has been prepared, where substantial evidence supports the approving agency's conclusion that mitigation measures will be effective, courts will uphold such measures against attacks based on their alleged inadequacy.[8] Substantial evidence can consist of the discussion and analysis in the EIR, expert opinion, staff reports, and other relevant evidence (see *Panoche Valley v. San Benito County* (2013) 217 Cal.App.4th 503, 526: "…although Department of Fish and Game criticized mitigation measure, county's finding that impacts to special status species would be adequately mitigated was supported by discussion in EIR and studies of biological resources.").

Based on the above, and as detailed in Responses to Comments 11-6, 11-44, and 11-46, the Draft EIR's findings regarding the proposed project's potentially significant biological impacts on wildlife is supported by substantial evidence in the Draft EIR and the BRA.

To the extent that the comment implies that the Draft EIR has inappropriately deferred mitigation, many of the mitigation measures in the Draft EIR have been put in place because the Draft EIR identified potentially suitable habitat on the Project site. (See. e.g, Draft EIR, 4.3-39 ["The protocol-level special-status plant surveys conducted throughout the study area during 2022, 2023, and 2024 were negative for all the aforementioned [special-status plant] species that could occur within the proposed impact area; however, given enough time, plants may become established in areas where suitable habitat exists"].) Accordingly, many of the mitigation measures in place for mitigation of potentially significant impacts in the Draft EIR rely on pre-construction surveys to determine if a special-status species will be affected, at which point, tailored mitigation measures can be utilized to mitigate Project impacts. Under CEQA, a lead agency may rely on future studies to devise the specific design of a mitigation measure when the results of later studies are used to tailor mitigation measures to fit on-the-ground environmental conditions. (See *Save Panoche Valley v. San Benito County* (2013) 217 Cal.App.4th 503, 524 [upholding mitigation measures, based on preconstruction surveys, requiring identified steps for avoiding impacts to biological resources to be implemented].)

Furthermore, an agency may defer formulation of the details of a mitigation measure pending further study when necessary to do so, if the agency describes the mitigation actions that will be considered, adopts clear performance standards for measuring the effectiveness of the measures that are selected, and commits the agency to the mitigation plan. A mitigation performance standard is sufficient if the measure identifies specific criteria the agency will apply in determining that the impact will be mitigated (see *Sierra Club v. County of Fresno* (2018) 6 Cal.5th 502, 525). The mitigation measures included in the EIR, as amplified in this Final EIR, include clear performance standards for measuring the effectiveness of the measures. Please see Responses to Comments 11-84, 11-85, 11-87, 11-94, 11-95, and 11-96.

[8] See the following cases: *Laurel Heights Improvement Ass'n. v. Regents of Univ. of Cal* (1988) 47 Cal.3d 376, 407 (reviewing courts do not weigh conflicting evidence on effectiveness of mitigation; EIR's conclusion that adverse impacts of relocated biomedical laboratory would be mitigated was supported by evidence in record and inferences from it); *Banning Ranch Conservancy v. City of Newport Beach* (2012) 211 Cal.App.4th 1209, 1233 (courts do not weigh expert evidence on effectiveness of mitigation measures; city was not required to acquiesce to mitigation measures for habitat impacts proposed by regulatory agency)

Response to Comment 11-83

Please see Response to Comment 11-82, as well as Responses to Comments 11-6. 11-44, 11-46, and 11-53. Special-status plant species were not documented during the protocol-level surveys conducted for the project site.

Response to Comment 11-84

Please see Response to Comment 11-82.

If special-status plant species are found, Mitigation Measure 4.3-1 sets forth the specific mitigation measures that will be determined based on the plant species affected, physical conditions at the impact site, and conditions at a proposed mitigation site, if applicable. Options for mitigating impacts to annual plants, such as dwarf downingia, could include avoidance, seed collection and planting at a mitigation site, or collection of seed-bearing soil to be spread at a mitigation site. Options for mitigating impacts to perennial plants, such as Sanford's arrowhead or big-scale balsamroot, include avoidance, transplantation of plant to a mitigation site, propagation using cuttings to be planted at a mitigation site, or seed collection and planting at a mitigation site.

If special-status plants are impacted, a qualified biologist shall prepare an avoidance and mitigation plan detailing protection and avoidance measures, transplantation procedures, success criteria, and long-term monitoring protocols. The plan shall be reviewed and approved by the El Dorado County Planning and Building Department and shall ensure that mitigation for the impacts to rare plants shall result in no net loss of individual plants after a five-year monitoring period. In addition, a preconstruction worker awareness training shall be conducted to alert workers to the presence of and protections for special-status plants.

If plants listed under the Federal Endangered Species Act (FESA) or the California Endangered Species Act (CESA) are located within the project impact area and the plants cannot be avoided, the project proponent shall coordinate with USFWS and the CDFW (as appropriate) for issuance of an Incidental Take Permit (ITP) and shall implement similar mitigation measures as outlined above and ultimately approved by the appropriate agency. Nothing in the requirements allows for subjective decisions, or otherwise indicates that any aspect of Mitigation Measure 4.3-1 is unenforceable or subjective.

Nonetheless, as suggested by the comment, Mitigation Measure 4.3-1 is hereby revised in the Final EIR as follows:

> Mitigation Measure(s)
> Implementation of the following mitigation measure would reduce the above potential impact to a *less-than-significant* level.
>
> *Project Development Area and Project Buildout*
>
> *4.3-1* *If construction has not commenced prior to the first day of spring 2026, a new round of special-status plant surveys shall be conducted in on- and off-site areas proposed for disturbance, prior to the commencement of construction~~.~~ according to the following requirements:*
>
> *Before implementation of project construction activities and during the blooming period for the special-status plant species with potential to occur on the project site, a qualified botanist shall conduct protocol-*

level surveys for special-status plants in the off-site improvement areas and shall resurvey the main project site following survey methods from CDFW's Protocols for Surveying and Evaluating Impacts on Special-Status Native Plant Populations and Natural Communities (CDFW 2018 or most recent version). The qualified botanist shall (1) be knowledgeable about plant taxonomy; (2) be familiar with plants of the El Dorado County foothills region, including special-status plants and sensitive natural communities; (3) have experience conducting floristic botanical field surveys as described in CDFW's protocol document; (4) be familiar with the California Manual of Vegetation (Sawyer et al. 2009 or current version, including updated natural communities data at http://vegetation.cnps.org/); and (5) be familiar with federal and State statutes and regulations related to plants and plant collecting.

The surveys shall be conducted in accordance with the USFWS Guidelines for Conducting and Reporting Botanical Inventories for Federally Listed, Proposed, and Candidate Plants, the CNPS Botanical Survey Guidelines of the California Native Plant Society, and Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities. The survey results shall be submitted to the El Dorado County Planning and Building Department prior to the commencement of construction activities. If special-status plant species are not found, further mitigation shall not be required.

If special-status plants are found ~~within the proposed impact area, specific mitigation measures shall be determined based on the plant species affected, physical conditions at the impact site, and conditions at a proposed mitigation site, if applicable. Options for mitigating impacts to annual plants, such as dwarf downingia, could include avoidance, seed collection and planting at a mitigation site, or collection of seed-bearing soil to be spread at a mitigation site. Options for mitigating impacts to perennial plants, such as Sanford's arrowhead or big-scale balsamroot, include avoidance, transplantation of plant to a mitigation site, propagation using cuttings to be planted at a mitigation site, or seed collection and planting at a mitigation site.~~ during special-status plant surveys and cannot be avoided, the applicant and a qualified botanist shall, in coordination/consultation with CDFW or USFWS, as appropriate depending on species status, develop and implement a site-specific mitigation strategy to compensate for loss of occupied habitat or individuals according to CDFW and USFWS guidelines.

~~If special-status plants are impacted, a qualified biologist shall prepare an avoidance and mitigation plan detailing protection and avoidance measures, transplantation procedures, success criteria, and long-term monitoring protocols. The plan shall be reviewed and approved by the El Dorado County Planning and Building Department and shall ensure that mitigation for the impacts to rare plants shall result in no net loss of individual plants after a five-year monitoring period. In addition, a pre-construction worker awareness training shall be conducted to alert workers to the presence of and protections for special-status plants.~~

Mitigation measures shall include, at a minimum, preserving and enhancing existing populations, establishing populations through seed collection or transplantation from the site that is to be affected, and/or restoring or creating habitat in sufficient quantities to offset loss of occupied habitat or individuals. Potential mitigation sites could include suitable locations within or outside the project site. Habitat and individual plants lost shall be mitigated at a minimum 1:1 ratio, considering acreage as well as function and value. The following success criteria shall be used for preserved and compensatory populations:

- *The extent of occupied area and plant density (number of plants per unit area) in compensatory populations shall be equal to or greater than that in the affected occupied habitat.*
- *Compensatory and preserved populations shall be self-producing. Populations would be considered self-producing when:*
    - *plants reestablish annually for a minimum of 5 years with no human intervention, such as supplemental seeding; and*
    - *reestablished and preserved habitats contain an occupied area and flower density comparable to those in the existing occupied habitat areas in similar habitat types in the project vicinity.*

- *If off-site mitigation includes dedication of conservation easements, purchase of mitigation credits, or other off-site conservation measures, the details of these measures shall be included in the mitigation plan, including designating responsible parties for long-term management, conservation easement holders, long-term management requirements, success criteria, including at a minimum, those listed above and other details, as determined appropriate by a qualified biologist to target the preservation of long-term viable populations.*

Documentation of the completion of the mitigation strategy and coordination/consultation process with CDFW or USFWS shall be provided to El Dorado County before commencement of any project construction activities.

If plants listed under the Federal Endangered Species Act or the California Endangered Species Act are located within the project impact area and those plants cannot be avoided, the project proponent shall coordinate with the U.S. Fish and Wildlife Service (USFWS) and the California Department of Fish and Wildlife (CDFW) (as appropriate) for issuance of an Incidental Take Permit (ITP) and shall implement similar mitigation measures as outline above and ultimately approved by the appropriate agency.

The foregoing revisions amplify the performance standards in Mitigation Measure 4.3-1, and do not affect the conclusions of the Draft EIR.

Response to Comment 11-85

The comment alleges that Mitigation Measure 4.3-2, which is intended to mitigate potential impacts to Crotch's bumble bee, is inadequate because the pre-construction survey does not provide the same level of detection probability as a protocol-level protection survey. Please see Response to Comment 11-82.

Nonetheless, as suggested by the comment, Mitigation Measure 4.3-2 is hereby revised in the Final EIR as follows:

> Mitigation Measure(s)
> Implementation of the following mitigation measure would reduce the above potential impact to a *less-than-significant* level.
>
> *Project Development Area and Project Buildout*
>
> *4.3-2* *If, at the time of project implementation, Crotch's bumble bee is not designated as a California Endangered Species Act (CESA) candidate or CESA listed, mitigation is not required. However, if the species is a CESA candidate or CESA listed or is otherwise considered to be a special-status species, the following mitigation shall be required.*
>
> *If feasible, initial ground-disturbing activities associated with development of the project site (e.g., grading, vegetation removal, staging) shall take place between September 1 and March 31 (i.e., outside the colony active period) to avoid potential impacts on Crotch bumble bee. ~~If completing all initial ground-disturbing activities between September 1 and March 31 is not feasible, then at a maximum of 14 days prior to the commencement of construction activities, a qualified biologist with 10 or more years of experience conducting biological resource surveys within California shall conduct a preconstruction survey for Crotch's bumble bee in the area(s) proposed for impact.~~ Regardless of the feasibility of the above limited operating period, a qualified biologist familiar with bumble bees of California and experienced using survey methods for bumble bees (qualified biologist) shall conduct a habitat assessment and focused survey for Crotch's bumble bee prior to the commencement of any ground-disturbing activities. Surveys shall be performed when Crotch's bumble bee is most likely to be identified, typically from April through August (i.e., the colony active period) when floral resources and ideal weather conditions are present, and shall follow the methods in Survey Considerations for California Endangered Species Act (CESA) Candidate Bumble Bee Species (CDFW 2023). Surveys shall be conducted during the colony active period closest to the start of planned construction activities. Survey results shall be submitted to the applicant and El Dorado County Planning and Building Department a minimum of seven days before construction begins.*
>
> *The survey shall occur during the period from one hour after sunrise to two hours before sunset, with temperatures between 65 degrees Fahrenheit and 90 degrees Fahrenheit, with low wind and zero rain. If the timing of the start of construction makes the survey infeasible due to the temperature requirements, the surveying qualified biologist shall select the most appropriate days based on the National Weather Service seven-day forecast and shall survey at a time of day that is*

closest to the temperature range stated above. The survey duration shall be commensurate with the extent of suitable floral resources (which represent foraging habitat) present within the area proposed for impact, and the level of effort shall be based on the metric of a minimum of one person-hour of searching per three acres of suitable floral resources/foraging habitat. A meandering pedestrian survey shall be conducted throughout the area proposed for impact in order to identify patches of suitable floral resources.

Suitable floral resources for Crotch bumble bee include species in the following families: Apocynaceae, Asteraceae, Boraginaceae, Fabaceae, and Lamiaceae.

At a minimum, preconstruction survey methods shall include the following:

- *Search areas with floral resources for foraging bumble bees. Observed foraging activity may indicate a nest is nearby, and therefore, the survey duration shall be increased when foraging bumble bees are present;*
- *If bumble bees are observed, watch any bumble bees present and observe their flight patterns. Attempt to track their movements between foraging areas and the nest;*
- *Visually look for nest entrances. Observe burrows, any other underground cavities, logs, or other possible nesting habitat;*
- *If floral resources or other vegetation preclude observance of the nest, small areas of vegetation may be removed via hand removal, line trimming, or mowing to a height of a minimum of four inches to assist with locating the nest;*
- *Look for concentrated bumble bee activity;*
- *Listen for the humming of a nest colony; and*
- *If bumble bees are observed, attempt to photograph the individual and identify it to species.*

The biologist conducting the survey shall record when the survey was conducted, a general description of any suitable foraging habitat/floral resources present, a description of observed bumble bee activity, a list of bumble bee species observed, a description of any vegetation removed to facilitate the survey, and their determination of if survey observations suggest a Crotch's bumble bee nest(s) may be present or if construction activities could result in take of Crotch bumble bees. The survey report shall be submitted to the El Dorado County Planning and Building Department prior to the commencement of construction activities.

The applicant shall submit a survey report to CDFW within 1 month of survey completion and shall notify CDFW and El Dorado County within 24 hours if Crotch's bumble bees are detected.

If bumble bees are not located during the preconstruction survey or the bumble bees located are definitively identified as a common species (i.e., not special-status species), then further mitigation or coordination with the California Department of Fish and Wildlife (CDFW) is not required.

If Crotch's bumble bees are detected during the focused survey, appropriate avoidance measures shall be implemented. Avoidance measures shall include, but not be limited to, the following:

- *Protective buffers shall be implemented around active nesting colonies or overwintering queens until the identified sites are no longer active. A qualified biologist, in coordination with CDFW, shall determine the appropriate buffer size to protect nesting colonies or overwintering queens; however, the buffer shall be a minimum of 50 feet.*

If any sign(s) of a bumble bee nest is observed, and if the species present cannot be established as a common bumble bee, then construction shall not commence until either (1) the bumble bees present are positively identified as common (i.e., not a special-status species), or (2) the completion of coordination with CDFW to identify appropriate mitigation measures, which may include, but not be limited to, waiting until the colony active season ends, establishment of nest buffers, or obtaining an Incidental Take Permit (ITP) from CDFW.

If Crotch's bumble bees are located, and after coordination with CDFW take of Crotch's bumble bees cannot be avoided, the project applicant shall obtain an ITP from CDFW, and the applicant shall implement all conditions identified in the ITP. Mitigation required by the ITP may include, but not be limited to, the project applicant translocating nesting substrate in accordance with the latest scientific research to another suitable location (i.e., a location that supports similar or better floral resources as the impact area), enhancing floral resources on areas of the project site that will remain appropriate habitat, worker awareness training, and/or other measures specified by CDFW.

Documentation of compliance with the foregoing measures and any required coordination with CDFW or acquisition of an ITP shall be provided to the El Dorado County Planning and Building Department prior to commencement of any project construction activities.

The foregoing revisions amplify the performance standards in Mitigation Measure 4.3-2, and do not affect the conclusions of the Draft EIR.

Response to Comment 11-86

Please see Response to Comment 11-82. Please see Response to Comment 9-20 for revisions to Mitigation Measure 4.3-3.

Response to Comment 11-87

Please see Response to Comment 11-82. Nonetheless, as suggested by the comment, Mitigation Measure 4.3-4 is hereby revised in the Final EIR as follows:

Mitigation Measure(s)

Implementation of the following mitigation measure would reduce the above potential impact to a *less-than-significant* level.

Project Development Area and Project Buildout

4.3-4 *If, at the time of project implementation, monarch butterfly is not designated as a federal Endangered Species Act (FESA) candidate or FESA listed, mitigation is not required. However, if the species is a FESA candidate or FESA listed or is otherwise considered to be a special-status species, the following mitigation shall be required.*

If ~~construction~~ ground disturbance occurs within annual brome grassland in on- and off-site improvement areas during the time when milkweed plants may host monarch eggs or caterpillars (approximately mid-March through late September), a pre-construction survey shall be conducted by a qualified biologist who is knowledgeable and experienced in the biology, life stages, natural history, and identification of local fish and wildlife resources at the project site (qualified biologist) no earlier than 15 days prior to construction within the proposed impact area and a 50-foot buffer in accessible areas. The biologist shall comprehensively search the survey area for milkweed plants, and all milkweed plants found shall be surveyed for monarch eggs, larvae (i.e., caterpillars), and chrysalises. Additionally, other plants immediately adjacent to milkweed plants shall also be searched for chrysalises. If eggs, caterpillars, or chrysalises are not detected, additional mitigation measures are not necessary. Survey results shall be provided to the El Dorado County Planning and Building Department within 15 days of completion of all surveys.

If eggs, caterpillars, or chrysalises are found, the plants shall be avoided with a 50-foot buffer until metamorphosis is completed and adult butterflies emerge and voluntarily leave the host plant. ~~If the eggs, larvae, or chrysalises cannot be avoided, all eggs, larvae, and chrysalises, including the portion of the plant to which they are attached, shall be translocated to an alternative location. The alternative location must be a minimum of 50 feet outside of the impact area and must contain a similarly sized or larger population of larval host plants. The portions of the plants supporting eggs or chrysalises shall be tied to the live stem of the avoided larval host plant while caterpillars will be placed directly on a stem or leaf of a larval host plant. Should the species be listed under FESA in the future, coordination with USFWS shall be conducted prior to translocation.~~

The foregoing revisions only refine Mitigation Measure 4.3-4, and do not affect the conclusions of the Draft EIR.

Response to Comment 11-88

Please see Responses to Comments 11-82 and 11-95. With respect to Mitigation Measure 4.3-5, please see Responses to Comments 1-5 and 1-6.

Response to Comment 11-89

Please see Response to Comment 11-82. In addition, please see Response to Comment 1-13 for revisions to Mitigation Measure 4.3-6 related to potential impacts to northwestern pond turtle.

Response to Comment 11-90

Please see Responses to Comments 11-82 and 11-95.

The comment's requirements mischaracterize the requirements of MM 4.3-6 as it appears in the DEIR, which states, in part:

> If a northwestern pond turtle is observed within the proposed impact area, a qualified biologist shall relocate the individual to habitat of equivalent or greater value outside of the proposed impact area prior to construction. If a northwestern pond turtle nest is observed within the proposed impact area, the nest shall be fenced off and avoided until the eggs hatch. The exclusion fencing shall be placed no less than 25 feet from the nest. A qualified biologist shall monitor the nest daily during construction to ensure that hatchlings do not disperse into the construction area. Relocation of hatchlings shall occur as stipulated above, if necessary.

Furthermore, Mitigation Measure 4.3-6 has been revised as shown in Response to Comment 1-13 above. The revised mitigation language is intended to clarify Mitigation Measure 4.3-6 and allow the measure to be more inclusive and specific. Where, as here, the suggested revisions are adopted, recirculation is not required because the above revisions clarify an existing mitigation measure. Following revision, the Draft EIR's impact conclusions would remain the same. As such, the revisions do not represent a significant change to the Draft EIR that would require recirculation.

Response to Comment 11-91

Please see Responses to Comments 11-82 and 11-95.

Furthermore, Mitigation Measure 4.3-7 has been revised as shown in Response to Comment 9-16. Following revision, the Draft EIR's conclusions remain the same. As such, the revisions do not represent a significant change to the Draft EIR and recirculation is not required.

Response to Comment 11-92

Please see Responses to Comments 11-82, as well as 11-60 and 11-61. Please see Response to Comment 9-16 with respect to Mitigation Measure 4.3-7.

Response to Comment 11-93

Please see Response to Comments 11-82, as well as Responses to Comments 11-7, 11-42, 11-45, 11-46, and 11-60. In addition, please see Response to Comment 9-25 for revisions to Mitigation Measure 4.3-8 related to roosting bats.

Response to Comment 11-94

Please see Response to Comment 11-82. Nonetheless, as suggested by the comment, Mitigation Measure 4.3-9 is hereby revised in the Final EIR as follows:

> Mitigation Measure(s)
> Implementation of the following mitigation measure would reduce the above potential impact to a *less-than-significant* level.
>
> *Project Development Area (and Off-Site Sewer Pipe Alignments)*
> *4.3-9* *Within 14 days prior to the initiation of any construction activities, a qualified biologist who is knowledgeable and experienced in the biology, life stages, natural history, and identification of local fish and wildlife resources at the project site (qualified biologist) shall conduct non-invasive preconstruction surveys for Northern California ringtail*

and ringtail nests in suitable habitats (riparian habitats, oak woodlands with shrubby understory, and/or trees five inches diameter at breast height (DBH) or greater in riparian areas, particularly those with cavities) that will be disturbed by construction activity. Non-invasive methods may include camera traps and track plates as well as physical surveys of suitable habitat. If ringtail are found prior to the initiation of, and/or during construction activities, a qualified biologist shall consult with CDFW prior to relocation of any individual ringtail. The camera trap may be removed once construction begins.

If a ringtail nest is observed within the project area during the preconstruction survey, a qualified biologist shall establish a 250-foot no-disturbance buffer and the nest shall be fenced off and avoided until the young have left the nest, and the nest is no longer active as determined by the qualified biologist. A qualified biologist shall monitor to ensure that ringtails do not disperse into the construction area.

If any ringtails are observed within the project area, work shall be suspended in a 100-foot radius of the animal until the animal leaves the project area on its own volition. If necessary, the qualified biologist shall notify CDFW to determine the appropriate procedures related to relocation. All necessary permits for removal will be obtained from CDFW, and a Qualified Biologist shall conduct necessary removals. Any worker who inadvertently injures or kills a ringtail or who finds one dead, injured, or entrapped must immediately report the incident to a qualified biologist.

CDFW may require mitigation for potential impacts to ringtail as part of a streambed alteration agreement. If CDFW assigns mitigation that is more stringent than the measure proposed above, the CDFW measure shall take precedence.

Program Study Area
None required.

The foregoing revisions only refine Mitigation Measure 4.3-9, and do not affect the conclusions of the Draft EIR.

Response to Comment 11-95

Please see Response to Comment 11-82.

In addition, reliance on compliance with a regulatory permit or similar process is sufficient mitigation if compliance with such standards can be reasonably expected, based on substantial evidence, to reduce the impact to the specified performance standard.[9] Mitigation Measure 4.3-10 sets such performance standard when it states the following on page 4.3-59 of the Draft EIR:

> Minimization and avoidance measures shall be proposed as appropriate and may include: preconstruction species surveys and reporting, protective fencing around avoided biological resources, worker environmental awareness training, seeding disturbed areas

[9] See CEQA Guidelines Section 15126.4(a)(1)(B), as well as *Oakland Heritage Alliance v. City of Oakland* (2011) 195 Cal.App.4th 884, 906 ("a condition requiring compliance with regulations is a common and reasonable mitigation measure and may be proper where it is reasonable to expect compliance.")

adjacent to open space areas with native seed, and installation of project-specific storm water BMPs. Mitigation may include restoration or enhancement of resources on- or off-site, purchase habitat credits from an agency-approved mitigation/ conservation bank, off-site, working with a local land trust to preserve land, or any other method acceptable to CDFW.

Nonetheless, Mitigation Measure 4.3-10 is hereby revised in the Final EIR as follows:

Mitigation Measure(s)

Implementation of the following mitigation measure would reduce the above potential impact to a *less-than-significant* level.

Off-Site Sewer Pipe Alignments Only

4.3-10 *Prior to the commencement of ground-disturbing activities associated with the off-site sewer pipe, the project proponent shall apply for a Section 1600 Lake or Streambed Alteration Agreement from CDFW. Minimization and avoidance measures shall be proposed as appropriate and may include: preconstruction species surveys and reporting, protective fencing around avoided biological resources, worker environmental awareness training, seeding disturbed areas adjacent to open space areas with native seed, and installation of project-specific storm water BMPs. Mitigation may include restoration or enhancement of resources on- or off-site, purchase habitat credits from an agency-approved mitigation/ conservation bank, off-site, working with a local land trust to preserve land, or any other method acceptable to CDFW.*

If proposed project activities are determined to be subject to CDFW jurisdiction, the applicant shall abide by the measures to protect fish and wildlife resources required by any executed agreement before any vegetation removal or activity that may affect the resource. Measures to protect fish and wildlife resources shall include, at a minimum, a combination of the following mitigation.

The applicant shall compensate loss of riparian woodland habitat such that no net loss of habitat function and values occurs by:

- *Restoring and preserving degraded riparian habitat outside the project site or on the project site (at least 1:1);*
- *Purchasing riparian habitat credits at an agency-approved mitigation bank (at least 1:1); or*
- *Preserving existing riparian habitat of equal or better value to the affected riparian habitat through a conservation easement or deed restriction at a ratio sufficient to offset the loss of riparian habitat function (at least 1:1).*

The applicant shall prepare and implement a Compensatory Mitigation Plan that includes the following elements:

- *For preserving existing riparian habitat outside the project site in perpetuity, the Compensatory Mitigation Plan shall include a summary of the proposed compensation lands (e.g., the number and type of credits, location of mitigation bank or easement), parties responsible for the long-term management*

of the land, and the legal and funding mechanism for long-term conservation (e.g., holder of conservation easement or fee title). The applicant shall provide evidence in the plan that the necessary mitigation has been implemented or that the applicant has entered into a legal agreement to implement it and that compensatory habitat shall be preserved in perpetuity.

- *For restoring or enhancing riparian habitat outside the project site, the Compensatory Mitigation Plan shall, at a minimum, include a description of the proposed habitat improvements, success criteria that demonstrate the performance standard of maintained habitat function has been met, legal and funding mechanisms, and parties responsible for long-term management and monitoring of the restored or enhanced habitat.*
- *Compensatory mitigation may be satisfied through compliance with permit conditions, or other authorizations obtained by the applicant (e.g., Lake and Streambed Alteration Agreement), if such requirements are equally or more effective than the mitigation identified above.*

Documentation of compliance with this mitigation measure and receipt of a Lake and Streambed Alteration Agreement from CDFW (or a letter from CDFW stating that such an Agreement is not required) shall be provided to El Dorado County before commencement of any project construction activities.

The foregoing revisions amplify the performance standards of Mitigation Measure 4.3-10, and do not affect the conclusions of the Draft EIR.

Response to Comment 11-96

Please see Responses to Comments 11-82 and 11-95. Nonetheless, as suggested by the comment, Mitigation Measures 4.3-11(a), 4.3-11(b), and 4.3-11(d) are hereby revised in the Final EIR. Mitigation Measure 4.3-11(d) is presented under Response to Comment 9-32. Revisions to Mitigation Measures 4.3-11(a) and 4.3-11(b) are as follows:

Mitigation Measure(s)

Implementation of the following mitigation measures would reduce the above potential impact to a *less-than-significant* level.

Project Development Area and Project Buildout

4.3-11(a) *Prior to initiation of any ground disturbance activities, the project proponent shall apply for a Section 404 permit from the U.S. Army Corps of Engineers (USACE) for impacts to regulated Waters (Waters) of the U.S. Waters that will be impacted shall be replaced or rehabilitated on a "no-net-loss" basis. Habitat creation, restoration, rehabilitation, and/or replacement shall be at a location and by methods acceptable to the USACE through the preparation and approval by USACE of a wetland mitigation and monitoring plan.*

For creating, restoring or rehabilitating wetlands or waters of the U.S. on or outside the project site, the wetland mitigation and monitoring plan shall include, at a minimum, a description of the proposed habitat

improvements, success criteria that demonstrate the performance standard of maintained habitat function has been met, legal and funding mechanisms, and parties responsible for long-term management and monitoring of the restored or enhanced habitat.

Compensatory mitigation may be satisfied through compliance with permit conditions, or the purchase of agency-approved mitigation bank credits, if these requirements are equally or more effective than the mitigation identified above.

4.3-11(b) *Prior to initiation of any ground disturbance activities, the project proponent shall apply for WDRs and/or a Water Quality Certification from the RWQCB (depending on the limit of federal jurisdiction to wetlands and waters of the U.S. in place at the time) and adhere to the certification conditions. Waters of the state that will be impacted shall be replaced or rehabilitated on a "no-net-loss" basis. Habitat creation, restoration, rehabilitation, and/or replacement shall be at a location and by methods acceptable to the RWQCB through the preparation and approval by the RWQCB of a wetland mitigation and monitoring plan.*

Compensatory mitigation may be satisfied through compliance with permit conditions, or the purchase of agency approved-mitigation bank credits, if such requirements are equally or more effective than the mitigation identified above.

The foregoing revisions amplify the performance standards of Mitigation Measures 4.3-11(a) and 4.3-11(b), and do not affect the conclusions of the Draft EIR.

Response to Comment 11-97

Please see Response to Comments 11-64 through 11-67. Furthermore, as discussed throughout this chapter, the Draft EIR's findings related to potentially significant impacts to special-status species and other wildlife is supported by substantial evidence. Because significant impacts would not occur to special-status species or other wildlife due to substantial interference with wildlife movement or a wildlife corridor, mitigation is not required (see PRC Section 21100[b][3] and CEQA Guidelines Section 15126.4[a][3] ["Mitigation measures are not required for effects which are not found to be significant"]).

Response to Comment 11-98

Please see Response to Comment 11-97.

Response to Comment 11-99

The commenter alleges that the Draft EIR's project-level mitigations for impacts to biological resources offer nothing for cumulative effects. This statement is incorrect as will be shown in what follows. Among the options that the commenter suggests are available to mitigate cumulative impacts is "…protecting habitat at strategic locations to ensure that wildlife conservation benefits persist through the current period of rapid habitat fragmentation of the region."

Among the on-site habitats, it can be suggested that the oak woodlands provide the greatest habitat value due to the resources they provide for wildlife, including but not limited to cover (i.e., shade provides relief from the sun in an effort to help regulate body temperature), concealment

(i.e., protection from predators), nesting locations, greater soil quality and fertility (see ORMP, Appendix A, A-19), and food sources. The County recognizes that fragmentation of oak woodlands has occurred due to past activities and continues to occur. In recognition of this, and the important biological value that oak woodlands provide, the County adopted its Oak Resources Management Plan (ORMP) in September 2017. Among the stated goals of the ORMP is the following:

> Identify Priority Conservation Areas (PCAs) within large expanses of contiguous oak woodland habitat where land or conservation easements may be acquired from willing sellers to offset the effects of increased habitat loss and fragmentation elsewhere;

The ORMP provides for flexibility in meeting oak resources mitigation requirements. An applicant for a development project may comply with the provisions of this ORMP by combining mitigation options. Among the options is payment of an in-lieu fee. In general, the in-lieu fee for oak woodlands is based on the costs of acquisition of land and conservation easements, along with management, monitoring, and administrative costs.

The ORPM identifies the areas in which acquisition of land or conservation easements from willing sellers shall be prioritized using the Oak Woodland Conservation Fund generated by the payment of the in-lieu fees described above. These areas were identified using the FRAP classification of oak woodland habitat in the County. After those areas were mapped, the areas were narrowed down to large expanses consisting of 500 acres or more. Those large expanses were further narrowed to lands where oak woodland habitat would not likely undergo substantial fragmentation and oak woodland conservation would be consistent with the 2004 General Plan land use designations. Areas specifically excluded were lands within Community Regions and Rural Centers and lands designated Low Density Residential [It is noteworthy that the entirety of the Town and Country Village El Dorado project site is comprised of such areas]. These resulting areas are classified in the ORMP as Priority Conservation Areas (PCAs). The 500-acre PCAs are generally made up of 40-acre and larger privately owned parcels.

The County has an established and continual working relationship with American River Conservancy (ARC) for purposes of implementing the ORMP. Money is set aside for this collaboration annually until 2035. ARC proposes oak woodland conservation easements and land, and the County reviews and approves contributions from its oak set-aside fund. To date, two transactions have occurred:

El Dorado Ranch Phase 3 (2018) – 1,018 acres
Priority Conservation Area: 755 acres

El Dorado Ranch Phase 2 (2016) – 1,080 acres
Priority Conservation Area: 862 acres

Mitigation Measure 4.3-13 of the Draft EIR requires the applicant to mitigate the project's impacts to on- and off-site oak woodlands by complying with the County's ORMP. Thus, the project will participate in the County's adopted regional strategy for addressing ongoing fragmentation of oak woodland habitat. The project's incremental contribution to the cumulative effect of oak woodland habitat fragmentation consists of a relatively small amount, equal to a maximum of approximately 2.7 acres of oak woodland and 11-12 individual oak trees. The applicant's compliance with the

County ORMP will address this incremental effect by participating in the County's regional strategy to offset fragmentation by conserving oak woodland habitat in strategic locations. Nevertheless, the Draft EIR conservatively concludes that the loss of any oak woodland habitat, in combination with other reasonably foreseeable development is a significant and unavoidable impact.

With respect to other on-site habitat types, primarily consisting of grassland, this resource does not provide the same level of biological value as oak woodlands, as explained above, and approximately 81,000 acres were identified within El Dorado County (see Table 5.12-1 of the General Plan EIR). According to the General Plan EIR, this habitat comprises mostly non-native annuals, primarily of Mediterranean origin. As mentioned in Response to Comment 11-64, apart from US 50, the project site is entirely surrounded by grassland, and to a lesser extent, scattered oak habitat. The project site is part of an area of contiguous habitat spanning over 1,100 acres. The proposed project would convert less than 50 acres (less than five percent) of that habitat on the edge of the habitat block. Thus, the County has a mitigation program in place that will protect habitat at strategic locations to ensure conservation benefits and connectivity, which includes monitoring and management. The project will be required to participate in the County's mitigation program.

Response to Comment 11-100

A number of mitigation measures in the Draft EIR require presence of a qualified biologist, including Mitigation Measures 4.3-6 ("a qualified biologist shall relocate the individual to habitat of equivalent or greater value outside of the proposed impact area prior to construction"), 4.3-7 ("Construction activities or personnel shall not cross the fencing, except with approval of a qualified biologist."), 4.3-8 ("If roosting bats are found, exclusion shall be conducted as recommended by a qualified biologist"), and 4.3-9 ("A qualified biologist shall monitor to ensure that ringtails do not disperse into the construction area.").

As detailed above, a qualified biologist would be located on-site as required by the mitigation measures both before and during construction. Furthermore, mitigation measures provided in the Draft EIR require that construction workers who injure or kill a protected species, such as for Northern California ringtail, or discover a dead or injured ringtail, immediately report the incident to a qualified biologist (see Mitigation Measure 4.3-9). However, a qualified biologist is not required to be on-site to monitor for species that are not protected, and the comment fails to provide any specific examples of special-status species that would be affected by the proposed project that are not already listed in the Draft EIR or Revised BRA. Accordingly, any inference that a qualified biologist is required to be on-site outside of the measures already in place, are both speculative and unsupported, and further responses are required.

Response to Comment 11-101

The Draft EIR's determinations related to potentially significant impacts to special-status species and other wildlife are supported by substantial evidence. Because significant impacts to special-status species or other wildlife due to use of rodenticide or avicides would not occur, mitigation is not required (see PRC Section 21100[b][3] and CEQA Guidelines Section 15126.4[a][3] ["Mitigation measures are not required for effects which are not found to be significant"]).

Response to Comment 11-102

Please see Responses to Comments 11-78 and 11-79. Furthermore, consistent with CEQA Guidelines Section 15126.4(a)(3), mitigation measures are not required for effects which are not found to be potentially significant.

Response to Comment 11-103

Please see Responses to Comments 11-68, 11-70, and 11-72. Furthermore, consistent with CEQA Guidelines Section 15126.4(a)(3), mitigation measures are not required for effects which are not found to be potentially significant.

Response to Comment 11-104

Please see Responses to Comments 11-68, 11-70, and 11-72. Furthermore, consistent with CEQA Guidelines Section 15126.4(a)(3), mitigation measures are not required for effects which are not found to be potentially significant.

Response to Comment 11-105

Please see Response to Comment 11-82. The BLHSP, with which the project must comply, includes various standards related to using native plants in landscaping (e.g., see Sections 5.2.3, 7.5).

Furthermore, it should be noted that Mitigation Measure 4.3-13 would mitigate potentially significant impacts to native oak trees to a less-than significant-level.

Response to Comment 11-106

The introductory comment does not specifically address the adequacy of the Draft EIR.

Response to Comment 11-107

The comment is a summary of arguments raised in the letter and does not specifically address the adequacy of the Draft EIR. The commenter provides specifics regarding the summarized claims in subsequent comments; responses to the substance of the comments are given below.

Response to Comment 11-108

The comment does not address the adequacy of the Draft EIR. The comment has been noted for the record and will be forwarded to the decision-makers for their consideration.

Response to Comment 11-109

Neither the County, nor the El Dorado County Air Quality Management District (EDCAQMD), nor any other regulatory agency with approval authority over the proposed project has a specific requirement as to which air quality and greenhouse gas (GHG) analysis modeling files are provided to the public. The typical approach to providing the air quality and GHG analysis modeling results when using California Emissions Estimator Model (CalEEMod) is to provide the results report, which is attached to the Draft EIR as Appendix D. Additionally, previous CalEEMod software versions, such as Version 2020.4.0, are now outdated, and are no longer the industry standard model. Rather, the industry standard model is web-based CalEEMod Version 2022, which was used for analyzing the proposed project's air quality and GHG emissions. Thus, a nexus for the County to require the Draft EIR or the CalEEMod modeling be revised does not exist. Nonetheless, the comment is noted for the record and will be forwarded to the decision-makers.

Response to Comment 11-110

Please see Response to Comment 11-109.

Response to Comment 11-111

The comment expresses a general opinion that several model inputs are inconsistent with information disclosed in the Draft EIR, and states that the project's construction and operational emissions may consequently be underestimated, but the comment does not provide specific examples that would allow for a detailed response. Please see Response to Comment 11-109 above.

Response to Comment 11-112

The comment includes a summary of the project construction schedule assumed in the CalEEMod modeling, and does not address the adequacy of the EIR. Please see Response to Comment 11-113 below.

Response to Comment 11-113

According to the CalEEMod User Guide, there are several opportunities for the user to change the default assumptions in the model. As detailed in the Draft EIR (see page 4.2-45), the use of default inputs is only appropriate when project-specific information is not available. Where project-specific information is available, such information should be applied in the model.

Construction information, including the anticipated length of construction phases, was provided by the project applicant. Because project-specific information was provided by the applicant, the default construction phase lengths were adjusted to match the actual anticipated construction schedule for the project. Such changes are substantiated, as the User Changes to Default Data table within the CalEEMod report states: "Phase timing adjustments were made based on project-specific data provided by the project applicant." Thus, the CalEEMod modeling prepared for the proposed project is adequate and accurate.

Response to Comment 11-114

As discussed in Response to Comment 11-113 above, construction information, including the anticipated length of construction phases, was provided by the project applicant. Because project-specific information was provided by the applicant, the default construction phase lengths were adjusted to match the actual anticipated construction schedule for the project. Thus, the information used within the Draft EIR represents a more accurate depiction of project construction, as opposed to the CalEEMod defaults that are based on a survey conducted by an air district with jurisdiction over a portion of the State located approximately 250 miles away from the project site. Therefore, the emissions modeling included as Appendix D of the Draft EIR was not revised, and the assumptions included in the Draft EIR regarding construction timing are adequate.

Response to Comment 11-115

Please see Responses to Comments 11-109 and 11-116.

Response to Comment 11-116

According to the CalEEMod user guide, "the Architectural Coatings screen calculates volatile organic compound (VOC) emissions from *painting* the interior/exterior of residential and non-residential buildings. The screen also calculates VOC emissions from parking lot *painting* or striping for Linear land use types" (italics added). While EDCAQMD Rule 215 includes VOC limits

for 42 coating categories, 39 of the coating categories included in the table are considered "specialty coatings" that would not be used in painting the proposed project. As such, in reviewing the VOC limits listed in Rule 215, the remaining three coating categories for flat, non-flat and non-flat high gloss coatings, were considered. Flat, non-flat and non-flat high gloss coatings have VOC limits of 50 g/L, 100 g/L, and 250 g/L, respectively. The default g/L value assumed in CalEEMod for the architectural coatings associated with the proposed project was 250 g/L.

The CalEEMod user guide further states that default coating VOC contents from State regulations are used for air districts that did not provide specific architectural coating information, and that "the user should consult their local air district for suggested values that may be lower than the State regulations." Given that the relevant coatings listed in Rule 215 have VOC limits lower than the CalEEMod default assumption of 250 g/L, the EDCAQMD has indicated that, as a conservative assumption, a VOC limit of 150 g/L should be used in the modeling. As such, the default architectural coating values were updated based on such guidance provided through personal communication with Rania Serieh of the EDCAQMD.

Response to Comment 11-117

Please see Response to Comment 11-109.

Response to Comment 11-118

Please see Responses to Comments 11-113, 11-114, and 11-116. In addition, it should be noted that the commenter's CalEEMod analysis artificially distorts the air quality results by arbitrarily assuming an overly aggressive 17-day site preparation phase, 26-day grading phase, and 30-day architectural coating phase. None of these unrealistic user inputs is a default value in the air quality model and are arbitrary assumptions that do not represent a realistic or feasible construction schedule.

Considering modeling inputs are not reflective of the project construction schedule, the SWAPE Model does not represent substantial evidence of impacts, as it relies on inaccurate and unrealistic assumptions in the modeling (see CEQA Guidelines, Section 15384[a], "Argument, speculation, unsubstantiated opinion or narrative, evidence which is clearly erroneous or inaccurate, or evidence of social or economic impacts which do not contribute to or are not caused by physical impacts on the environment does not constitute substantial evidence"; CEQA Guidelines, Section 15204, "an effect shall not be considered significant in the absence of substantial evidence"; and *Pocket Protectors v. City of Sacramento* [2004] 124 Cal.App.4th 903, 928, "mere argument, speculation, and unsubstantiated opinion, even expert opinion, is not substantial evidence."). Thus, the CalEEMod modeling prepared for the proposed project is adequate and accurate.

Response to Comment 11-119

The comment quotes statements from the Draft EIR but does not address the adequacy of the Draft EIR. As such, further response is not required.

Response to Comment 11-120

The Draft EIR relied on several sources of information to determine whether a health risk assessment was warranted.

One broadly applicable guidance document is the CARB's *Air Quality and Land Use Handbook: A Community Health Perspective* (CARB Handbook).[10] The CARB's Handbook summarizes common sources of toxic air contaminants (TACs) and provides information related to the evaluation of such sources. One category of TACs discussed within the CARB's Handbook is diesel particulate matter (DPM). A key finding of the CARB's Handbook, and the research summarized therein, is that emissions of DPM are highly dispersive, and concentrations diminish rapidly with distance from the source. In particular, studies included in the CARB's Handbook indicate that pollutant concentrations decrease substantially within the first 300 feet from sources of DPM. As discussed on page 4.2-53 of the Draft EIR, the nearest residence to the project site is located approximately 500 feet from the site's western boundary, across Bass Lake Road.

The dispersion of DPM from construction equipment would occur similarly to the rapid dispersion of DPM discussed in the CARB's Handbook. Thus, DPM emitted from construction equipment would disperse rapidly with distance, reducing the potential health risks to nearby receptors as distance increases from the source. In addition, because DPM is highly dispersive, the fact that construction equipment would operate intermittently throughout the entire approximately 30.3-acre Project Development Area would have a meaningful effect on the potential for project construction to result in health-related impacts through emissions of DPM. The relatively large area of the project site, and the separation of the site from the nearest residential receptors would allow DPM to disperse and concentrations to decrease prior to exposure of receptors at the nearest residences. Such dispersal reduces the likelihood that the proposed project would result in health-related impacts.

In addition to the dispersive nature of DPM, as discussed on page 4.2-54 of the Draft EIR, off-road construction equipment is highly regulated within California. Specifically, all construction equipment and operation thereof would be regulated per the In-Use Off-Road Diesel Vehicle Regulation, and all construction activities would be required to adhere to all applicable EDCAQMD rules and regulations, including, but not limited to, Rule 202 related to visible emissions, Rule 223 related to fugitive dust, and Rule 224 related to cutback asphalt paving material. Thus, on-site emissions of PM would be reduced, which would result in a proportional reduction in DPM emissions and exposure of nearby residences to DPM.

Considering the information presented above, as well as the discussion presented in Impact 4.2-3 of the Draft EIR, a quantitative analysis of health risks related to project construction is not warranted, as the specific details of project construction have been analyzed and determined not to represent a significant risk to public health.

With regard to operational emissions. On page 4.2-56, the Draft EIR correctly states: "Project Buildout would not involve any land uses or operations that would be considered major sources of TACs, including DPM. As such, the project would not generate any substantial pollutant concentrations during operations." The determination that project operations would not result in substantial TAC emissions was made based on the common sources of TACs included in the California Air Resource Board's *Air Quality and Land Use Handbook: A Community Health Perspective* (Handbook), as well as Raney's professional judgment regarding typical activities associated with the land uses proposed as part of the project. The CARB's Handbook includes land uses such as chrome plating facilities, gas dispensing facilities, certain dry cleaners, freeways and high traffic roads, distribution centers, and rail yards as typical sources of TACs. The residential and general commercial uses included in the proposed project involve none of the

[10] California Air Resources Board. *Air Quality and Land Use Handbook: A Community Health Perspective*. April 2005.

TAC-producing activities that occur in association with the CARB identified TAC emitting land uses. The commenter is correct that operation of the project would involve daily vehicle trips associated with residents and hotel employees; however, the limited amount of TAC emissions that would be generated by the anticipated daily vehicle trips would be distributed throughout the atmosphere over the entire length of each vehicle trip. As a result, a single receptor would not be exposed to even the relatively minor concentration of TACs generated by all of the anticipated project-related daily vehicle trips. Finally, the majority of passenger vehicles are gasoline-powered, with only a small percentage of passenger vehicles being diesel-powered. Gasoline vehicles do not release DPM, which is the pollutant that SWAPE ultimately claims would be released during project operations. Thus, if a future resident on-site owns a diesel vehicle, emissions from that vehicle would be minimal, because passenger vehicle DPM emissions are much less than emissions from heavy-duty equipment or heavy-duty diesel trucks, and would be dispersed throughout the path of travel of the vehicle.

The foregoing consideration of potential operational sources of TACs associated with the project demonstrates that the proposed project would not result in substantial TAC emissions over the lifetime of the project. Additionally, the Office of Environmental Health Hazard Assessment (OEHHA) does not require that an health risk assessment (HRA) be prepared for each and every project; rather, HRAs need only be prepared where a significant source of TACs has been identified. In the case of the proposed project, an operational source of TACs does not exist and has not been identified by SWAPE. Therefore, while the project would operate over an extended period of time, project operations would not result in TAC emissions or substantial health risks to any nearby receptors and an operational HRA is not required.

Response to Comment 11-121

Please see Response to Comment 11-120. Because the project was determined not to result in the substantial release of TACs, the project would not have the potential to result in health risks to nearby receptors, and a detailed HRA does not need to be prepared in order to determine that the project would not exceed the EDCAQMD's specific numeric thresholds of significance.

Response to Comment 11-122

Please see Response to Comment 11-123 below.

Response to Comment 11-123

In order to prepare a screening-level HRA SWAPE prepared a CalEEMod run that differed significantly from the CalEEMod run prepared for the proposed project. As discussed in Responses to Comments 11-114 and 11-116, the emissions estimation prepared for the proposed project was based on project-specific information provided by the project applicant, as well as guidance provided by the EDCAQMD. The changes implemented by SWAPE, such as the use of default construction phase lengths and VOC limits for architectural coatings, are not justified and have likely been implemented to artificially increase project-related emissions. Furthermore, by ignoring project-specific information SWAPE further invalidates their own analysis. Because the screening-level HRA presented by SWAPE is based on the emissions that SWAPE incorrectly estimated, the results in the screening-level HRA prepared by SWAPE may be summarily rejected as invalid and not representative of the project.

Notwithstanding the above, the technical approach and conclusions of SWAPE's screening-level HRA are further analyzed to determine the validity of SWAPE's remaining assumptions and methodology.

DPM is the solid material in diesel exhaust, because more than 90 percent of such material is less than one micrometer in diameter, DPM is a subset of the fine particulate matter ($PM_{2.5}$) category of pollutants.[11] Despite DPM being a subset of $PM_{2.5}$, SWAPE has used PM_{10} as a proxy to estimate emissions of DPM. Respirable particulate matter (PM_{10}) includes larger size classes of particles, those particles equal to or less than 10 micrometers in diameter, as well as the smaller size classes included in $PM_{2.5}$. By assuming all PM_{10} emissions represent DPM, SWAPE has inflated the amount of DPM emissions occurring due to the project. For instance, according to SWAPE's own construction modeling, maximum annual exhaust emissions of PM_{10} would be 0.09 tons per year (tons/yr) while maximum annual exhaust emissions of $PM_{2.5}$ would be 0.08 tons/yr. Given the sensitive nature of DPM emissions and dispersion analyses, even a slight discrepancy in the total emissions can lead to large changes in health risks. Without further justification for the use of PM_{10} rather than the more accurate $PM_{2.5}$, the veracity of SWAPE's conclusions regarding project-related health risks is further diminished.

Despite review of SWAPE's CalEEMod outputs, the method by which SWAPE arrives at an estimate of 685 pounds of DPM emitted over the construction period is unclear. Without the ability to replicate SWAPE's assumptions regarding DPM emissions, the accuracy of the emissions calculations used by SWAPE in the screening level HRA, and the resulting estimation of health risks, cannot be verified. In addition, while the CalEEMod modeling prepared by SWAPE correctly models the disturbance area of the Project Development Area as 25.95 acres (plus an additional 3.11 acres associated with the off-site improvements), in order to prepare the screening-level HRA SWAPE modeled the project area as "a 60.5-acre rectangular area source in AERSCREEN, with approximate dimensions of 700- by 350-meters." The discrepancy between the acreage assumptions in SWAPE's own CalEEMod modeling, as compared to SWAPE's screening-level HRA is not explained. In addition, assuming that construction of the entire 60.5-acre project site would occur simultaneously is unrealistic, as construction of the Program Study Area would most assuredly occur at a later date. The discrepancy in SWAPE's assumptions, as well as the inaccuracy in the AERSCREEN acreage assumptions further invalidates the analysis conducted by SWAPE.

SWAPE goes on to state that the Draft EIR's "operational CalEEMod emissions indicate that operational activities will generate approximately 1,420 pounds of DPM per year throughout operation." Again, the source of this estimate is unclear. For instance, the CalEEMod results report included as Attachment B to the SWAPE letter does not provide an estimate of annual operational emissions. In addition, while Attachment C to the SWAPE letter provides an annual emissions estimate of 0.05 tons/yr (which can be presumed to be PM_{10} even though it is not explicitly stated in the attachment) it is not explicitly stated that these estimated emissions were sourced from CalEEMod. Furthermore, total pounds of DPM associated with project operations are estimated to be 100 pounds within Attachment C to the SWAPE letter, which is a significant reduction as compared to the 1,420 pounds referenced in SWAPE's analysis. The discrepancy between the estimate of DPM emissions in SWAPE's own calculations and SWAPE's screening-level HRA is not explained. This overestimation of DPM emissions, through seemingly inflating the annual estimated emissions, would result in overestimated and inaccurate health risks; thus, further invalidating the analysis conducted by SWAPE.

Further, as discussed in Response to Comment 11-120, and on page 4.2-56 of the Draft EIR, the project would not involve operational sources of DPM. Because SWAPE has not identified any

[11] California Air Resources Board. *Overview: Diesel Exhaust & Health*. Available at: https://ww2.arb.ca.gov/resources/overview-diesel-exhaust-and-health. Accessed September 2024.

operational sources of DPM, interpretation of the estimated operational emissions included in SWAPE's Attachment C (which are presumed to represent PM_{10}) as DPM lacks justification. PM_{10} is any particulate matter that is less than 10 micrometers in diameter; thus, PM_{10} includes a wide variety of potential particles including compounds that are directly emitted or those that form through chemical reactions in the atmosphere. With no clear source of DPM related to the project, assuming that the estimate of PM_{10} emissions associated with project operations represents DPM lacks support. Despite the lack of specifically identified operational sources of DPM, SWAPE states that: "A release height of three meters was selected to represent the height of exhaust stacks on operational equipment and other heavy-duty vehicles…was used to simulate instantaneous plum dispersion upon release." Residential uses do not involve the use of operational equipment with exhaust stacks that release DPM or heavy-duty vehicles. SWAPE does not provide support for why this highly unusual use of equipment with exhaust stacks or heavy-duty vehicles would occur during project operations, thus rendering the commenter's assumption that operational emissions of DPM would occur unsupported. Such inputs are better suited to the analysis of a construction project, and use of unsupported modeling parameters would return erroneous estimates of emissions dispersion and resulting concentrations.

Based on the information provided above, the screening-level HRA prepared by SWAPE is fatally flawed by erroneous methodologies used to estimate emissions. The basic flaw in SWAPE's analysis is then compounded by an overestimation of DPM emissions, unsupported conclusions related to average DPM emissions, unsupported assertions related to operational emissions of DPM, and erroneous modeling parameters. Consequently, the results of SWAPE's screening-level HRA cannot be relied upon to accurately represent the potential health risks resulting from implementation of the project, and the conclusions presented in the Draft EIR related to health risks remain valid.

Response to Comment 11-124

Please see Response to Comment 11-123 above.

Response to Comment 11-125

Please see Response to Comment 11-123. Furthermore, consistent with CEQA Guidelines Section 15126.4(a)(3), mitigation measures are not required for effects which are not found to be potentially significant.

Response to Comment 11-126

The comment repeats the Draft EIR's findings. As such, further response is not required.

Response to Comment 11-127

Section 15126.4(B) of the CEQA Guidelines states the following regarding mitigation requirements:

> (B) Where several measures are available to mitigate an impact, each should be discussed and the basis for selecting a particular measure should be identified. Formulation of mitigation measures shall not be deferred until some future time. The specific details of a mitigation measure, however, may be developed after project approval when it is impractical or infeasible to include those details during the project's environmental review provided that the agency (1) commits itself to the mitigation, (2) adopts specific performance standards the mitigation will achieve, and (3) identifies the type(s) of potential action(s) that can feasibly achieve that performance standard and that will considered, analyzed, and potentially incorporated in the mitigation measure.

> Compliance with a regulatory permit or other similar process may be identified as mitigation if compliance would result in implementation of measures that would be reasonably expected, based on substantial evidence in the record, to reduce the significant impact to the specified performance standards.

With regard to construction GHG emissions, as presented on pages 4.2-79 through 4.2-81 of the Draft EIR, Mitigation Measure 4.2-7(b) requires that prior to the initiation of construction of the Program Study Area, the project applicant "demonstrate that construction-related GHG emissions would be reduced to 1,100 $MTCO_2e$/yr." Accordingly, a specific performance standard is included in Mitigation Measure 4.2-7(b). Further, the measure identifies a number of examples of reasonable means to achieve compliance with the stated performance standard. While the ultimate effectiveness of the examples included in the mitigation measure to reduce GHG emissions to below the stated performance standard is uncertain at this time, as further stated in Mitigation Measure 4.2-7(b), if the quantified reduction measures do not reduce construction-related GHG emissions to below 1,100 $MTCO_2e$/yr, offsite carbon credits may be purchased to make up the difference. Thus, implementation of the requirements included in Mitigation Measure 4.2-7(b) is feasible, and the County and applicant are committed to such implementation, as required in Mitigation Measure 4.2-7(b) of the Draft EIR. Moreover, sufficient evidence exists that the examples included in the mitigation measure are effective for reducing GHG emissions.

Because Mitigation Measure 4.2-7(b) includes a specific, enforceable performance standard and identifies potential actions necessary to achieve the standard, Mitigation Measure 4.2-7(b) meets the requirements of Section 15126.4(B) of the CEQA Guidelines, and the EIR does not inappropriately defer mitigation. In addition, as discussed within Chapter 3, Project Description, of the Draft EIR, development within the Program Study Area of the project site is not currently proposed, and buildout of the Program Study Area was evaluated within the Draft EIR at a program level based on a maximum buildout scenario using the potential allowable uses, building areas, and required parking described in the BLHSP Amendment document. Mitigation Measure 4.2-7(b) would ensure that the appropriate reduction measures are implemented and/or offsite carbon credits are purchased, as necessary, at the time that future development is proposed within the Program Study Area. Thus, a quantification of the reduction measures included in Mitigation Measure 4.2-7(b) is not required at this time, and quantification will be required as development is proposed within the Program Study Area in the future.

With regard to operational GHG emissions, as discussed on page 4.2-42 of the Draft EIR, given the lack of EDCAQMD-established GHG emissions thresholds that would apply to the project, and based on the County's approach for several other recent GHG analyses, as well as guidance provided through personal communication with Rania Serieh of the EDCAQMD, the analysis included within the Draft EIR takes the reasonable approach of applying thresholds of another nearby air quality management district, specifically, the Sacramento Metropolitan Air Quality Management District (SMAQMD). For evaluating operational GHG emissions, SMAQMD has prepared a two-tiered framework of analysis for new projects. All development projects are required to implement Tier 1 measures (BMP 1 and 2). If operations of the proposed project would exceed 1,100 $MTCO_2e$/yr after implementation of the Tier 1 measures, then the project is required to implement Tier 2 measures (BMP 3). Both the Tier 1 and Tier 2 measures are qualitative in nature. As such, if a project implements the required design elements of BMPs 1 through 3, GHG emissions are assumed to be less than significant. Mitigation Measure 4.2-7(a) would ensure that the proposed project is consistent with SMAQMD BMPs 1 and 2. In addition, Mitigation Measure 4.2-7(c) requires implementation of Mitigation Measure 4.11-3 of the Draft EIR, which includes

CAPCOA measures to reduce VMT related to BMP 3, which requires that the project meet the VMT requirements of an established local SB 743 target.

Given that the SMAQMD operational GHG emission thresholds are qualitative in nature, a quantification of the GHG emissions reductions associated with such measures is not required.

Response to Comment 11-128

The comment quotes CEQA Guidelines Section 15096(g)(2), which is related to the requirement that a responsible agency not approve a project if feasible alternatives or mitigation measures are available to substantially lessen or avoid any significant effect the project would have on the environment exist. However, El Dorado County is the lead agency for the proposed project, not a responsible agency. El Dorado County, as lead agency, has already identified feasible mitigation measures in the Draft EIR for purposes of reducing the project's air quality and GHG emissions. Nevertheless, while their efficacy is uncertain, the County has identified, and the applicant has agreed to, additional mitigation measures related to reducing GHG emissions. Please see Response to Comment 11-131.

Response to Comment 11-129

The comment alleges that, based on previous comments, the proposed project would result in potentially significant impacts to air quality, health risk, and GHG emissions that should be mitigated further. The commenter provides specifics regarding these claims in previous comments, and responses to the substance of the comments are given in response to the specific comments above.

Response to Comment 11-130

The commenter recommends mitigation for project construction and operations, but the commenter-recommended mitigation is limited to directly addressing construction-related impacts. As detailed in previous responses, the Draft EIR's determination that project construction would result in emissions under EDCAQMD's significance thresholds is supported by substantial evidence. As such, project construction emissions would not expose sensitive receptors to substantial concentrations of particulate matter during construction, and the adoption of further mitigation is not warranted.

Response to Comment 11-131

As discussed on page 4.2-42 of the Draft EIR, given the lack of EDCAQMD-established GHG emissions thresholds that would apply to the project, and based on the County's approach for several other recent GHG analyses, as well as guidance provided through personal communication with Rania Serieh of the EDCAQMD, the analysis included within the Draft EIR takes the reasonable approach of applying thresholds of another nearby air quality management district, specifically, SMAQMD. For evaluating operational GHG emissions, SMAQMD has prepared a two-tiered framework of analysis for new projects. All development projects are required to implement Tier 1 measures (BMP 1 and 2). If operations of the proposed project would exceed 1,100 $MTCO_2e$/yr after implementation of the Tier 1 measures, then the project is required to implement Tier 2 measures (BMP 3). Both the Tier 1 and Tier 2 measures are qualitative in nature. As such, if a project implements the required design elements of BMPs 1 through 3, GHG emissions are assumed to be less than significant.

Mitigation Measure 4.2-7(a) of the Draft EIR would ensure that the proposed project is consistent with SMAQMD BMPs 1 and 2. With regard to BMP 3, as discussed in Chapter 4.11,

Transportation, of the Draft EIR, and summarized on page 4.2-75 of the Draft EIR, according to the Transportation Impact Study prepared for the proposed project by T. Kear Transportation, VMT impacts associated with the Project Development Area, as well as the commercial portion of the Program Study Area, would be less than significant. Thus, mitigation, such as those employee-related trip reduction measures recommended by the commenter, was not required to reduce VMT associated with the Project Development Area or the commercial portion of the Program Study Area. However, VMT associated with the residential portion of the Program Study Area was determined to result in a significant impact. Thus, Mitigation Measure 4.2-7(c) requires implementation of Mitigation Measure 4.11-3 of the Draft EIR, which includes CAPCOA measures to reduce VMT associated with the residential portion of the Program Study Area to the maximum extent feasible.

Given that VMT impacts associated with the Project Development Area, as well as the commercial portion of the Program Study Area, were determined to be less than significant, neither the County, nor SMAQMD, nor any other regulatory agency with approval authority over the proposed project has a specific requirement that the project further reduce potential GHG emissions related to VMT associated with these portions of the proposed project. Thus, a nexus for the County to require the proposed project to implement employee-related trip reduction mitigation measures does not exist. Any obligation for the proposed project to implement additional mitigation measures would be voluntary by the project applicant.

It is noteworthy that of the suggested measures included in the comment, which the commenter states are recommendations from the Southern California Association of Governments' (SCAG's) 2020 RTP/SCS PEIR's Greenhouse Gas Project Level Mitigation Measures ("PMM-GHG-1"), only the first major bullet and its sub-bullet points are contained in SCAG Mitigation PMM-GHG-1. The remaining five major bullet points in the comment are not part of SCAG's mitigation.

Nonetheless, the commenter is correct in that employer-based trip reduction programs may be feasible for the proposed project, and would be anticipated to reduce GHG emissions. While not required given the significant and unavoidable GHG impact identified in the Draft EIR is related to residential VMT associated with the Program Study Area, the project applicant has agreed to voluntarily implement such measures to further reduce the overall GHG emissions associated with the proposed project. Thus, the Draft EIR has been revised as follows to incorporate such measures.

Page 4.2-73 of the Draft EIR has been revised as follows:

> BMP-3: No Net increase in Total VMT
>
> As noted above, BMPs 1 and 2 would be required to be implemented during development of the Project Development Area. However, even with implementation of BMPs 1 and 2, the Project Development Area would still result in annual emissions over the SMAQMD's threshold of significance and, therefore, would be subject to BMP 3. The proposed project would not qualify for exemption from BMP 3 under the OPR's *de minimis* VMT criteria.
>
> As discussed in Chapter 4.11, Transportation, of this EIR, VMT associated with the Project Development Area would be less than 85 percent of the Baseline VMT per capita within the project area. Therefore, according to the Transportation Impact Study prepared for the proposed project by T. Kear Transportation, VMT impacts associated with the Project Development Area would be less than significant. Consequently, the Project Development Area would meet the requirements of an established local SB 743 target, which would ensure the proposed project would comply with BMP-3.

It should also be noted that, while not required given that VMT associated with the Project Development Area would be less than significant, the project applicant has agreed to voluntarily implement several CAPCOA-recommended employer-based trip reduction programs to further reduce the overall GHG emissions associated with the Project Development Area, which are provided as Mitigation Measure 4.2-7(d), below.

Page 4.2-75 of the Draft EIR has been revised as follows:

BMP-3: No Net increase in Total VMT

As noted above, BMPs 1 and 2 would be required to be implemented as part of Project Buildout. However, even with implementation of BMPs 1 and 2, the proposed project would still result in annual emissions over the SMAQMD's threshold of significance and, therefore, would be subject to BMP 3. The proposed project would not qualify for exemption from BMP 3 under the OPR's *de minimis* VMT criteria.

As discussed in Chapter 4.11, Transportation, of this EIR and noted above, VMT associated with the Project Development Area would be less than 85 percent of the Baseline VMT per capita within the project area. Therefore, according to the Transportation Impact Study prepared for the proposed project by T. Kear Transportation, VMT impacts associated with the Project Development Area would be less than significant. With regard to the Program Study Area, the Transportation Impact Study concluded that VMT associated with the retail portion of the Program Study Area would be less than 85 percent of the Baseline VMT per capita within the project area, and, therefore, would result in a less-than-significant impact. However, VMT associated with the residential portion of the Program Study Area would exceed 85 percent of the Baseline VMT per capita within the project area, and, therefore, would result in a significant impact. Therefore, because residential VMT associated with the Program Study Area would be above the applicable VMT threshold, VMT impacts associated with Project Buildout would be significant.

Consequently, the proposed project under Project Buildout conditions would not meet the requirements of an established local SB 743 target, and, as a result, would not comply with BMP-3.

It should also be noted that, while not required given that the significant GHG impact identified above is related to residential VMT associated with the Program Study Area, the project applicant has agreed to voluntarily implement several CAPCOA-recommended employer-based trip reduction programs to further reduce the overall GHG emissions associated with the Program Study Area, which are provided as Mitigation Measure 4.2-7(d), below.

Page 4.2-76 of the Draft EIR has been revised as follows:

Mitigation Measure(s)

Implementation of the following mitigation measures would reduce the above potential impacts related to construction GHG emissions, as well as BMP-1 and BMP-2 to a less-than-significant level. As a result, the Project Development Area's incremental contribution to the cumulatively significant effects of GHG emissions and global climate change would be reduced to a less than cumulatively considerable level.

With regard to BMP-3, as discussed further in Chapter 4.11, Transportation, of this EIR, mitigation for the VMT associated with the residential portion of the Program Study Area can be based on measures identified by CAPCOA. However, several of such measures are already inherently included in the design of the project, specifically the substantial

densification relative to surrounding land uses, the mixed-use nature of the project, and bicycle connectivity. Additional CAPCOA measures, such as unbundling of parking costs from rent and reducing parking supply, are included as Mitigation Measure 4.11-3 to reduce the number of vehicle trips that would be generated by the residential component of the Program Study Area. However, as discussed therein, the CAPCOA measures ultimately rely upon an alternative transportation mode, such as transit, being available. Because alternative modes are not available for the residential portion of the Program Study Area, the measures should only be implemented as practicable, to the satisfaction of the County Engineer. Thus, the CAPCOA measures included in Mitigation Measure 4.11-3 are not anticipated to reduce per capita VMT by the required 13.83 percent needed to meet the applicable threshold of significance. Consequently, the proposed project would still be considered inconsistent with SMAQMD BMP-3, and the incremental contribution to the cumulatively significant effects of GHG emissions and global climate change related to full Project Buildout, specifically, the residential portion of the Program Study Area, would remain *cumulatively considerable* and *significant and unavoidable*.

In addition, while not required given that the significant and unavoidable GHG impact identified above is related to residential VMT associated with the Program Study Area, as noted above, the project applicant has agreed to voluntarily implement several CAPCOA-recommended employer-based trip reduction programs to further reduce the overall GHG emissions associated with the proposed project. The CAPCOA has published guidance on estimating the associated emission reduction benefits associated with employer-based trip reduction programs.[12] The CAPCOA-recommended employer-based trip reduction programs are listed as follows:

- **T-5:** Implement Commute Trip Reduction Program (Voluntary);
- **T-6:** Implement Commute Trip Reduction Program (Mandatory Implementation and Monitoring);
- **T-7:** Implement Commute Trip Reduction Marketing;
- **T-8:** Provide Ridesharing Program;
- **T-9:** Implement Subsidized or Discounted Transit Program;
- **T-10:** Provide End-of-Trip Bicycle Facilities;
- **T-11:** Provide Employer-Sponsored Vanpool;
- **T-12:** Price Workplace Parking;
- **T-13:** Implement Employee Parking Cash-Out; and
- **T-23:** Provide Community-Based Travel Planning.

However, several of the above listed measures are not feasible or not relevant to the project as they would double count emission reduction benefits. For example:

- **T-5** is not relevant as the measure is listed as mutually exclusive to T-7 and has identical emission reduction benefits to T-7. The effectiveness of the trip reduction measures is estimated using T-7 rather than T-5.
- **T-6** is not feasible, as the measure requires implementation of T-7, T-8, T-9, T-10, and T-11; some of which are not feasible, as discussed below.
- **T-9** is not feasible because the measure requires high quality transit service within one-mile of the project site. High quality transit service is defined as a fixed route transit service with 15-minute headways during commute hours. Transit service with 15-minute headways does not exist within one-mile of the project site. Thus, subsidized transit service for employees is not considered valid mitigation for GHG reductions.

[12] California Air Pollution Control Officers Association. *CAPCOA Handbook for Analyzing Greenhouse Gas Emission Reductions, Assessing Climate Vulnerabilities, and Advancing Health and Equity*. December 2021.

- **T-12** is not feasible because paid parking (at above market rate as required by the measure) at the commercial and mixed used retail businesses is not anticipated to be acceptable to potential restaurant and retail tenants at this location.
- **T-23** requires teams of trained travel advisors visiting all households within the targeted geographic area to have tailored conversations about residents' household travel needs. While the project applicant could potentially enforce a requirement for household consultation during initial sales, a way to require continued implementation of this measure over time and beyond the initial owners does not exist. Thus, this measure is determined to be infeasible.

The remaining CAPCOA-recommended employer-based trip reduction programs were determined to be feasible for the proposed project, and are therefore voluntarily included as Mitigation Measure 4.2-7(d), below.

Based on CAPCOA guidance, the feasible CAPCOA-recommended employer-based trip reduction programs included in Mitigation Measure 4.2-7(d) could result in GHG emissions reductions of up to:

- **T-7** = three percent reduction in emissions in commuting GHG emissions;
- **T-8** = three percent reduction in emissions in commuting GHG emissions;
- **T-10** = 2.5 percent reduction in emissions in commuting GHG emissions;
- **T-11** = 4.6 percent reduction in emissions in commuting GHG emissions; and
- **T-13** = 8.8 percent reduction in emissions in commuting GHG emissions.

To calculate the emission reduction percentages for the mitigation strategies that include an adjustment based on the number of employees eligible to participate (i.e., CAPCOA measures T-7, T-8, and T-13), the "percentage of eligible employees" assumed that employees residing in the Project Development Area's employee housing would be ineligible to participate in the commute trip reduction measures. For example, employees living on-site are not anticipated to contribute to GHG reductions from a parking cash-out program (CAPCOA measure T-13), as such employees are anticipated to walk or bike to work due to the proximity of the on-site housing to the on-site employment uses. A total of 84 out of the 325 employees associated with the proposed project were assumed to reside in the provided employee housing (i.e., 1.5 employees per unit on average). Therefore, only 74 percent of the employees are assumed to be eligible to participate, and consequently, the anticipated emission reduction benefit for measures T-7, T-8, and T-13 was estimated as 74 percent of CAPCOA's maximum possible benefit from these measures.

When combined, the feasible CAPCOA-recommended employer-based trip reduction programs would result in a total reduction of up to 20.3 percent in commute GHG emissions. However, the actual reduction percentage would be dependent on the level of participation associated with each measure, which cannot be guaranteed as it depends upon individual employee selection preferences.

Based on the overall mobile-source emissions associated with the non-residential portions of the Project Development Area and Program Study Area (i.e., commute GHG emissions), voluntary implementation of these measures could result in an overall reduction of 145.75 $MTCO_2e$/yr associated with the Project Development Area and 983.54 $MTCO_2e$/yr associated with the Program Study Area. The level of participation assumed for the above measures is based on reasonable assumptions guided by CAPCOA. However neither the project applicant nor the County can compel the level of participation associated with employees of the proposed project. Thus, this level of reduction cannot be guaranteed.

Page 4.2-81 of the Draft EIR has been revised as follows:

4.2-7(c) Implement Mitigation Measure 4.11-3.

Project Development Area and Project Buildout

4.2-7(d) The below CAPCOA-recommended employer-based trip reduction programs shall be offered by the project applicant for the commercial uses within the Project Development Area and Program Study Area, to the satisfaction of the El Dorado County Department of Transportation:

- ***T-7:** Implement Commute Trip Reduction Marketing;*
- ***T-8:** Provide Ridesharing Program;*
- ***T-10:** Provide End-of-Trip Bicycle Facilities;*
- ***T-11:** Provide Employer-Sponsored Vanpool; and*
- ***T-13:** Implement Employee Parking Cash-Out.*

The lease agreements for all commercial tenants shall include language notifying tenants that they are required to inform their employees of the above-listed programs and provide related informational materials. The project applicant shall be required to provide an annual report to the El Dorado County Planning and Building Department and Department of Transportation, on the level of employee participation in each program over the course of the previous year.

Response to Comment 11-132

Please see Response to Comment 11-131. Mitigation Measures 4.2-7(a) and 4.2-7(b) set forth within the Draft EIR allow for the purchase of carbon offsets to ensure that GHG emissions associated with project construction and operation are adequately reduced to the levels required by the applicable SMAQMD thresholds of significance. The commenter's request that offsets be a last result is noted and forwarded to the decision-makers.

Response to Comment 11-133

Please see Response to Comment 11-131.

Response to Comment 11-134

The comment asserts that a revised EIR should be prepared that includes all revised mitigation measures, as well as updated air quality, health risk, and GHG analyses to ensure that the necessary mitigation measures are implemented to reduce emissions. The comment provides conclusory remarks and does not raise any additional environmental issues that are not previously addressed. As such, further response is not required.

Response to Comment 11-135

The comment does not address the adequacy of the Draft EIR. The comment has been noted for the record and will be forwarded to the decision-makers for their consideration.

Response to Comment 11-136

The comment does not address the adequacy of the Draft EIR. The comment has been noted for the record and will be forwarded to the decision-makers for their consideration.

Response to Comment 11-137

The comment does not address the adequacy of the Draft EIR or specific environmental issues with the proposed project. The comment has been noted for the record and will be forwarded to the decision-makers for their consideration.

Response to Comment 11-138

The comment does not address the adequacy of the Draft EIR or specific environmental issues with the proposed project. The comment has been noted for the record and will be forwarded to the decision-makers for their consideration.

Response to Comment 11-139

The comment does not address the adequacy of the Draft EIR or specific environmental issues with the proposed project. The comment has been noted for the record and will be forwarded to the decision-makers for their consideration.

Response to Comment 11-140

The comment does not address the adequacy of the Draft EIR or specific environmental issues with the proposed project. The comment has been noted for the record and will be forwarded to the decision-makers for their consideration.

Response to Comment 11-141

CEQA requires an evaluation of the impacts of a project on the environment. CEQA Guidelines Section 15360 defines "environment" as "…the physical conditions which exist within the area which will be affected by a proposed project including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic significance."

The Supreme Court has declared that CEQA does not, as a general matter, encompass "broader considerations associated with the health and safety of a project's future residents or users." (see *California Building Industry Assn. v. Bay Area Air Quality Management Dist.* (2015) 62 Cal.4th 369, 387 [CBIA]). Impacts of the environment on a project's residents or users are only a subject of CEQA analysis when the project "exacerbate[s] hazards that are already present." (*Id*., p 388). An argument that a project will be an unhealthy place to live or work does not raise the possibility of an impact on the environment that is analyzed under CEQA.[13]

Rather than asserting that an adverse impact on the environment in general would occur, the comment alleges that there is a possibility of an adverse impact on the project's future residents. The comment does not identify any existing hazard that would be exacerbated by the proposed project, nor does the comment explain how the environment would be affected. As the Supreme Court has explained, while CEQA encompasses consideration of health and safety, "[r]equiring such an evaluation in all circumstances would impermissibly expand the scope of CEQA." (*CBIA*, s*upra*, 62 Cal.4th, p. 387). Thus, further analysis is not required.

Regardless, the comment ignores substantial evidence in the Draft EIR supporting the conclusion that the proposed project would not expose sensitive receptors to substantial pollutant

[13] See *East Sacramento Partnerships for a Livable City v. City of Sacramento* (2016) 5 Cal.App.5th 281, 296; see also *Pocket Protectors v. City of Sacramento* (2004) 124 Cal.App.4th 903, 929 ("the mere possibility of adverse impact on a few people, as opposed to the environment in general," is not an environmental impact under CEQA.)

concentrations or exceed the 10 in one million cancer risk threshold or 1.0 non-cancer hazard index set by EDCAQMD health impacts. The comment does not demonstrate otherwise.

The commenter's analysis of alleged formaldehyde impacts from the proposed project relies on speculation and a generic, non-project-specific analysis regarding alleged furniture and materials that would be used in unspecified "composite wood products" indoors (see Comment 11-139). Accordingly, the commenter's analysis is inherently speculative and does not represent substantial evidence of a significant impact on human health (see CEQA Guidelines, Section 15384[a], "Argument, speculation, unsubstantiated opinion or narrative, evidence which is clearly erroneous or inaccurate, or evidence of social or economic impacts which do not contribute to or are not caused by physical impacts on the environment does not constitute substantial evidence"; CEQA Guidelines, Section 15204, "an effect shall not be considered significant in the absence of substantial evidence"; and *Pocket Protectors v. City of Sacramento* [2004] 124 Cal.App.4th 903, 928, "mere argument, speculation, and unsubstantiated opinion, even expert opinion, is not substantial evidence.").

Response to Comment 11-142

As previously discussed, the comment's analysis of indoor effects of the project on employees is inherently speculative and does not constitute an impact of the project on the environment. Moreover, in addition to the reasons stated above (see Response to Comment 11-141), the commenter's purported air quality analysis is not a CEQA analysis, and, in light of CEQA's focus on projects' potential impacts on the human environment and not future users, the CEQA Guidelines focus air quality analyses on outdoor air quality. As such, CEQA air quality analyses address whether a project would conflict with or obstruct implementation of the applicable air quality plan, contribute to an existing regional or local air quality violation, or result in a cumulatively considerable increase in a criteria pollutant for which the region is in non-attainment, among other similar relevant factors. Indoor air quality analysis is not required by CEQA Guidelines, Appendix G.

Furthermore, indoor air quality in California is not regulated by the State through CEQA, but through the State's implementation of the California Green Building Standards Code (CALGreen Code). The CALGreen Code is applicable to new commercial and industrial buildings and is designed to promote environmentally responsible, cost-effective, healthier places to live and work. CALGreen includes both required measures and voluntary measures, a number of which help assure healthful indoor air quality, such as measures addressing chemical emissions from composite wood products, carpets, resilient flooring materials, paints, adhesives, sealants, and insulation, and also ventilation.

More specifically, Sections 4.5 and 5.5, Environmental Quality, of the CALGreen Code provide mandatory residential and non-residential measures to reduce the quantity of air contaminants that are odorous, irritating, and/or harmful to the comfort and well-being of a building's installers, occupants and neighbors. The CALGreen Code includes VOC limits for paints, coatings, adhesives, adhesive bonding primers, sealants, sealant primers, and caulk, as well as requirements for carpet systems in accordance with the California Department of Public Health standards.

Further, Sections 4.504.5 and 5.504.4.5, Composite Wood Products, of the CALGreen Code establish limits for formaldehyde in residential and non-residential structures, respectively, as specified in ARBS's Air Toxics Control Measure for Composite Wood (e.g., particle board). The

measures contained therein have been established through the CALGreen Code and are designed to reduce the quantity of air contaminants to safe and acceptable levels.

Accordingly, the comment has not shown that the proposed project would have a significant impact on residents or employees, and further analysis in the EIR is not required. In addition, mitigation would not be required, as the comment does not show that significant impacts would occur and because stringent regulations are already in place to ensure the safety of the products.

Response to Comment 11-143

As noted in detail within Responses to Comments 11-141 and 11-142, an argument that a project would be an unhealthy place to live or work does not raise the possibility of an impact on the environment analyzed under CEQA. While the fact that people could be exposed to formaldehyde outdoors is hereby noted, the commenter has failed to show any project-specific impacts that would exacerbate the risk posed by small amounts of formaldehyde exposure outdoors.

Response to Comment 11-144

Please see Responses to Comments 11-141 and 11-142.

Furthermore, another measure the State has taken to address the issue of formaldehyde in particular is CARB's Airborne Toxic Control Measure (ATCM) to Reduce Formaldehyde Emissions from Composite Wood Products. The purpose of the ATCM is to reduce formaldehyde emissions from composite wood products and finished goods that contain composite wood products that are sold, offered for sale, supplied, used, or manufactured for sale in California. The composite wood products covered by the ATCM are hardwood, plywood, particleboard, and medium-density fiberboard. The ATCM applies to manufacturers, distributors, importers, fabricators that use such materials to make other goods, retailers, third-party certifiers who manufacture, offer for sale, or supply such goods in California.

The ATCM assures that all building materials and furnishing manufactured, distributed, imported and used in new construction in California meet concentrations determined by the State to assure healthful indoor air quality. According to CARB, from a public health standpoint, the Composite Wood Product's Regulation's (CWP Regulation) emission standards are set at levels intended to protect public health.[14] The CWP Regulation, adopted in 2007, established two phases for emissions standards; an initial phase (Phase I), and later, a more stringent second phase (Phase 2) that requires all finished goods, such as flooring, destined for sale or use in California to be made using complying composite wood products. As of January 2014, only Phase 2 products are legal for sale in California. Thus, all new wood products installed in the proposed structures would comply with the more stringent Phase 2 requirements. Accordingly, the State has addressed the issue of indoor air quality related to formaldehyde through regulation.

Response to Comment 11-145

The comment makes non-specific claims regarding methods the proposed project should use during CEQA environmental review to reduce indoor exposure to formaldehyde. The commenter provides specifics regarding prescribed methods in subsequent comments; responses to the substance of the comments are given in response to those comments. It should be noted that the

[14] California Air Resources Board. *Frequently Asked Questions for Consumers, Reducing Formaldehyde Emissions from Composite Wood Products*. Available at: https://ww2.arb.ca.gov/resources/documents/consumer-faq. Accessed September 2024.

comment also refers to the "City's CEQA review," despite El Dorado County being the lead agency for the proposed project.

Response to Comment 11-146
Please see Responses to Comments 11-141, 11-142, and 11-144.

Response to Comment 11-147
Please see Responses to Comments 11-141, 11-142, and 11-144.

Response to Comment 11-148
Please see Responses to Comments 11-141, 11-142, and 11-144.

Response to Comment 11-149
Please see Responses to Comments 11-141, 11-142, and 11-144.

Response to Comment 11-150
The comment notes that most manufacturers in the United States conduct chemical emission rate testing pursuant to varying standards, and provides general information on chemical testing and certification programs. The comment also notes that data regarding emission rates can be requested from manufacturers. However, the comment does not present any project-specific environmental issues, and thus, further response is not required.

Response to Comment 11-151
The comment does not address the adequacy of the Draft EIR.

Response to Comment 11-152
Please see Responses to Comments 11-141, 11-142, and 11-144.

Response to Comment 11-153
Please see Responses to Comments 11-141, 11-142, and 11-144.

Response to Comment 11-154
Please see Responses to Comments 11-141, 11-142, and 11-144.

Response to Comment 11-155
Please see Responses to Comments 11-141, 11-142, and 11-144.

Response to Comment 11-156
Please see Responses to Comments 11-141, 11-142, and 11-144.

Response to Comment 11-157
Please see Responses to Comments 11-141, 11-142, and 11-144.

Response to Comment 11-158
The comment does not address the adequacy of the Draft EIR. The comment has been noted for the record and will be forwarded to the decision-makers for their consideration.

Response to Comment 11-159

Please see Responses to Comments 11-141, 11-142, and 11-144. As noted previously, the comment does not identify any existing hazard that would be exacerbated by the proposed project, nor does the comment explain how the environment would be affected. As the Supreme Court has explained, while CEQA does encompass consideration of health and safety, "[r]equiring such an evaluation in all circumstances would impermissibly expand the scope of CEQA." (*CBIA*, *supra*, 62 Cal.4th at p. 387.) Thus, further analysis is not required.

Response to Comment 11-160

Please see Responses to Comments 11-141, 11-142, and 11-144. The comment alleges an impact on the project's residents and users, not impacts on the broader environment. Thus, analysis is not required under CEQA.

Response to Comment 11-161

The comment pertains to potential effects of the environment on the project, which as has already been stated, is outside the scope of required environmental review pursuant to CEQA. Furthermore, the commenter's "experience" does not constitute substantial evidence pursuant to CEQA without the provision of additional supporting information. Nevertheless, it is noted that Chapter 5 of the CALGreen Code provides mandatory measures for non-residential buildings. As stated in Section 5.504.5.3, Filters, of the CALGreen Code, "mechanically ventilated buildings, provide regularly occupied areas of the building with air filtration media for outside and return air that provides at least a Minimum Efficiency Reporting Value (MERV) of 13. MERV 13 filters shall be installed prior to occupancy, and recommendations for maintenance with filters of the same value shall be included in the operation and maintenance manual."

Thus, all non-residential buildings associated with the proposed project would be required to install MERV 13 or better in compliance with existing Building Code Standards.

Response to Comment 11-162

Please see Responses to Comments 11-141, 11-142, and 11-144.

Response to Comment 11-163

Please see Responses to Comments 11-141, 11-142, and 11-144.

Response to Comment 11-164

Please see Responses to Comments 11-141, 11-142, and 11-144.

Response to Comment 11-165

Please see Responses to Comments 11-141, 11-142, and 11-144.

Response to Comment 11-166

Please see Responses to Comments 11-141, 11-142, and 11-144.

Response to Comment 11-167

The comment alleges that a ground contamination survey needs to be conducted at the project site to maintain indoor concentrations of TCE and PCE at acceptable indoor concentrations. The comment, however, does not state what TCE and PCE stand for. The commenter could be asking for a survey of Trichloroethylene and Perchloroethylene, both known ground contaminants.

Regardless, the comment does not allege that the project site has been contaminated with TCE or PCE, nor has the commenter shown that there would be any project-specific impacts due to TCE or PCE. As noted in Chapter 4.6 of the Draft EIR, the Phase I ESA prepared for the project site did not identify potential RECs, HRECs, or CRECs on-site, or evidence related to such, including structures that could contain asbestos-containing materials or lead-based paint, PCB containing equipment, substantial soil staining, stressed vegetation, ASTs or USTs, or wastewater conveyance or storage.

Consistent with CEQA Guidelines Section 15126.4(a)(3), mitigation measures are not required for effects which are not found to be potentially significant.

Letter 12

8/17/2024

2024 AUG 21 AM 11:22

PLANNING DEPARTMENT

El Dorado County Planning and Building Department
Planning Division
ATTN: Ande Flower
2850 Fairlane Court
Placerville, CA 95667

RE: Town and Country Village - El Dorado Project
DRAFT EIR

Dear Ande Flower,

12-1 I am pleased to support the Town and Country Village, El Dorado project. Being a resident in the county, I appreciate the value and positive effects this development will bring.

The Town & Country Village museum is a great addition, preserving our history and serving as an educational center for both residents and visitors. The economic boost from the Town & Country Village project's new hotels and retail spaces will support local businesses and create jobs. I'm eager to see this unfold. I fully support the Town & Country Village project for its planned infrastructure upgrades, which will improve roads, transportation, and utilities, benefiting the entire community.

Please consider supporting the Town and Country Village, El Dorado project positively.

Yours faithfully,

John Albano
jtalbano@yahoo.com
(925) 708-3895
5222 Degas Way
El Dorado Hills, CA 95762

LETTER 12: JOHN ALBANO

Response to Comment 12-1

The comment does not address the adequacy of the Draft EIR. The comment has been noted for the record and will be forwarded to the decision-makers for their consideration.

Letter 13

From: John Albano
To: PI-Town and Country Village El Dorado
Subject: Support for the Town and Country Village El Dorado Project
Date: Monday, September 9, 2024 4:47:16 PM

To: El Dorado County Planning and Building Department-Planning Division,
Attention: Ande Flower, 2850 Fairlane Court, Placerville, CA 95667.

Hello,

13-1 As a resident and homeowner in El Dorado Hills, I fully support the proposed Town and Country Village El Dorado project.

I have become very familiar with this project and its development team. They have put together plans for a wonderful project that will enhance the lives of residents and visitors to our community and county. This project offers a communal space grounded in the area's history, serving as a gateway to the rich resources the county provides. The Town and Country Village will enhance the appeal and attractiveness of our area, and it will offer much-needed services such as hotel rooms, conference spaces, restaurants, housing, insights into the county's history, and hiking and biking trails, all of which are sorely lacking today.

Your sincerely,

John Albano
925-708-3895
jtalbano@yahoo.com

LETTER 13: JOHN ALBANO

Response to Comment 13-1

The comment does not address the adequacy of the Draft EIR. The comment has been noted for the record and will be forwarded to the decision-makers for their consideration.

Letter 14

8/17/2024

El Dorado County Planning and Building Department
Planning Division
ATTN: Ande Flower
2850 Fairlane Court
Placerville, CA 95667

RE: Town and Country Village - El Dorado Project
DRAFT EIR

Dear Ande Flower,

I wish to express my strong endorsement of the Town and Country Village, El Dorado project. Living in El Dorado County, I appreciate the positive effects this development will have on our region.

14-1 I back the Town & Country Village project for its health and wellness features. Fitness centers and wellness clinics will improve our community's quality of life. The Town & Country Village project addresses the need for senior housing by offering thoughtful, accessible options on Highway 50, benefiting our older residents. The Town & Country Village project's plan for staff housing is excellent. It benefits workers, eases traffic, and fosters a stronger community.

I encourage you to extend your favorable support to the Town and Country Village, El Dorado project.

Warm regards,

Ana Azarkeyvan
Ana.Az.RealEstate@gmail.com
(916) 529-6048
2222 City Lights Drive, El Dorado Hills, CA 95762

LETTER 14: ANA AZARKEYVAN

Response to Comment 14-1

The comment does not address the adequacy of the Draft EIR. The comment has been noted for the record and will be forwarded to the decision-makers for their consideration.

Letter 15

8/17/2024

RECD AUG 21 AM 11:33

El Dorado County Planning and Building Department
Planning Division
ATTN: Ande Flower
2850 Fairlane Court
Placerville, CA 95667

RE: Town and Country Village - El Dorado Project
DRAFT EIR

Dear Ande Flower,

I offer my full support for the Town and Country Village, El Dorado project. As a resident in the county, I am enthusiastic about the positive contributions this project will make.

15-1 I'm eager to see the Town & Country Village project boost the economy through new hotels and retail spaces, drawing in tourists and creating jobs. The Town & Country Village project will deliver significant economic benefits, with its retail, hospitality, and residential components supporting local businesses, creating jobs, and boosting tax revenue. The Town & Country Village project's design will enhance community interaction with areas for events and markets, strengthening our social connections.

Please offer your positive support and review of the Town and Country Village, El Dorado project.

Regards,

Yasaman Bayat
yasamanbayat@gmail.com
916-270-7725
1551 Daunting Dr, El Dorado Hills, CA 95762

LETTER 15: YASAMAN BAYAT

Response to Comment 15-1

The comment does not address the adequacy of the Draft EIR. The comment has been noted for the record and will be forwarded to the decision-makers for their consideration.

Letter 16

8/17/2024

2024 AUG 21 AM 11:32

El Dorado County Planning and Building Department
Planning Division
ATTN: Ande Flower
2850 Fairlane Court
Placerville, CA 95667

RE: Town and Country Village - El Dorado Project
DRAFT EIR

Dear Ande Flower,

I am proud to endorse the Town and Country Village, El Dorado project. As a resident in the county, I commend the positive impact this development will have on our community.

16-1 The Town & Country Village project will drive economic growth with new hotels and retail spaces, supporting local businesses and creating jobs. On-site staff housing in the Town & Country Village project is a forward-thinking idea that will cut commutes, reduce traffic, and enhance worker well-being, setting a standard for future developments. The Town & Country Village project's health and wellness amenities will boost community well-being by providing convenient access to fitness and preventive care facilities.

I encourage your positive consideration and backing of the Town and Country Village, El Dorado project.

In appreciation,

Patricia Bergstrom
trish@knowledgeresourcesgroup.com
408-506-4581
9551 Pamela St, El Dorado Hills, CA 95762

LETTER 16: PATRICIA BERGSTROM

Response to Comment 16-1

The comment does not address the adequacy of the Draft EIR. The comment has been noted for the record and will be forwarded to the decision-makers for their consideration.

Letter 17

From: Linda Campbell
To: Bret E. Sampson; Planning Department; PL-Town and Country Village El Dorado
Cc: Karen L. Garner; Rafael Martinez; Andy Nevis; Brandon Reinhardt; Bob Williams; Lexi Boeger; Daniel Harkin; BOS-District I; BOS-District II; John Davey; BOS-District III; BOS-District IV
Subject: Linda Campbell - Town and Country Village El Dorado DEIR Public Review Period Comments
Date: Sunday, September 8, 2024 9:33:26 PM
Attachments: Town and Country DEIR feedback Linda Campbell 2024.docx

Hello,
The attached document is my feedback to the Town and Country Village Draft EIR, for review period ending September 9, 2024.

17-1 It was unfortunate that the applicant was unwilling to extend the review period by the additional 15 days requested (as stated in Sept. 4 APAC meeting), which would have resulted in the opportunity to provide added input on other areas of the reports.

Hopefully we do not continue to have so many large requests coming in at the same time, but having a standard for review within the county of 60 days as allowed by CEQA for future reviews would greatly benefit the community and our ability to engage more in-depth.

Regards,
Linda Campbell

Town and Country DEIR feedback Linda Campbell September - 2024

Town and Country Village El Dorado SP-R21-0001 PD-R19-0003 TM22-0005 PD21-0005 SP-R21-0002 Z21-0013 DEIR Public Review

Included for my quick reference during review: DEIR page 19 (Project Location): the northern portion of the project site is located within the Community Region of the El Dorado County General Plan, and the southern portion of the site is located within the Rural Region.

17-2

The BLHSP designates the project site as Low Density Residential Planned Development with a maximum allowable density of 0.2 dwelling units per acre (du/ac) (L.2-PD) south of Country Club Drive and Low Density Residential Planned Development with a maximum allowable density of 0.7 du/ac (L.7-PD) north of Country Club Drive. The project site is zoned Residential Estate-10 acres (RE-10).

Parcel Discrepancy

Parcel numbers in DEIR/Proposal: 119-080-012, 119-080-021 and 119-080-023

17-3

In review of GOTNET GIS maps, two of the parcel numbers were different. I realize that there is a disclaimer when using the online view, but it would be helpful to clarify and/or correct the current parcel numbers for consistency

Parcel Number (in Plan)	Current Acreage	GOTNET Area (different)
119-080-012	19.02	119080025
119-080-021	20.61	
119-080-023	17.38	119080027

Inconsistency with BLHSP

The Bass Lake Hills Specific Plan **goals section 2.3**:

- **6** – To provide for the perception of open space of the site within the viewshed of U.S. Hwy. 50.
- **7** – To maintain the visual and spatial separation between the Plan area and the communities to the East and West.

17-4

The Bass Lake Hills Specific Plan **goals section 2.4** (Relationship to the El Dorado County General Plan Goal 2.6):

- **Discussion**: As part of the preparation of the review draft El Dorado County Scenic Highways Ordinance dated June 1992, a viewshed study was conducted which identified the foreground and background viewsheds along U.S Highway 50 .... That portion of the Plan area located within the foreground viewshed of U.S. Highway 50 is located within the Rural Region and is designated LDR by the General Plan. The Plan designates this area Low Density Residential Planned Development (L.2PD) which allows for the max density of one dwelling per five acres. This is consistent with the General Plan and protects for foreground viewshed from U.S. Highway 50 by maintaining exiting zoning and density.

17-4, cont. As zoned Rural Region, the proposed plan from applicant is not allowable. A discretionary change would violate the referenced goals of the Bass Lake Hills Specific Plan, as well as the El Dorado County General Plan.

Height of Buildings

17-5 El Dorado County Development Standards reference a Maximum Height of 50 feet. The plan references multiple times that buildings could be "up to 10 feet beyond" the maximum allowable height. This contributes more concern to open space / viewshed goals of the BLHSP, as well as conflict with the El Dorado County General Plan.

Highway 50 Impacts and Other Roadway - LOS

17-6 In the APAC meeting of August 9, 2023 I provided comments and concerns related to the traffic specifically for Highway 50 eastbound, which I have personally experienced backing up during evening commute traffic extending into the current truck lane. Conveniently, the VMT analysis shows "less-than-significant" impact on CEQA. Although defined standards of analysis were used, they seem to discount some basic details, like the need for 577 parking spaces just for the Project Development area. What will happen if there events scheduled during evening commute time period? Also, how many visitors to the hotel will be traveling from there onto Highway 50 down to Folsom of Sacramento?

There needs to be a LOS Transportation review at minimum for Highway 50, to ensure visitor and resident safety. Although not accounted for in CEQA review, the below is an excerpt statement from the Executed Resolution 141-2020:

> "WHEREAS, while LOS will no longer be utilized as the metric by which to measure traffic's impact on the environment for CEQA, LOS remains a relevant metric from which to assess a project's impacts to traffic under the County's General Plan and consideration of the overall consistency of a project with the County's General Plan and may also be used as a tool for transportation planning and operational analysis ..."

Below are extracts from the Transportation Element of the General plan that must be considered before concessions or project approvals:

Policy TC-Xa Except as otherwise provided, the following TC-Xa policies shall remain in effect indefinitely, unless amended by voters:

17-7

> *1. Traffic from residential development projects of five or more units or parcels of land shall not result in, or worsen, Level of Service F (gridlock, stop-and-go) traffic congestion during weekday, peak-hour periods on any highway, road, interchange or intersection in the unincorporated areas of the county.*
>
> *2. The County shall not add any additional segments of U.S. Highway 50, or any other highways and roads, to the County's list of roads from the original Table TC-2 of the 2004 General Plan that are allowed to operate at Level of Service F without first getting the voters' approval.*

7. Before giving approval of any kind to a residential development project of five or more units or parcels of land, the County shall make a finding that the project complies with the policies above. If this finding cannot be made, then the County shall not approve the project in order to protect the public's health and safety as provided by state law to assure that safe and adequate roads and highways are in place as such development occurs.

***Policy TC-Xd** - Level of Service (LOS) for County-maintained roads and state highways within the unincorporated areas of the county shall not be worse than LOS E in the Community Regions or LOS D in the Rural Centers and Rural Regions except as specified in Table TC-2. The volume to capacity ratio of the roadway segments listed in Table TC-2 shall not exceed the ratio specified in that table. Level of Service will be as defined in the latest edition of the Highway Capacity Manual (Transportation Research Board, National Research Council) and calculated using the methodologies contained in that manual. Analysis periods shall be based on the professional judgment of the Department of Transportation which shall consider periods including, but not limited to, Weekday Average Daily Traffic (ADT), AM Peak Hour, and PM Peak hour traffic volumes.*

17-7, cont.

***Policy TC-Xe** - For the purposes of this Transportation and Circulation Element, "worsen" is defined as any of the following number of project trips using a road facility at the time of issuance of a use and occupancy permit for the development project:*

A. A 2 percent increase in traffic during the a.m. peak hour, p.m. peak hour, or daily, or

B. The addition of 100 or more daily trips, or

C. The addition of 10 or more trips during the a.m. peak hour or the p.m. peak hour

General Project Comment: Program Study Area vs. Project Development Area

It is personally concerning that half of the acreage in the project has no real development proposal. There are some general numbers that are fairly large, but then we are told it isn't real just "big dream" numbers. That is a disservice to the citizens of the county and this area, who will potentially have to go through multiple reviews. We have no clear proposal to consider but are being asked to rezone and guess what might happen in the future. Even though it was included for the CEQA evaluation, by not having a development proposal so we can see housing, commercial, other needed roadways, etc. we are unable to truly evaluate the scope of impact to this area of Bass Lake Road. It feels a bit like writing a blank check. This is still a piecemeal development proposal, which has been ruled against previously within the state of California. It is challenging enough to keep track of development plans that are "complete" as changes are made over time, but not having a clear picture is even worse. I do not believe it benefits the citizens of the county to approve this project as submitted.

17-8

LETTER 17: LINDA CAMPBELL

Response to Comment 17-1

The comment does not address the adequacy of the Draft EIR. The comment has been noted for the record and will be forwarded to the decision-makers for their consideration.

Response to Comment 17-2

The comment does not address the adequacy of the Draft EIR. The comment has been noted for the record and will be forwarded to the decision-makers for their consideration.

Response to Comment 17-3

In response to the comment, page 3-1 of the Project Description chapter is hereby revised to reflect the Assessor's Parcel Number (APN) changes that resulted from improvements to Country Club Drive and associated right-of-way dedication. The updated APNs for the project site are as follows:

> The approximately 60.5-acre site is identified by Assessor's Parcel Numbers (APNs) 119-080-~~12, -~~021~~ and -023~~, -025, and 0-27.

This minor clarification does not affect the adequacy of the Draft EIR.

Response to Comment 17-4

The proposed project's consistency with the applicable policies of the County's General Plan and the BLHSP is discussed in Appendix N to the Draft EIR, with the BLHSP-specific policies starting on page 33.

As discussed therein, visual simulations of the project site from vantage points associated with U.S. Route 50 are presented in Figures 4.1-22 through 4.1-24 in Chapter 4.1, Aesthetics, of the Draft EIR. In addition, the chapter includes an analysis of the proposed project's impacts upon the vantage points.

With respect to the proposed project's consistency with General Plan policies referenced in the BLHSP, Policies 2.6.1.2 and 2.6.1.3 are discussed on pages seven and eight of Appendix N to the Draft EIR. As discussed therein, the project site is not located within a designated State scenic highway corridor associated with an adopted Scenic Corridor Ordinance or associated with specific development standards. The project site is not visible from any of the important public scenic viewpoints identified in Table 5.3-1 and Exhibit 5.3-1 of the General Plan EIR. Because the project site is not visible from any of the important public scenic viewpoints identified in Table 5.3-1 of the General Plan EIR, Policies 2.6.1.4, 2.6.1.5, and 2.6.1.6 are not applicable to the proposed project, and are not discussed further.

Response to Comment 17-5

The proposed Project Description building elevations show an average building height of approximately 56 feet. As part of the Planned Development application submittal, the Project applicant is requesting a not-to-exceed building height of 60 feet. It is anticipated that the roof ridgelines of the proposed hotel buildings would not be greater than the tops of the existing oak trees. Nevertheless, the Draft EIR concludes, based on the public viewshed analysis in Chapter 4.1, Aesthetics, of the Draft EIR that because views of the existing rural character of the project

site would be significantly altered by buildout of the proposed urban uses, the impact would be significant and unavoidable.

Response to Comment 17-6

The commenter is conflating impacts to vehicle miles traveled (VMT) under CEQA and level-of-service (LOS) deficiencies relative to the General Plan policies. The amount of VMT a project generates is not directly correlated to traffic operations. The CEQA Transportation Impact Study addresses VMT and that information is incorporated into the Draft EIR. Pursuant to the requirements of Senate Bill 743 and as discussed on page 4.11-6 of the Draft EIR, LOS analysis is no longer considered an environmental impact under CEQA.

As discussed on page 4.11-6 of the Draft EIR, the County is reviewing LOS separately from the Draft EIR based on a Local Transportation Analysis (LTA) prepared by T. Kear to determine whether the proposed project could result in LOS conflicts at nearby facilities, which could necessitate physical improvements. The LTA prepared by T. Kear for the proposed project considered 33 study intersections, 21 segments of U.S. Route 50, and three arterial segments.

Response to Comment 17-7

The comment does not address the adequacy of the Draft EIR. The comment has been noted for the record and will be forwarded to the decision-makers for their consideration. It should be noted that CEQA transportation analysis is limited to VMT, safety, and effects on bicycle and pedestrian facilities. Conformance to General Plan policies, such as Policies TC-Xa, TC-Xd, and TC-Xe are addressed in the LTA. Please also see Response to Comment 17-6.

Response to Comment 17-8

Please see Response to Comment 4-2 regarding the level of detail for the Program Study Area.

Letter 18

8/17/2024

2024 AUG 21 AM 11:21

PLANNING DEPARTMENT

El Dorado County Planning and Building Department
Planning Division
ATTN: Ande Flower
2850 Fairlane Court
Placerville, CA 95667

RE: Town and Country Village - El Dorado Project
DRAFT EIR

Dear Ande Flower,

I wish to express my enthusiastic support for the Town and Country Village, El Dorado project. As someone living in the county, I see the value and positive contributions this project will make.

18-1 I'm in favor of the Town & Country Village project for its planned infrastructure improvements, which will reduce congestion and improve community services. The Town & Country Village project's transportation upgrades are vital for El Dorado County. Better roads and transit will ease access to services and reduce traffic congestion. The Town & Country Village project's staff housing is a forward-looking feature that will reduce commuting and traffic, improving the quality of life for workers and setting a positive example.

I request your positive attention and support for the Town and Country Village, El Dorado project.

All the best,

Ron Cassity

Ron Cassity
rcng925@gmail.com
916-850-9306
4001 Harlington Cir, El Dorado Hills, CA 95762

LETTER 18: RON CASSITY

Response to Comment 18-1

The comment does not address the adequacy of the Draft EIR. The comment has been noted for the record and will be forwarded to the decision-makers for their consideration.

Letter 19

8/17/2024

2024 AUG 21 AM 11:21
RECEIVED
PLANNING DEPARTMENT

El Dorado County Planning and Building Department
Planning Division
ATTN: Ande Flower
2850 Fairlane Court
Placerville, CA 95667

RE: Town and Country Village - El Dorado Project
DRAFT EIR

Dear Ande Flower,

19-1

I express my full support for the Town and Country Village, El Dorado project. As someone from the county, I appreciate the benefits and value this development will add.

The Town & Country Village project's effort to celebrate and preserve history is notable. It engages the community, making our heritage a relevant and valuable resource. The Town & Country Village project promises strong economic growth, supporting local businesses, job creation, and tax revenue with its integrated retail, hospitality, and residential elements. The Town & Country Village project's use of local materials and green practices supports our values, preserving El Dorado County's natural beauty while encouraging responsible growth.

I ask for your positive review and endorsement of the Town and Country Village, El Dorado project.

With gratitude,

Mike Connelly
connellys@aol.com
9162009795
7015 Pismo Dr, El Dorado Hills, CA 95762, USA

LETTER 19: MIKE CONNELLY

Response to Comment 19-1

The comment does not address the adequacy of the Draft EIR. The comment has been noted for the record and will be forwarded to the decision-makers for their consideration.

Letter 20

8/17/2024

2024 AUG 21 AM 11:36

El Dorado County Planning and Building Department
Planning Division
ATTN: Ande Flower
2850 Fairlane Court
Placerville, CA 95667

RE: Town and Country Village - El Dorado Project
DRAFT EIR

Dear Ande Flower,

20-1

I am writing to show my enthusiastic support for the Town and Country Village, El Dorado project. As a county resident, I am excited about the advantages this project will provide.

The Town & Country Village project's on-site staff housing will lower commutes and traffic, improving life for workers. This initiative shows a strong commitment to both employee welfare and environmental concerns. I support the Town & Country Village project for its focus on enhancing community engagement with areas for festivals, markets, and gatherings. I'm excited about the Town & Country Village project's health amenities. Fitness centers and wellness clinics will support a healthier and more active community.

I encourage you to extend your support and favorable review to the Town and Country Village, El Dorado project.

With appreciation,

Michelle Danovaro
mcdanovaro@gmail.com
916-832-3644
3261 Carson Rd
Placerville, CA 95667, USA

LETTER 20: MICHELLE DANOVARO

Response to Comment 20-1

The comment does not address the adequacy of the Draft EIR. The comment has been noted for the record and will be forwarded to the decision-makers for their consideration.

Letter 21

From: Lionel de Maine
To: PL-Town and Country Village El Dorado
Subject: Support for the Town and Country Village El Dorado Project
Date: Monday, September 9, 2024 4:07:50 PM

To: El Dorado County Planning and Building Department-Planning Division,
Attention: Ande Flower, 2850 Fairlane Court, Placerville, CA 95667.
Hello,

21-1 I am writing to support the Town and Country Village proposed in El Dorado.
I am a resident of El Dorado Hills and have seen three presentations on this project.
After much thought, I believe it will enhance the lives of residents by offering them a communal space grounded in the area's history, serving as a gateway to the rich resources the county provides. While housing is essential, it alone cannot create an exciting and appealing world for residents and travelers. The Town and Country Village, a place of beauty inspired by Yosemite's Ahwahnee, will enhance the appeal and attractiveness of our area. In addition to its aesthetic strengths, it offers much-needed services such as hotel rooms, conference spaces, restaurants, housing, insights into the county's history, and hiking and biking trails, all of which are sorely lacking today.
Your sincerely,
Lionel de Maine

LETTER 21: LIONEL DE MAINE

Response to Comment 21-1

The comment does not address the adequacy of the Draft EIR. The comment has been noted for the record and will be forwarded to the decision-makers for their consideration.

Letter 22

From: Don Dupere <ddupere@comcast.net>
Sent: Tuesday, July 30, 2024 3:27 PM
To: Planning Department <planning@edcgov.us>
Subject: Please inform me

Please inform me of public meetings on the "Town and Country Village El Dorado Project" as noted below.

"A subsequent scheduled public hearing will be conducted on the project upon completion of the Final EIR when the County considers action on the project. The County must certify the Final EIR prior to project approval. If you wish to be notified of that hearing date, please provide your name and mailing address to this department"

22-1

My USPS address is

Donald Dupere
617 Ore Cart Court
El Dorado Hills, CA 95762

Thank you,

Don Dupere
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LETTER 22: DONALD DUPERE

Response to Comment 22-1

The comment does not address the adequacy of the Draft EIR. The comment has been noted for the record and will be forwarded to the decision-makers for their consideration.

Letter 23

From: Peter Evenhuis
To: PL-Town and Country Village El Dorado
Subject: Town and Country Project
Date: Sunday, September 8, 2024 10:54:59 PM

Dear Ande Flower

I am a resident of El Dorado Hills (in the Serrano Community) and I am strongly impacted by the potential building of the Town and Country Project as proposed by Josh Paine and Mr. Mohanna.

Everytime I take a turn on Bass Lake going past the proposed project and Safeway and driving to my home, I will be impacted by some additional traffic, by some additional cyclist, by some addition food delivery trucks (if I get up that early in the morning), by some additional Uber of Lyft cars transporting Hotel Guests to and from the Sacramento Airport and by some additional cars traveling to and from this proposed project for whatever reason they may have.

23-1 I should be vehemently opposed to this intrusion into our 1850, or perhaps 1900 or even 1950 way of life, but as a realist and a person willing to accept CHANGE I am fully and unconditionally in favor of this project. Mind you, Mr. Flower ... with some reservations; if this were a Hampton Inn project, a sophisticated Holiday Inn, a run of the mill Hilton Hotel , Marriott or Sheraton, I would not be wasting your time to argue in favor of this project. Rather, I'd be sitting on your desk opposing it with every fibre of my body .

BUT ... Mr. Mohanna has this dream, wherever it came from, to build this treasure, be that for prosperity, be that as his legacy, be that as a testament, be that as a gift to his children (and the future) or be that to enhance our community which he has been part of for better than 40 years ... in the end it doesn't matter; he wants to build this monument and who are we to stand in his way? (As long as it is not obnoxious, self advocating, an eyesore and so on).

23-2 I strongly urge you to overlook the diareea of several members mentioning the "rural" nature being destroyed. That has happened already and they are late to an empty seat at the table. Thank you City of Folsom for the reality of what we are and will be in the future.

23-3 Others complain about the lack of fire fighting equipment with the current Fire Station that we have; It's called mutual assistance and it will serve us fine in a building designed to the latest fire retardant standards.

23-4 Others tell us noise from the building will disturb them ... well as a Hotelier myself (45 years of managing Hilton Hotels and private properties) ... you have a security staff ready to handle those problems ...ON SITE...

Mr. Flower , thank you for reading my ramblings. I appreciate your tough position and hope you will support this worthwhile venture.

Best regards

Peter Evenhuis

1167 Villagio Drive
El Dorado Hills, CA 95762
916-693-6863 (Home)
650-255-6063 (Cell)

3314 Treehaven Drive
Kudu Apartments and Rentals
South Lake Tahoe, CA 96150
650-255-6063 (Cell)

3 Red Bishop
Hemel en Aarde Estate
Mail Collection 129
Hermanus, Cape 7200
South Africa
(27) 079-326-0715 (Cell)

LETTER 23: PETER EVENHUIS

Response to Comment 23-1

The comment does not address the adequacy of the Draft EIR. Note also that traffic congestion is no longer a consideration within the purview of CEQA. The comment has been noted for the record and will be forwarded to the decision-makers for their consideration.

Response to Comment 23-2

The comment does not address the adequacy of the Draft EIR. The comment has been noted for the record and will be forwarded to the decision-makers for their consideration.

Response to Comment 23-3

The comment does not address the adequacy of the Draft EIR. The comment has been noted for the record and will be forwarded to the decision-makers for their consideration. It should be noted that potential impacts associated with public services, including fire protection services, are addressed in Chapter 4.10, Public Services and Recreation, of the Draft EIR.

Response to Comment 23-4

The comment does not address the adequacy of the Draft EIR. The comment has been noted for the record and will be forwarded to the decision-makers for their consideration. It should be noted that potential impacts associated with noise, are addressed in Chapter 4.9, Noise, of the Draft EIR.

Letter 24

From: Silvio Ferrari Jr. <silvio6342@hotmail.com>
Sent: Thursday, June 6, 2024 11:14 AM
To: PL-Town and Country Village El Dorado <TownandCountryElDorado@edcgov.us>
Cc: silvio6342@hotmail
Subject: Town & Country Village

24-1 When will the project come up for a vote. Please advise.

Thank you

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LETTER 24: SILVIO FERRARI JR

Response to Comment 24-1

The comment does not address the adequacy of the Draft EIR. The comment has been noted for the record and will be forwarded to the decision-makers for their consideration.

Letter 25

From: Steve Ferry
To: PL-Town and Country Village El Dorado
Subject: DEIR Comments
Date: Friday, September 6, 2024 1:06:25 PM

Planning,

I would like to weigh in on the Town and Country project proposed by Moe Mohanna. We have examples of bad planning on our offramp development throughout the west end of El Dorado County. I know that I do not want to have a Quality Inn, Motel 6, Standard Station, Taco Bell corner as was done to Cameron Park Boulevard or the AM/PM corner on Cambridge. Unfortunate planning!

25-1 The idea of having an upscale hotel plan that includes on-sight worker's housing, a reception room for many, a few shops and an architectural plan that is beautiful is exactly what that Bass Lake Road/Highway 50 interchange needs. This is the entrance to the El Dorado County Wine Country and will give a creditable boost to all businesses on the west slope in El Dorado County.

Although I am writing this note as an independent citizen, I am a member of the EDHCSD Board of Directors I look forward to working with the project developers to determine the Land to be dedicated under Quimby to make this project even more desirable.

Thank you for your positive results.

Stephen Ferry
Stephen.Ferry@me.com
916-468-3300

LETTER 25: STEPHEN FERRY

Response to Comment 25-1

The comment does not address the adequacy of the Draft EIR. The comment has been noted for the record and will be forwarded to the decision-makers for their consideration.

Letter 26

8/17/2024

2024 AUG 21 AM 11:31

El Dorado County Planning and Building Department
Planning Division
ATTN: Ande Flower
2850 Fairlane Court
Placerville, CA 95667

RE: Town and Country Village - El Dorado Project
DRAFT EIR

Dear Ande Flower,

26-1

I am eager to express my strong support for the Town and Country Village, El Dorado project. As a resident in the county, I recognize the significant advantages this development will offer.

The economic impact of the Town & Country Village project is major. With its retail, hospitality, and residential features, it will enhance local businesses, create jobs, and generate tax revenue for public services. The developers' thorough public outreach for the Town & Country Village project is impressive, reflecting their dedication to community needs and concerns. I support their approach. I'm in favor of the Town & Country Village project for its planned infrastructure improvements, which will reduce congestion and improve community services.

I recommend your positive assessment and endorsement of the Town and Country Village, El Dorado project.

Yours faithfully,

Steve Green
sgreen@sdgbs.com
(916) 835-7928
973 Big Sur Ct, El Dorado Hills, CA 95762, USA

LETTER 26: STEVE GREEN

Response to Comment 26-1

The comment does not address the adequacy of the Draft EIR. The comment has been noted for the record and will be forwarded to the decision-makers for their consideration.

Letter 27

8/17/2024

2024 AUG 21 AM 11:35

El Dorado County Planning and Building Department
Planning Division
ATTN: Ande Flower
2850 Fairlane Court
Placerville, CA 95667

RE: Town and Country Village - El Dorado Project
DRAFT EIR

Dear Ande Flower,

27-1

I am delighted to show my support for the Town and Country Village, El Dorado project. As a frequent visitor of the county, I appreciate the significant advantages this project will offer.

The developers' proactive public outreach for the Town & Country Village project reflects their respect for community feedback and needs. I support this approach. With our aging population, senior housing is crucial. The Town & Country Village project meets this need with care, offering safe, accessible living options on Highway 50. Being near Highway 50, the Town & Country Village will draw tourists and boost the local economy through its retail and cultural amenities.

Please support the Town and Country Village, El Dorado project with your positive consideration.

Respectfully,

Rajan Gutta
rajgutta@gmail.com
916-943-6923
1956 Robin Brook Way, Roseville, CA 95661

LETTER 27: RAJAN GUTTA

Response to Comment 27-1

The comment does not address the adequacy of the Draft EIR. The comment has been noted for the record and will be forwarded to the decision-makers for their consideration.

Letter 28

8/17/2024

2024 AUG 21 AM 11:29

PLANNING DEPARTMENT

El Dorado County Planning and Building Department
Planning Division
ATTN: Ande Flower
2850 Fairlane Court
Placerville, CA 95667

RE: Town and Country Village - El Dorado Project
DRAFT EIR

Dear Ande Flower,

28-1 I am pleased to express my enthusiastic support for the Town and Country Village, El Dorado project. As an El Dorado County resident, I value the significant benefits this project will provide.

The Town & Country Village project's transportation upgrades are vital for El Dorado County. Better roads and transit will ease access to services and reduce traffic congestion. As a resident who cherishes El Dorado County's natural beauty, I'm glad the Town & Country Village project emphasizes environmental stewardship with local materials and green building practices. The location of the Town & Country Village by Highway 50 will enhance tourism and support the local economy, thanks to its retail and hospitality attractions.

Kindly support and consider the Town and Country Village, El Dorado project positively.

Sincerely,

Maryam Habibi
mnh.habibi@gmail.com
916-270-7885
1551 Daunting Dr, El Dorado Hills, CA 95762, USA

Maryam Habibi

LETTER 28: MARYAM HABIBI

Response to Comment 28-1

The comment does not address the adequacy of the Draft EIR. The comment has been noted for the record and will be forwarded to the decision-makers for their consideration.

Letter 29

From: steve@hardyinvestmentsllc.com
To: PL-Town and Country Village El Dorado
Subject: Town and Country Project
Date: Sunday, September 1, 2024 11:37:51 AM
Attachments: image001.png

29-1 I am the owner of property in this area, APN 122-720-07. I approve of the Town and Country project.
Robert "Steve" Hardy

Steve Hardy
President, Buffalo Creek Art Center
775 4508484 | steve@buffalocreekart.com | http://www.buffalocreekart.com/ | PO Box 12429 Zephyr Cove, NV 89448

LETTER 29: STEVE HARDY

Response to Comment 29-1

The comment does not address the adequacy of the Draft EIR. The comment has been noted for the record and will be forwarded to the decision-makers for their consideration.

Letter 30

Subject: FW: Local citizen supports Town and Country project

From: Kath Hatten <kath.hatten@me.com>
Sent: Thursday, August 22, 2024 10:42 AM
To: Bob Williams <Bob.Williams@edcgov.us>
Subject: Local citizen supports Town and Country project

30-1 My name is Kathy Hatten and I live in El Dorado Hills. I also attend Holy Trinity Church.
I have attended the community planning meetings for the Town and Country project going in right down the hill from my parish and I am highly impressed with the thought and planning that has gone into this impressive project. We really need something like this in our community and I ask for your support moving this project forward. Our county is growing and growth is inevitable. That's why I am excited about this project because I know it will be done right and will be a huge asset to our county.
Thanks so much,
Kathy

Sent from my iPhone
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LETTER 30: KATHY HATTEN

Response to Comment 30-1

The comment does not address the adequacy of the Draft EIR. The comment has been noted for the record and will be forwarded to the decision-makers for their consideration.

Letter 31

8/17/2024

2024 AUG 21 AM 11:25

PLANNING SERVICES

El Dorado County Planning and Building Department
Planning Division
ATTN: Ande Flower
2850 Fairlane Court
Placerville, CA 95667

RE: Town and Country Village - El Dorado Project
DRAFT EIR

Dear Ande Flower,

I am pleased to express my full backing for the Town and Country Village, El Dorado project. As a county resident, I value the positive impact this development will have on our region.

31-1 The economic boost from new hotels and retail spaces in the Town & Country Village project will support local businesses and create jobs. I'm excited to see these developments. The Town & Country Village, next to Highway 50, is ideally situated to increase tourism and strengthen our local economy with its retail and cultural options. Town & Country Village's focus on mixed-use development will create a vibrant area with residential, retail, and community spaces, boosting our local economy and quality of life.

I appeal for your favorable review and support of the Town and Country Village, El Dorado project.

With appreciation,

Vijay Kumar
vijay.kumar5045@gmail.com
916-796-5759
4081 Marble Mountain Rd, El Dorado Hills, CA 95762

LETTER 31: VIJAY KUMAR

Response to Comment 31-1

The comment does not address the adequacy of the Draft EIR. The comment has been noted for the record and will be forwarded to the decision-makers for their consideration.

Letter 32

8/17/2024

2024 AUG 21 AM 11:36

El Dorado County Planning and Building Department
Planning Division
ATTN: Ande Flower
2850 Fairlane Court
Placerville, CA 95667

RE: Town and Country Village - El Dorado Project
DRAFT EIR

Dear Ande Flower,

I am pleased to express my robust support for the Town and Country Village, El Dorado project. As a resident in the county, I applaud the value this project will add to our region.

32-1 The Town & Country Village project's focus on El Dorado County's history is commendable. It preserves our heritage while actively engaging the community, making history both accessible and relevant. The Town & Country Village project is a great example of balancing growth with environmental care, using local materials and green practices to maintain El Dorado County's beauty. The Town & Country Village project will create new opportunities for community engagement with its design featuring event spaces and markets.

I hope for your favorable review and backing of the Town and Country Village, El Dorado project.

Thanks again,

Randall LaFrom

Randall LaFrom
randylafrom@gmail.com
408-390-7283
3720 Devon Court, El Dorado Hills, CA 95762

LETTER 32: RANDALL LAFROM

Response to Comment 32-1

The comment does not address the adequacy of the Draft EIR. The comment has been noted for the record and will be forwarded to the decision-makers for their consideration.

Letter 33

From: Karan Marsh <karan.marsh@gmail.com>
Sent: Wednesday, July 31, 2024 8:00 AM
To: PL-Town and Country Village El Dorado <TownandCountryElDorado@edcgov.us>
Cc: Margie <margie.yowell@gmail.com>; Mickie Smith - Live <ariesmls1@live.com>; Brother Tom Yowell <yowelltl7@gmail.com>
Subject: Request for future meeting dates

Dear County Planner,
I would like to pick up a printed copy, or two, for my 90 year old mom, listed below. Please let me know when a copy will be available for me to pick it up for her. We all live directly above the proposed Town & Country project site.

Please also include our names and addresses for future public meeting notifications specific to the Town and Country Village project:

33-1

Karan Marsh
2080 Angels View
El Dorado Hills, CA 95762

Margie Yowell
2181 Angels View
El Dorado Hills, CA 95762

Mickie Smith
2180 Angels View
El Dorado Hills, CA 95762

Tom Yowell, Jr.
201 Amherst Dr
Tullahoma, TN 37388

Thank you kindly,
Karan Marsh

LETTER 33: KARAN MARSH

Response to Comment 33-1

The comment does not address the adequacy of the Draft EIR. The comment has been noted for the record and will be forwarded to the decision-makers for their consideration.

Letter 34

From: Carolyn Oliveira
To: PL-Town and Country Village El Dorado
Subject: Town and Country Village / Attn: Ande Flower
Date: Monday, September 9, 2024 3:10:32 PM

Good Afternoon,

34-1 I am writing to you in support of the proposed Town and Country Village, El Dorado. As a resident of Serrano for over 7 years, and an event planner for over 20 years, the need for a beautiful, spacious and elegant event / lodging center is undeniable. The architectural plans are gorgeous and fitting into the already stunning backdrop of the foothills.

Highway 50 is a travelled route for millions going up to Tahoe and beyond, why not make this a destination for travelers as well? We have so much to offer not only for its richness in beauty, but in our history as well. Instead of building yet another shopping center with generic box stores, why not create a legacy?

Thank you for your consideration.

--

Carolyn Oliveira, Founder
Design & Event Planning
Cell 916-996-8813
Website: Corporate Meetings & Events

OnCore Leads, an Inc. 5000 Company
855-OnCoreLeads (855-662-6735)
Check Out All Our Active Verticals HERE

LETTER 34: CAROLYN OLIVEIRA

Response to Comment 34-1

The comment does not address the adequacy of the Draft EIR. The comment has been noted for the record and will be forwarded to the decision-makers for their consideration.

Letter 35

8/17/2024

2024 AUG 21 AM 11:32

El Dorado County Planning and Building Department
Planning Division
ATTN: Ande Flower
2850 Fairlane Court
Placerville, CA 95667

RE: Town and Country Village - El Dorado Project
DRAFT EIR

Dear Ande Flower,

I am eager to support the Town and Country Village, El Dorado project. Being a county resident, I recognize the positive effects and value this project will bring to our area.

35-1 The Town & Country Village's placement by Highway 50 is perfect for enhancing tourism and benefiting the local economy with its retail and hospitality. The inclusion of staff housing in the Town & Country Village project will reduce traffic and commuting, improving life for workers. It's a forward-thinking solution that balances environmental and social needs. I'm thrilled about the Town & Country Village project's potential to boost the economy through new hotels and retail spaces, which will attract tourists and generate jobs.

I hope you will offer your positive support for the Town and Country Village, El Dorado project.

Warmest regards,

Danica Olivo

Danica Olivo
danica@nelloolivo.com
916-801-1939
4331 Rancho Rd, Cameron Park, CA 95682

LETTER 35: DANICA OLIVO

Response to Comment 35-1

The comment does not address the adequacy of the Draft EIR. The comment has been noted for the record and will be forwarded to the decision-makers for their consideration.

Letter 36

8/17/2024

2024 AUG 21 AM 11:29

El Dorado County Planning and Building Department
Planning Division
ATTN: Ande Flower
2850 Fairlane Court
Placerville, CA 95667

RE: Town and Country Village - El Dorado Project
DRAFT EIR

Dear Ande Flower,

36-1

I am pleased to express my full backing for the Town and Country Village, El Dorado project. As a county resident, I value the positive impact this development will have on our region.

The Town & Country Village museum will celebrate El Dorado County's history and offer educational value, enriching our cultural identity and pride. The Town & Country Village project's effort to preserve El Dorado County's history is impressive. It engages the community and keeps our heritage alive and meaningful. The strategic location by Highway 50 gives the Town & Country Village a strong advantage to attract tourists and strengthen our local economy.

I encourage your positive consideration and backing of the Town and Country Village, El Dorado project.

With gratitude,

Sandra Ralph, MSW

Sandra Ralph
swtipie13@gmail.com
9166068813
3150 Harmony Hill Rd, Placerville, CA 95667, USA

LETTER 36: SANDRA RALPH

Response to Comment 36-1

The comment does not address the adequacy of the Draft EIR. The comment has been noted for the record and will be forwarded to the decision-makers for their consideration.

Letter 37

8/17/2024

2024 AUG 21 AM 11:24

PLANNING DEPARTMENT

El Dorado County Planning and Building Department
Planning Division
ATTN: Ande Flower
2850 Fairlane Court
Placerville, CA 95667

RE: Town and Country Village - El Dorado Project
DRAFT EIR

Dear Ande Flower,

37-1 I express my full support for the Town and Country Village, El Dorado project. As someone from the county, I appreciate the benefits and value this development will add.

I fully support the Town & Country Village project for its potential to boost community engagement with spaces for events, markets, and festivals. The Town & Country Village project's focus on education will offer workshops and cultural events that benefit all ages, enhancing our community's knowledge and vitality.

I seek your positive endorsement and support for the Town and Country Village, El Dorado project.

With gratitude,

Ana Ramirez
anaramirez57@hotmail.com
916-955-0872
680 Jurgens Rd, Rescue, CA 95672, USA

LETTER 37: ANA RAMIREZ

Response to Comment 37-1

The comment does not address the adequacy of the Draft EIR. The comment has been noted for the record and will be forwarded to the decision-makers for their consideration.

Letter 38

8/17/2024

2024 AUG 21 AM 11:32

El Dorado County Planning and Building Department
Planning Division
ATTN: Ande Flower
2850 Fairlane Court
Placerville, CA 95667

RE: Town and Country Village - El Dorado Project
DRAFT EIR

Dear Ande Flower,

38-1 I am writing to express my strong support for the Town and Country Village, El Dorado project. As a resident in the county, I commend the benefits this development will bring.

The Town & Country Village project's staff housing is a forward-looking feature that will reduce commuting and traffic, improving the quality of life for workers and setting a positive example. I'm excited about the community spaces in the Town & Country Village project. They will enhance engagement and create more opportunities for residents to connect. Town & Country Village's mixed-use development will create a dynamic, walkable area by integrating homes, shops, and community spaces, boosting our county's vitality.

I trust you will offer your positive support for the Town and Country Village, El Dorado project.

With kindest regards,

Russel Reyes
russ@kiltandcork.com
530-417-1171
2735 Clay St, Placerville, CA 95667

LETTER 38: RUSSEL REYES

Response to Comment 38-1

The comment does not address the adequacy of the Draft EIR. The comment has been noted for the record and will be forwarded to the decision-makers for their consideration.

Letter 39

8/17/2024

2024 AUG 21 AM 11:28

RECEIVED
PLANNING DEPARTMENT

El Dorado County Planning and Building Department
Planning Division
ATTN: Ande Flower
2850 Fairlane Court
Placerville, CA 95667

RE: Town and Country Village - El Dorado Project
DRAFT EIR

Dear Ande Flower,

39-1

I firmly support the Town and Country Village, El Dorado project. As someone living in the county, I recognize the benefits this project will bring to our community.

I'm excited about the Town & Country Village project's health amenities. Fitness centers and wellness clinics will support a healthier and more active community. The developers' thorough public outreach for the Town & Country Village project is impressive, reflecting their dedication to community needs and concerns. I support their approach. Staff housing at the Town & Country Village project will reduce commute times, ease traffic, and improve workers' lives, making it a model for future developments with its thoughtful approach.

Please provide your positive consideration and support for the Town and Country Village, El Dorado project.

Yours truly,

Laurie Rinker
lprinker@gmail.com
(415) 209-8659
5053 Mertola Drive, El Dorado Hills, CA 95762

LETTER 39: LAURIE RINKER

Response to Comment 39-1

The comment does not address the adequacy of the Draft EIR. The comment has been noted for the record and will be forwarded to the decision-makers for their consideration.

Letter 40

From: laurie rinker
To: PL-Town and Country Village El Dorado
Subject: I am all for Town & Country
Date: Monday, September 9, 2024 8:03:42 PM

40-1

> I am all for Town & Country especially their event center. We don't have an event center in EDH that can handle all the indoor festivities that are needed. I've been on the library board and we were pushing to develop a library annex so we would have a place to hold meetings, shows, events, etc..
>
> The beauty of the design makes a statement that is relative to the socioeconomics and level of expectation and taste in El Dorado Hills.

> I also so appreciate the fact that they're going to be places for employees to live.
>
> Not to mention the additional restaurants and the cultural edition of a museum. I understand Mr. Mohanna has had that land for 40 years and we should let provide thisprovide this beautiful addition to our town, beautiful addition to our town
>
> Thank you for your ear!
>
>
> Laurie Rinker
> EDH and Serrano resident
415-309-8659

LETTER 40: LAURIE RINKER

Response to Comment 40-1

The comment does not address the adequacy of the Draft EIR. The comment has been noted for the record and will be forwarded to the decision-makers for their consideration.

Letter 41

From: Michael Roberts <mojomikeroberts@gmail.com>
Sent: Thursday, August 22, 2024 10:00 AM
To: PL-Town and Country Village El Dorado
Subject: REvised public comment from Mike Roberts

Follow Up Flag: Follow up
Flag Status: Flagged

41-1

I am writing in support of the EIR. I have reviewed it and attended a project overview and think it is a good project. We need the lodging and it will bring tourist dollars to the local economy. It will also look good from the freeway. That area really is the gateway to the rural portion of the county, with the old Clarksville town site on the right as you drive up Bass Lake Grade headed east, but right after that it looks kind of blighted. First you see Buffalo Will's place on the right thats looking pretty trashy, then the abandoned trailer on the left with "Recall Newsom" scrawled on the side...This project would improve the viewscape IMO.

The project also appealed to me because it preserves things I think are important, and has the potential to support things I support.

Lincoln Highway / Giles Toll Road

I am a Lincoln Highway buff and a "rut nut" (a fan of historic wagon trails), so I was particularly impressed with the emphasis on preserving and celebrating the historic stretch of original Lincoln concrete that runs by the project, and the old wagon trail that runs through it.

Clarksville

I served on the board of the Clarksville Region Historical Society for several years, and did quite a bit of research and writing about Clarksville. Seeing how much of that history was also slated for the on-site museum was encouraging.

Placerville Downtown

I also support Placerville's downtown merchants. In my comments to the project consultant I asked him to consider any ways to encourage guests at the resort to visit downtown Placerville. Perhaps a shuttle bus, or tours maybe.

Affordable Housing.

For what it's worth I also suggested that any downstream housing component include dwellings in the "moderate" category. Not sure if that is possible, but can't hurt to ask.

41-2

Among the many things I am not:

- A traffic engineer
- A water supply expert

So I trust the Planning Department to make sure that the cumulative impacts on the Bass Lake interchange are mitigated, and that EID has enough water supply for the project.

Mike Roberts
Taphophile

LETTER 41: MIKE ROBERTS

Response to Comment 41-1

The comment does not address the adequacy of the Draft EIR. The comment has been noted for the record and will be forwarded to the decision-makers for their consideration.

Response to Comment 41-2

The comment does not address the adequacy of the Draft EIR. The comment has been noted for the record and will be forwarded to the decision-makers for their consideration.

It should be noted that cumulative impacts are addressed in each technical chapter of the Draft EIR (Chapters 4.1 through 4.14). In addition, potential impacts related to water supply are discussed in Chapter 4.13, Utilities and Service Systems, of the Draft EIR. As discussed under Impact 4.13-2, EID has sufficient water supply to meet the anticipated water demands of the proposed project.

Letter 42

5 August, 2024

Patrick and Connie Rodgers
PO Box 377
Rescue, Ca 95672
Email: Patrick.rodgers05@gmail.com

Attention: Cameron Welch
El Dorado County Planner
Placerville Office
2850 Fairlane Court
Placerville, CA95667
Fax: (530) 642-0508
Email: planning@edcgov.us

Re: Marble Valley Specific Plan
Lime Rock Specific Plan
Town and Country Specific Plan

Dear Cameron,

Regarding the three projects, we have the following comments:

42-1
1. How many oak trees are scheduled to be removed out of all the oak trees on the properties?

42-2
2. Serpentine rock abatement, asbestos

42-3
3. Valley Fever fungal infection.

42-4
4. Protected animals such as the Amargosa vole (Microtus californicus), bumble bee (bumbus crotchii), and the valley elderberry longhorn beetle, and the delta green ground beetle (how are they being protected. Canadian geese using the lakes, are they going to be protected.

42-5
5. Noise pollution mitigation.

42-6
6. Light pollution.

Town and Country specific comments

42-7
1. Does the area really need two hotels, and restaurants? There are restaurants on Cameron Park Drive and further up on Bass Lake.
2. How realistic is the chance of getting a decent museum, or will it be a storefront not open to the public collecting dust.
3. Renting the cottages by the day, is this a front for prostitution and drugs?
4. Who are the expected tenants of the event center? How many events a month are expected to be held.

42-8
5. Where is the natural gas expected to come from since the PGE line stops at Green Vally Rd around El Dorado Hills Blvd. Not sure where the line terminates along Highway 50.

Sincerely,
Patrick and Connie Rodgers

LETTER 42: PATRICK AND CONNIE RODGERS

Comments 42-1 through 42-6 are requests for further information on various aspects of multiple development projects in El Dorado County, including the Village of Marble Valley Specific Plan (VMVSP) and Lime Rock Valley Specific Plan (LRVSP), as well as the proposed project. Although the cumulative setting for the Draft EIR (as described in Chapter 5) includes the VMVSP and LRVSP, the Draft EIR's consideration of cumulative effects need not provide as great detail as is provided for the effects attributable to the project alone (Guidelines Section 15130(b)). Cumulative impacts are addressed at the end of each technical chapter of the Draft EIR (Chapters 4.1 through 4.14).

Response to Comment 42-1

Potential impacts to oak trees within the Project Development Area are discussed under Impact 4.3-13 in the Draft EIR. As discussed therein, the potential impacts to oak woodland depend on which sewer alignment option is selected for approval by the County. Depending on which sewer alignment is selected, the proposed project has the potential to impact a maximum of approximately 2.7 acres of oak woodlands (approximately 44 percent of the total 6.2 acres of the oak woodlands mapped within the project area), and 11 to 12 individual trees in fair to good condition.

As discussed under Impact 4.3-13 of the Draft EIR, impacts to oak woodlands are calculated based on impact to oak canopy, plus impacts to any individual native oak trees within the woodland that are 36 inches or greater diameter at breast height (DBH). The County's Oak Resources Management Plan (ORMP) does not require individual oaks within woodland areas to be counted. In accordance with the County's ORMP, Mitigation Measure 4.3-13 requires the proposed project to mitigate impacted oak woodland at a ratio of 1:1. Based on this ratio, the proposed project would require approximately 2.7 acres of oak woodland mitigation, which can be accomplished through in-lieu fee payments, off-site deed restrictions or conservation easements replacement planting, or a combination of the foregoing options. The final form of mitigation shall be approved by the El Dorado County Planning and Building Department prior to any ground-disturbing activities associated with project construction.

Response to Comment 42-2

The potential for the project site to contain naturally occurring asbestos (NOA) is discussed in Chapter 4.2, Air Quality, Greenhouse Gas Emissions, and Energy, of the Draft EIR.

NOA is typically associated with fault zones and areas containing serpentinite, or contacts between serpentinite and other types of rocks. As discussed in Chapter 4.2 of the Draft EIR, the southeast corner of the project site has been identified as being within an El Dorado County review area for NOA. Mitigation Measure 4.2-3 requires preparation of additional geologic evaluations for the portion of the project site located within the County review area for NOA.

If NOA is identified on-site, Mitigation Measure 4.2-3 would further require the proposed project to comply with the California Air Resource Board's Asbestos Airborne Toxic Control Measures (ATCMs) for Construction, Grading, Quarrying, and Surface Mining Operations, as well as the requirements of the El Dorado County Air Quality Management District (EDCAQMD) Rule 223-2, Fugitive Dust – Asbestos Hazard Mitigation. Compliance with the aforementioned regulations would ensure that the potential for construction workers or nearby sensitive receptors to be

exposed to NOA encountered during construction activities is reduced to a less-than-significant level.

Response to Comment 42-3

Valley fever is an infection caused by inhalation of the spores of the *Coccidioides immitis* fungus, which grows in the soil and are released during earthmoving activities. The commenter does not provide sufficient detail in their comment to warrant a detailed response regarding Valley fever.

Nonetheless, it should be noted that the Valley fever fungus has not been recorded as widespread throughout El Dorado County. As such, development of the proposed project is not anticipated to encounter Valley fever fungus. In addition, construction projects within El Dorado County are required to comply with all applicable EDCAQMD rules and regulations, including dust control measures. EDCAQMD Rule 223 includes requirements to reduce fugitive dust emissions, such as limiting vehicle speed limits on construction sites and unpaved roads, reducing dust track-out, and use of water for soil stabilization when warranted. Compliance with Rule 223 would ensure that, should the Valley fever fungus be discovered in El Dorado County in the future, impacts related to such would be reduced to the maximum extent feasible.

Response to Comment 42-4

Potential impacts to special-status species are discussed in Chapter 4.3, Biological Resources, of the Draft EIR. As discussed therein, a Biological Resources Assessment (BRA) was prepared for the proposed project, and included a literature review of databases, including the California Natural Diversity Database (CNDDB), as well as field surveys to assess the suitability of habitats on-site to support special-status species. Based on the results of the BRA, of the species listed by the commenter, the only species with potential to be impacted by the proposed project is Crotch's bumble bee.

Potential impacts to Crotch's bumble bee are discussed under Impact 4.3-2 of the Draft EIR. Mitigation Measure 4.3-2 included therein, and as revised in this Final EIR (see Response to Comment 11-85), requires a preconstruction survey be conducted for the species prior to ground-disturbing activities associated with the project that would occur between September 1 and March 31, and requires avoidance procedures to be taken if signs of an active nest are observed on-site. As noted in the Draft EIR, implementation of Mitigation Measure 4.3-2 would ensure that potential impacts to Crotch's bumble bee are reduced to a less-than-significant level.

Response to Comment 42-5

Potential impacts related to noise, and all required mitigation measures associated with such, are discussed in Chapter 4.9, Noise, of the Draft EIR. The commenter does not provide sufficient detail in their comment to warrant a detailed response regarding noise mitigation. Nonetheless, as discussed in Chapter 4.9 of the Draft EIR, implementation of Mitigation Measures 4.9-2(a) and 4.9-2(b) would reduce increases in daytime, evening, and nighttime noise levels associated with the Project Development Area below General Plan numerical thresholds, as well as ambient noise thresholds as established by General Plan Policy 6.5.1.13. In addition, implementation of Mitigation Measure 4.9-3 would result in the identification of specific noise mitigation measures designed to reduce noise levels associated with operations of full Project Buildout.

Response to Comment 42-6

Light and glare are discussed in Chapter 4.1, Aesthetics, of the Draft EIR, under Impact 4.1-4. The commenter does not provide sufficient detail in their comment to warrant a detailed response regarding light pollution. Nonetheless, as discussed in Impact 4.1-4 of the Draft EIR, the proposed project would be designed in compliance with the standards established in Chapter 130.34, Outdoor Lighting, of the El Dorado County Code. Therefore, all outdoor lighting would be located, adequately shielded, and directed such that direct light does not fall outside of the property line or into the public right-of-way. In addition, General Plan Policy 2.8.1.1 requires all development to limit excess nighttime light and glare from parking area lighting, signage, and buildings. Therefore, the proposed project would not create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.

Response to Comment 42-7

The comment does not address the adequacy of the Draft EIR. The comment has been noted for the record and will be forwarded to the decision-makers for their consideration. It should be noted that project operations are described in Chapter 3, Project Description, of the Draft EIR.

Response to Comment 42-8

The commenter inaccurately states that the nearest PG&E gas line stops at Green Valley Road around El Dorado Hills Boulevard. As noted on page 4.13-17 of the Draft EIR, the nearest existing gas line to the project site is located at the intersection of Bass Lake Road and Hollow Oak Drive.

Letter 43

From: Patrick Rodgers
To: PL-Town and Country Village El Dorado
Subject: Town and Country comments
Date: Sunday, September 8, 2024 9:18:45 PM

43-1 We are writing to say no on the proposal to build a hotel and added housing in our area. We do not see the benefit for a wedding venue or hotel and population increase to an area that has limited police/ hospital/fire /schools and already limited roads. The area has no need for this. There are already hotels near by and the county does not maintain them and they are an eye sore. Crime is often reported in "The Mountain Democrat "Newspaper. We are concerned about the lack of resources like water/ trash / sewage disposal needed to make such a vision. Hotels use a lot of water. The area is already heating up from the counties decision to allow destruction of 400 year old oak trees that help with global warming. (Oak trees can moderate our local climate. Oak trees keep carbon out of the atmosphere.)Yet the county allows them to be destroyed!!!! We do not need another bad decision that will affect the area residents and cause air, noise pollution / light/ and increase more heat index. We ask

43-2 that you please slow down this process by learning more about the area. This area has over 54 bird species and many are endangered. The proposed building could harm habitats for animals and insects. The light from the building and streets will add light pollution to an area that now is dark. Deer roam the area and if alcohol is allowed at the wedding venue more animals will be harmed. We also question the

43-3 developer who solicited us with an email to everyone offering a lunch proposal . We want to see the Ethics Gov code section 19990 statements for the county employees. Government code section 1090 requires that state officers and others shall not be financially interested in any contract made by them in their official capacity or by participate as purchase or members of the evaluation team at any sale or vendors. We question if this email soliciting an offer of lunch-from the developer could be a conflict of interest . Under the Federal law penalties we are entitled to honest services from public officials and we feel that the developer soliciting a lunch for what could be an offer to sway the vote in favor of the proposal in our opinion .We feel this soliciting was wrong and needs further evaluation .
We oppose with following :

43-4 1. The Marble Valley development is noted to have a museum. Will both museums be funded and have an ongoing management or will they go out of business and collect dust?

2. This facility EIR needs to include Marble Valley, Lime Kiln, and this facility due to traffic merging at Bass Lake. Lime Kiln development connection to Cambridge depends on eminent domain which if successful will drag out for years and if not granted will block its development, and will impact Marble Valley development.

43-5 With the Silver fire blocking Green Valley Rd a month or two back, all traffic was routed to Bass Lake / Silver Spring Rd. Will the traffic on Bass Lake Rd be tied up with this development and Marble Valley? What about tornados, one which occurred at Bass Lake Rd, on Christmas Eve a few years back. Effect on police, fire

43-5, cont. department, and ambulances ability to get from highway 50 to areas north of highway 50. Cambridge is not a suitable road to this kind of traffic if not for local areas.

43-6 3. Would this facility, as currently designed, be built in Serrano? Is the design such that it will pass the Serrano review process?

43-7 4. Noise from weddings, what is the noise extent to existing and future developments? Time limits and extent of operations?

43-8 5. What are benefits to the neighborhood by the increased density?

43-9 6. The renderings show buildings made of wood. Will these buildings be built of fire resistive materials?

43-10 7. Will the landscaping be watered with non-potable water.

43-11 8. How are events being policed for drunk driving?

Sincerely

Patrick and Connie Rodgers

LETTER 43: PATRICK AND CONNIE RODGERS

Response to Comment 43-1
The comment does not specifically address the adequacy of the Draft EIR. The comment has been noted for the record and will be forwarded to the decision-makers for their consideration. With respect to the availability of public services, such as fire protection, law enforcement, and schools, please refer to Chapter 4.10, where these topics are evaluated in detail. For an evaluation of utilities and service systems, including water supply, solid waste, and sanitary sewer service, potential impacts associated with the proposed project are discussed in Chapter 4.13, Utilities and Service Systems, of the Draft EIR. As discussed therein, all potential impacts associated with the proposed project would be less than significant.

Response to Comment 43-2
The commenter expresses general concerns regarding the proposed project but does not specifically address the adequacy of the Draft EIR. Thus, a detailed response is neither possible nor required. Impacts related to light and glare, air quality and GHG emissions, biological resources, and noise, are discussed in Chapters 4.1, 4.2, 4.3, and 4.9 of the Draft EIR, respectively. In addition, with respect to oak resources, please see Response to Comment 42-1, and with respect to light and glare, please see Response to Comment 42-6.

Response to Comment 43-3
The comment does not address the adequacy of the Draft EIR. The comment has been noted for the record and will be forwarded to the decision-makers for their consideration.

Response to Comment 43-4
The cumulative setting for the Draft EIR (as described in Chapter 5) includes consideration of the VMVSP and LRVSP. Cumulative traffic impacts associated with the proposed project are discussed in Chapter 4.11, Transportation, of the Draft EIR.

Response to Comment 43-5
Please see Response to Comment 17-6 with regard to traffic impacts. CEQA no longer requires consideration of traffic congestion as an environmental impact.

Potential impacts on public services are discussed in Chapter 4.10, Public Services and Recreation. As discussed under Impacts 4.10-1 and 4.10-2, impacts to fire and sheriff protection services, respectively, would be less than significant. In addition, as discussed under Impact 4.14-1 in Chapter 4.14, Wildfire, of the Draft EIR, the proposed project would not substantially impair an adopted emergency response plan or emergency evacuation plan.

Response to Comment 43-6
The comment does not address the adequacy of the Draft EIR. The proposed project is located within the Bass Lake Hills Specific Plan (BLHSP) area. The comment has been noted for the record and will be forwarded to the decision-makers for their consideration.

Response to Comment 43-7
Please see Response to Comment 4-4 regarding the DEIR's analysis of operational noise impacts and mitigation measures that will ensure outdoor events would not exceed the County's noise standards at the nearest residential receptors.

Response to Comment 43-8

The comment does not address the adequacy of the Draft EIR. The comment has been noted for the record and will be forwarded to the decision-makers for their consideration.

Response to Comment 43-9

The comment does not address the adequacy of the Draft EIR.

As noted on page 4.14-33 of the Draft EIR, the proposed project would be required to comply with all applicable State and local standards and regulations associated with prevention of wildfire hazards, including EDHFD Ordinance 2022-01, which serves to adopt and amend, as applicable, the California Fire Code (CFC). The CFC requires that an automatic fire sprinkler and/or fire extinguishing system be installed throughout new one- and two-family dwellings and commercial buildings 3,600 sf and larger. In addition, although the project site is not within a Wildlife Urban Interface (WUI) or Very High or High Fire Hazard Severity Zone (FHSZ), County Code Section 8.09.707(F) sets forth hazardous vegetation abatement standards for improved parcels with which the proposed project would be required to comply.

Response to Comment 43-10

The comment does not address the adequacy of the Draft EIR. It is noted, however, that the WSA prepared for the project assumed potable water sourced from EID would be used for on-site landscaping. The amount of water required for landscaping would be minimized by compliance with the State Model Water Efficient Landscape Ordinance (MWELO) (see Appendix Q to the Draft EIR).

Response to Comment 43-11

The comment does not address the adequacy of the Draft EIR. The comment involves a certain amount of speculation related to driving drunk. While an important issue of concern, CEQA does not require the analysis of speculative impacts. As stated in CEQA Guidelines Section 15384, “[a]rgument, speculation, unsubstantiated opinion or narrative, evidence which is clearly erroneous or inaccurate, or evidence of social or economic impacts which do not contribute to or are not caused by physical impacts on the environment does not constitute substantial evidence.” Nevertheless, the commenter’s concerns have been noted for the record and forwarded to the decision-makers as part of their consideration of the proposed project.

Letter 44

8/17/2024

2024 AUG 21 AM 11:28

El Dorado County Planning and Building Department
Planning Division
ATTN: Ande Flower
2850 Fairlane Court
Placerville, CA 95667

RE: Town and Country Village - El Dorado Project
DRAFT EIR

Dear Ande Flower,

I am excited to offer my enthusiastic support for the Town and Country Village, El Dorado project. As a county resident, I commend the benefits and value this development will add.

44-1 I'm excited about the Town & Country Village project because it will boost the economy with new hotels and retail spaces, attracting tourists, supporting local businesses, and creating jobs. The Town & Country Village's placement next to Highway 50 offers a great chance to increase tourism and support our local economy with its retail and cultural attractions. The Town & Country Village project's infrastructure upgrades will enhance roads and utilities, making our community more efficient and accessible. I support it.

I request your positive attention and support for the Town and Country Village, El Dorado project.

Thank you,

Enrique Rodriguez
erod3328@yahoo.com
(916) 837-9393
3961 Mustang Way, Folsom, CA 95762, USA

LETTER 44: ENRIQUE RODRIGUEZ

Response to Comment 44-1

The comment does not address the adequacy of the Draft EIR. The comment has been noted for the record and will be forwarded to the decision-makers for their consideration.

Letter 45

8/17/2024

El Dorado County Planning and Building Department
Planning Division
ATTN: Ande Flower
2850 Fairlane Court
Placerville, CA 95667

RE: Town and Country Village - El Dorado Project
DRAFT EIR

Dear Ande Flower,

45-1

I fully back the Town and Country Village, El Dorado project. Being a resident in the county, I appreciate the positive contributions this project will make to our region.

The Town & Country Village project will stimulate the economy with new hotels and retail spaces, attracting tourists, aiding local businesses, and creating jobs. The Town & Country Village project's blend of residential, retail, and community spaces will create a lively, walkable environment that supports local businesses and enhances our county. I support the Town & Country Village project due to its infrastructure upgrades, which will address current problems and support future community needs.

I encourage you to extend your support and favorable review to the Town and Country Village, El Dorado project.

Best wishes,

Reyna V. Rodriguez

Reyna V. Rodriguez
reinaldadesigns@yahoo.com
916-837-9403
3961 Mustang Way, Folsom, CA 95762

LETTER 45: REYNA V RODRIGUEZ

Response to Comment 45-1

The comment does not address the adequacy of the Draft EIR. The comment has been noted for the record and will be forwarded to the decision-makers for their consideration.

Letter 46

APN: 119-10-0066
OLD BASS LAKE ROAD

8/17/2024

El Dorado County Planning and Building Department
Planning Division
ATTN: Ande Flower
2850 Fairlane Court
Placerville, CA 95667

RE: Town and Country Village - El Dorado Project
DRAFT EIR

Dear Ande Flower,

46-1 I am pleased to support the Town and Country Village, El Dorado project wholeheartedly. As someone from El Dorado County, I value the benefits this project will deliver.

Hopefully, the well-contemplated place for the community will become approved and materialize for the gain of the people and the County of El Dorado.

I recommend that you support and consider the Town and Country Village, El Dorado project positively.

Cheers,

John Salud
j.salud@comcast.net
(408) 431-5069

LETTER 46: JOHN SALUD

Response to Comment 46-1

The comment does not address the adequacy of the Draft EIR. The comment has been noted for the record and will be forwarded to the decision-makers for their consideration.

Letter 47

8/17/2024

2024 AUG 21 AM 11:26

EDC
PLANNING DEPARTMENT

El Dorado County Planning and Building Department
Planning Division
ATTN: Ande Flower
2850 Fairlane Court
Placerville, CA 95667

RE: Town and Country Village - El Dorado Project
DRAFT EIR

Dear Ande Flower,

I am excited to offer my strong support for the Town and Country Village, El Dorado project. As a resident in the county, I see the value and benefits this project will deliver.

What excites me is how the Town & Country Village project will boost the economy with new hotels and retail spaces, attracting tourists and creating jobs. The Town & Country Village project is set to greatly impact the economy, driving business growth, job creation, and tax revenue with its retail, hospitality, and residential components. The Town & Country Village project's on-site staff housing will shorten commutes, reduce traffic, and improve worker quality of life, making it a model of balancing environmental and social concerns.

47-1

I hope you will offer your positive consideration and support for the Town and Country Village, El Dorado project.

Thanks again,

Kara Sather
karasather@gmail.com
425-239-0418
2735 Clay St, Placerville, CA 95667

LETTER 47: KARA SATHER

Response to Comment 47-1

The comment does not address the adequacy of the Draft EIR. The comment has been noted for the record and will be forwarded to the decision-makers for their consideration.

Letter 48

8/17/2024

2024 AUG 21 AM 11:33

El Dorado County Planning and Building Department
Planning Division
ATTN: Ande Flower
2850 Fairlane Court
Placerville, CA 95667

RE: Town and Country Village - El Dorado Project
DRAFT EIR

Dear Ande Flower,

48-1 I wish to express my enthusiastic support for the Town and Country Village, El Dorado project. As a county resident, I am pleased with the benefits this development will offer.

The Town & Country Village project's commitment to history is praiseworthy. It integrates historical elements and involves the community, keeping our heritage relevant. The Town & Country Village project's environmental focus, including local materials and green practices, is perfect for preserving El Dorado County's natural beauty. The Town & Country Village's staff housing will reduce commuting and traffic, improving workers' lives. This initiative reflects a thoughtful approach to both social and environmental concerns.

I urge you to lend your positive support to the Town and Country Village, El Dorado project.

In appreciation,

Lynda D. Seymour

Lynda D. Seymour
mrsseymour@live.com
(214) 629-4428
4707 Castana Drive, Cameron Park, CA 95682

LETTER 48: LYNDA D SEYMOUR

Response to Comment 48-1

The comment does not address the adequacy of the Draft EIR. The comment has been noted for the record and will be forwarded to the decision-makers for their consideration.

Letter 49

Dear Ande,

If you take the time to genuinely get to know, Mr. Mohanna, you would understand the scope and the depth of this project in its earnest. Mr. Mohanna is that unique businessman that has a true compassion for the environment and care for his fellow Americans.

Long-term resident and property owner of El Dorado County, Mr. Mohanna holds this project in high regard. He is not cut from the same cloth as the typical developer. He is what this world needs as far as being a visionary and preserving its history, its connection with the environment, and the impact will have for generations to come.

49-1

This project will stand far and above the rest both in the development and in the future. He cares for each and every tree and the animals that live in our community. He cares for the residences that surround this development and the property. Mr. Mohanna's entire focus is on how it can benefit everything and everyone involved around him. He is careful in his planning, compassionate in his fellowship and a Stewart of the community and environment.

Mr. Mohanna embodies the very goal that the state of California is trying to achieve in respectful presentation of its history, the environmental impact of development, and reaching into the future to create a better tomorrow for future generations.

Lynda D. Seymour

Lynda Seymour
Resident of Cameron Park

LETTER 49: LYNDA D SEYMOUR

Response to Comment 49-1

The comment does not address the adequacy of the Draft EIR. The comment has been noted for the record and will be forwarded to the decision-makers for their consideration.

Letter 50

8/17/2024

2024 AUG 21 AM 11:21

RECEIVED
PLANNING DEPARTMENT

El Dorado County Planning and Building Department
Planning Division
ATTN: Ande Flower
2850 Fairlane Court
Placerville, CA 95667

RE: Town and Country Village - El Dorado Project
DRAFT EIR

Dear Ande Flower,

I wish to express my enthusiastic support for the Town and Country Village, El Dorado project. As someone living in the county, I see the value and positive contributions this project will make.

50-1 The infrastructure upgrades in the Town & Country Village project will improve traffic flow and service access. I support this proactive approach to community needs. Enhancing the bike trail system with the Town & Country Village project improves connectivity, supports green transport, and encourages outdoor activities. I'm pleased that the Town & Country Village project respects El Dorado County's natural beauty by using local materials and green practices while supporting sustainable development.

I hope El Dorado County will support the necessary infrastructure improvements that this project requires. Without them the project will devastate the local residents, roadways, and utilities.

I encourage your positive attention and support towards the Town and Country Village, El Dorado project.

Regards,

David B. Smith
davidbsmith101@gmail.com
2430 Summer Dr
El Dorado Hills, CA 95762

LETTER 50: DAVID B SMITH

Response to Comment 50-1

The comment does not address the adequacy of the Draft EIR. The comment has been noted for the record and will be forwarded to the decision-makers for their consideration.

Letter 51

From: DavidB Smith
To: PI-Town and Country Village El Dorado
Subject: Comments to Draft EIR
Date: Thursday, August 22, 2024 9:47:50 AM

Good Day,
I have reviewed the Draft EIR Report for the Town and Country Village El Dorado Project and have the following comments:

51-1

General:
Overall I see this project as a benefit to the community and El Dorado County and urge its acceptance as proposed, with the following questions and comments.

Section 4.8 Land Use:

51-2

1) Figure 4.8-2 Proposed Land Use Designation. The proposed land use designation for the northeast area of the project area south of Country Club Drive is shown as "MFR". This area is primarily identified as the "Project Study Area", and development planning is reserved for in the future. Does the proposed land use designation of "MFR" preclude any future development of commercial properties (hotels, restaurants, businesses, etc) in this area?

Section 4.11 Transportation:

51-3

1) Traffic needs once the project is completed will necessitate more traffic lanes on Bass Lake Road. Recommend providing 4 vehicle lanes of travel on Bass Lake Road from US-50 to Serrano Parkway. This would be the time to provide a modern, fully operational north-south corridor into Bass Lake Hills from US50 to Serrano Parkway.

51-4

2) Traffic needs once the project is completed will necessitate more traffic lanes and turn lanes on Country Club Drive through the project limits. Recommend providing 4 vehicle lanes and/or turn lanes on Country Club Drive from Bass Lake Road through the project limits.

51-5

3) The signalized intersection at Bass Lake Road is not traffic activated. The increased traffic and turning traffic at that intersection once the project is completed will necessitate at "traffic activated" signal system. Recommend converting the signals to traffic activated, not timed.

51-6

4) Positive connections between the existing bike trails and proposed bike trails will be needed. Recommend positive and clear connections of existing and proposed bike trails.

51-7

5) Bike trail connection from Bass Lake Road west to Silva Valley Parkway does not currently exist south of Serrano Parkway. Recommend extending bike trails along Old Bass Lake Road to Tong Road/Silva Valley Parkway as part of this proposed project.

Respectfully submitted,

David B Smith
Bass Lake Area/El Dorado Hills Resident

LETTER 51: DAVID B SMITH

Response to Comment 51-1
The comment is introductory and does not address the adequacy of the Draft EIR. The comment has been noted for the record and will be forwarded to the decision-makers for their consideration.

Response to Comment 51-2
As discussed under Impact 4.8-2, the Multi-Family Residential (MFR) land use designation allows for mixed-use development that combines commercial and residential uses within Community Regions and Rural Centers. Because the MFR land use designation allows for the development of a mix of commercial and residential uses, the proposed project would not preclude the development of commercial properties.

Response to Comment 51-3
The comment relates to roadway capacity, which is no longer a CEQA consideration. Nevertheless, it is noted in the Draft EIR that the Project Development Area improvements would include the widening of a portion of Bass Lake Road, located between U.S. Route 50 to just north of Country Club Drive, from two lanes (one in each direction) to four lanes (two in each direction). The widening project is currently identified in the County's Capital Improvement Plan as CIP 36105054. Potential environmental impacts associated with the road widening have been evaluated throughout the Draft EIR.

Response to Comment 51-4
The comment relates to roadway/intersection capacity, which is no longer a CEQA consideration. Pursuant to CEQA Guidelines Section 15064.3(a), local jurisdictions do not rely on vehicle LOS and similar measures related to traffic delay (such as congestion and intersection operations) as the basis for determining the significance of transportation impacts under CEQA. Instead, a VMT metric is used. The comment is noted for the record.

As discussed on page 4.11-6 of the Draft EIR, the County is reviewing LOS separately from the Draft EIR based on an LTA prepared by T. Kear to determine whether the proposed project could result in LOS conflicts at nearby facilities, which could necessitate physical improvements. The LTA prepared by T. Kear for the proposed project considered 33 study intersections, 21 segments of U.S. Route 50, and three arterial segments.

Response to Comment 51-5
Please see Response to Comment 51-4.

Response to Comment 51-6
The comment does not address the adequacy of the Draft EIR. Regardless, it is noted that the proposed project includes various bicycle paths and pedestrian facilities, such as a proposed bike path extension along the Clarksville Toll Road alignment through the project site, which would connect to the existing Class 1 bike path on Old Country Club Road. In addition, a Class 1 bike path bridge crossing of Bass Lake Road is proposed at the primary access and would connect to a BLHSP-planned Class 1 bike path on the west side of Bass Lake Road. Figure 4.11-2 of the Draft EIR shows the proposed and existing bikeways in the project area.

Response to Comment 51-7

Please see Response to Comment 51-6. The commenter's suggested off-site bicycle improvement is beyond the responsibility of the proposed project and there is no nexus for additional bicycle-related improvements given that the Draft EIR determined the proposed project would have a less-than-significant impact related to such facilities (Draft EIR, Impact 4.11-2, pg. 4.11-18). Nevertheless, the comments have been noted for the record and forwarded to the decision-makers as part of their consideration of the proposed project.

Letter 52

From: Kitty Tetrault
To: PL-Town and Country Village El Dorado
Cc: BOS-District III; BOS-District I; BOS-District IV; BOS-District V; BOS-District II; Andy Nevis; Bob Williams; Brandon Reinhardt; Lexi Boeger; Daniel Harkin; DirectorScobey@cameronpark.org; Directorwolfson@cameronpark.org; Directorisrael@cameronpark.org; DirectorBazett@cameronpark.org; DirectorAiston@cameronpark.org; generalmanager@cameronpark.org; noellemattock@edhcsd.org; michaelmartinelli@edhcsd.org; benpaulsen@edhcsd.org; heidihannaman@edhcsd.org; ephenferry@edhcsd.org; bditonno@edhcsd.org; jkernen@edhcsd.org; Joe H. Harn; Jerry Barton; info@townandcountryvillageeldorado.com
Subject: Town and Country Village El Dorado Project - Public Comment
Date: Monday, September 9, 2024 10:34:25 AM

Mr. Ande Flower
Senior Planner
TownAndCountryElDorado@edcgov.us
County of El Dorado
Planning & Building Department
Placerville CA

Dear Mr. Ande Flower,

My name is Kitty Tetrault. My husband, Conrad, and I live in Cameron Park with our 8 month old son. We are excited for the proposed Town and Country Village El Dorado Project!

Here are some of the things we would love to see with the new development:

Safe Bike Paths:

- We salute the applicant's vision of the bike, hike, electric-powered conveyances, and connectivity trails.
- We would love to have a safe bike / hike path that connects Cameron Park down to El Dorado Hills. We enjoy riding our bikes and hope to someday ride bikes with our son, but unfortunately Cameron Park does not have any safe bike paths.
- The American River Parkway connects Sacramento to Folsom and all of the neighborhoods in between.
- There are also a lot of bike hike paths to, in, and around the town of Placerville.
- It would be so great to somehow connect all of those bike paths through El Dorado Hills and Cameron Park. We would have a lot of fun riding our bikes down to the Town and Country Village El Dorado to grab a bite to eat if there were a safe way to do so. What the applicant has done is provided the basis for reducing Vehicle Miles Travelled - way beyond what the traffic analysis states.

52-1

Trader Joe's:

- One of our favorite grocery stores is Trader Joe's. When we lived in Sacramento we used to shop there all the time. However, the closest Trader Joe's is in Folsom on East Bidwell Street. It takes approximately 30 +\- minutes to get there from our home because it is not close to the freeway, so we haven't shopped there since before our son was born. If there were a Trader Joe's in the Program Study Area of the plan we would shop there all the time. We have a ton of friends who live in Cameron Park and El Dorado Hills and we know they would love to have a Trader Joe's in El Dorado Hills as well. This location would be ideal because for those of us who work in Sacramento we

could easily stop there on our way home from work. It would be a short hike, bike, or drive from Cameron Park.

Playground:

52-1, cont.

- A new playground would be lovely right in the Oak Grove of the resort. My friends and I are always talking about which playground to take our children to. There are really no nice playgrounds in Cameron Park for little kids. We would love to see a playground with soft ground so that toddlers and young children can safely play there. Ideally, the playground would not have bark because that is such a pain since babies and toddlers put everything in their mouths.
- For reference, there is a neighborhood playground in the Sutter Park development located on Sutter Park Way in East Sacramento that our friends love to go to with their little ones.

DEIR Biological Section & Timeframe for Project's Beginning:

52-2

Lastly, I really appreciate the applicant's vision to connect all these various parts of our government, about which I have written, to work harmoniously for the betterment of the environment, workplaces, and members of the community. I can't imagine how many years it has taken to get to this point. I know that time is money, so please consider allowing a mitigation so the project may begin by fencing off the sensitive biological areas of the seeps, seasonal drainages, and the oaks for protection purposes while monitoring them as the project gets underway.

We want this all to happen before our son can ride a tricycle!

Thank you all so much for your consideration.

Respectfully,
Kitty Tetrault of Cameron Park

LETTER 52: KITTY TETRAULT

Response to Comment 52-1

The comment does not address the adequacy of the Draft EIR. The comment has been noted for the record and will be forwarded to the decision-makers for their consideration.

Response to Comment 52-2

The comment does not address the adequacy of the Draft EIR. The comment has been noted for the record and will be forwarded to the decision-makers for their consideration.

Letter 53

From: Anneliese Tupper
To: PL-Town and Country Village El Dorado
Subject: Attn Ande Flower
Date: Monday, September 9, 2024 1:48:35 PM

My name is Anneliese Tupper. I represent Stammtisch EL Dorado, El Dorado County's German-American Friendship Club. Established in 1998, our charter is to preserve traditional German culture and heritage, and foster friendship between all Americans and Americans of German descent.

53-1 As one who cares about, and is involved in, promoting and preserving the values and heritage of a healthy community, I find the Town and Country Village El Dorado Project especially appealing. Not only will it provide high quality, carefully planned facilities, beneficial to all who use, or are employed by, those facilities, it will also open the door to countless other retail, residential, hospitality, and community support ventures which will directly benefit all residents and community members of El Dorado County. The fact that the Project includes a museum of El Dorado County's rich heritage speaks volumes about the sincerity and commitment of the Project's organizers to provide quality, impactful, long lasting benefits to El Dorado County and surrounding communities.

I enthusiastically support the Town and Country Village El Dorado Project, and strongly urge El Dorado County Authorities to support and approve its progress toward full development.

Respectfully,

Anneliese Tupper
President, Stammtisch El Dorado

LETTER 53: ANNELIESE TUPPER

Response to Comment 53-1

The comment does not address the adequacy of the Draft EIR. The comment has been noted for the record and will be forwarded to the decision-makers for their consideration.

Letter 54

RE: Town and Country Village Opposition Letter

September 9, 2024

To Whom It May Concern,

I am writing as a representative of a group of homeowners and members of the Emerald Peak Homeowners Association to strongly oppose the approval of the Town and Country Village project and the approval of the draft EIR. We have met with other HOA members nearby who also oppose the resort style development. Some of those reside in Serrano, Bridlewood Canyon, Hawk View, and Hidden Oaks.

54-1

The group feels strongly that this project is utterly inappropriate along what is currently a naturally beautiful stretch of U.S. Highway 50 and Bass Lake Road, and it is simply impossible to mitigate the significant environmental impact that would result should this hotel and adjoining housing development were to be allowed.

This project includes the largest hotel built in El Dorado County in 30+ years, it also is twice the size of the Red Hawk Casino, which had to be built back away from the freeway to maintain the corridor viewshed. As stated in the Bass Lake Specific Plan, "Areas of greatest sensitivity are the hillsides within the viewshed of U.S. Highway 50 and Bass Lake Road." (Page 5) Additionally, this project does not meet the Vision Statement outlines in the Bass Lake Specific Plan (Page 15) nor Goal 2.6 Corridor Viewsheds. The project also does not meet the El Dorado Hills Specific Plan, especially at 5 stories tall.

54-2

Simply put, this project will change the landscape and feel of Bass Lake Hills drastically as well as El Dorado Hills itself. These parcels are zoned as rural residential, far from the commercial density of a 300-room hotel, 80 cottages, and numerous other townhomes. The rural tranquility will be replaced by noise and light pollution, traffic congestion, and turn this quiet area into a mega resort.

54-3

Please do not let this project be your legacy. Those that approve it will not be remembered fondly, but rather thought upon as the group that represented the death of the naturally golden El Dorado Hills and the establishment of a high-density housing and traffic congestion eyesore along our peaceful Bass Lake Road.

Sincerely,

Robert Wahl

LETTER 54: ROBERT WAHL

Response to Comment 54-1

The comment expresses opposition to the proposed project. Comments in opposition of the proposed project do not concern environmental impacts. The comment has been noted for the record and will be forwarded to the decision-makers for their consideration.

In addition, the commenter states that, "it is simply impossible to mitigate the significant environmental impact that would result should this hotel and adjoining housing development were to be allowed," but does not provide specifics or evidence to support the statement. All environmental impacts associated with the proposed project, as required under CEQA, are analyzed within the technical chapters (Chapter 4.1 through 4.14) of the Draft EIR, and mitigation measures are prescribed therein to ensure impacts are reduced to the maximum extent feasible. The Draft EIR did find that certain environmental impacts would remain significant and unavoidable after implementation of mitigation measures (see Chapter 5).

Response to Comment 54-2

Please see Response to Comment 17-4 regarding the proposed project's consistency with applicable policies of the County's General Plan and the BLHSP and Response to Comment 17-5 regarding analysis of the proposed project's height and impacts on views.

Response to Comment 54-3

The comment does not address the adequacy of the Draft EIR.

With regard to the portion of the comment about 'rural tranquility' and 'feel' of Bass Lake Hills, the following is offered. In *Preserve Poway v. City of Poway* (2016) 245 Cal.App.4th 560, the Appellate Court evaluated whether community character is a consideration in CEQA and whether changes to community character or social impacts constitute an environmental impact under CEQA. The Court determined CEQA does not require an analysis of subjective psychological feelings or social impacts. Rather, CEQA's overriding and primary goal is to protect the physical environment. CEQA defines a "significant effect on the environment" as "substantial, or potentially substantial, adverse changes in physical conditions ...." (PRC section 21100. subd. [d]). Therefore, quality of life comments are noted for the record but do not require a response. Rather, they are referred to the decision-makers for consideration in their deliberations for approval or denial of the proposed project.

Regarding the other stated general concerns, it is noted that that the Draft EIR evaluates potential impacts to noise in Chapter 4.9, Noise, and to light and glare in Chapter 4.1, Aesthetics. Please see Response to Comment 17-6 with respect to traffic congestion. The comment has been noted for the record and will be forwarded to the decision-makers for their consideration.

Letter 55

8/17/2024

2024 AUG 21 AM 11:25

PLANNING DEPARTMENT

El Dorado County Planning and Building Department
Planning Division
ATTN: Ande Flower
2850 Fairlane Court
Placerville, CA 95667

RE: Town and Country Village - El Dorado Project
DRAFT EIR

Dear Ande Flower,

55-1 I offer my wholehearted backing for the Town and Country Village, El Dorado project. Being a resident in the county, I see the significant advantages this project will provide.

The Town & Country Village project effectively preserves El Dorado County's history and engages the community. It makes our heritage both accessible and significant. I'm pleased with the Town & Country Village project's commitment to green practices and local materials, which helps preserve El Dorado County's natural beauty while fostering growth. The Town & Country Village project will create new opportunities for community engagement with its design featuring event spaces and markets.

I call upon you to consider and support the Town and Country Village, El Dorado project favorably.

Cordially,

Stan Wentland
akusta@placerville.net
9168494494
3150 Harmony Hill Rd, Placerville, CA 95667

LETTER 55: STAN WENTLAND

Response to Comment 55-1

The comment does not address the adequacy of the Draft EIR. The comment has been noted for the record and will be forwarded to the decision-makers for their consideration.

Letter 56

"Town & Country Village Project" (TCVP) DEIR Comments
SCH# 2023070297

Due 9/9/2024, 5:00 p.m.

To: TownAndCountryElDorado@edcgov.us
El Dorado County Planning and Building Department-Planning Division
Attention: Ande Flower
2850 Fairlane Court
Placerville, CA 95667

By: Margie Yowell, Mickie Smith, Karan Marsh, and Stephen Marsh, (Sensitive Receptors) residents since 1980/1992 within ¼ mile uphill (Sites 2 and Site 3), as the crow flies, of the project's proposed site.

After review of the content of the Draft Environmental Impact Report (**DEIR**) and the potential environmental impacts from this project, this letter is to document our continued concern and opposition of the proposed Town & Country Village Project (**TCVP**) at **Bass Lake Road (BLR)** and Highway 50 in El Dorado Hills.

For ease of reading, this letter provides a recommendation first preceding each concern followed by brief background.

56-1 **SUMMARY**: We are extremely concerned the El Dorado County would consider such a project given your own comment on page 3 of your Notice of Availability,

> "This DEIR identifies that the proposed project could result in ***significant*** environmental impacts to the following CEQA topics: Aesthetics; Air Quality, Greenhouse Gas Emissions, and Energy; Biological Resources; Cultural Resources; Geology and Soils; Hazards and Hazardous Materials; Hydrology and Water Quality; Noise; Transportation; Tribal Cultural Resources; and Wildfire."
>
> ***Significant*** is defined as: Impacts that exceed the defined standards of significance and require mitigation.

TRAFFIC RECOMMENDATION(S):

56-2 If the project is approved, mandate developers install and complete proposed BLR at Hollow Oak, and Highway 50 road improvements including stop lights or signs prior to implementing any piece of commercial building projects. Doing so should increase visibility and line of sight which is not adequate from the BLR / Hollow Oak intersection.

56-3 Require the proposal to clarify the intended residents of the "Program Study Area" so future use is not permitted to allow additional transient, i.e., less than 30-day occupancy. We would expect long term renters/residents to travel less than transient renters.

TRAFFIC CONCERN

56-4 The 2004 Bass Lake Specific Plan[1] identified Hollow Oak / BLR as a candidate for either a stop sign or stop light and to be paid for via the Bass Lake Housing Public Facilities Financing. Neither sign, nor light, has been provided as of this writing. Due to the expected critical mass traffic increase to reach the TCVP (if proposal is approved) from north and south directions, including from Hollow Oak Road which is adjacent to emergency vehicle driveway into Fire Department Station #85, onto BLR will continue to be hazardous and potentially deadly without the insertion of a traffic control device.

The DIER, Appendix P-S Traffic does not address the fact that as of 8/4/2024, there are three (3) significant traffic and shared infrastructure[2] related EDH proposals expected to flow through the BLR and the U.S. Highway 50 Scenic Corridor running East and West on and off-ramps with resulting BLR travelers:

Project	Long term Units	Daily Transient	Line Totals
Town and Country Multi Event Center Hotel and Residence Project	406	356	762
Marble Valley Specific Plan	3,236		3,236
Bass Lake Apartments	126		126
Column Totals	3,768	356	4,124

56-5 Presuming three (3) new residents times 3,768 long term units is a potential increase of 11,304 residents plus their cars. Assuming 1 car per unit or an additional 4,124 cars plus the hotel project could bring in just over 4,000 daily cars through the transient rooms, museum, event center and restaurants. The above numbers directly conflict with the applicant's proposed change to the BLHSP adding in Section 2.3 8 "....reduce traffic impacts and vehicle miles traveled..." and adding "GOAL TC-3: To reduce travel demand....reducing the quantity of motor vehicle emissions..."

Historically the County could likely approve these proposals to enjoy the increased income and taxes to the detriment of the rural view, lack of water, and increased traffic and associated emissions. The scenic corridor will soon take on the appearance of the traffic gridlocked bay area. Hence, the Marble Valley project, May 2023, Figure 2.3: Project Setting refers to this area as the "Bass Lake Road Interchange".

Even without increased people, speeding cars and motorcycles on BLR, highway 50, we find the noise levels at night increasingly difficult to enjoy the once peaceful nights at home. With the increase of drivers even today, we all have noticed an increase in disrespectful and speeding drivers on BLR. Refer to missing stop light at Hollow Oak and BLR promised by prior developers.

56-6 Historically, the BLR speed limit increases with each development. For example, the BLR was 40 MPH prior to the 1990 developments. With the circa 2000 Lennar development, the BLR increased to 50 MPH. Shall we expect BLR to increase to 60 MPH if the discussed projects are approved? The DEIR does not address increased speeds.

[1] basslakehillssp-pffp.pdf (ca.gov)
[2] Potable and non-potable water lines, traffic routes, utilities, etc.

56-7 Chapter 4 discusses many California and Federal mandates for reduction of emissions caused by traffic including construction, transporting water and sewage. Should any of the three above-listed projects be approved, we are concerned EDC will not be able to maintain such emissions from today's 8/4/2024 baseline and as listed in Objective 6.7.2 (page 4.2-36).

56-8 **Clarification requested** if the four lanes would extend beyond the Old Country Club Drive through to the new Country Club Drive. The DEIR, CEQA Transportation Impact Study, page 7, Figure 3, is not clear on the widening of BLR from two lanes to four lanes between 50 and Country Club Drive.

NOISE LEVEL RECOMMENDATION(S)

56-9 The DEIR fails to compare noise projections with one or more of the above projects in review. To better understand comparable noise levels, the results should be compared to operational sites such as off El Dorado Hills Blvd, Town Center or Bidwell Road's Hotel community. The DEIR documents rural life noises on the hillside, which is consistent with the 2016, amended 2024 Bass Lake Hills SP Plan, page 67. Deny proposed project to protect existing noise sensitive groups in rural residences and church, per the EDC General Plan.

NOISE CONCERN

56-10 The DEIR documented noise level along the BLR and nearby rural residences.

- *Table* 4.9.1 Long-Term Ambient Noise Survey Results was conducted mid-week, Wednesday, Thursday and Friday which would **NOT** be consistent with a wedding event hotel where the weddings would more likely be held on weekends.
- BLR weekend travel is less than mid-week so the survey results are misleading.

56-11 While noise level studies were accomplished at the rural residence sites, the results are pre any hotel event center development and operation. Noise projections need to be documented specifically with one or more of the above projects in review. To better understand comparable noise levels, the results should be compared to operational sites such as off El Dorado Hills Blvd, Town Center or Bidwell Road's Hotel community.

56-12 Just a few years ago, the Lennar development at Hollow Oak and Morrison Road drilled and blasted for their one- and two-story homes which is less than the proposed 5-story hotel's construction. Noise level for drilling and blasting is not even included in the DEIR's noise table. We, the neighbors were never forewarned blasting would begin, nor were any pre or post blasting inspections completed at our home sites.

56-13 One Pneumatic Riveter is at 124 dBA which could be less than used at your hotel's proposal site.

56-14 Table 4.9-1 lists 2023 average decibel (dBA) test results which exceed 55 dBA limit. The **law** sets a limit of 55 dB during the day and 45 dBA during the night for residential zones. These **limits** aim to protect residents from excessive **noise** disturbances that could impact our well-being and enjoyment of our homes. This data does not include prior years, prior to the increased traffic, the operation of the flashing BLR / Country Club Drive traffic light which shines nightly into my bathroom door. Just imagine the increased traffic noise over the last 24 months. Can't take a quiet moment in the bathroom any longer

56-14, cont.

with the noise from application of brakes, motorcycle revs and horns. None of this noise was present just two years ago.

VIEW RECOMMENDATION

Limit construction of buildings to be the same as or less than the height of nearby oak tree(s).

VIEW DEGRADATION

Chapter 4's conclusion of the significant view degradation offers no acceptable mitigations.

56-15

"[3]Conclusion
Based on the above, both buildout of the Project Development Area and full project buildout would not significantly change views of the project site from Views B and C. However, views of the existing rural character of the project site from Views 1 through 7 (excluding View 3), as well as View A, would be significantly altered by buildout of the Project Development Area; the aforementioned Views, as well as View 3, would also be significantly altered by full project buildout. Therefore, the existing visual character and quality of public views of the site would be substantially degraded by development of both components of the proposed project. Thus, a *significant* impact could occur.

Mitigation Measure(s)
Implementation of the following mitigation measure would reduce the above potentially significant impact, but not to a less-than-significant level. As such, the impact would remain *significant and unavoidable.*"

SEWAGE RECOMMENDATION:

Deny project until sewage mitigation is appropriate rather than a raised sewage pipe suspended over Carson Creek for the elimination of between 1,000 and 2,000 long-term or transient people (page 2 of the Biological Resource Assessment. It will be in the best interest of the County to know for certain if the Marble Valley project plans to link into the same sewage pipe

SEWAGE Background

56-16

At least our homes are uphill of the increase in sewage and wastewater eliminations from the hotels and increased apartments and villages. We all know heat rises so our concern stays with the proposed heat sources. We are concerned the reports are not referencing current maps and topologies as the appendix e-I Biological Resource Assessment (Section 1.0 Introduction) references "Stone Hill Rd" which was renamed "Hollow Oak Rd" more than 20 years ago. All readers of this response can only imagine the land changes throughout the area over the last 20 years which may not be included in the TCVP report. Other developers in the area have also relied on out-of-date topical maps as well. It appears Madrone Ecological Consulting also relied on out-of-date maps.
If the hotel chooses to implement a septic tank, leach line combination, we pray not to see an increase in flies in the area which the wind could likely push up and over the hill towards the Holy Trinity Church and

[3] Chapter 4.1, Page 4.1-46

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56-16, cont. the Lennar development. This suggestion is only for the release of kitchen waste through the septic system.

STORM WATER RUNOFF

56-17 Page 4.7-19 "Pollutants associated with the operational phase of the proposed project could include nutrients, oil and grease, metals, organics, pesticides, bacteria, sediment, trash, and other debris. Nutrients that could be present in post-construction stormwater include nitrogen and phosphorous resulting from fertilizers applied to landscaping." This paragraph lifted from the project impact analysis has the mitigation of potential contaminants just redirected downhill with a bit of treatment and this to discharge into downstream waterways. This mitigation does not sound appropriate nor responsible mitigation for which the County will approve?

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PRIOR SUBMISSIONS

The following are our prior submitted comments which are still accurate even though this proposal provides amendments to the BLSP which wipes out the rural protections of this community and pushes in the word "commercial" throughout the plan.

The entire purpose of the **APPROVED** 1995 BLSP is, **GOAL 2.1: LAND USE** Protection and conservation of existing communities and rural center.

56-18 **Policy 2.1.1.3** restricts land use to 20 residential units per acre. This plan **conflicts** as it proposes senior care units plus employee units which exceed 20 units per acre. The proposal includes transient hotel accommodations which are not considered "residential". The approximately 60.5- acre site proposes at least "two hotels, retail services, two restaurants, a museum, an event center, associated parking, 56 residential cottages for employee housing, and an additional 56 residential cottages that may be rented on a daily or extended stay basis, which may require a conditional use permit. The Program Study Area consists of the central and easternmost 30.2 acres of the project site, and may include further development in the future such as additional hotels, medical facilities, senior housing, townhomes and cottages, and other uses allowed by the proposed zoning districts."

Prior Submitted Concerns conflicts with approved General Plan
Policy 2.1.1.7 requires...as adequate roadways, utilities, and other public service infrastructure become available and wildfire hazards are mitigated as required by an approved Fire Safe Plan.
1. The BLR as it is today not adequate should an emergency require evacuation from the proposed site. Increased bottlenecks at Highway 50 exit and on-ramps are anticipated with such a proposal.
2. BLR is in the Medium Fire Hazard Severity Zone based on the CALFIRE maps. CALFIRE is in the middle of updating the zones. Should a proposal be approved and if CalFire's risk changes, impacts would likely be felt with canceled fire insurance policies, and or increased premiums.

56-18, cont.

3. The Bass Lake fire station and ambulances are not equipped to adequately respond to a major fire incident in such proposed facilities. What fees from the applicant are to be provided for emergency services training to respond to the buildings and large gatherings once needed?
4. We expect an increase of calls per the elder housing and hotel center hosting large groups.
5. How would a disaster at the facility impact its rural neighbors?
6. There are no safeguards within the proposal to safeguard its residential rural neighbors from potential disasters. Increased DUIs due to increased events from zero to however many they expect to host. If 1 event hosted per week, potentially 52 DUI increase at minimum.
7. The proposal includes solar power; it is not evident PGE has permitted, approved or confirmed their ability to absorb that generation of power?
8. The proposal is recommending the use of a temporary in-ground septic system for their facilities?
9. The El Dorado County staff is not sufficiently staffed to accommodate the increased workload of inspections and reviews of elder care, community housing and hotels.
10. EDH neighbors already complain about the frequent power outages. Adding such a facility would likely increase the power drain, potentially increasing outages.
11. The Proposal will likely increase traffic volume, speed and road rage incidents. There have been two deaths since the recent residential developments started, one at Hollow Oak and the other at the Highway 50/Bass Lake exit. About six years ago, the DOT increased the BLR speed limit from 40 mph to 50 mph "because that's how fast our new aggressive drivers drive." DOT has not repaired the pothole at Hollow Oak/BLR. It is nearly impossible to exit or enter safely at Hollow Oak/BLR. Aggressive drivers do not slow down for drivers make a right onto Hollow Oak, instead they pass left across the middle line.

GOAL 2.3: NATURAL LANDSCAPE FEATURES Maintain the characteristic natural landscape features unique to each area of the County.

56-19

12. The Proposals submitter has a current business located in downtown Sacramento and this design does not promote natural landscape features unique to this area. The proposal promotes "a downtown event center" characteristic. Such a program is neither rural nor suburbs. Keep this facility away from the small Bass Lake Road off-ramp. A better site is just west of the proposed location and would be a nice community blend and will provide business competition within the Town and County shopping area.

GOAL 2.4: EXISTING COMMUNITY IDENTITY Maintain and enhance the character of existing rural and urban communities, emphasizing both the natural setting and built design elements which contribute to the quality of life, economic health, and community pride of County residents.

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56-19, cont.

13. The Proposal goes against keeping rural as rural. And against keeping suburbs as suburbs.
14. New residents moved to this rural suburb for its peace and quiet. Permitting such an event center with multiple hotels defeats the rural community identity.
15. Expected increase of noise from hosted events. If we can hear football games from Bidwell, imagine noise from this close proximity. Such an event center will conflict with neighbors' ability to enjoy peace and quiet weekends.
16. Increased light, dust and noise pollution and operation of night events.
17. How long is construction planned? How many days per week, hours? Dust suppression?

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LETTER 56: MARGIE YOWELL, MICKIE SMITH, KARAN MARSH, AND STEPHEN MARSH

Response to Comment 56-1

The comment is an introductory statement that summarizes the following comments and does not address the adequacy of the Draft EIR. The comment has been noted for the record and will be forwarded to the decision-makers for their consideration.

Response to Comment 56-2

Pursuant to CEQA requirements, the traffic analysis for the proposed project is limited to VMT, safety, and any elimination of existing bicycle and pedestrian infrastructure and/or planned infrastructure. The Transportation Impact Study prepared for the proposed project reviewed accident rates and found that CEQA safety impacts would not occur at the portions of Bass Lake Road addressed in the comment. The discussed portions of Bass Lake Road have an accident rate lower than the statewide average for similar facilities.

As discussed on page 4.11-6 of the Draft EIR, the County is reviewing LOS separately from the CEQA process. The County's LOS evaluation is based on the LTA prepared by T. Kear to determine whether the proposed project could result in LOS conflicts at nearby facilities, which could necessitate physical improvements. The El Dorado County Department of Transportation (DOT) will consider these recommendations when conditioning the proposed project.

Response to Comment 56-3

The comment does not address the adequacy of the Draft EIR. However, the Program Study Area land use assumptions used in Chapter 4.11, Transportation, of the Draft EIR are specified in Chapter 3 of the Draft EIR and the CEQA Transportation Impact Study. Both documents assumed that the Program Study Area would be developed with traditional multi-family housing for rent or purchase, rather than hotel uses.

Response to Comment 56-4

Transportation impacts are discussed in Chapter 4.11, Transportation, of the Draft EIR. Please see Response to Comment 56-2. In addition, impacts related to inadequate emergency vehicle access are discussed under Impact 4.11-5 of the Draft EIR.

Response to Comment 56-5

The commenter's concerns appear to be focused primarily on congestion caused by the proposed project in combination with other reasonably foreseeable developments in the region. As previously noted, congestion is related to level of service, which is no longer a consideration pursuant to CEQA. Nevertheless, the LTA prepared for the project considers intersection operations under a 2040 "Super Cumulative" scenario, which includes the Marble Valley and Lime Rock Specific Plans. In addition, the Bass Lake Apartments project was accounted for in the Existing Plus Approved Project (EPAP) 2033 conditions evaluated in the Transportation Impact Study and the LTA.

Regarding the generally expressed traffic noise concerns, please refer to the traffic noise analysis included in Chapter 4.9 of the Draft EIR.

Response to Comment 56-6

The comment does not address the adequacy of the Draft EIR. However, it should be noted that the applicant has not proposed making any changes that would be anticipated to result in the County, or any other party, increasing speed limits on roadways within its jurisdiction.

Response to Comment 56-7

Potential impacts associated with air quality, greenhouse gas (GHG) emissions, and air quality are discussed in Chapter 4.2, Air Quality, GHG Emissions, and Energy, of the Draft EIR. As discussed therein, the air quality modeling conducted for the proposed project accounts for project-generated traffic, including traffic that would occur during construction and operation of the proposed project. In addition, as noted under Impact 4.2-6, by nature, air pollution is largely a cumulative impact. The population growth and vehicle usage within the nonattainment area from the proposed project, in combination with other past, present, and reasonably foreseeable projects within El Dorado County and surrounding areas, contributes to the region's adverse air quality impacts on a cumulative basis, and could either delay attainment of ambient air quality standards (AAQS) or require the adoption of additional controls on existing and future air pollution sources to offset emission increases. However, according to the EDCAQMD CEQA Air Quality Handbook, adopted EDCAQMD rules and regulations, as well as the thresholds of significance, have been developed consistent with the applicable air quality plan with the intent to ensure continued attainment of AAQS, or to work towards attainment of AAQS for which the Mountain Counties Air Basin (MCAB) is currently designated as nonattainment.

Response to Comment 56-8

The comment does not address the adequacy of the Draft EIR. However, it should be noted that the applicant is required to widen Bass Lake Road from two to four lanes from the westbound U.S. Route 50 ramps through Country Club Drive. The transition back to a two-lane road would occur just north of Country Club Drive. Design and improvement plans will require review and approval by the County DOT prior to construction.

Response to Comment 56-9

The purposes of Chapter 4.9, Noise, of the Draft EIR, are to quantify the existing noise and vibration environments, identify potential noise and vibration impacts resulting from the Project Development Area and Program Study Area, identify appropriate mitigation measures, and provide a quantitative and qualitative analysis of impacts associated with the proposed project. Specifically, impacts are identified if project-related activities would cause a substantial increase in ambient noise or vibration levels at existing sensitive land uses in the project vicinity, or if project-generated noise or vibration levels would exceed applicable federal, State, or local standards at existing or proposed sensitive uses.

Chapter 4.9, Noise, of the Draft EIR, presents evaluations of the following: project-related increases in traffic noise levels at existing off-site sensitive receptors (including rural residential receptors as described on Page 4.9-3 of the Draft EIR) in the project vicinity under Impact 4.9-2; individual and combined evaluations of primary noise sources associated with project on-site operations at various components under Impact 4.9-2; evaluations of on-site and off-site (infrastructure) project construction activity noise and vibration under Impact 4.9-1 and Impact 4.9-4, respectively; and offers mitigation measures needed for compliance with applicable noise and vibration criteria, as appropriate.

Operational noise impacts from multiple projects are typically only assessed when such projects are located within very close proximity to each other, as operational noise is typically highly localized to within the immediate vicinities of such projects. When multiple projects are not located within the immediate vicinity of each other, the cumulative impact from the projects is assessed by conducting an analysis of increases in traffic volumes and associated noise levels within the local roadway network. Chapter 4.9, Noise, of the Draft EIR contains such impact discussions. As indicated in Chapter 4.9, Noise, of the Draft EIR, increases in cumulative traffic noise levels within the local roadway network (Cumulative 2040 and Super Cumulative 2040 conditions) are determined to be less than significant.

Nonetheless, the Marble Valley Specific Plan area is located south of U.S. 50, which is south of the project site. Based on the Marble Valley Specific Plan Land Use Map, the proposed project maintains a separation of a 0.5-mile from the closest noise-sensitive uses proposed within the Marble Valley Specific Plan area. According to the project noise consultant, U.S. 50 traffic noise would mask operational noise associated with the proposed project from such uses. Further, noise generated by project operations would be likely be inaudible at a distance of a 0.5-mile, and would not be appreciably additive to local ambient conditions at the noise-sensitive uses within the Marble Valley Specific Plan.

Response to Comment 56-10

The comment does not provide or cite data to support the claim that Bass Lake Road weekend travel daily traffic volumes are less than what occurs on a Wednesday, Thursday or Friday. Nonetheless, relative to the County's standards, fluctuations in traffic volumes would primarily affect the day-night average noise level (DNL) and hourly average (L_{eq}) noise level descriptors, as the maximum (L_{max}) noise level descriptor is more appropriately associated with instantaneous events. The analyses of project-generated off-site traffic noise level increases presented under Impact 4.9-2 contain evaluations of impacts associated with existing (2023), existing near future (2033), cumulative (2040), and super cumulative (2040) project and no project scenarios. The analyses of each scenario do not use the results from the ambient noise level survey; rather, as explained on Page 4.9-19 of the Draft EIR, traffic data inputs were used in the modeling. As such, further discussion of traffic volume fluctuations affecting the DNL descriptor and measured ambient DNLs within the vicinity of the residential receptors is not warranted.

However, conservatively assuming that Bass Lake Road would have 50 percent less traffic volumes on weekends, such a reduction would only correspond to a two-decibel reduction in L_{eq} noise levels. After a review of the predicted on-site operational noise levels at nearby residences relative to measured existing L_{eq} noise levels presented in Table 4.9-1 of the Draft EIR, the conclusions of the Draft EIR would not change.

Response to Comment 56-11

Operational noise impacts from multiple projects are typically only assessed when such projects are located within very close proximity to each other, as operational noise is highly localized to within the immediate vicinities of the projects. When multiple projects are not located within the immediate vicinity of each other, the cumulative impact from the projects is assessed by conducting an analysis of increases in traffic volumes and associated noise levels within the local roadway network. Chapter 4.9, Noise, of the Draft EIR contains such impact discussions.

The noise analyses and results contained in Chapter 4.9, Noise, of the Draft EIR are based on accepted noise modeling and propagation methodologies, measurements of noise sources

conducted by Bollard Acoustical Consultants (BAC), and manufacturer sound level data. The commenter states that the results should be compared to operational sites located off of El Dorado Hills Boulevard, the Town Center, or Bidwell Road's Hotel community. However, unless the operational sites the commenter identifies are exact or very similar in site design, the comparison in operational noise would not be equivalent.

Thus, the modeling methodologies contained in Chapter 4.9, Noise, of the Draft EIR are adequate for CEQA compliance. Furthermore, conducting post-project monitoring or evaluating other existing sites to adequately characterize operational noise impacts from the proposed project is not necessary.

Response to Comment 56-12

Blasting is not currently proposed for project construction. As a result, an analysis of blasting as a component of construction activities was not included in the Draft EIR. However, should blasting occur, the blasting contractor would be responsible for ensuring that blasting charges are sized appropriately to avoid noise impacts to sensitive receptors, including nearby residences. It should be noted that reference and projected vibration levels associated with caisson drilling at nearby residences are presented in the Draft EIR in Table 4.9-42. As indicated therein, projected vibration level exposure from such drilling activities would be less than the applicable Federal Transit Administration (FTA) vibration impact threshold.

However, the commenter is correct in that noise level exposure associated with drilling activities was not provided in the Draft EIR. According to data published by the Federal Highway Administration (FHWA), reference noise levels for drill rigs, truck-mounted augers, rock drills, and associated rock drilling equipment range from 81 dB L_{max} to 85 dB L_{max} at a distance of 50 feet. The foregoing range of reference noise levels for drilling activities falls within the range of maximum noise levels associated with project construction equipment analyzed in Chapter 4.9, Noise, of the Draft EIR. As discussed under Impact 4.9-1, noise level exposure associated with project construction activities at nearby existing sensitive receptors would be less than significant. Further, pages 4.9-26 and 4.9-27 include the County's standard construction noise best management practices (BMPs), which would be required as conditions of approval (COAs) to reduce the potential for annoyance at nearby sensitive receptors during project construction.

Response to Comment 56-13

The commenter does not include a reference to support the claim that a pneumatic riveter has a noise level of 124 dB. In addition, the stated sound level of 124 dB does not include the distance at which the equipment was measured. Finally, the noise level exposure from any given equipment is dependent on many variables, including, but not limited to, distance from source to a given receiver, intervening shielding/screening, duration of use, equipment condition, equipment type, and make/model.

Nonetheless, the construction noise impact discussions presented in Chapter 4.9, Noise, of the Draft EIR, under Impact 4.9-1, include measures to be incorporated into project construction activities consistent with the County's standard COAs. Specifically, the following measure related to pneumatic equipment is included on page 4.9-26: "Electrically powered equipment shall be used instead of pneumatic or internal combustion-powered equipment, where feasible."

Response to Comment 56-14

The commenter does not state which noise descriptor (i.e., CNEL, L_{eq}, L_{max}) exceeds 55 dB in Table 4.9-1 of the Draft EIR. Therefore, the intent of the comment is not clear. For clarification, the data contained in Table 4.9-1 of the Draft EIR summarizes the results from the ambient noise level surveys conducted by BAC from July 19 to July 21, 2023. As such, the measurement data is representative of the existing ambient noise level environment at the measurement locations without consideration of the project. In addition, CEQA does not require an analysis of noise as compared to noise levels in the project area two years ago; rather, in accordance with CEQA Guidelines Section 15126.2(a), the noise analysis is limited to changes in the existing ambient noise levels of the project area as they existed at the time the NOP was published.

Furthermore, Chapter 4.9, Noise, of the Draft EIR, presents evaluations of the following: project-related increases in traffic noise levels at existing off-site sensitive receptors (including rural residential receptors as described on Page 4.9-3 of the Draft EIR) in the project vicinity under Impact 4.9-2; individual and combined evaluations of primary noise sources associated with project on-site operations at various components under Impact 4.9-2; evaluations of on-site and off-site (infrastructure) project construction activity noise and vibration under Impact 4.9-1 and Impact 4.9-4, respectively; and offers mitigation measures needed for compliance with applicable noise and vibration criteria, as appropriate. The chapter demonstrates compliance with applicable State, federal, and local noise and vibration criteria.

Response to Comment 56-15

It is anticipated that the roof ridgelines of the proposed hotel buildings would not be greater than the tops of the existing oak trees. Nevertheless, the Draft EIR concludes, based on the public viewshed analysis in Chapter 4.1, Aesthetics, of the Draft EIR that because views of the existing rural character of the project site would be significantly altered by buildout of the proposed urban uses, the impact would be significant and unavoidable.

Contrary to the comment, Impact 4.1-3 of the Draft EIR, which discusses potential impacts to existing visual character and the quality of public views of the site, includes Mitigation Measure 4.1-3. The mitigation measure requires submittal of a Final Landscape Plan, which shall be subject to review and approval by El Dorado County Planning and Building Department. Implementation of Mitigation Measure 4.1-3 would reduce the identified significant impact but not to a less than significant level. The comment has been noted for the record and will be forwarded to the decision-makers for their consideration.

Response to Comment 56-16

The proposed septic system would consist of a total of five separate Orenco Advantex Treatment Systems. The systems would be located south of the proposed hotel and convention center near US 50. Each system is closed, and the air venting is controlled. This type of system is specifically designed to utilize activated carbon media to adsorb and mitigate odor issues.

As for the leach field, effluent would go through primary and secondary treatment prior to being pumped to a subsurface drip, capped mound system under 1 to 2 feet of native soil. Therefore, it is reasonably not anticipated that any odors would arise from the leach field.

In addition, while the BRA prepared for the proposed project does reference Stone Hill Road, such reference is related to Figure 1 of the BRA, which is a topographic map prepared by the United States Geologic Survey in 2021. Thus, contrary to the claims in the comment, the map is

neither “out of date” nor 20 years old. Referencing the roadway as Stone Hill Road versus Hollow Oak Drive does not affect the analysis or the conclusions included in the BRA or the Draft EIR. Furthermore, all other figures included in the BRA correctly label the identified roadway segment as Hollow Oak Drive.

Response to Comment 56-17

The quoted language from page 4.7-19 of the Draft EIR is not mitigation, but instead is intended to explain how the proposed land uses could result in new stormwater pollutants being introduced to the project area. The discussion contained within Impact 4.7-2 continues to explain how runoff from new impervious surfaces within the project site would be directed: through inlets installed in the proposed roadways, to new storm drain lines, and ultimately discharging into either the intermittent drainage located north of Country Club Drive or to the proposed detention basins on-site.

As further discussed under Impact 4.7-2, on page 4.7-21 of the Draft EIR, the proposed project would be required to prepare a Final Drainage Report for review and approval by the County. The Final Drainage Report would specify Source-Control Measures to be implemented for potential pollutant-generating activities or sources present on the project site. The Source-Control Measures would be designed consistent with the recommendations from the California Stormwater Quality Association (CASQA) Stormwater BMP Handbook for New Development and Redevelopment, or from another equivalent manual. The proposed stormwater system would also be sized to treat the first flush, which includes a majority of the larger pollutants (sand, soil, silt, grease and trash) as well as smaller pollutants (sediment, nutrient, metals, pesticides and organics).

In addition, the Draft EIR requires implementation of Mitigation Measures 4.7-2(a) through 4.7-2(e), which require the preparation of various stormwater control plans to be submitted to the County for review and approval, including the following: a final drainage report; a detailed BMP and water quality maintenance plan; Waste Discharge Requirements permits; a stormwater control operation and maintenance plan; and a drainage report for the Program Study Area. Implementation of the foregoing mitigation measures would reduce the identified potentially significant impact to a less-than-significant level.

Response to Comment 56-18

As discussed on page 4.8-4 of the Draft EIR, Section 3.1 of the BLHSP projected that the area’s population could grow by as many as 4,811 residents by buildout. Therefore, the increase in population that could be generated by the proposed project would still be within the range of growth projections assumed in the BLHSP. In addition, topics related to financial impacts or staffing generally do not fall within the purview of CEQA, which is limited to the physical environmental effects of a project.

The proposed project’s consistency with applicable General Plan and BLHSP policies is discussed in Appendix N to the Draft EIR. As discussed on page one of Appendix N to the Draft EIR, at the time that the Notice of Preparation (NOP) for the proposed project was published, projects located outside of a High or Very High FHSZ and/or a WUI zone, such as the proposed project, were not required by the County to prepare a Fire Safe Plan; as such, a Fire Safe Plan has not been prepared for the proposed project. Nevertheless, it is noted that the County subsequently adopted a new Safety Element for its General Plan, which among other revisions, includes new Policy 6.2.3.6. This policy now requires a Fire Protection Plan for new development

within a State Responsibility Area (SRA) or Very High FHSZ. As discussed in Chapter 4.14, Wildfire, of the Draft EIR, the project site is located within a SRA. While Policy 6.2.3.6 was adopted after the project's application was deemed complete and its NOP released, and therefore the project is not subject to this policy, the El Dorado Hills Fire Department (EHFD) has requested that the project be conditioned to prepare a Fire Protection Plan. The applicant is agreeable to the EHFD's recommended condition to prepare a Fire Safe Plan and the County will include the recommendation as a condition of approval.

Further, as discussed in Chapter 4.14 of the Draft EIR, the proposed project is located within a Moderate FHSZ and would not result in any significant impacts related to wildfire that cannot be mitigated to a less-than-significant level. For example, Mitigation Measure 4.14-2, which requires preparation and submittal of a Vegetation Management Plan (VMP), would ensure the proposed project does not expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire. In addition, as demonstrated in Chapter 4.14, the proposed project would not substantially impair an adopted emergency response plan or emergency evacuation plan, require infrastructure that would exacerbate fire risk, or expose people or structures to significant risks.

Finally, Chapter 4.10, Public Services and Recreation, Chapter 4.11, Transportation, and Chapter 4.13, Utilities and Service Systems, of the Draft EIR discuss how adequate roadways, utilities, and other public service infrastructure are available to serve the proposed project or would be constructed as part of the proposed project.

Regarding the Bass Lake fire station (Station #86), the Draft EIR notes (pg. 4.10-16) that Policy 5.1.2.2 of the County's General Plan identifies that the minimum level of service for the fire department is six minutes 90 percent of the time for all emergency calls. The closest EDHFD station is located approximately 0.4-mile northwest of the project site. Therefore, based on the proximity of the fire station to the project site, response times to the site would be within the response time goals. Furthermore, the Draft EIR also explains (e.g., pg. 3-14) that as part of the Project Development Area improvements, the project would widen Bass Lake Road from two- to 4-lanes (2-lanes each direction), from US 50 to just north of Country Club Drive. This widening project is currently in the County's Capital Improvement Program (CIP) and identified as CIP 36105054. This improvement will facilitate emergency vehicle access to/from the area.

With respect to roadway safety, the Traffic Impact Study (TIS) prepared for the proposed project by T. Kear Transportation Planning and Management, Inc. (see Appendix P of the Draft EIR), included an analysis of collision history along the project area roadways, including Bass Lake Road and Country Club Drive. As discussed therein, the overall collision rate for the section of Bass Lake Road between the US 50 eastbound ramps and Country Club Drive is 0.80 collisions per million VMT, which is well below the statewide average of 1.03 collisions per million VMT. Thus, the Draft EIR concluded that the proposed project would not substantially increase hazards to vehicle safety due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment), and a less-than-significant impact would occur.

Response to Comment 56-19

It is noted that in recent years, multiple Tentative Subdivision Maps have been approved for properties within the BLHSP, north of the project site, which are undergoing development.

With respect to the proposed project, the noise analysis referenced within Chapter 4.9 determined that a significant impact would occur related to the generation of a substantial permanent increase in ambient noise levels associated with the Project Development Area, including the event center/museum. Implementation of Mitigation Measure 4.9-2(b) would require design and operational measures to ensure event center/museum noise complies with the applicable noise standards. Such measures could include, but are not necessarily limited to, noise barriers, shielding/setbacks, sound system configurations, and outdoor event restrictions. Implementation of Mitigation Measure 4.9-2(b) would reduce the identified significant impact to a less-than-significant level.

Please see Response to Comment 42-6 with respect to light and glare.

Projects within El Dorado County are required to comply with all applicable EDCAQMD rules and regulations, including dust control measures. EDCAQMD Rule 223 includes requirements to reduce fugitive dust emissions, such as limiting vehicle speed limits on construction sites and unpaved roads, reducing dust track-out, and use of water for soil stabilization when warranted. Compliance with Rule 223 would ensure that impacts related to dust emissions would be reduced to the maximum extent feasible.

Finally, as noted on page 4.2-45 of the Draft EIR, the CalEEMod modeling for the Project Development Area Scenario assumed that construction would begin in April 2025 and occur over an approximately two-year period and the modeling for the Program Study Area Scenario assumed that construction would begin in April 2027 (i.e., the spring after construction of the Project Development Area would be completed) and occur over an approximately two-year period.

Letter 57

TOWN AND COUNTRY VILLAGE EL DORADO PROJECT DRAFT EIR COMMENT MEETING SUMMARY

Date: August 22, 2024
Time: 5:30 PM to 7:30 PM
Location: El Dorado County Planning and Building
2850 Fairlane Court, Building C
Placerville, California

It should be noted that the large majority of commenters at the Town and Country Village El Dorado Project comment meeting provided comments that are not within the scope of CEQA and do not address the adequacy of the EIR. Such comments are not included herein; rather, this verbal comments summary focuses on comments related to environmental impacts and/or the adequacy of the Draft EIR.

Public Comments

Commenter 1 (Tina Encadi)

57-1 • Commenter expresses concern about traffic safety on Bass Lake Road and Country Club Drive due to the single travel lane.

57-2 • Commenter predicts the need for a future lane expansion on Country Club Road to ensure safety, the construction of which could result in environmental impacts.

57-3 • Commenter expresses concern about noise impacts related noise barriers, late travelers arriving to the hotel during nighttime hours, and large truck reversal noise.

LETTER 57: PUBLIC COMMENT MEETING SUMMARY

Response to Comment 57-1

Impact 4.11-4 in Chapter 4.11, Transportation, of the Draft EIR, addresses traffic safety impacts associated with development of the proposed project. The Traffic Impact Study (TIS) prepared for the proposed project by T. Kear Transportation Planning and Management, Inc. (see Appendix P of the Draft EIR), included an analysis of collision history along the project area roadways, including Bass Lake Road and Country Club Drive. As discussed therein, the overall collision rate for the section of Bass Lake Road between the US 50 eastbound ramps and Country Club Drive is 0.80 collisions per million VMT, which is well below the statewide average of 1.03 collisions per million VMT. Thus, the Draft EIR concluded that the proposed project would not substantially increase hazards to vehicle safety due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment), and a less-than-significant impact would occur.

In addition, the Project Development Area improvements would include the widening of a portion of Bass Lake Road, located between U.S. Route 50 to just north of Country Club Drive, from two lanes (one in each direction) to four lanes (two in each direction). The widening project is currently identified in the County's Capital Improvement Plan as CIP 36105054.

Response to Comment 57-2

The comment relates to roadway/intersection capacity, which is no longer a CEQA consideration. Nevertheless, it is noted in the Draft EIR that the Project Development Area improvements would include the widening of a portion of Bass Lake Road, located between U.S. Route 50 to just north of Country Club Drive, from two lanes (one in each direction) to four lanes (two in each direction). The widening project is currently identified in the County's Capital Improvement Plan as CIP 36105054. Potential environmental impacts associated with the road widening have been evaluated throughout the Draft EIR.

As discussed on page 4.11-6 of the Draft EIR, the County is reviewing LOS separately from the Draft EIR based on an LTA prepared by T. Kear to determine whether the proposed project could result in LOS conflicts at nearby facilities, which could necessitate physical improvements. The LTA prepared by T. Kear for the proposed project considered 33 study intersections, 21 segments of U.S. Route 50, and three arterial segments.

Response to Comment 57-3

Potential impacts related to noise are discussed in Chapter 4.9, Noise, of the Draft EIR. As discussed therein, Mitigation Measure 4.9-2(a) would prohibit on-site truck circulation within the project site during nighttime hours (10:00 PM to 7:00 AM), which would reduce nighttime maximum noise levels at nearby sensitive receptors to below applicable El Dorado County General Plan standards (as shown in Table 4.9-5).

In addition, design and operational measures required by Mitigation Measure 4.9-2(b) to reduce event center/museum noise levels could include noise barriers. Design and operational noise reduction measures would be submitted for review and approval by the El Dorado County Planning and Building Department, along with a design-level acoustical analysis demonstrating that the included measures comply with applicable noise level criteria.

3. Revisions to the Draft EIR Text

3. REVISIONS TO THE DRAFT EIR TEXT

3.1 INTRODUCTION

The Revisions to the Draft EIR Text chapter presents minor corrections, additions, and revisions made to the Draft EIR published by the Lead Agency (El Dorado County).

The changes represent minor clarifications/amplifications of the analysis contained in the Draft EIR and do not constitute significant new information that, in accordance with CEQA Guidelines, Section 15088.5, would trigger the need to recirculate portions or all of the Draft EIR.

3.2 DESCRIPTION OF CHANGES

New text is double underlined and deleted text is ~~struck through~~. Text changes are presented in the page order in which they appear in the Draft EIR.

3.0 PROJECT DESCRIPTION

The description of the Project Development Area within the Project Description chapter of the Draft EIR states that the northernmost 7.9-acre portion of the project site, north of Country Club Drive, would be developed with 112 residential cottage units, 56 of which would be deed restricted for hotel employee housing, and the remaining 56 units would be available for rent on a daily or extended stay basis (Draft EIR, pg. 3-14). Each cottage unit would be comprised of two stories totaling approximately 560 sf, including a separate bedroom, bathroom, full kitchen facilities, and an outdoor deck. Since the release of the Draft EIR, further consideration has been given by the applicant team regarding whether deed restricting the 56 employee housing units would be consistent with state and federal fair housing laws. As a result, the applicant no longer proposes to deed restrict the 56 employee housing units, but rather, would rely on the requirements set forth in the Employee/Workforce Housing Program ("Program") for the Town and Country Village El Dorado project, attached to this Final EIR as Appendix B.

Appendix B explains that, while the 56 employee housing units would not be deed restricted, the applicant would administer a program to encourage and incentivize project employees to rent the 56 affordable-by-design housing units located near the project's planned commercial businesses. Leases for these businesses will require that employees be notified of the availability of the housing program, and eligible employees will receive preference in renting the units on a first-come, first-served basis. The employee housing units shall be maintained and rented in perpetuity through the Program, which shall be required as a Condition of Approval for the project.

Substantial evidence supports the Draft EIR's assumption that these units would be occupied by employees. For example, research was conducted to find other comparable examples of hotels offering employee housing on a voluntary basis through similar programs. As noted in Appendix B, the Post Ranch Inn in Monterey County is a 40-room hotel with 44 units of on-site staff housing, which are currently 100% occupied by employees, with a waitlist for additional employees. Alila Ventana Big Sur is a 54-room hotel with 45 units of on-site staff housing, which are currently 100%

occupied by employees. In addition, while the number of on-site employee housing units could not be verified, it was confirmed that all employee units at the Alisal Ranch in Saint Ynez Valley are fully occupied by employees. Please refer to Appendix B for additional examples provided in ski resort communities.

Based on this evidence, the EIR's assumptions and analyses regarding the employee housing units remains accurate. Notwithstanding, the following minor revisions are required:

Page 3-14 of the Project Description chapter is hereby revised as follows:

> *Residential Cottages*
> The northernmost 7.9-acre portion of the project site, located north of Country Club Drive, would be developed with a total of 112 residential cottage units; 56 units would be ~~deed restricted~~ for hotel employee housing, and the remaining 56 units would be available for rent on a daily or extended stay basis, which would require a conditional use permit. Each cottage unit would be comprised of two stories totaling approximately 560 sf, including a separate bedroom, bathroom, full kitchen facilities, and an outdoor deck (see Figure 3-11).

Page 3-1 of the Project Description chapter is also hereby revised to reflect the Assessor's Parcel Number (APN) changes that resulted from improvements to Country Club Drive and associated right-of-way dedication. The updated APNs for the project site are as follows:

> The approximately 60.5-acre site is identified by Assessor's Parcel Numbers (APNs) 119-080-~~12, -~~021~~ and -023~~, -025, and 0-27, comprising approximately 57 acres, with the remainder made up by Country Club Drive right-of-way.

These minor clarifications do not affect the environmental analysis in the Draft EIR, which evaluates the full extent of potential project-related disturbance.

4.2 AIR QUALITY AND GREENHOUSE GAS EMISSIONS

Page 4.2-73 of the Draft EIR has been revised as follows:

> BMP-3: No Net increase in Total VMT
> As noted above, BMPs 1 and 2 would be required to be implemented during development of the Project Development Area. However, even with implementation of BMPs 1 and 2, the Project Development Area would still result in annual emissions over the SMAQMD's threshold of significance and, therefore, would be subject to BMP 3. The proposed project would not qualify for exemption from BMP 3 under the OPR's de minimis VMT criteria.
>
> As discussed in Chapter 4.11, Transportation, of this EIR, VMT associated with the Project Development Area would be less than 85 percent of the Baseline VMT per capita within the project area. Therefore, according to the Transportation Impact Study prepared for the proposed project by T. Kear Transportation, VMT impacts associated with the Project Development Area would be less than significant. Consequently, the Project Development Area would meet the requirements of an established local SB 743 target, which would ensure the proposed project would comply with BMP-3.
>
> It should also be noted that, while not required given that VMT associated with the Project Development Area would be less than significant, the project applicant has agreed to voluntarily implement several CAPCOA-recommended employer-based trip reduction

programs to further reduce the overall GHG emissions associated with the Project Development Area, which are provided as Mitigation Measure 4.2-7(d), below.

Page 4.2-75 of the Draft EIR has been revised as follows:

BMP-3: No Net increase in Total VMT

As noted above, BMPs 1 and 2 would be required to be implemented as part of Project Buildout. However, even with implementation of BMPs 1 and 2, the proposed project would still result in annual emissions over the SMAQMD's threshold of significance and, therefore, would be subject to BMP 3. The proposed project would not qualify for exemption from BMP 3 under the OPR's de minimis VMT criteria.

As discussed in Chapter 4.11, Transportation, of this EIR and noted above, VMT associated with the Project Development Area would be less than 85 percent of the Baseline VMT per capita within the project area. Therefore, according to the Transportation Impact Study prepared for the proposed project by T. Kear Transportation, VMT impacts associated with the Project Development Area would be less than significant. With regard to the Program Study Area, the Transportation Impact Study concluded that VMT associated with the retail portion of the Program Study Area would be less than 85 percent of the Baseline VMT per capita within the project area, and, therefore, would result in a less-than-significant impact. However, VMT associated with the residential portion of the Program Study Area would exceed 85 percent of the Baseline VMT per capita within the project area, and, therefore, would result in a significant impact. Therefore, because residential VMT associated with the Program Study Area would be above the applicable VMT threshold, VMT impacts associated with Project Buildout would be significant.

Consequently, the proposed project under Project Buildout conditions would not meet the requirements of an established local SB 743 target, and, as a result, would not comply with BMP-3.

It should also be noted that, while not required given that the significant GHG impact identified above is related to residential VMT associated with the Program Study Area, the project applicant has agreed to voluntarily implement several CAPCOA-recommended employer-based trip reduction programs to further reduce the overall GHG emissions associated with the Program Study Area, which are provided as Mitigation Measure 4.2-7(d), below.

Page 4.2-76 of the Draft EIR has been revised as follows:

Mitigation Measure(s)

Implementation of the following mitigation measures would reduce the above potential impacts related to construction GHG emissions, as well as BMP-1 and BMP-2 to a less-than-significant level. As a result, the Project Development Area's incremental contribution to the cumulatively significant effects of GHG emissions and global climate change would be reduced to a less than cumulatively considerable level.

With regard to BMP-3, as discussed further in Chapter 4.11, Transportation, of this EIR, mitigation for the VMT associated with the residential portion of the Program Study Area can be based on measures identified by CAPCOA. However, several of such measures are already inherently included in the design of the project, specifically the substantial densification relative to surrounding land uses, the mixed-use nature of the project, and bicycle connectivity. Additional CAPCOA measures, such as unbundling of parking costs

from rent and reducing parking supply, are included as Mitigation Measure 4.11-3 to reduce the number of vehicle trips that would be generated by the residential component of the Program Study Area. However, as discussed therein, the CAPCOA measures ultimately rely upon an alternative transportation mode, such as transit, being available. Because alternative modes are not available for the residential portion of the Program Study Area, the measures should only be implemented as practicable, to the satisfaction of the County Engineer. Thus, the CAPCOA measures included in Mitigation Measure 4.11-3 are not anticipated to reduce per capita VMT by the required 13.83 percent needed to meet the applicable threshold of significance. Consequently, the proposed project would still be considered inconsistent with SMAQMD BMP-3, and the incremental contribution to the cumulatively significant effects of GHG emissions and global climate change related to full Project Buildout, specifically, the residential portion of the Program Study Area, would remain *cumulatively considerable* and *significant and unavoidable*.

In addition, while not required given that the significant and unavoidable GHG impact identified above is related to residential VMT associated with the Program Study Area, as noted above, the project applicant has agreed to voluntarily implement several CAPCOA-recommended employer-based trip reduction programs to further reduce the overall GHG emissions associated with the proposed project. The CAPCOA has published guidance on estimating the associated emission reduction benefits associated with employer-based trip reduction programs.[1] The CAPCOA-recommended employer-based trip reduction programs are listed as follows:

- **T-5:** Implement Commute Trip Reduction Program (Voluntary);
- **T-6:** Implement Commute Trip Reduction Program (Mandatory Implementation and Monitoring);
- **T-7:** Implement Commute Trip Reduction Marketing;
- **T-8:** Provide Ridesharing Program;
- **T-9:** Implement Subsidized or Discounted Transit Program;
- **T-10:** Provide End-of-Trip Bicycle Facilities;
- **T-11:** Provide Employer-Sponsored Vanpool;
- **T-12:** Price Workplace Parking;
- **T-13:** Implement Employee Parking Cash-Out; and
- **T-23:** Provide Community-Based Travel Planning.

However, several of the above listed measures are not feasible or not relevant to the project as they would double count emission reduction benefits. For example:

- **T-5** is not relevant as the measure is listed as mutually exclusive to T-7 and has identical emission reduction benefits to T-7. The effectiveness of the trip reduction measures is estimated using T-7 rather than T-5.
- **T-6** is not feasible, as the measure requires implementation of T-7, T-8, T-9, T-10, and T-11; some of which are not feasible, as discussed below.
- **T-9** is not feasible because the measure requires high quality transit service within one-mile of the project site. High quality transit service is defined as a fixed route transit service with 15-minute headways during commute hours. Transit service with 15-minute headways does not exist within one-mile of the project site. Thus, subsidized transit service for employees is not considered valid mitigation for GHG reductions.

[1] California Air Pollution Control Officers Association. *CAPCOA Handbook for Analyzing Greenhouse Gas Emission Reductions, Assessing Climate Vulnerabilities, and Advancing Health and Equity*. December 2021.

- **T-12** is not feasible because paid parking (at above market rate as required by the measure) at the commercial and mixed used retail businesses is not anticipated to be acceptable to potential restaurant and retail tenants at this location.
- **T-23** requires teams of trained travel advisors visiting all households within the targeted geographic area to have tailored conversations about residents' household travel needs. While the project applicant could potentially enforce a requirement for household consultation during initial sales, a way to require continued implementation of this measure over time and beyond the initial owners does not exist. Thus, this measure is determined to be infeasible.

The remaining CAPCOA-recommended employer-based trip reduction programs were determined to be feasible to the proposed project, and are therefore voluntarily included as Mitigation Measure 4.2-7(d), below.

Based on CAPCOA guidance, the feasible CAPCOA-recommended employer-based trip reduction programs included in Mitigation Measure 4.2-7(d) would result in GHG emissions reductions of up to:

- **T-7** = three percent reduction in emissions in commuting GHG emissions;
- **T-8** = three percent reduction in emissions in commuting GHG emissions;
- **T-10** = 2.5 percent reduction in emissions in commuting GHG emissions;
- **T-11** = 4.6 percent reduction in emissions in commuting GHG emissions; and
- **T-13** = 8.8 percent reduction in emissions in commuting GHG emissions.

To calculate the emission reduction percentages for the mitigation strategies that include an adjustment based on the number of employees eligible to participate (i.e., CAPCOA measures T-7, T-8, and T-13), the "percentage of eligible employees" assumed that employees residing in the Project Development Area's employee housing would be ineligible to participate in the commute trip reduction measures. For example, employees living on-site are not anticipated to contribute to GHG reductions from a parking cash-out program (CAPCOA measure T-13), as such employees are anticipated to walk or bike to work due to the proximity of the on-site housing to the on-site employment uses. A total of 84 out of the 325 employees associated with the proposed project were assumed to reside in the provided employee housing (i.e., 1.5 employees per unit on average). Therefore, only 74 percent of the employees are assumed to be eligible to participate, and consequently, the anticipated emission reduction benefit for measures T-7, T-8, and T-13 was estimated as 74 percent of CAPCOA's maximum possible benefit from these measures.

When combined, the feasible CAPCOA-recommended employer-based trip reduction programs would result in a total reduction of up to 20.3 percent in commute GHG emissions. However, the actual reduction percentage would be dependent on the level of participation associated with each measure, which cannot be guaranteed as it depends upon individual employee selection preferences.

Based on the overall mobile-source emissions associated with the non-residential portions of the Project Development Area and Program Study Area (i.e., commute GHG emissions), voluntary implementation of these measures could result in an overall reduction of 145.75 $MTCO_2e$/yr associated with the Project Development Area and 983.54 $MTCO_2e$/yr associated with the Program Study Area. The level of participation assumed for the above measures is based on reasonable assumptions guided by CAPCOA. However neither the project applicant nor the County can compel the level of participation associated with employees of the proposed project. Thus, this level of reduction cannot be guaranteed.

Page 4.2-81 of the Draft EIR has been revised as follows:

4.2-7(c) Implement Mitigation Measure 4.11-3.

Project Development Area and Project Buildout

4.2-7(d) The below CAPCOA-recommended employer-based trip reduction programs shall be offered by the project applicant for the commercial uses within the Project Development Area and Program Study Area, to the satisfaction of the El Dorado County Department of Transportation:

- ***T-7:** Implement Commute Trip Reduction Marketing;*
- ***T-8:** Provide Ridesharing Program;*
- ***T-10:** Provide End-of-Trip Bicycle Facilities;*
- ***T-11:** Provide Employer-Sponsored Vanpool; and*
- ***T-13:** Implement Employee Parking Cash-Out.*

The lease agreements for all commercial tenants shall include language notifying tenants that they are required to inform their employees of the above-listed programs and provide related informational materials. The project applicant shall be required to provide an annual report to the El Dorado County Planning and Building Department and Department of Transportation, on the level of employee participation in each program over the course of the previous year.

4.3 BIOLOGICAL RESOURCES

Mitigation Measure 4.3-1, which begins on page 4.3-39 of the Draft EIR under Impact 4.3-1, is hereby revised as follows:

Mitigation Measure(s)

Implementation of the following mitigation measure would reduce the above potential impact to a *less-than-significant* level.

Project Development Area and Project Buildout

4.3-1 If construction has not commenced prior to the first day of spring 2026, a new round of special-status plant surveys shall be conducted in on- and off-site areas proposed for disturbance, prior to the commencement of construction. according to the following requirements:

Before implementation of project construction activities and during the blooming period for the special-status plant species with potential to occur on the project site, a qualified botanist shall conduct protocol-level surveys for special-status plants in the off-site improvement areas and shall resurvey the main project site following survey methods from CDFW's Protocols for Surveying and Evaluating Impacts on Special-Status Native Plant Populations and Natural Communities (CDFW 2018 or most recent version). The qualified botanist shall (1) be knowledgeable about plant taxonomy; (2) be familiar with plants of the El Dorado County foothills region, including special-status plants and sensitive natural communities; (3) have experience conducting floristic botanical field surveys as described in CDFW's protocol document; (4) be familiar with the California Manual

of Vegetation (Sawyer et al. 2009 or current version, including updated natural communities data at http://vegetation.cnps.org/); and (5) be familiar with federal and State statutes and regulations related to plants and plant collecting.

The surveys shall be conducted in accordance with the USFWS Guidelines for Conducting and Reporting Botanical Inventories for Federally Listed, Proposed, and Candidate Plants, the CNPS Botanical Survey Guidelines of the California Native Plant Society, and Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities. The survey results shall be submitted to the El Dorado County Planning and Building Department prior to the commencement of construction activities. If special-status plant species are not found, further mitigation shall not be required.

If special-status plants are found ~~within the proposed impact area, specific mitigation measures shall be determined based on the plant species affected, physical conditions at the impact site, and conditions at a proposed mitigation site, if applicable. Options for mitigating impacts to annual plants, such as dwarf downingia, could include avoidance, seed collection and planting at a mitigation site, or collection of seed-bearing soil to be spread at a mitigation site. Options for mitigating impacts to perennial plants, such as Sanford's arrowhead or big-scale balsamroot, include avoidance, transplantation of plant to a mitigation site, propagation using cuttings to be planted at a mitigation site, or seed collection and planting at a mitigation site.~~ during special-status plant surveys and cannot be avoided, the applicant and a qualified botanist shall, in coordination/consultation with CDFW or USFWS, as appropriate depending on species status, develop and implement a site-specific mitigation strategy to compensate for loss of occupied habitat or individuals according to CDFW and USFWS guidelines.

~~If special-status plants are impacted, a qualified biologist shall prepare an avoidance and mitigation plan detailing protection and avoidance measures, transplantation procedures, success criteria, and long-term monitoring protocols. The plan shall be reviewed and approved by the El Dorado County Planning and Building Department and shall ensure that mitigation for the impacts to rare plants shall result in no net loss of individual plants after a five-year monitoring period. In addition, a pre-construction worker awareness training shall be conducted to alert workers to the presence of and protections for special-status plants.~~

Mitigation measures shall include, at a minimum, preserving and enhancing existing populations, establishing populations through seed collection or transplantation from the site that is to be affected, and/or restoring or creating habitat in sufficient quantities to offset loss of occupied habitat or individuals. Potential mitigation sites could include suitable locations within or outside the project site. Habitat and individual plants lost shall be mitigated at a minimum 1:1 ratio, considering acreage as well as function and value. The following

success criteria shall be used for preserved and compensatory populations:

- *The extent of occupied area and plant density (number of plants per unit area) in compensatory populations shall be equal to or greater than that in the affected occupied habitat.*
- *Compensatory and preserved populations shall be self-producing. Populations would be considered self-producing when:*
    - *plants reestablish annually for a minimum of 5 years with no human intervention, such as supplemental seeding; and*
    - *reestablished and preserved habitats contain an occupied area and flower density comparable to those in the existing occupied habitat areas in similar habitat types in the project vicinity.*

- *If off-site mitigation includes dedication of conservation easements, purchase of mitigation credits, or other off-site conservation measures, the details of these measures shall be included in the mitigation plan, including designating responsible parties for long-term management, conservation easement holders, long-term management requirements, success criteria, including at a minimum, those listed above and other details, as determined appropriate by a qualified biologist to target the preservation of long-term viable populations.*

Documentation of the completion of the mitigation strategy and coordination/consultation process with CDFW or USFWS shall be provided to El Dorado County before commencement of any project construction activities.

If plants listed under the Federal Endangered Species Act or the California Endangered Species Act are located within the project impact area and those plants cannot be avoided, the project proponent shall coordinate with the U.S. Fish and Wildlife Service (USFWS) and the California Department of Fish and Wildlife (CDFW) (as appropriate) for issuance of an Incidental Take Permit (ITP) and shall implement similar mitigation measures as outline above and ultimately approved by the appropriate agency.

Mitigation Measure 4.3-2, which begins on page 4.3-41 of the Draft EIR under Impact 4.3-2, is hereby revised as follows:

Mitigation Measure(s)

Implementation of the following mitigation measure would reduce the above potential impact to a *less-than-significant* level.

Project Development Area and Project Buildout

4.3-2 *If, at the time of project implementation, Crotch's bumble bee is not designated as a California Endangered Species Act (CESA) candidate or CESA listed, mitigation is not required. However, if the species is a CESA candidate or CESA listed or is otherwise considered to be a special-status species, the following mitigation shall be required.*

If feasible, initial ground-disturbing activities associated with development of the project site (e.g., grading, vegetation removal, staging) shall take place between September 1 and March 31 (i.e., outside the colony active period) to avoid potential impacts on Crotch bumble bee. ~~If completing all initial ground-disturbing activities between September 1 and March 31 is not feasible, then at a maximum of 14 days prior to the commencement of construction activities, a qualified biologist with 10 or more years of experience conducting biological resource surveys within California shall conduct a preconstruction survey for Crotch's bumble bee in the area(s) proposed for impact.~~ Regardless of the feasibility of the above limited operating period, a qualified biologist familiar with bumble bees of California and experienced using survey methods for bumble bees (qualified biologist) shall conduct a habitat assessment and focused survey for Crotch's bumble bee prior to the commencement of any ground-disturbing activities. Surveys shall be performed when Crotch's bumble bee is most likely to be identified, typically from April through August (i.e., the colony active period) when floral resources and ideal weather conditions are present, and shall follow the methods in Survey Considerations for California Endangered Species Act (CESA) Candidate Bumble Bee Species (CDFW 2023). Surveys shall be conducted during the colony active period closest to the start of planned construction activities. Survey results shall be submitted to the applicant and El Dorado County Planning and Building Department a minimum of seven days before construction begins.

The survey shall occur during the period from one hour after sunrise to two hours before sunset, with temperatures between 65 degrees Fahrenheit and 90 degrees Fahrenheit, with low wind and zero rain. If the timing of the start of construction makes the survey infeasible due to the temperature requirements, the surveying qualified biologist shall select the most appropriate days based on the National Weather Service seven-day forecast and shall survey at a time of day that is closest to the temperature range stated above. The survey duration shall be commensurate with the extent of suitable floral resources (which represent foraging habitat) present within the area proposed for impact, and the level of effort shall be based on the metric of a minimum of one person-hour of searching per three acres of suitable floral resources/foraging habitat. A meandering pedestrian survey shall be conducted throughout the area proposed for impact in order to identify patches of suitable floral resources.

Suitable floral resources for Crotch bumble bee include species in the following families: Apocynaceae, Asteraceae, Boraginaceae, Fabaceae, and Lamiaceae.

At a minimum, preconstruction survey methods shall include the following:

- *Search areas with floral resources for foraging bumble bees. Observed foraging activity may indicate a nest is nearby, and therefore, the survey duration shall be increased when foraging bumble bees are present;*
- *If bumble bees are observed, watch any bumble bees present and observe their flight patterns. Attempt to track their movements between foraging areas and the nest;*
- *Visually look for nest entrances. Observe burrows, any other underground cavities, logs, or other possible nesting habitat;*
- *If floral resources or other vegetation preclude observance of the nest, small areas of vegetation may be removed via hand removal, line trimming, or mowing to a height of a minimum of four inches to assist with locating the nest;*
- *Look for concentrated bumble bee activity;*
- *Listen for the humming of a nest colony; and*
- *If bumble bees are observed, attempt to photograph the individual and identify it to species.*

The biologist conducting the survey shall record when the survey was conducted, a general description of any suitable foraging habitat/floral resources present, a description of observed bumble bee activity, a list of bumble bee species observed, a description of any vegetation removed to facilitate the survey, and their determination of if survey observations suggest a Crotch's bumble bee nest(s) may be present or if construction activities could result in take of Crotch bumble bees. The survey report shall be submitted to the El Dorado County Planning and Building Department prior to the commencement of construction activities.

The applicant shall submit a survey report to CDFW within 1 month of survey completion and shall notify CDFW and El Dorado County within 24 hours if Crotch's bumble bees are detected.

If bumble bees are not located during the preconstruction survey or the bumble bees located are definitively identified as a common species (i.e., not special-status species), then further mitigation or coordination with the California Department of Fish and Wildlife (CDFW) is not required.

If Crotch's bumble bees are detected during the focused survey, appropriate avoidance measures shall be implemented. Avoidance measures shall include, but not be limited to, the following:

- *Protective buffers shall be implemented around active nesting colonies or overwintering queens until the identified sites are no longer active. A qualified biologist, in coordination with CDFW, shall determine the appropriate buffer size to protect nesting colonies or overwintering queens; however, the buffer shall be a minimum of 50 feet.*

If any sign(s) of a bumble bee nest is observed, and if the species present cannot be established as a common bumble bee, then construction shall not commence until either (1) the bumble bees present are positively identified as common (i.e., not a special-status species), or (2) the completion of coordination with CDFW to identify appropriate mitigation measures, which may include, but not be limited to, waiting until the colony active season ends, establishment of nest buffers, or obtaining an Incidental Take Permit (ITP) from CDFW.

If Crotch's bumble bees are located, and after coordination with CDFW take of Crotch's bumble bees cannot be avoided, the project applicant shall obtain an ITP from CDFW, and the applicant shall implement all conditions identified in the ITP. Mitigation required by the ITP may include, but not be limited to, the project applicant translocating nesting substrate in accordance with the latest scientific research to another suitable location (i.e., a location that supports similar or better floral resources as the impact area), enhancing floral resources on areas of the project site that will remain appropriate habitat, worker awareness training, and/or other measures specified by CDFW.

Documentation of compliance with the foregoing measures and any required coordination with CDFW or acquisition of an ITP shall be provided to the El Dorado County Planning and Building Department prior to commencement of any project construction activities.

Mitigation Measure 4.3-3, which begins on page 4.3-44 of the Draft EIR, is hereby revised as follows:

Mitigation Measure(s)

Implementation of the following mitigation measure would reduce the above potential impact to a *less-than-significant* level.

Project Development Area (and Sewer Alternative 2)

4.3-3 *If potential habitat for vernal pool fairy shrimp is identified within areas proposed for improvements, the project applicant shall redesign or modify project components to avoid the identified habitat to the maximum extent feasible. If avoidance of the identified habitat is not feasible, the project applicant shall either retain a USFWS-permitted biologist to conduct protocol-level branchiopod surveys to determine presence/absence of vernal pool fairy shrimp or the project applicant shall assume presence of the species. ~~T~~ If the project applicant ~~may~~ chooses to conduct the protocol level surveys, the project applicant shall employ a qualified biologist who is authorized by USFWS to conduct vernal pool branchiopod surveys (qualified biologist) to conduct surveys for vernal pool fairy shrimp prior to initiation of any ground disturbance activities within the Project Development Area and/or Sewer Alternative 2.; ~~a~~ Any such surveys shall be conducted in accordance with the Survey Guidelines for the Listed Large Branchiopods (USFWS 2017). ~~If vernal pool fairy shrimp are not found during protocol-level wet and dry season surveys, further mitigation shall not be required. If protocol-level surveys of the on-site depressional seasonal wetlands are not conducted, or if vernal pool fairy shrimp are found during protocol-level wet- or dry-season~~

~~*surveys of the features, then the project proponent or the USACE (depending on the regulatory mechanism) shall consult with the USFWS regarding impacts to vernal pool fairy shrimp associated with the project.*~~ *Survey results shall be provided to the El Dorado County Planning and Building Department within ~~15~~ 90 days of completion of all surveys.*

~~*The project proponent shall comply with any conditions of the appropriate take authorization from the USFWS prior to County approval of any permit authorizing construction. The conditions in this take authorization may include but will not be limited to fencing off avoided habitat, worker awareness trainings, preservation, restoration, or enhancement of habitat on- or off-site to compensate for indirect and/or direct effects; purchase of habitat credits from an agency-approved mitigation/conservation bank; working with a local land trust to preserve land; or any other method acceptable to USFWS.*~~

If the presence of vernal pool fairy shrimp is confirmed or inferred for the proposed project, and the habitat they inhabit will be impacted by the project, Endangered Species Act (ESA) consultation with USFWS shall be required to address impacts on the species before any ground-disturbing activities occurs within the occupied habitat. Documentation of the completion of ESA consultation shall be provided to the El Dorado County Planning and Building Department prior to the issuance of the grading permit.

In addition, if the presence of vernal pool fairy shrimp is confirmed or inferred for the proposed project, the project applicant shall compensate for direct and indirect effects on occupied or presumed occupied habitat for vernal pool fairy shrimp by purchasing the appropriate mitigation credits from a USFWS-approved conservation property/mitigation bank. Minimum mitigation ratios shall be 2:1 preservation, for direct effects, and 1:1 preservation for indirect effects (within 250 feet of ground disturbance) or as determined by USFWS during ESA consultation.

Mitigation Measure 4.3-4, which begins on page 4.3-45 of the Draft EIR, is hereby revised as follows:

Mitigation Measure(s)

Implementation of the following mitigation measure would reduce the above potential impact to a *less-than-significant* level.

Project Development Area and Project Buildout

4.3-4 *If, at the time of project implementation, monarch butterfly is not designated as a federal Endangered Species Act (FESA) candidate or FESA listed, mitigation is not required. However, if the species is a FESA candidate or FESA listed or is otherwise considered to be a special-status species, the following mitigation shall be required.*

If ~~construction~~ ground disturbance occurs within annual brome grassland in on- and off-site improvement areas during the time when

milkweed plants may host monarch eggs or caterpillars (approximately mid-March through late September), a pre-construction survey shall be conducted by a qualified biologist who is knowledgeable and experienced in the biology, life stages, natural history, and identification of local fish and wildlife resources at the project site (qualified biologist) no earlier than 15 days prior to construction within the proposed impact area and a 50-foot buffer in accessible areas. The biologist shall comprehensively search the survey area for milkweed plants, and all milkweed plants found shall be surveyed for monarch eggs, larvae (i.e., caterpillars), and chrysalises. Additionally, other plants immediately adjacent to milkweed plants shall also be searched for chrysalises. If eggs, caterpillars, or chrysalises are not detected, additional mitigation measures are not necessary. Survey results shall be provided to the El Dorado County Planning and Building Department within 15 days of completion of all surveys.

If eggs, caterpillars, or chrysalises are found, the plants shall be avoided with a 50-foot buffer until metamorphosis is completed and adult butterflies emerge and voluntarily leave the host plant. ~~If the eggs, larvae, or chrysalises cannot be avoided, all eggs, larvae, and chrysalises, including the portion of the plant to which they are attached, shall be translocated to an alternative location. The alternative location must be a minimum of 50 feet outside of the impact area and must contain a similarly sized or larger population of larval host plants. The portions of the plants supporting eggs or chrysalises shall be tied to the live stem of the avoided larval host plant while caterpillars will be placed directly on a stem or leaf of a larval host plant. Should the species be listed under FESA in the future, coordination with USFWS shall be conducted prior to translocation.~~

Mitigation Measure 4.3-5, which begins on page 4.3-48 of the Draft EIR, is hereby revised as follows:

Off-Site Sewer Pipe Alignments Only

4.3-5 *Prior to initiation of ground disturbance activities within 100 feet of Carson Creek, associated with the off-site sewer pipe, the following measures shall be taken to mitigate potential impacts to foothill yellow-legged frog (FYLF):*

- *As part of the CWA Section 404 USACE permitting for the project, the USACE will conduct formal Endangered Species Act consultation with the USFWS on potential impacts to federally-listed species or species that are proposed for listing; this may include FYLF.[2] If the USACE consults with USFWS on FYLF, the project applicant shall prepare a Biological Assessment, which will include details on potential impacts and mitigation for FYLF, to be submitted to the USACE and the USFWS.*

[2] The USACE may choose not to consult with USFWS on FYLF as direct impacts to USACE jurisdictional FYLF habitat are not proposed; impacts would only be indirect.

- *If take of FYLF is determined to be likely, the project applicant shall submit an application for an CDFW Code Section 2081 Incidental Take Permit.*
- *To determine the presence or absence of FYLF within Carson Creek, protocol FYLF surveys shall be conducted by a qualified biologist. To increase the likelihood of detection, surveys shall include at least one visual encounter survey (VES) during the breeding and/or oviposition period (generally April through June), a tadpole survey four to eight weeks after the breeding survey(s), and a subadult survey in late summer/early fall (generally late August through early October). The survey shall be conducted in accordance with the Peek et al (2017) Visual encounter survey protocol for Rana boylii in lotic environments and CDFW's Considerations for Conserving the Foothill Yellow-Legged Frog.*
- *Regardless of whether FYLF are detected during the bioassessment surveys, the project applicant shall develop a Pre-Construction Survey Plan for FYLF and submit it to the USFWS and CDFW for review at least 30 calendar days prior to commencing ground-disturbing or in-water work activities within 500 feet upstream and downstream of the construction area (if permitted by adjacent land owners). The Pre-Construction Survey Plan shall include what life-stage(s) shall be surveyed for, survey method(s), and timing of survey(s). The Pre-Construction Survey Plan shall also provide justification for timing and methodology of survey design (e.g., watershed characteristics, regional snow pack, timing and rate of spring runoff, day length, average ambient air and water temperatures, local and seasonal conditions). For sites with suitable breeding habitat, egg mass/larval surveys shall be conducted to support a negative finding.*
- *Within three to five days prior to entering or working within 100 feet of Carson Creek, a qualified biologist who is knowledgeable and experienced in the biology, life stages, natural history, and identification of local fish and wildlife resources at the project site shall perform a pre-construction survey, as specified in the Pre-Construction Survey Plan, within the 500-foot upstream and downstream buffer zone to the construction area (if permitted by adjacent land owners). The survey shall include a description of any standing or flowing water. The project applicant shall provide Pre-Construction Survey results, notes, and observations to CDFW prior to commencing ground disturbing and in-water activities.*
- *If the qualified biologist encounters any life stages of FYLF during pre-construction surveys, ground-disturbing or in-water activities shall be suspended at the project site, and CDFW shall be notified within 24 hours. Work shall not re-initiate in the project site until the project applicant demonstrates compliance with CESA.*
- *If it is determined that take of FYLF is likely to occur, the project applicant shall abide by mitigation measures developed during the course of the Endangered Species Act consultation with the USFWS and CDFW. These mitigation measures could include, but are not limited to, seasonal work restrictions for initial ground disturbance, pre-construction surveys by a qualified biologist, the installation of wildlife exclusion fencing, biological monitoring, and*

worker environmental awareness training. A qualified biologist is defined as a person who is knowledgeable and experienced in the biology, life stages, natural history, and identification of local fish and wildlife resources at the project site. If it is determined that take of FYLF is likely to occur, additional measures could include preservation, restoration, or enhancement of habitat on- or off-site, purchase of habitat credits from an agency-approved mitigation/conservation bank, working with a local land trust to preserve land, or any other method acceptable to USFWS and CDFW.

The mitigation measures listed below may be implemented if take of FYLF is likely to occur. The mitigation measures listed below may differ from mitigation measures included in a USFWS Biological Opinion or a CDFW Incidental Take Permit. If that occurs, the measures in the USFWS Biological Opinion and CDFW Incidental Take Permit take precedence.

- *The project proponent shall develop a Pre-Construction Survey Plan for FYLF and submit it to the USFWS and CDFW for approval prior to ground-disturbing activities with 100 feet of Carson Creek. The Plan shall include what life-stage(s) shall be surveyed for, survey method(s), and timing of survey(s). The Plan shall provide justification for timing and methodology of survey design (e.g., watershed characteristics, regional snow pack, timing and rate of spring runoff, day length, average ambient air and water temperatures, local and seasonal conditions). For sites with suitable breeding habitat, two consecutive seasons of negative egg mass/larval surveys are recommended to support a negative finding.*
- *Within 3-5 days prior to entering or working within 100-feet of Carson Creek, a USFWS and CDFW-approved biologist shall perform a pre-construction survey, as specified in the Pre-Construction Survey Plan, within 500-foot buffer zone upstream and downstream of the construction area (if permitted by adjacent land owners). The survey shall include a description of any standing or flowing water. Permittee shall provide Pre-Construction Survey notes and observations to the USFWS and CDFW prior to commencing Covered Activities.*
- *The project proponent shall develop a Relocation Plan for FYLF and submit it to the USFWS and CDFW for approval prior to ground-disturbing activities within 100 feet of Carson Creek. The Relocation Plan shall include what life stage(s) will be relocated (e.g., adults or egg masses) and specific protocols for each life stage. The Relocation Plan shall quantify the amount, location, and quality of suitable receiving habitat (e.g., breeding and dispersal habitat). The Relocation Plan shall include capture and handling methods specific to each life stage. Relocation shall not occur without first obtaining the proper permits from*

USFWS and CDFW, and all relocation shall be conducted by a qualified biologist.

- *The project proponent shall ensure that Covered Activities, involving construction and heavy equipment use (such as excavation, grading, and contouring), that are conducted in streams, ponds, and riparian areas are limited to the period from May 1 to October 15 of each year (Dry Season). Any work outside of the Dry Season shall be subject to approval of the USFWS and CDFW.*
- *Prior to the start of construction within 100 feet of Carson Creek, high visibility orange fencing shall be installed around approved work areas. The fencing shall remain in place while construction activities are ongoing and shall be regularly inspected and fully maintained at all times.*
- *The project proponent shall develop a Water Diversion Plan for FYLF and submit it to CDFW for approval prior to any in-stream activities. The Water Diversion Plan shall contain detailed descriptions of the water intake screening (e.g., screen material, size, cleaning method, etc.), the duration of the water diversion, how the project proponent will ensure that aquatic life will be maintained or relocated from the dewatered area, diversion materials (unacceptable materials that are deleterious to fish and wildlife include particle board, plastic sheeting, bentonite, pressure-treated lumber, creosote, concrete, or asphalt), and monitoring methods for the diversion.*

- *If it is determined that take of FYLF is unlikely to occur, the Applicant shall conduct a pre-construction Visual Encounter Survey (VES) survey for the species within 15 days prior to initiation of ground disturbance within 100 feet of Carson Creek. The survey shall be conducted in accordance with the Peek et al (2017) Visual encounter survey protocol for Rana boylii in lotic environments and CDFW's Considerations for Conserving the Foothill Yellow-Legged Frog, but only implement the life-stage survey(s) that are appropriate for the time of year of the survey (which will be based on when construction commences). If survey results are negative, then no further mitigation will be required. If FYLF are found during the survey, then take should be considered likely to occur, and consultation with USFWS and CDFW as outlined above shall occur. Survey results shall be provided to the El Dorado County Planning and Building Department within 15 days of completion of all surveys.*

Mitigation Measure 4.3-6 on page 4.3-51 of the Draft EIR is hereby revised as follows:

Mitigation Measure(s)

Implementation of the following mitigation measures would reduce the above potential impact to a *less-than-significant* level by requiring surveying, and if necessary, protection of northwestern pond turtle prior to installation of the off-site sewer pipe within the Carson Creek vicinity.

Off-Site Sewer Pipe Alignments Only

4.3-6 *Prior to ground-disturbing activities near Carson Creek, a qualified biologist who is knowledgeable and experienced in the biology, life stages, natural history, and identification of local fish and wildlife resources at the project site (qualified biologist) shall survey the project site where suitable habitat (including nest sites) occurs for northwestern pond turtle. Surveys shall be performed within 30 days prior to starting project activities and shall be conducted within a minimum of 500 feet upstream and downstream of the proposed activity where accessible. If detected during surveys, a site-specific avoidance, minimization, and/or relocation plan shall be prepared and implemented by a qualified biologist with proper handling permits. The plan shall include daily construction monitoring. The plan shall be submitted to CDFW.*

Another northwestern pond turtle survey shall be conducted no more than 48 hours prior to construction where construction activities overlap with suitable aquatic habitat (i.e., Carson Creek), and where construction will occur in arroyo willow riparian scrub or oak woodlands within 150 feet of these aquatic resources. If northwestern pond turtles or nests are not found, further mitigation is not required. Survey results shall be provided to the El Dorado County Planning and Building Department within 15 days of completion of all surveys.

If a northwestern pond turtle is observed within the proposed impact area, ~~a qualified biologist shall relocate the individual to habitat of equivalent or greater value outside of the proposed impact area prior to construction~~ work shall be suspended in a 100-foot radius of the animal until the animal leaves the project site on its own volition. If necessary, a qualified biologist shall notify CDFW to determine the appropriate procedures related to relocation, which shall include, but not be limited to, obtaining a valid and applicable CDFW Scientific Collecting Permit. Any worker who inadvertently injures or kills a northwestern pond turtle or who finds a northwestern pond turtle dead, injured, or entrapped must immediately report the incident to the applicant, who must then immediately notify CDFW. Entrapped northwestern pond turtles shall be relocated by a qualified biologist with a valid and applicable CDFW Scientific Collecting Permit if approved by CDFW. If a northwestern pond turtle nest is observed within the proposed impact area, the nest shall be fenced off and avoided until the eggs hatch. The exclusion fencing shall be placed no less than 25 feet from the nest. A qualified biologist shall monitor the nest daily during construction to ensure that hatchlings do not disperse into the construction area. Relocation of hatchlings shall occur as stipulated above, if necessary.

If, as part of the CWA Section 404 USACE permitting for the project, the USACE determines that formal Endangered Species Act (ESA) consultation with the USFWS is needed, the project proponent shall abide by the mitigation measures developed during the course of the ESA consultation, which shall supersede these measures. These mitigation measures could include, but are not limited to, seasonal work restrictions for initial ground disturbance, dewatering protocols,

pre-construction surveys by a qualified biologist, the installation of wildlife exclusion fencing, turtle relocation, nest avoidance, biological monitoring, and worker environmental awareness training. Additional measures could include preservation, restoration, or enhancement of habitat on- or off-site, purchase of habitat credits from an agency-approved mitigation/conservation bank, working with a local land trust to preserve land, or any other method acceptable to USFWS.

Mitigation Measure 4.3-7, which begins on page 4.3-52 of the Draft EIR, is hereby revised as follows:

Project Development Area and Project Buildout

4.3-7 *To minimize the potential for loss of special-status bird species, raptors, and other native birds, project activities (e.g., tree removal, vegetation clearing, ground disturbance, staging, construction of off-site improvements) shall be conducted during the non-breeding season (approximately September 1 through January 31, as determined by a qualified biologist who is knowledgeable and experienced in the biology, life stages, natural history, and identification of local fish and wildlife resources at the project site (qualified biologist).*

The project proponent shall implement the following:

- *If ground disturbance or other construction activities are proposed during the bird nesting season (February 1 – August 31), a focused survey for nesting raptors and migratory bird nests shall be conducted by a qualified biologist within ~~14~~ 15 calendar days prior to the beginning of construction activities in order to identify active nests. This survey shall be conducted within the proposed construction area and all accessible areas within the following buffer areas:*
    - *0.5-mile for bald eagle and golden eagle;*
    - *0.25-mile for tree-nesting raptors; and*
    - *500 feet for all other species.*

- *If active raptor nests are found, construction activities shall not take place within 0.25-mile for golden eagle or within 500 feet of other raptor nest(s) until the young have fledged. If active songbird nests are found, a 100-foot no-disturbance buffer shall be established. ~~These no-disturbance buffers may be reduced based on consultation and approval by the County.~~ Daily monitoring of the nest by a qualified biologist during project activities shall be required if the activity has potential to adversely affect the nest as determined by the qualified biologist or if birds within active nests are showing behavioral signs of agitation (e.g., standing up from a brooding position, flying off the nest) during project activities, as determined by the qualified biologist. Documentation of compliance with the foregoing requirements and of any required coordination with CDFW shall be provided to El Dorado County Planning and*

Building Department prior to commencement of any project construction activities.

- *The limit of work shall be indicated by bright orange temporary fencing or other similar highly-visible marker. Construction activities or personnel shall not cross the fencing, except with approval of a qualified biologist. If trees containing nests or burrows must be removed as a result of project implementation, removal shall be completed during the nonbreeding season (~~late September to March~~ September 1 through January 31) if possible, or after a qualified biologist determines that the young have fledged (during the breeding season).*
- *If any special-status species are encountered during project activities and the individual may be harmed, or they do not leave the Project site independently within 2 hours, work shall be suspended, CDFW notified, and conservation measures shall be developed in agreement with CDFW according to CDFW protocols prior to re-initiating the activity. Conversely, if during project activities, any species listed pursuant to the CESA are encountered, work shall be suspended, and CDFW notified. Work may not re-initiate until the Project proponent has consulted with CDFW and can demonstrate compliance with CESA.*
- *If active nests are not found during the required pre-construction surveys, further mitigation shall not be required.*
- *Survey results shall be provided to the El Dorado County Planning and Building Department within 15 days of completion of all surveys. Surveys shall be repeated if there is a break of construction of more than 14 days during the nesting season.*

Burrowing Owl

- *Burrowing owl pre-construction surveys of suitable habitat shall be conducted by a qualified biologist within 14 days prior to the beginning of any ground-disturbing ~~construction~~ activities on and within 500 feet of the project site and off-site improvements using survey methods consistent with the CDFW Staff Report on Burrowing Owl Mitigation (CDFW 2012). Inaccessible areas (e.g., adjacent private property) shall not be surveyed directly, but the qualified biologist may use binoculars or a spotting scope to survey the inaccessible areas.*

  If occupied burrows are not found, the qualified biologist shall submit a report documenting the survey methods and results to the project proponent and to the El Dorado County Planning and Building Department, and further mitigation shall not be required.

  If an active burrow is found within 500 feet of pending construction activities, the project proponent shall establish and maintain a minimum buffer of 164 feet around the occupied burrow throughout construction. The actual buffer

size shall be determined by the qualified biologist based on the time of year and level of disturbance in accordance with guidance provided in the CDFW Staff Report on Burrowing owl Mitigation, and may be as large as 1,640 feet (CDFW 2012). The protection buffer may be adjusted if, in coordination with CDFW, a qualified biologist determines that an alternative buffer would not disturb a burrowing owl from use of the burrow because of particular site features or other buffering measures. If occupied burrows are present that cannot be avoided or adequately protected with a no-disturbance buffer, and the burrowing owl does not depart independently within a few days, the burrow(s) shall be buffered and avoided for the duration of occupancy, through the end of nesting (as determined by a Qualified Biologist) or an Incidental Take Permit (ITP) shall be obtained in order to exclude owls from the burrow(s). Burrowing owls shall not be excluded from occupied burrows until the ITP is approved by CDFW.

If burrowing owls are evicted from burrows and the burrows are destroyed by project activities, the project proponent shall mitigate the loss of occupied habitat in accordance with the ITP. The applicant shall retain a qualified biologist to develop a burrowing owl mitigation and management plan that incorporates the following goals and standards:

- *Mitigation lands shall be selected based on comparison of the habitat lost to the compensatory habitat, including type and structure of habitat; disturbance levels; potential for conflicts with humans, pets, and other wildlife; density of burrowing owls; and relative importance of the habitat to the species throughout its range.*
- *If feasible, mitigation lands shall be provided adjacent or proximate to the project site so that displaced owls can relocate with reduced risk of injury or mortality. The feasibility of providing mitigation adjacent or proximate to the project site depends on availability of sufficient habitat to support displaced owls that may be preserved in perpetuity.*
- *If habitat suitable for burrowing owl is not available for conservation adjacent or proximate to the project site, mitigation lands can be secured off-site and shall aim to consolidate and enlarge conservation areas outside planned development areas and within foraging distance of other conservation lands. Mitigation may also be accomplished through purchase of mitigation credits at a CDFW-approved mitigation bank, if available. Alternative mitigation sites and acreages may also be determined in coordination with CDFW.*

If burrowing owl habitat mitigation is completed through permittee-responsible conservation lands, the mitigation plan shall include mitigation objectives, site selection factors, site management roles and responsibilities, vegetation management goals, financial assurances and funding mechanisms, performance standards and success criteria, monitoring and reporting protocols, and adaptive management measures. Success shall be based on the number of adult burrowing owls and pairs using the site and whether the numbers are maintained over time. Measures of success, as suggested in the CDFW Staff Report, shall include site tenacity, the number of adult owls present and reproducing, colonization by burrowing owls from elsewhere, changes in distribution, and trends in stressors.

- *Documentation of compliance with the foregoing requirements and the coordination process with CDFW shall be provided to El Dorado County before commencement of any project construction activities.*

Mitigation Measure 4.3-8, which begins on page 4.3-54 of the Draft EIR, is hereby revised as follows:

Mitigation Measure(s)

Implementation of the following mitigation measure would reduce the above potential impact to a *less-than-significant* level.

Project Development Area and Project Buildout

4.3-8 *A qualified biologist who is familiar with bats and bat ecology (qualified biologist) shall conduct a bat habitat assessment of all potential roosting trees within the proposed impact footprint. This habitat assessment shall identify all potentially suitable roosting habitat and may be conducted up to one (1) year prior to the start of construction.*

If potential roosting habitat is identified within the areas proposed for impact, the qualified biologist shall survey the potential roosting habitat within 14 days prior to tree removal to determine presence of roosting bats in suitable habitat (e.g., large trees, crevices, cavities, exfoliating bark, foliage, buildings) on and adjacent to the project site. These surveys are recommended to be conducted utilizing methods that are considered acceptable by CDFW and bat experts. Methods may include evening emergence surveys, acoustic surveys, inspecting potential roosting habitat with fiberoptic cameras or a combination thereof. Survey results shall be provided to the El Dorado County Planning and Building Department within 15 days of completion of all surveys.

If pre-construction surveys indicate that roosts of special-status bats are not present, or that roosts are inactive or potential habitat is unoccupied, further mitigation is not required. ~~If roosting bats are found, exclusion shall be conducted as recommended by a qualified biologist. Methods may include acoustic monitoring, evening emergence surveys, and the utilization of two-step tree removal supervised by a qualified biologist. Two-step tree removal involves~~

~~*removal of all branches that do not provide roosting habitat on the first day, and the next day cutting down the remaining portion of the tree. Once the bats have been excluded, tree removal may occur.*~~

If evidence of bat maternity roosts or hibernacula is observed, the species and number of bats using the roost shall be determined by a qualified biologist using noninvasive methods. Bat detectors (i.e., acoustic monitoring) or evening emergence surveys shall be used if deemed necessary to supplement survey efforts by the qualified biologist.

A no-disturbance buffer of 250 feet shall be established around active pallid bat, Townsend's big-eared bat, or western red bat maternity roosts or hibernacula, as well as substantial maternity roosts or hibernacula of other bat species considered to be a wildlife nursery by the qualified biologist. Project activities shall not occur within this buffer until after the roosts are unoccupied as determined by a qualified biologist.

If roosts of pallid bat, Townsend's big-eared bat, or western red bat are determined to be present and must be removed, the bats shall be excluded from the roosting site before the tree is removed. A program addressing compensation, exclusion methods, and roost removal procedures shall be developed in coordination with CDFW before implementation. Exclusion methods may include use of one-way doors at roost entrances (bats may leave but not reenter) or sealing roost entrances when the site can be confirmed to contain no bats. Exclusion efforts may be restricted during periods of sensitive activity (e.g., during hibernation or while females in maternity colonies are nursing young). The loss of each roost (if any) resulting from the project shall be replaced in coordination with CDFW and may require construction and installation of bat boxes suitable to the bat species and colony size excluded from the original roosting site. If determined necessary during coordination with CDFW, replacement roosts shall be implemented before bats are excluded from the original roost sites.

Prior to exclusion activity, the qualified biologist shall quantify the average number of bats present at the roost by species and season, compare the replacement habitat with the habitat to be removed to ensure the replacement habitat is of sufficient or equal size, and monitor the temperature of the existing roost with a temperature datalogger to compare to the replacement habitat.

Within one year of the installation of replacement habitat, post-construction monitoring of the replacement habitats shall begin. A qualified biologist shall monitor the replacement habitats on year one, three, and five. If the success criteria (as defined below) is met, the monitoring may be reduced or discontinued as recommended by the qualified biologist in coordination with CDFW.

For day roost monitoring, conduct daytime inspections and evening exit counts to assess presence/absence of bats and the average number of bats, collect photo documentation to show use or lack of

use by bats, record the location of bat use in the replacement habitat as well as the numbers and species of bats, as possible, in the replacement structure. Mitigation shall be considered successful when the target species has occupied the replacement habitat and when the estimated population of the replacement habitat has reached the goals set forth in the bat mitigation plan. If success criteria have not been met during the monitoring period, the qualified biologist shall provide recommendations for habitat modifications and additional monitoring.

After the replacement roosts are constructed and bats are confirmed to be absent from the original roost site by a qualified biologist, the roost tree or building may be removed. For roost trees, a two-step tree removal process supervised by a qualified biologist shall be implemented, including removal of all branches that do not provide roosting habitat on the first day, and removal of the remaining portion of the tree on the following day.

Documentation of compliance with the foregoing requirements shall be provided to El Dorado County Planning and Building Department prior to commencement of any project construction activities.

Mitigation Measure 4.3-9, which begins on page 4.3-55 of the Draft EIR, is hereby revised as follows:

Mitigation Measure(s)

Implementation of the following mitigation measure would reduce the above potential impact to a *less-than-significant* level.

Project Development Area (and Off-Site Sewer Pipe Alignments)

4.3-9 *Within 14 days prior to the initiation of any construction activities, a qualified biologist who is knowledgeable and experienced in the biology, life stages, natural history, and identification of local fish and wildlife resources at the project site (qualified biologist) shall conduct non-invasive preconstruction surveys for Northern California ringtail and ringtail nests in suitable habitats (riparian habitats, oak woodlands with shrubby understory, and/or trees five inches diameter at breast height (DBH) or greater in riparian areas, particularly those with cavities) that will be disturbed by construction activity. Non-invasive methods may include camera traps and track plates as well as physical surveys of suitable habitat. If ringtail are found prior to the initiation of, and/or during construction activities, a qualified biologist shall consult with CDFW prior to relocation of any individual ringtail. The camera trap may be removed once construction begins.*

If a ringtail nest is observed within the project area during the preconstruction survey, a qualified biologist shall establish a 250-foot no-disturbance buffer and the nest shall be fenced off and avoided until the young have left the nest, and the nest is no longer active as determined by the qualified biologist. A qualified biologist shall monitor to ensure that ringtails do not disperse into the construction area.

If any ringtails are observed within the project area, work shall be suspended in a 100-foot radius of the animal until the animal leaves

the project area on its own volition. If necessary, the qualified biologist shall notify CDFW to determine the appropriate procedures related to relocation. All necessary permits for removal will be obtained from CDFW, and a Qualified Biologist shall conduct necessary removals. Any worker who inadvertently injures or kills a ringtail or who finds one dead, injured, or entrapped must immediately report the incident to a qualified biologist.

CDFW may require mitigation for potential impacts to ringtail as part of a streambed alteration agreement. If CDFW assigns mitigation that is more stringent than the measure proposed above, the CDFW measure shall take precedence.

Program Study Area
None required.

Mitigation Measure 4.3-10, as presented on page 4.3-59 of the Draft EIR, is hereby revised as follows:

Mitigation Measure(s)
Implementation of the following mitigation measure would reduce the above potential impact to a *less-than-significant* level.

Off-Site Sewer Pipe Alignments Only
4.3-10 *Prior to the commencement of ground-disturbing activities associated with the off-site sewer pipe, the project proponent shall apply for a Section 1600 Lake or Streambed Alteration Agreement from CDFW. Minimization and avoidance measures shall be proposed as appropriate and may include: preconstruction species surveys and reporting, protective fencing around avoided biological resources, worker environmental awareness training, seeding disturbed areas adjacent to open space areas with native seed, and installation of project-specific storm water BMPs. Mitigation may include restoration or enhancement of resources on- or off-site, purchase habitat credits from an agency-approved mitigation/ conservation bank, off-site, working with a local land trust to preserve land, or any other method acceptable to CDFW.*

If proposed project activities are determined to be subject to CDFW jurisdiction, the applicant shall abide by the measures to protect fish and wildlife resources required by any executed agreement before any vegetation removal or activity that may affect the resource. Measures to protect fish and wildlife resources shall include, at a minimum, a combination of the following mitigation.

The applicant shall compensate loss of riparian woodland habitat such that no net loss of habitat function and values occurs by:

- *Restoring and preserving degraded riparian habitat outside the project site or on the project site (at least 1:1);*
- *Purchasing riparian habitat credits at an agency-approved mitigation bank (at least 1:1); or*

- *Preserving existing riparian habitat of equal or better value to the affected riparian habitat through a conservation easement or deed restriction at a ratio sufficient to offset the loss of riparian habitat function (at least 1:1).*

The applicant shall prepare and implement a Compensatory Mitigation Plan that includes the following elements:

- *For preserving existing riparian habitat outside the project site in perpetuity, the Compensatory Mitigation Plan shall include a summary of the proposed compensation lands (e.g., the number and type of credits, location of mitigation bank or easement), parties responsible for the long-term management of the land, and the legal and funding mechanism for long-term conservation (e.g., holder of conservation easement or fee title). The applicant shall provide evidence in the plan that the necessary mitigation has been implemented or that the applicant has entered into a legal agreement to implement it and that compensatory habitat shall be preserved in perpetuity.*
- *For restoring or enhancing riparian habitat outside the project site, the Compensatory Mitigation Plan shall, at a minimum, include a description of the proposed habitat improvements, success criteria that demonstrate the performance standard of maintained habitat function has been met, legal and funding mechanisms, and parties responsible for long-term management and monitoring of the restored or enhanced habitat.*
- *Compensatory mitigation may be satisfied through compliance with permit conditions, or other authorizations obtained by the applicant (e.g., Lake and Streambed Alteration Agreement), if such requirements are equally or more effective than the mitigation identified above.*

Documentation of compliance with this mitigation measure and receipt of a Lake and Streambed Alteration Agreement from CDFW (or a letter from CDFW stating that such an Agreement is not required) shall be provided to El Dorado County before commencement of any project construction activities.

Pages 4.3-60 and 4.3-61 of the Draft EIR are hereby revised as follows:

Mitigation Measure(s)

Implementation of the following mitigation measures would reduce the above potential impact to a *less-than-significant* level.

Project Development Area and Project Buildout

4.3-11(a) *Prior to initiation of any ground disturbance activities, the project proponent shall apply for a Section 404 permit from the U.S. Army Corps of Engineers (USACE) for impacts to regulated Waters (Waters) of the U.S. Waters that will be impacted shall be replaced or rehabilitated on a "no-net-loss" basis. Habitat creation, restoration, rehabilitation, and/or replacement shall be at a location and by*

methods acceptable to the USACE through the preparation and approval by USACE of a wetland mitigation and monitoring plan.

For creating, restoring or rehabilitating wetlands or waters of the U.S. on or outside the project site, the wetland mitigation and monitoring plan shall include, at a minimum, a description of the proposed habitat improvements, success criteria that demonstrate the performance standard of maintained habitat function has been met, legal and funding mechanisms, and parties responsible for long-term management and monitoring of the restored or enhanced habitat.

Compensatory mitigation may be satisfied through compliance with permit conditions, or the purchase of agency-approved mitigation bank credits, if these requirements are equally or more effective than the mitigation identified above.

4.3-11(b) *Prior to initiation of any ground disturbance activities, the project proponent shall apply for WDRs and/or a Water Quality Certification from the RWQCB (depending on the limit of federal jurisdiction to wetlands and waters of the U.S. in place at the time) and adhere to the certification conditions. Waters of the state that will be impacted shall be replaced or rehabilitated on a "no-net-loss" basis. Habitat creation, restoration, rehabilitation, and/or replacement shall be at a location and by methods acceptable to the RWQCB through the preparation and approval by the RWQCB of a wetland mitigation and monitoring plan.*

Compensatory mitigation may be satisfied through compliance with permit conditions, or the purchase of agency approved-mitigation bank credits, if such requirements are equally or more effective than the mitigation identified above.

4.3-11(c) *Implement Mitigation Measure 4.3-10.*

4.3-11(d) *If the project applicant proceeds with the proposed off-site water main to be installed within the alignment of the approved Bass Lake North Bike Trail, the project applicant shall implement all mitigation measures included in the following resource agency permit documents:*

- *Clean Water Act Section 401 Water Quality Certification and Order (WDID No. 5A09CR00228);*
- *Streambed Alteration Agreement (EPIMS Notification No. ELD-34364-R2); and*
- *Section 404 Permit (ID No. SPK-2022-00634).*

Agreement from CDFW (if applicable), as well as the Clean Water Act permit from USACE (if required), shall be provided to El Dorado County Planning and Building Department prior to commencement of any project construction activities.

4.10 PUBLIC SERVICES AND RECREATION

For clarification purposes, page 4.10-20 of the Draft EIR under Impact 4.10-4 is hereby revised as follows:

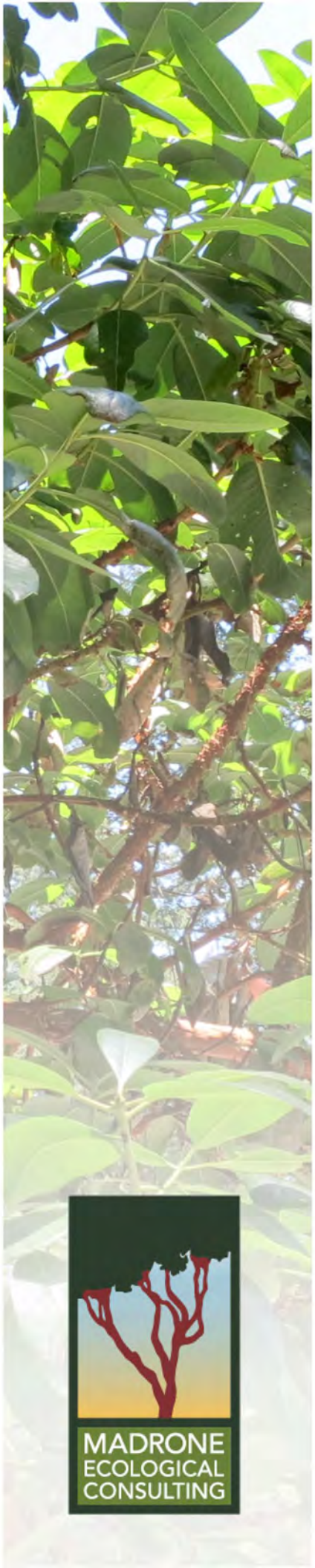
> As discussed above, the nearest parks to the project site are the Christa McAuliffe Park and Dave West Park, which are located approximately 1.25 miles east of the project site, and Laurel Oaks Park, located approximately 0.9-mile east of the project site at 5301 Whistlers Bend Way. In addition, the Bass Lake Regional Park is located approximately 1.51 miles north of the project site. The potential for the Project Development Area and Project Buildout to impact parks or other public recreational facilities are discussed in further detail below.

4. Mitigation Monitoring and Reporting Program

MITIGATION MONITORING AND REPORTING PROGRAM

SEE EXHIBIT Q OF THE AUGUST 28, 2025, PLANNING COMMISSION STAFF REPORT

Appendix A



Biological Resources Assessment

Town & Country Village
El Dorado

El Dorado County, California
January 2025

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1.0 INTRODUCTION

This report presents the results of a Biological Resources Assessment (BRA) conducted for the Town & Country Village El Dorado Project (Project). The Project Area is comprised of the area currently proposed for development (the Project Development Area), two off-site sewer alternatives (Alternative 1 and Alternative 2), and two off-site waterline alternatives (Alternative 1 and Alternative 2) (**Figures 1 and 2**). The Study Area for this document is the Project Area plus the Program Study Area (PSA), as shown on **Figure 2**[1]. The PSA is an area adjacent to (and partially enclosed by) the Project Development Area that may be developed at some point in the future. Within this document, impacts within the Project Area are analyzed in detail at the "project level", while potential impacts that may occur within the PSA are analyzed more broadly at the "program level".

The Study Area is located north of Interstate Highway 50, largely south of Stone Hill Road, east of Silva Valley Parkway, and largely west of Morrison Road in western El Dorado County, California (**Figure 1**). The Development Area is located generally north of Country Club Drive and east of Bass Lake Road. The approximately 81.8-acre Study Area is located in portions of Section 1, Township 9 North, Range 8 East and Sections 5-7, Township 9 North, Range 9 East (MDBM) of the "Clarksville, California" 7.5-Minute Series USGS Topographic Quadrangle (USGS 2021) (**Figure 1**).

1.1 Project Description

The Project includes development of two 150-room hotels, retail services, two restaurants, a museum, an event center, recreational amenities, associated parking, 56 residential cottages for employee housing, and an additional 56 residential cottages that may be rented on a daily or extended stay basis. Additionally, the Project would involve construction of internal roadways and a new Class I bicycle path within the Project Development Area, and off-site sewer and water connections, as detailed below in **Sections 1.2 and 1.3**. A preliminary site plan for the Project as analyzed in this document is included as **Attachment A.**

1.2 Off-Site Sewer Alternatives

Both public and private sewer systems are being considered for providing wastewater service to the Project. The public system would require the construction of an approximately 10,510-foot gravity trunk sewer main connecting the development to the existing 18-inch South Uplands Trunk Sewer-Gravity Main located in Russi Ranch Drive, approximately 1.6 miles to the west. Two alignment alternatives for this public sewer connection will be evaluated in this document, as shown in **Figure 2**. The two alternatives share the same alignment from the Russi Ranch Road on the west end, east across Carson Creek and up onto Old Bass Lake Road, where they split, with Alternative 1 continuing along Old Bass Lake Road, and Alternative 2 heading north to the intersection of Bass Lake Road and Country Club Drive. Both alternatives involve a crossing of

[1] A portion of Waterline Alternative 2 has been analyzed under a separate CEQA document, and as a result, that portion of Waterline Alternative 2 is not included in the Study Area for this document. This is shown graphically on **Figure 2**.

Carson Creek, which would be accomplished with a pipe suspended over the creek. No direct impacts to Carson Creek are anticipated, but there will be construction impacts adjacent to the channel.

1.3 Off-Site Waterline Alignment Alternatives

Two waterline alternatives have been proposed, as shown in **Figure 2**. The two alternatives share the same alignment from the intersection of Bass Lake Road and Country Club Drive and east. Where they differ, Waterline Alternative 1 would be within the paved roadbed of the existing Bass Lake Road, and Waterline Alternative 2 would be within a future proposed bike trail just east of Bass Lake Road. Waterline Alternative 2 has been previously analyzed under a different CEQA document, and therefore, Waterline Alternative 2, while shown for clarity on **Figure 2**, is not included in our Study Area and will not be analyzed or mentioned further in this document.

1.4 Program Study Area

Potential future development within the PSA could include additional hotels, medical facilities, senior housing, townhomes and cottages, and/or other uses allowed by the proposed zoning districts. Temporary impacts within the Project Development Area may ultimately be permanently impacted during future development within the PSA, but are included in the Project Development Area for purposes of impact analysis in this document.

2.0 REGULATORY SETTING

This section describes federal, state and local laws and policies that are relevant to this assessment of biological resources.

2.1 Federal Regulations

2.1.1 Federal Endangered Species Act

The Federal Endangered Species Act (FESA) of 1973 protects species that are federally listed as endangered or threatened with extinction. FESA prohibits the unauthorized "take" of listed wildlife species. Take includes harassing, harming, pursuing, hunting, shooting, wounding, killing, trapping, capturing, or collecting wildlife species or any attempt to engage in such activities. Harm includes significant modifications or degradations of habitats that may cause death or injury to protected species by impairing their behavioral patterns. Harassment includes disruption of normal behavior patterns that may result in injury to or mortality of protected species. Civil or criminal penalties can be levied against persons convicted of unauthorized "take." In addition, FESA prohibits malicious damage or destruction of listed plant species on federal lands or in association with federal actions, and the removal, cutting, digging up, damage, or destruction of listed plant species in violation of state law. FESA does not afford any protections to federally listed plant species that are not also included on a state endangered species list on private lands with no associated federal action.

2.1.2 Clean Water Act, Section 404

Section 404 of the Federal Clean Water Act requires that a Department of the Army permit be issued prior to the discharge of dredged or fill material into waters of the United States, including some wetlands. The U.S. Army Corps of Engineers (USACE) administers this program, with oversight from the U. S. Environmental Protection Agency. As of the date of this document, waters of the United States (waters of the U.S.) are defined as follows (40 CFR 120.2):

1. Waters which are:
   i. 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;
   ii. The territorial seas; or
   iii. Interstate waters;
2. Impoundments of waters otherwise defined as waters of the United States under this definition, other than impoundments of waters identified under item (5) below;
3. Tributaries of waters identified in items (1) or (2) above that are relatively permanent, standing or continuously flowing bodies of water;
4. Wetlands adjacent to the following waters:
   i. Waters identified in item (1) of this section; or
   ii. Relatively permanent, standing or continuously flowing bodies of water identified in items (2) or (3) above and with a continuous surface connection to those waters;
5. Intrastate lakes and ponds not identified in paragraphs (1) through (4) of this section that are relatively permanent, standing or continuously flowing bodies of water with a continuous surface connection to the waters identified in items (1) or (3) above.

Under the current definition of waters of the U.S., "adjacent" means *having a continuous surface connection*.

Waters subject to regulation under Section 404 are referred to as "jurisdictional waters".

2.1.3 Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) prohibits the take, possession, import, export, transport, selling, purchase, barter, or offering for sale, purchase or barter, any native migratory bird, their eggs, parts, and nests, except as authorized under a valid permit (50 CFR 21.11.). Likewise, Section 3513 of the California Fish & Game Code prohibits the "take or possession" of any migratory non-game bird identified under the MBTA. Therefore, activities that may result in the injury or mortality of native migratory birds, including eggs and nestlings, would be prohibited under the MBTA.

2.1.4 Bald and Golden Eagle Protection Act

The Bald and Golden Eagle Protection Act of 1940 (as amended) provides for the protection of bald eagle and golden eagle by prohibiting the take, possession, sale, purchase, barter, offer to sell, purchase or barter,

transport, export or import, of any bald or golden eagle, alive or dead, including any part, nest, or egg, unless allowed by permit [16 USC 668(a); 50 CFR 22]. The USFWS may authorize take of bald eagles and golden eagles for activities where the take is associated with, but not the purpose of, the activity and cannot practicably be avoided (50 CFR 22.26).

2.2 State Regulations

2.2.1 California Environmental Quality Act

The California Environmental Quality Act (CEQA) requires evaluations of project effects on biological resources. Determining the significance of those effects is guided by Appendix G of the CEQA guidelines. These evaluations must consider direct effects on a biological resource within the project site itself, indirect effects on adjacent resources, and cumulative effects within a larger area or region. Effects can be locally important but not significant according to CEQA if they would not substantially affect the regional population of the biological resource. Significant adverse impacts on biological resources would include the following:

- Substantial adverse effects on any species identified as candidate, sensitive, or special-status in local or regional plans, policies, or regulations or by the California Department of Fish and Wildlife (CDFW) or the U.S. Fish and Wildlife Service (USFWS) (these effects could be either direct or via habitat modification);
- Substantial adverse impacts to species designated by the California Department of Fish and Game (2009) as Species of Special Concern;
- Substantial adverse effects on riparian habitat or other sensitive habitat identified in local or regional plans, policies, or regulations or by CDFW and USFWS;
- Substantial adverse effects on federally protected wetlands defined under Section 404 of the Clean Water Act (these effects include direct removal, filling, or hydrologic interruption of marshes, vernal pools, coastal wetlands, or other wetland types);
- Substantial interference with movements of native resident or migratory fish or wildlife species population, or with use of native wildlife nursery sites;
- Conflicts with local policies or ordinances protecting biological resources (e.g. tree preservation policies); and
- Conflict with provisions of an adopted Habitat Conservation Plan (HCP), Natural Community Conservation Plan (NCCP), or other approved local, regional, or state habitat conservation plan.

2.2.2 State Endangered Species Act

With limited exceptions, the California Endangered Species Act (CESA) of 1984 protects state-designated endangered and threatened species in a way similar to FESA. For projects on private property (i.e. that for which a state agency is not a lead agency), CESA enables CDFW to authorize take of a listed species that is incidental to carrying out an otherwise lawful project that has been approved under CEQA (Fish & Game Code Section 2081).

2.2.3 California Fully Protected Species

The State of California first began to designate species as "fully protected" prior to the creation of the federal and California ESAs. Lists of fully protected species were initially developed to provide protection to those animals that were rare or faced possible extinction and included fish, amphibians and reptiles, birds, and mammals. Most fully protected species have since been listed as threatened or endangered under the federal and/or California ESAs. The regulations that implement the Fully Protected Species Statute (California Fish and Game Code, § 4700 for mammals, § 3511 for birds, § 5050 for reptiles and amphibians, and § 5515 for fish) provide that fully protected species may not be taken or possessed at any time. Furthermore, CDFW prohibits any state agency from issuing incidental take permits for fully protected species. CDFW will issue licenses or permits for take of these species for necessary scientific research or live capture and relocation pursuant to the permit.

2.2.4 California Species of Special Concern

The Species of Special Concern (SSC) are defined by CDFW as a species, subspecies, or distinct population of an animal native to California that are not legally protected under the federal or California ESAs or the California Fish and Game Code, but currently satisfies one or more of the following criteria:

- The species has been completely extirpated from the state or, as in the case of birds, it has been extirpated from its primary seasonal or breeding role.
- The species is listed as federally (but not state) threatened or endangered or meets the state definition of threatened or endangered but has not formally been listed.
- The species has or is experiencing serious (noncyclical) population declines or range retractions (not reversed) that, if continued or resumed, could qualify it for state threatened or endangered status.
- The species has naturally small populations that exhibit high susceptibility to risk from any factor that if realized, could lead to declines that would qualify it for state threatened or endangered status.

SSC are typically associated with habitats that are threatened. Project-related impacts to SSC, state-threatened or endangered species are considered "significant" under CEQA.

2.2.5 Native Plant Protection Act

The Native Plant Protection Act (NPPA) was enacted in 1977 and allows the Fish and Game Commission to designate plants as rare or endangered. There are 64 species, subspecies, and varieties of plants that are protected as rare under the NPPA. The NPPA prohibits take of endangered or rare native plants, but includes some exceptions for agricultural and nursery operations; emergencies; and after properly notifying CDFW for vegetation removal from canals, roads, and other sites, changes in land use, and in certain other situations.

2.2.6 Clean Water Act, Section 401

Section 401 of the Clean Water Act requires any applicant for a 404 permit in support of activities that may result in any discharge into waters of the United States to obtain a water quality certification with the Regional Water Quality Control Board (RWQCB). This program is meant to protect these waters and wetlands by ensuring that waste discharged into them meets state water quality standards. Because the water quality certification program is triggered by the need for a Section 404 permit (and both programs are a part of the Clean Water Act), the definition of waters of the United States under Section 401 is the same as that used by the USACE under Section 404.

2.2.7 California Water Code, Porter-Cologne Act

Waters that are not considered waters of the U.S. may be considered waters of the State of California (waters of the State) under the Porter-Cologne Water Quality Control Act (Porter-Cologne). Porter-Cologne, from Division 7 of the California Water Code, requires any person discharging waste or proposing to discharge waste that could affect the quality of waters of the state to file a report of waste discharge (RWD) with the RWQCB. The RWQCB can waive the filing of a report, but once a report is filed, the RWQCB must either waive or adopt water discharge requirements (WDRs). Waters of the State are defined as any surface water or groundwater, including saline waters, within the boundaries of the state of California.

2.2.8 California Fish and Game Code, Section 1600 – Streambed and Lake Alteration

The CDFW is responsible for conserving, protecting, and managing California's fish, wildlife, and native plant resources. To meet this responsibility, the Fish and Game Code, Section 1602, requires notification to CDFW of any proposed activity that may substantially modify a river, stream, or lake. Notification is required by any person, business, state or local government agency, or public utility that proposes an activity that will:

- substantially divert or obstruct the natural flow of any river, stream or lake;
- substantially change or use any material from the bed, channel, or bank of any river, stream, or lake; or
- deposit or dispose of debris, waste, or other material containing crumbled, flaked, or ground pavement where it may pass into any river, stream, or lake.

For the purposes of Section 1602, rivers, streams and lakes includes those that are dry for periods of time as well as those that flow year round. If notification is required and CDFW believes the proposed activity is likely to substantially adversely affect fish and wildlife resources, it will require that the parties enter into a Lake or Streambed Alteration Agreement (LSAA).

2.2.9 California Fish and Game Code, Section 3503.5 - Raptor Nests

Section 3503.5 of the Fish and Game Code makes it unlawful to take, possess, or destroy hawks or owls, unless permitted to do so, or to destroy the nest or eggs of any hawk or owl.

2.2.10 California Fish and Game Code, Section 3511, 4700, 5050, and 5515 – Fully Protected Species

California Fish and Game Code identifies "fully protected species" in sections 3511 (birds), 4700 (mammals), 5050 (reptiles and amphibians), and 5515 (fish). The state initially identified fully protected species in the 1960s to identify and provide additional protection to animals that were rare or faced possible extinction. Subsequent passage of the California Endangered Species Act has offered additional protection to some fully protected species.

Fully protected species may not be taken or possessed at any time and no licenses or permits may be issued for their take except for collecting these species for necessary scientific research, relocation of the bird species for the protection of livestock, or if they are a covered species whose conservation and management is provided for in a Natural Community Conservation Plan (NCCP).

2.3 Local Regulations

2.3.1 El Dorado County Zoning Ordinance, Protection of Wetlands and Sensitive Riparian Habitat

The El Dorado County Zoning Ordinance Site Planning and Project Design Standards for setback requirements (Section 130.30.050) establishes standards for avoidance and minimization of impacts to wetlands and sensitive riparian habitat. This section of the Ordinance applies to discretionary projects adjacent to perennial streams, intermittent streams, wetlands, or any sensitive riparian habitat within El Dorado County (County). The Ordinance requires new development to avoid or minimize impacts to these habitat types. If the habitats cannot be avoided, the County requires an assessment that establishes appropriate buffers to reduce impacts to a less than significant level and mitigation consistent with state or federal permit requirements. The County has established standardized setbacks of 25 feet from any intermittent stream, wetland or sensitive riparian habitat, or a distance of 50 feet from any perennial lake, river or stream. Storm drain, irrigation outflow structures, and bridges are permitted as long as they are approved by the County as part of the development process.

2.3.2 El Dorado County Zoning Ordinance, Oak Resources Conservation

Chapter 130.39 of the El Dorado County Zoning Ordinance requires mitigation for impacts to native oak trees in all portions of unincorporated El Dorado County below 4,000 feet in elevation. This Chapter requires documentation of all oak woodlands, individual native oak trees, and heritage native oak trees (collectively, Oak Resources) on a site if any oak impacts are proposed on that site. Furthermore, an *Oak Resources Technical Report* must be prepared as stipulated in the Chapter. Mitigation for impacts to Oak Resources may be accomplished through payment of an in-lieu fee to the Oak Woodland Conservation Fund, conservation using a deed restriction or conservation easement, and/or replacement planting.

2.3.3 El Dorado County Ecological Preserve Fee Ordinance

Chapter 130.71 of the El Dorado County Code requires mitigation or payment of a fee in-lieu of mitigation for development of any property within Mitigation Areas 0, 1, or 2. This fee is commonly referred to as the Rare Plant Mitigation fee, and is to be paid in full upon issuance of a building permit for all new developments within the County. "Mitigation Area 0" means lands within the Gabbro Soils Rare Plant Ecological Preserve, as shown on maps on file in the Department, adopted by Ordinance 4500. "Mitigation Area 1" means lands outside of Mitigation Area 0 but within the area described as the "rare soils study area" on the same map, and "Mitigation Area 2" means lands outside of Mitigation Areas 0 and 1 but within the El Dorado Irrigation District service area, excluding those lots served by wells. The Study Area is not located within any of the mitigation areas, and as such, this ordinance does not apply to this Project.

3.0 METHODOLOGY

3.1 Literature Review

A list of special-status species with potential to occur within the Study Area was developed by conducting a query of the following databases:

- California Natural Diversity Database (CNDDB) (CNDDB 2024) query of the Study Area and all areas within 5 miles of the Study Area (**Figures 3 and 4**);
- USFWS Information for Planning and Conservation (IPaC) (USFWS 2024) query for the Study Area (**Attachment B**);
- California Native Plant Society (CNPS) Rare and Endangered Plant Inventory (CNPS 2024) query of the "Clarksville, California" USGS topo quadrangle, and the eight surrounding quadrangles (**Attachment C**); and
- Western Bat Working Group (WBWG) Species Matrix (WBWG 2024).

In addition, any special-status species that are known to occur in the region, but that were not identified in any of the above database searches were also analyzed for their potential to occur within the Study Area.

For the purposes of this Biological Resources Assessment, special-status species is defined as those species that are:

- listed as threatened or endangered, or proposed or candidates for listing by the USFWS or National Marine Fisheries Service;
- listed as threatened or endangered and candidates for listing by CDFW;
- identified as Fully Protected species or species of special concern by CDFW;
- identified as Medium or High priority species by the WBWG (WBWG 2024); and
- plant species considered to be rare, threatened, or endangered in California by the CNPS and CDFW [California Rare Plant Rank (CRPR) 1, 2, and 3]:
  - CRPR 1A: Plants presumed extinct.
  - CRPR 1B: Plants rare, threatened, or endangered in California and elsewhere.
  - CRPR 2A: Plants extirpated in California, but common elsewhere.

- CRPR 2B: Plants rare, threatened, or endangered in California, but more common elsewhere.
- CRPR 3: Plants about which the CNPS needs more information – a review list.

3.2 Field Surveys

Madrone senior biologists Daria Snider and Bonnie Peterson conducted field surveys of various portions of the Study Area on 13 April 2022, 27 September 2023, and 6 October 2023 to assess the suitability of habitats within the Study Area to support special-status species and to conduct the protocol-level surveys listed below. Meandering pedestrian surveys were performed on foot throughout the Study Area. Vegetation communities were classified in accordance with *The Manual of California Vegetation, Second Edition* (Sawyer, Keeler-Wolf and Evens 2009), and plant taxonomy was based on the nomenclature in the Jepson eFlora (Jepson Flora Project 2024). A list of all wildlife species observed during field surveys is included as **Attachment D**.

The following surveys have been or are in the process of being performed within the Study Area:

- Special-status plant surveys of the entire Study Area were completed on several dates in 2022, 2023, and 2024 in accordance with the U.S. Fish and Wildlife Service's *Guidelines for Conducting and Reporting Botanical Inventories for Federally Listed, Proposed and Candidate Plants* (USFWS 2000), California Department of Fish and Wildlife's *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities* (CDFW 2018a), and the CNPS *Botanical Survey Guidelines* (CNPS 2001). The report for this survey is included as **Attachment E**.
- An aquatic resources delineation of the entire Study Area was conducted on 27 September and 6 October 2023 in accordance with the *Corps of Engineers Wetlands Delineation Manual* (Environmental Laboratory 1987), the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0)* (USACE 2008a), *A Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States* (USACE 2008b), and the Sacramento District's *Minimum Standards for Acceptance of Preliminary Wetlands Delineations* (USACE 2016). The report for this survey is included as **Attachment F**. This report was submitted to the USACE for verification, and during the verification process, USACE staff requested that some additional acreage be added to the map. We have incorporated those changes into this report, and as a result, the acreage discussed in **Section 4.2** and shown on the maps throughout this document is somewhat greater than that summarized in the report in **Attachment F**.
- An oak resources inventory was conducted throughout the Study Area on 27 September and 6 October 2023 as required by El Dorado County's *Oak Resources Management Plan* (ORMP) (EDC 2017). The Oak Resources Technical Report is included as **Attachment G**.

4.0 EXISTING CONDITIONS

The Study Area is largely comprised of ungrazed Annual Brome Grasslands with widely scattered oak trees (**Figure 5**). Oak Woodlands occur in the vicinity of the intermittent drainage and perennial Carson Creek. The intermittent drainage is located in the northern portion of the Study Area, and Carson Creek is in the

western portion. Carson Creek runs over bedrock, and the adjacent slopes are quite steep, restricting the extent of riparian vegetation, which consists of a narrow band of Arroyo Willow Riparian Scrub. The Oak Woodland south of the creek has a dense, closed canopy, as is typical for north-facing slopes in the region. Bass Lake Road cuts from north to south through the Study Area, and Country Club Drive runs from west to east. Portions of Old Bass Lake Road and Old Country Club Drive also occur within portions of the Study Area. Several seasonal wetlands and two seasonal wetland swales occur just north of Old Country Club Drive, and one seasonal wetland occurs near an ephemeral drainage in the western portion of the Study Area. A few seeps occur on slopes in the Annual Brome Grasslands. Roadside ditches run along the edges of a number of roadways within the Study Area, and three portions of ephemeral drainages occur within infrastructure-related portions of the Study Area. Inclusions of unvegetated areas are scattered throughout the Study Area along farm roads. The terrain within the Study Area is gently rolling, and generally slopes from the east down towards the west.

Elevations range from approximately 1,320 feet above mean sea level (MSL) at the eastern edge of the Study Area to approximately 800 feet at the western extent along Carson Creek and Russi Ranch Drive (**Figure 1**).

Surrounding properties are similar to those within the Study Area. They are largely comprised of ungrazed Annual Brome Grasslands, scattered Oak Woodlands, and rural residences. The western and eastern ends of the Study Area abut urban residential areas, and the Study Area is bordered by Interstate Highway 50 to the south.

4.1 Terrestrial Vegetation Communities

Table 1 summarizes the terrestrial vegetation communities mapped within the Study Area, their extents are shown on **Figure 5**, and the following sections provide narrative descriptions of each of them.

Table 1. Terrestrial Vegetation Communities Within the Study Area

Vegetation Communities	Project Area (Acres)	Program Study Area (Acres)	Total (Acres)
Annual Brome Grassland	37.0	27.9	64.9
Arroyo Willow Riparian Woodland	0.1		0.1
Oak Woodland	6.2		6.2
Dirt Road	1.5		1.5
Paved Road	8.9	0.2	9.1
Total	**53.7**	**28.1**	**81.8**

4.1.1 Annual Brome Grassland

The Annual Brome Grassland within the Study Area is dominated by ripgut brome (*Bromus diandrus*), soft brome (*B. hordeaceus*), wild oat (*Avena fatua*), Italian ryegrass (*Festuca perennis*), purple false brome (*Brachypodium distachyon),* and winter vetch *(Vicia villosa* subsp. *varia)*. Other species occurring frequently in this vegetation community within the Study Area include wild radish (*Raphanus sativus*), Ithuriel's spear

(*Triteleia laxa*), rose clover (*Trifolium hirtum*), and purple clarkia (*Clarkia purpurea* subsp. *quadrivulnera*). Seasonal wetlands, seasonal wetland swales, and seeps occur occasionally throughout this community.

4.1.2 Arroyo Willow Riparian Scrub

A narrow band of Arroyo Willow Riparian Scrub occurs along Carson Creek within the sewer alternative overlap portion of the Study Area. This canopy of this community is dominated by arroyo willow (*Salix lasiolepis*) and buttonwillow (*Cephalanthus occidentalis*). The understory is comprised primarily of bedrock, but a few herbaceous species have established in cracks in the bedrock, and in sediment along the creek's edge. These include Indian hemp (*Apocynum cannabinum*), Torrey's willowherb (*Epilobium torreyi),* sticktight (*Bidens frondosa)*, Lady's thumb (*Persicaria maculosa),* False waterpepper (*Persicaria hydropiperoides),* western goldenrod (*Euthamia occidentalis),* mugwort (*Artemisia douglasiana),* tall nutsedge (*Cyperus eragrostis),* rice cutgrass (*Leersia oryzoides),* and seep monkeyflower (*Erythranthe guttata)*.

4.1.3 Oak Woodland

Oak woodland occurs in the northern portion of the Study Area, in association with the intermittent creek, and in the portions of the sewer alternatives. The Oak Woodland has a primarily closed canopy that is dominated by interior live oak (*Quercus wislizeni*) and blue oak (*Quercus douglasii*). Other commonly occurring species include Valley oak (*Quercus lobata*), California buckeye (*Aesculus californica*) and foothill pine (*Pinus sabiniana)*. Western poison oak (*Toxicodendron diversilobum*) and chaparral honeysuckle (*Lonicera interrupta*) are dominants in the shrub layer. The herbaceous understory is dominated by ripgut brome, slender wild oat (*Avena barbata*), and tall sock-destroyer (*Torilis arvensis*), as well as occasional Italian thistle (*Carduus pycnocephalus* subsp. *pycnocephalus*), bristly dogtail grass (*Cynosurus echinatus),* goldback fern (*Pentagramma triangularis),* twining brodiaea (*Dichelostemma volubile),* soft brome, and common soap plant (*Chlorogalum pomeridianum var. pomeridianum)*. Several rock outcrops are interspersed within the Oak Woodland area.

4.1.4 Roads

Bass Lake Road, Country Club Drive, and Old Country Club Drive are paved roadways within the Study Area. Just west of the Bass Lake Road and Country Club Drive intersection is an area that was under active construction at the time of our survey – this is presumed to be developed now and was also mapped as paved road. Old Bass Lake Road and regularly used driveways within the Sewer Alternatives have been mapped as dirt road – these are well maintained, regularly used dirt roads. We did not map the portion of the dirt road that runs through the Oak Woodlands, as the tree canopies overhang almost the entire roadway, and as such, we anticipate that impacts within the roadway could impact the adjacent oak trees.

4.2 Aquatic Resources

Madrone conducted a protocol-level aquatic resources delineation throughout the Study Area, as detailed in **Section 3.2** (**Attachment F**). Aquatic resources mapped within the Study Area are depicted in **Figure 5** and summarized in **Table 2** below. A total of 1.059 acres of aquatic resources were mapped within the Study Area (**Table 2**). A description of each of the aquatic resources types is included below.

Table 2. Aquatic Resources Mapped within the Study Area

Waters Type	Project Area (Acres[1])	Program Study Area (Acres[1])	Total (Acres[1])
Wetlands			
Seasonal Wetland	0.031	--	0.031
Seasonal Wetland Swale	0.017	--	0.017
Seep	0.360	0.015	0.375
Other Waters			
Drainage Ditch	0.005	--	0.005
Ephemeral Drainage	0.038	--	0.038
Intermittent Drainage	0.311	--	0.311
Perennial Creek (Carson Creek)	0.033	--	0.033
Roadside Ditch	0.150	0.100	0.250
Total	**0.945**	**0.115**	**1.059**

[1] *Summation errors may occur due to rounding.*

4.2.1 Seasonal Wetland

Four seasonal wetlands occur within the southern portion of the Study Area. Seasonal wetlands are depressional wetlands that pond water seasonally. Two of the seasonal wetlands are depressional and are dominated by needle-leaf navarretia (*Navarretia intertexta*), Mediterranean beard grass (*Polypogon maritimus*) and Mediterranean barley (*Hordeum marinum*). Other species in these features include bractless hedge-hyssop (*Gratiola ebracteata*), slender popcorn flower (*Plagiobothrys stipitatus var. micranthus*), annual hairgrass (*Deschampsia danthonioides*), hyssop loosestrife (*Lythrum hyssopifolium*), slender tarweed (*Holocarpha virgata*), turkey mullein (*Croton setiger*), creeping spikerush (*Eleocharis macrostachya*), stinkwort (*Dittrichia graveolens*), and hairy cat's ear (*Leontodon saxatilis*). The remaining seasonal wetlands are slope wetlands, and are dominated by iris-leaved rush (*Juncus xiphioides*) and annual rabbitsfoot grass (*Polypogon monspeliensis*). Other species commonly occurring in these features include Baltic rush (*Juncus balticus*) and Spanish lotus (*Acmispon americanus*).

4.2.2 Seasonal Wetland Swale

Two seasonal wetland swales are present within the Study Area. Seasonal wetland swales are linear seasonal wetlands that convey surface runoff and may detain it for short periods of time. The vegetation in the seasonal wetland swales is similar to that found in the sloping seasonal wetlands. They are dominated by

iris-leaved rush. Other species commonly found in these features include Spanish lotus, curly dock (*Rumex crispus*), and Mediterranean beard grass.

4.2.3 Seep

Seeps are areas where groundwater reaches the surface through porous soil or cracks in rock. Seeps result in seasonal or perennial soil saturation with minimal standing water and gentle flows. Five seeps were mapped within the Study Area. Dominant plant species identified within the seeps include iris-leaved rush, Baltic rush, and Sonoma hedge nettle (*Stachys stricta*). Other common plants include hyssop loosestrife, annual quaking grass (*Briza minor),* cut-leaf geranium (*Geranium dissectum*), common sow thistle (*Sonchus oleraceus),* and Italian thistle (*Carduus pycnocephalus*).

4.2.4 Drainage Ditch

A constructed drainage ditch conveys flows collected in roadside ditches along Country Club Drive into the intermittent drainage to the north. This drainage ditch is lined with rocks and is entirely unvegetated.

4.2.5 Ephemeral Drainage

Five ephemeral drainages occur within the Study Area. Ephemeral drainages are linear features that convey runoff for short periods of time, during and immediately following rain events, and do not convey any groundwater flows. Several ephemeral drainages occur within the sewer alternatives. These features are almost entirely unvegetated, and any sparse vegetation that does occur is typical of the surrounding terrestrial vegetation community.

4.2.6 Intermittent Drainage

One intermittent drainage runs through the northern portion of the Study Area. This feature has a variable substrate, ranging from sand and mud in some areas to bedrock in others. It is entirely unvegetated within the channel due to the depth and scouring effects of water. This feature runs through Oak Woodlands for much of its length, and as a result of the closed canopy, very little herbaceous vegetation occurs along the banks in those areas. Portions of the drainage that run through Annual Brome Grasslands are primarily bordered by grasses and forbs typical of that community, but also support scattered seep monkeyflower (*Erythranthe guttata*) and other herbaceous hydrophytes.

4.2.7 Perennial Creek (Carson Creek)

Carson Creek, which is perennial with a bedrock substrate, runs through the western portion of the Study Area. It is almost entirely unvegetated within the channel, but there are a few plants occurring on the banks and in areas where sediment has accumulated within the channel. These plants are described above in the description of Arroyo Willow Scrub, which borders the creek. To reiterate, plants observed within and adjacent to Carson Creek include narrow-leaved cattail (*Typha angustifolia),* Torrey's willowherb, sticktight,

Lady's thumb, False waterpepper, western goldenrod, mugwort, tall nutsedge, rice cutgrass, and seep monkeyflower.

4.2.8 Roadside Ditch

Several roadside ditches were mapped within the Study Area along Bass Lake Road, Country Club Drive, and Old Country Club Drive. The roadside ditches were constructed adjacent to the roadways, and serve to convey stormwater runoff away from the road. These features are entirely unvegetated due to ditch maintenance and due to the fact that many of these features are lined with rock, presumably for flow attenuation.

4.3 Soils

According to the Natural Resources Conservation Service (NRCS) Soil Survey Database (NRCS 2024), four soil mapping units occur within the Study Area (**Figure 6**): (AkC) Argonaut gravelly loam, 2 to 15 percent slopes; (AwD) Auburn silt loam, 2 to 30 percent slopes; (AxD) Auburn very rocky silt loam, 2 to 30 percent slopes; and (AyF) Auburn extremely rocky silt loam, 3 to 70 percent slopes. These soils are all somewhat acidic. The Auburn soils are formed in amphibolite schist (metamorphic rock) while the Argonaut soils are formed in weathered meta-andesite (weathered volcanic rock) (NRCS 2024).

5.0 RESULTS

Table 3 provides a list of special-status species that were evaluated, including their listing status, habitat associations, and their potential to occur in the Study Area. The following set of criteria was used to determine each species' potential for occurrence within the Study Area:

- Present: Species occurs within the Study Area based on CNDDB records, and/or was observed within the Study Area during field surveys.
- High: The Study Area is within the known range of the species and suitable habitat exists.
- Moderate: The Study Area is within the known range of the species and very limited suitable habitat exists.
- Low: The Study Area is within the known range of the species and there is marginally suitable habitat or the Study Area is on the very edge of the known range of the species.
- Absent/No Habitat Present: The Study Area does not contain suitable habitat for the species, the species was not observed during protocol-level floristic surveys conducted within the Study Area, or the Study Area is outside of the known range of the species.

Figures 3 and 4 are exhibits displaying CNDDB occurrences within five miles of the Study Area. Below is a discussion of all special-status plant and animal species with potential to occur within the Study Area.

Table 3. Special-Status Species Potential to Occur within the Town & Country Village El Dorado Study Area

Scientific Name (Common Name)	Federal Status[1]	State Status[1]	Habitat Requirements	Potential for Occurrence
Plants				
Allium jepsonii Jepson's onion	--	CRPR 1B.2	Prefers cismontane woodland or lower montane coniferous forests associated with serpentine soils or volcanic slopes (elevation 985'-4,300')	**No Habitat Present.** No serpentine or basalt are located within the Study Area.
Balsamorhiza macrolepis Big-scale balsamroot	--	CRPR 1B.2	Prefers chaparral, cismontane woodland, and valley and foothill grasslands. Often associated with serpentine soils (elevation 150'-5,100').	**Absent.** Marginally suitable habitat is present (due to the lack of serpentine soils). This plant was not found during protocol surveys of the Study Area.
Calycadenia spicata Spicate rosinweed	--	CRPR 1B.3	Occurs in disturbed areas and openings in cismontane woodland and annual grassland between 130 and 4,600 ft. Often associated with adobe clay, gravelly areas, rock outcrops and mine tailings.	**Absent.** Suitable habitat for this species occurs in the vicinity of rock outcrops and gravelly areas in Annual Brome Grasslands throughout the Study Area. This plant was not found during protocol surveys of the Study Area.
Calystegia stebbinsii Stebbins' morning glory	FE	CE, CRPR 1B.1	Foothill chaparral and cismontane woodland associated with gabbro soils (elevation 605'-3,575').	**No Habitat Present.** Gabbro soils do not occur within the Study Area.
Carex xerophila Chaparral sedge	--	CRPR 1B.2	Prefers chaparral, cismontane woodland, lower montane coniferous forest with serpentine or gabbro soils (elevation 1,445'-2,525').	**No Habitat Present.** Serpentine and gabbro soils do not occur within the Study Area.
Ceanothus roderickii Pine Hill ceanothus	FE	CR, CRPR 1B.1	Foothill chaparral and cismontane woodland associated with gabbro and serpentine soils (elevation 805'-3,575').	**No Habitat Present.** Serpentine and gabbro soils do not occur within the Study Area.

Table 3. Special-Status Species Potential to Occur within the Town & Country Village El Dorado Study Area

Scientific Name (Common Name)	Federal Status[1]	State Status[1]	Habitat Requirements	Potential for Occurrence
Chlorogalum grandiflorum Red Hills soaproot	--	CRPR 1B.2	Prefers cismontane woodland, chaparral, and lower montane coniferous forest. Occurs frequently on serpentine or gabbro, but also on non-ultramafic substrates; often on "historically disturbed" sites (elevation 805'-5,545').	**Absent.** Marginally suitable habitat is present within the oak woodlands throughout the Study Area. Habitat is only marginally suitable due to the lack of gabbro or serpentine soils. This plant was not found during protocol surveys of the Study Area.
Crocanthemum suffrutescens Bisbee Peak rush rose	--	CRPR 3.2	Occurs in open areas within chaparral. Sometimes found in Gabbro soils (elevation 245'-2,200').	**No Habitat Present.** Chaparral does not occur within the Study Area.
Downingia pusilla Dwarf downingia	--	CRPR 2B.2	Mesic areas in valley and foothill grassland, and vernal pools (elevation 3' – 1,460').	**Absent.** The Study Area is at the edge of the elevational range for the species, but limited suitable habitat occurs within the seasonal wetlands within the Study Area. This plant was not found during protocol surveys of the Study Area.
Eryngium pinnatisectum Tuolumne button-celery	--	CRPR 1B.2	Found in vernal pools and other mesic areas in cismontane woodland and lower montane coniferous forests (elevation 230'-3,000').	**Absent.** Suitable habitat for this species occurs within and on the edges of aquatic resources throughout the Study Area. This plant was not found during protocol surveys of the Study Area.
Fremontodendron decumbens Pine Hill flannelbush	FE	CR, CRPR 1B.2	Foothill chaparral and cismontane woodland. Rocky ridges; gabbro or serpentine; often among rocks and boulders (elevation 1,395'-2,495').	**No Habitat Present.** Serpentine and gabbro soils do not occur within the Study Area.
Galium californicum ssp. *sierrae* El Dorado bedstraw	FE	CR, CRPR 1B.2	Foothill chaparral and cismontane woodland. Restricted to gabbroic or serpentine soils (elevation 330'-1,920').	**No Habitat Present.** Serpentine and gabbro soils do not occur within the Study Area.

Table 3. Special-Status Species Potential to Occur within the Town & Country Village El Dorado Study Area

Scientific Name **(Common Name)**	**Federal Status[1]**	**State Status[1]**	**Habitat Requirements**	**Potential for Occurrence**
Gratiola heterosepala Boggs Lake hedge-hyssop	--	CE, CRPR 1B.2	Vernal pools and margins of lakes/ponds on clay soils (elevation 35' - 7,790').	**No Habitat Present.** Vernal pools, lakes, and clay soils do not occur within the Study Area.
Juncus leiospermus var. ahartii Ahart's dwarf rush	--	CRPR 1B.2	Occurs along edges of vernal pool and other seasonally ponded features (elevation 100'-750').	**No Habitat Present.** Outside of the elevational range for the species.
Legenere limosa Legenere	--	CRPR 1B.1	Occurs in vernal pools (elevation 5'-2,885').	**No Habitat Present.** Vernal pools or other suitable features do not occur within the Study Area.
Navarretia myersii ssp. myersii Pincushion navarretia	--	CRPR 1B.1	Found in vernal pools (often acidic) (elevation 65' - 1,085').	**No Habitat Present.** Vernal pools do not occur within the Study Area.
Orcuttia tenuis Slender Orcutt grass	FT	CE, CRPR 1B.1	Occurs in vernal pools and other seasonally ponded features (elevation 115'-5,775').	**No Habitat Present.** Vernal pools or other suitable features do not occur within the Study Area.
Orcuttia viscida Sacramento Orcutt grass	FE	CE, CRPR 1B.1	Occurs in vernal pools (elevation 100'-330').	**No Habitat Present.** Vernal pools do not occur within the Study Area.
Packera layneae Layne's ragwort	FT	CR, CRPR 1B.2	Foothill chaparral and cismontane woodland with rocky, gabbroic, or serpentine soils (elevation 655'-3,560').	**No Habitat Present.** Serpentine and gabbro soils do not occur within the Study Area.
Sagittaria sanfordii Sanford's arrowhead	--	CRPR 1B.2	Occurs in emergent marsh habitat, typically associated with drainages, canals, or irrigation ditches (elevation 0' - 2,135').	**Absent.** Suitable habitat for this species occurs within Carson Creek and the intermittent drainage within the Study Area. This plant was not found during protocol surveys of the Study Area.
Wyethia reticulata El Dorado County mule ears	--	CRPR 1B.2	Foothill chaparral and cismontane woodland associated with clay or gabbro soils (elevation 605'-2065').	**No Habitat Present.** Serpentine and gabbro soils do not occur within the Study Area.

Table 3. Special-Status Species with Potential to Occur within the Town & Country Village El Dorado Study Area

Scientific Name **(Common Name)**	**Federal Status[1]**	**State Status[1]**	**Habitat Requirements**	**Potential for Occurrence**
Invertebrates				
Bombus crotchii Crotch bumble bee	--	CC	Occurs in open grasslands and scrub habitats. This species occurs primarily in California including the Mediterranean region, Pacific Coast, Western Desert, Great Valley, and adjacent foothills through most of southwestern California.	**High**. The Annual Brome Grasslands throughout the Study Area provide suitable habitat for this species.
Branchinecta lynchi Vernal pool fairy shrimp	FT	--	Occurs in vernal pools.	**Low.** Two depressional seasonal wetlands in Sewer Alternative 2 and the Project Development Area represent marginally suitable habitat for this species.
Danaus plexippus Monarch butterfly	FPT	--	Migratory species; most prevalent in the Central Valley in summer and early fall. Dependent upon milkweed (*Asclepias* species) plants as their exclusive larval host.	**Present.** Some small patches of milkweed plants are present within the Study Area, but at least one butterfly has been observed within the Study Area.
Desmocerus californicus dimorphus Valley elderberry longhorn beetle	FT	--	Dependent upon elderberry (*Sambucus* species) plant as primary host species. Occurs in the Sacramento and northern San Joaquin Valleys up to 500 feet in elevation (USFWS 2023).	**No Habitat Present.** The Study Area is outside of the elevational range of the species.
Lepidurus packardi Vernal pool tadpole shrimp	FE	--	Occurs in vernal pools.	**No Habitat Present.** None of the seasonal wetlands within the Study Area have a sufficiently long period of inundation to support this species.

Table 3. Special-Status Species with Potential to Occur within the Town & Country Village El Dorado Study Area

Scientific Name **(Common Name)**	**Federal Status[1]**	**State Status[1]**	**Habitat Requirements**	**Potential for Occurrence**
Amphibians				
Ambystoma californiense California tiger salamander	FT	CT, CSC	Breeds in ponds or other deeply ponded wetlands and uses gopher holes and ground squirrel burrows in adjacent grasslands for upland refugia/foraging.	**No Habitat Present.** The Study Area is outside of the known range of the species.
Rana boylii Foothill yellow-legged frog – South Sierra DPS	FE	CE	Prefers gravelly or sandy streams with open banks near woodlands.	**Low.** Carson Creek provides suitable habitat for this species, but is on the very edge of its distributional range.
Rana draytonii California red-legged frog	FT	CSC	Breeds in permanent to semi-permanent aquatic habitats including lakes, ponds, marshes, creeks, and other drainages.	**No Habitat Present.** Carson Creek within the Study Area does not provide the slow-moving water this species prefers.
Spea hammondii Western spadefoot	FPT	CSC	Breeds in vernal pools, seasonal wetlands and associated swales. Forages and hibernates in adjacent grasslands.	**No Habitat Present.** None of the seasonal wetlands within the Study Area have a sufficiently long period of inundation to support this species.
Reptiles				
Actinemys marmorata Northwestern pond turtle	FPT	CSC	Occurs in ponds, rivers, streams, wetlands, and irrigation ditches with associated marsh habitat.	**High.** Suitable habitat for this species is present in Carson Creek in the western portion of the Study Area.

Table 3. Special-Status Species with Potential to Occur within the Town & Country Village El Dorado Study Area

Scientific Name **(Common Name)**	**Federal Status[1]**	**State Status[1]**	**Habitat Requirements**	**Potential for Occurrence**
Phrynosoma blainvillii Coast (Blainville's) Horned Lizard	--	CSC	Open areas of sandy soil and low vegetation in grasslands, coniferous forests, woodlands, and chaparral. Often found in lowlands along sandy washes with scattered shrubs and along dirt roads, and frequently found near ant hills. Typically found below 3,000 ft in elevation.	**No Habitat Present.** Sandy soils are not present within the Study Area.
Birds				
Agelaius tricolor Tricolored blackbird	--	CE, CSC	Colonial nester in cattails (*Typha* species), bulrush (*Schoenoplectus* species), or blackberry (*Rubus* species) associated with marsh habitats.	**Low.** Dense vegetation that would provide nesting habitat does not occur within the Study Area, but the Annual Brome Grasslands could provide marginally suitable foraging habitat.
Aquila chrysaetos Golden eagle	--	CFP	Forages in open areas including grasslands, savannahs, deserts, and early successional stages of shrub and forest communities. Nests in large trees and cliffs.	**High.** Large, isolated trees within the Study Area could be used for nesting, and the Annual Brome Grassland is suitable foraging habitat.
Athene cunicularia Burrowing owl	--	CPT, CSC	Nests in abandoned ground squirrel (*Otospermophilus beecheyi*) burrows associated with open grassland habitats.	**Low.** The Study Area is on the very edge of the species elevational range, and no ground squirrel burrows were observed within the Study Area. The Annual Brome Grassland could provide marginally suitable wintering habitat.

Table 3. Special-Status Species with Potential to Occur within the Town & Country Village El Dorado Study Area

Scientific Name (Common Name)	Federal Status[1]	State Status[1]	Habitat Requirements	Potential for Occurrence
Buteo swainsoni Swainson's hawk	--	CT	Nests in large trees, preferably in riparian areas. Forages in fields, cropland, irrigated pasture, and grassland below approximately 600 ft near large riparian corridors.	**No Habitat Present.** The Study Area is outside of the elevational range of the species.
Coccyzus americanus occidentalis Western yellow-billed cuckoo	FT	CE	Inhabits extensive deciduous riparian thickets or forests with dense, low-level or understory foliage, adjacent to slow-moving waterways, backwaters, or seeps.	**No Habitat Present.** The Study Area does not support the extensive riparian woodlands this species requires.
Elanus leucurus White-tailed kite	--	CFP	Open grasslands, fields, and meadows are used for foraging. Isolated trees in close proximity to foraging habitat are used for perching and nesting.	**High.** The Study Area is outside of the nesting range of the species, but it could occur as a winter migrant or occasional summer forager within the Annual Brome Grasslands.
Haliaeetus leucocephalus Bald eagle	--	CE	Nest in large trees within 1 mile of lakes, rivers, or larger streams.	**Low.** Suitable foraging habitat does not occur within the Study Area, but the species could nest in large trees within the Study Area, and the Project Development Area is within approximately one mile of three lakes/large ponds.
Icteria virens Yellow-breasted chat	--	CSC	This species occupies early-successional riparian habitats with well-developed shrub layer and open canopy along streams, creeks, sloughs, and rivers.	**Moderate.** The Arroyo Willow Riparian Scrub along Carson Creek within the Sewer Alternatives represents suitable habitat for this species, but only 0.1 acre of this habitat occurs within the Study Area. As a result, the species is

Table 3. Special-Status Species with Potential to Occur within the Town & Country Village El Dorado Study Area

Scientific Name (Common Name)	Federal Status[1]	State Status[1]	Habitat Requirements	Potential for Occurrence
				unlikely to nest within the Study Area.
Lanius ludovicianus Loggerhead shrike	--	CSC	Occurs in open areas with sparse trees, shrubs, and other perches.	**High.** The Annual Brome Grasslands within the Study Area represent suitable habitat for the species.
Laterallus jamaicensis coturniculus California black rail	--	CT	Nests and forages in salt, brackish, and fresh marshes with abundant vegetative cover.	**No Habitat Present.** Densely vegetated marshes are not present within the Study Area.
Strix occidentalis occidentalis California spotted owl	--	CSC	Breeds and roosts in forests and woodlands with large old trees and snags, high basal areas of trees and snags, dense canopies, multiple canopy layers, and downed woody debris.	**No Habitat Present.** The Study Area is outside of the range of the species.
Xanthocephalus xanthocephalus Yellow-headed blackbird	--	CSC	Nests in marshes in mountain meadows and other marshy areas and forages in adjacent grasslands, croplands, and savannahs. In California, the species nests on the east side of the Sierra Nevada and Cascade Range, and along the far west edge of the Central Valley, and winters throughout the Central Valley and Sierra Nevada.	**High.** The Study Area is outside of the nesting range of the species, but it could occur as a winter migrant or occasional summer forager within the Annual Brome Grasslands.
Mammals				
Antrozous pallidus Pallid bat	--	CSC, WBWG H	Day and night roosts include crevices in rocky outcrops and cliffs, caves, mines, trees (e.g., basal hollows and bole cavities of very large trees, exfoliating Ponderosa pine and Valley oak bark, deciduous trees in riparian areas, and fruit trees in orchards), and	**High.** Suitable roosting habitat for this species is present in tree hollows and under exfoliating bark on trees scattered throughout the Study Area.

Table 3. Special-Status Species with Potential to Occur within the Town & Country Village El Dorado Study Area

Scientific Name (Common Name)	Federal Status[1]	State Status[1]	Habitat Requirements	Potential for Occurrence
			various human structures such as bridges, barns, porches, bat boxes, and human-occupied as well as vacant buildings.	
Corynorhinus townsendii townsendii Townsend's big-eared bat	--	CSC, WBWG H	Roosts in caves and cave analogues, such as abandoned mines, buildings, bridges, rock crevices and large basal hollows of trees. Extremely sensitive to human disturbance.	**High.** Suitable roosting habitat could be present in very large tree cavities within large, decadent trees within the Study Area.
Bassariscus astutus raptor Northern California ringtail	--	CFP	Occurs in riparian habitats, forest brush, and shrublands in association with rocky areas. Ringtail is known to nest in rock recesses, hollow trees, logs, snags, and abandoned burrows.	**High.** The Arroyo Willow Riparian Scrub and dense Oak Woodlands along Carson Creek within the Sewer Alternatives portion of the Study Area provide suitable habitat for this species.
Lasionycteris noctivagans Silver-haired bat	--	WBWG M	Roosts in abandoned woodpecker holes, under bark, and occasionally in rock crevices. It forages in open wooded areas near water features.	**High.** Suitable roosting habitat for this species is present in tree hollows and under exfoliating bark on trees in the vicinity of Carson Creek and the intermittent drainage within the Sewer Alternatives and Project Development portions of the Study Area.
Lasiurus blossevillii Western red bat	--	CSC, WBWG H	Requires large leaf trees such as cottonwoods (*Populus* species), willows (*Salix* species), and fruit/nut trees for daytime roosts. Often associated with wooded habitats that are protected from above and open below. Often found in association with riparian	**Moderate.** The Arroyo Willow Riparian Scrub along Carson Creek within the Sewer Alternatives represents suitable habitat for this species, but only 0.1 acre of this habitat occurs within the Study Area. As a result, the species is

Table 3. Special-Status Species with Potential to Occur within the Town & Country Village El Dorado Study Area

Scientific Name (Common Name)	Federal Status[1]	State Status[1]	Habitat Requirements	Potential for Occurrence
			corridors. Requires open space for foraging.	unlikely to roost within the Study Area.
Lasiurus cinereus Hoary bat	--	WBWG M	Roosts primarily in foliage of both coniferous and deciduous trees at the edges of clearings.	**High.** Trees scattered throughout the Study Area are suitable roosting habitat for this species.
Taxidea taxus American badger	--	CSC	Found in grasslands and other open areas with friable soil and an abundant supply of rodent prey.	**No Habitat Present.** The soils within the Study Area are rocky and unsuitable for badger excavation. Furthermore, very few small rodent burrows are present, indicating there is insufficient prey base to support the species.

[1]*Status Codes:*

CC - CDFW Candidate for Listing *CE - CDFW Endangered* *CFP - CDFW Fully Protected* *CPT – CDFW Proposed Threatened* *CR - California Rare*
CRPR - California Rare Plant Rank *CSC - CDFW Species of Concern* *CT - CDFW Threatened* *FE - Federally Endangered* *FT - Federally Threatened*
FC - Federal Candidate for Listing *FPT – Federally Proposed Threatened*
WBWG H - Western Bat Working Group High Threat Rank *WBWG M - Western Bat Working Group Medium Threat Rank*

5.1 Plants

Special-status plant surveys of the entire Study Area were completed on several dates in 2022, 2023, and 2024 in accordance with the U.S. Fish and Wildlife Service's *Guidelines for Conducting and Reporting Botanical Inventories for Federally Listed, Proposed and Candidate Plants* (USFWS 2000), California Department of Fish and Wildlife's *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities* (CDFW 2018a), and the CNPS *Botanical Survey Guidelines* (CNPS 2001). No special-status plants were found during this survey. The report for this survey is included as **Attachment E**.

5.1.1 Big-Scale Balsamroot

Big-scale balsamroot (*Balsamorhiza macrolepis*) is not federally or state listed, but it is classified as a CRPR List 1B.2 plant. It is a perennial herbaceous species that occurs in chaparral, cismontane woodland and valley and foothill grasslands between 150 and 5100 feet (CNPS 2024). Big-scale balsamroot blooms from March through June and may be found on serpentine soils, though it is known to grow on other soil types as well (CNPS 2024).

The Annual Brome Grassland and Oak Woodlands throughout the Study Area provide marginally suitable habitat for big-scale balsamroot. However, this species was not observed during the 2022-2024 protocol level special-status plant survey of the Study Area. There are no records of this species within five miles of the Study Area in the CNDDB (CNDDB 2024).

5.1.2 Spicate Rosinweed

Spicate rosinweed (*Calycadenia spicata*) is not federally or state listed, but it is classified as a CRPR List 1B.3 plant. It is a perennial herbaceous species that occurs in disturbed areas and openings in annual grasslands and cismontane woodland between 130 and 4,600 feet (CNPS 2024). Spicate rosinweed blooms from May through September and has been found on a variety of open habitats including adobe clay, rock outcrops, gravelly areas, and mine tailings (CNPS 2024).

The Annual Brome Grassland and Oak Woodlands throughout the Study Area provide suitable habitat for spicate rosinweed. However, this species was not observed during the 2022-2024 protocol level special-status plant survey of the Study Area. There are no records of this species within five miles of the Study Area in the CNDDB (CNDDB 2024).

5.1.3 Red Hills Soaproot

Red Hills soaproot (*Chlorogalum grandiflorum*) is not a state or federally listed species but is classified as a CRPR List 1B.2 plant. Red Hill soaproot is a bulbiferous perennial that is commonly found in chaparral, cismontane woodland, and lower montane coniferous forests. Occurs frequently on serpentine or gabbro soils, but can also occur on non-ultramafic substrates; often on "historically disturbed" sites. This species

blooms from as early as April, but typically from May through June at elevations from 805 to 5545 feet (CNPS 2024).

The Oak Woodlands throughout the Study Area provide marginally suitable habitat for Red Hills soaproot. However, this species was not observed during the 2022-2024 protocol level special-status plant survey of the Study Area. There are seven records of this species within five miles of the Study Area in the CNDDB (CNDDB 2024). The nearest of these is Occurrence #33, which is located approximately 2.5 miles to the east, northeast of the intersection of Meder Road and Cameron Park Drive in Cameron Park (CNDDB 2024).

5.1.4 Dwarf Downingia

Dwarf downingia (*Downingia pusilla*) is not federally or state listed, but it is classified as a CRPR List 2B.2 plant. It is a diminutive annual herb that is strongly associated with vernal pools and mesic valley and foothill grassland, and is found in elevations ranging from five to 1460 feet (CNPS 2024). Dwarf downingia is typically associated with areas that experience a moderate degree of disturbance, and it blooms from March to May (CNPS 2024).

The seasonal wetlands and seasonal wetland swales within the Study Area represent marginally suitable habitat for dwarf downingia. However, this species was not observed during the 2022-2024 protocol level special-status plant survey of the Study Area. There are no records of this species within five miles of the Study Area in the CNDDB (CNDDB 2024).

5.1.5 Tuolumne Button-Celery

Tuolumne button-celery (*Eryngium pinnatisectum*) is not federally or state listed, but it is classified as a CRPR List 1B.2 plant. This species occurs in mesic areas in cismontane woodlands and coniferous forests, as well as vernal pools. Tuolumne button-celery blooms from May through August and is found from approximately 230 feet to 3,000 feet (CNPS 2024).

Aquatic resources throughout the Study Area provide suitable habitat for this species. However, this species was not observed during the 2022-2024 protocol level special-status plant survey of the Study Area. There are no records of this species within five miles of the Study Area in the CNDDB (CNDDB 2024).

5.1.6 Sanford's Arrowhead

Sanford's arrowhead (*Sagittaria sanfordii*) is not federally or state listed, but it is classified as a CRPR List 1B.2 plant. It generally occurs in shallow freshwater habitats associated with drainages, canals, and larger ditches that sustain inundation and/or slow moving water into early summer. This perennial rhizomatous species blooms from May to October, and occurs from sea level to approximately 2,000 feet (CNPS 2024).

Suitable habitat is present for this species in Carson Creek and the intermittent drainage within the Study Area. However, this species was not observed during the 2022-2024 protocol level special-status plant

survey of the Study Area. There is one record of this species within five miles of the Study Area in the CNDDB (CNDDB 2024). This record is Occurrence #64, which is located approximately 2.8 miles to the southwest, within various tributaries of Carson Creek, south of White Rock Road (CNDDB 2024).

5.2 Invertebrates

5.2.1 Crotch Bumble Bee

Crotch bumble bee (*Bombus crotchii*) is not federally listed but is a candidate for listing under CESA. Crotch bumble bee has a limited distribution in southwestern North America. This species occurs primarily in California, including the Mediterranean region, Pacific Coast, West Desert, Great Valley, and adjacent foothills through most of southwestern California. It also occurs in Mexico (Baja California and Baja California Sur) (Williams et al. 2014) and has been documented in southwest Nevada, near the California border. This species was historically common in the Central Valley of California, but now appears to be absent from most of it, especially in the center of its historic range (Williams et al. 2014). In California, *B. crotchii* inhabits open grasslands and scrub habitats.

All bumble bees have three basic requirements: suitable nesting sites for the colonies, availability of nectar and pollen from floral resources throughout the duration of the entirety of the colony period (spring, summer, and fall), and suitable overwintering sites for the queens. Nests are often located underground in abandoned holes made by ground squirrels, mice, and rats or occasionally abandoned bird nests (Osborne et al 2008). Some species nest on the surface of the ground (in tufts of grass) or in empty cavities. Bumble bees that nest aboveground may require undisturbed areas with nesting resources such as grass and hay to protect nests. Furthermore, areas with woody cover, or other sheltered areas provide bumble bees sites to build their nests (e.g., downed wood, rock walls, brush piles, etc.).

Bumble bees depend on the availability habitats with a rich supply of floral resources that bloom continuously during the entirety of the colony's life. The queen collects nectar and pollen from flowers to support the production of her eggs, which are fertilized by sperm she has stored from mating the previous fall. As generalist foragers, bumble bees do not depend on any one flower type. They generally prefer flowers that are purple, blue or yellow; they are essentially blind to the color red. The plant families most commonly associated with Crotch bumblebee observations in California include Apocynaceae, Asteraceae, Boraginaceae, Fabaceae, and Lamiaceae (Xerces Society 2018). Very little is known about hibernacula, or overwintering sites utilized by most bumble bees. Generally, bumble bees overwinter in soft, disturbed soil (Goulson 2010), under leaf litter or other debris (Williams et al. 2014), in abandoned holes made by fossorial mammals or occasionally in abandoned bird nests (Osborne at all 2008). Some species nest on the surface of the ground (in grassy tussocks) or in empty cavities (hollow logs, dead trees, under rocks, etc.). Queens most likely overwinter in small cavities just below or on the ground surface.

The Annual Brome Grassland throughout the Study Area represents suitable habitat for Crotch's bumble bee. There are no documented occurrences of this species in the CNDDB within 5 miles of the Study Area (CNDDB 2024).

5.2.2 Vernal Pool Fairy Shrimp

The vernal pool fairy shrimp (*Branchinecta lynchi*) is listed as threatened pursuant to the federal Endangered Species Act. Historically, the range of vernal pool fairy shrimp extended throughout the Central Valley of California. Vernal pool fairy shrimp populations have been found in several locations throughout California, with habitat extending from Stillwater Plain in Shasta County through the Central Valley to Pixley in Tulare County, and along the Central Coast range from northern Solano County to Pinnacles National Monument in San Benito County (Eng et al. 1990, Fugate 1992). Additional populations occur in San Luis Obispo, Santa Barbara, and Riverside counties. The historic and current ranges of vernal pool fairy shrimp are very similar in extent; however, the remaining populations are more fragmented and isolated than during historical times (USFWS 2005). The life cycle of vernal pool fairy shrimp is adapted to seasonally inundated features such as vernal pools, seasonal wetlands, and seasonal wetland swales. Fairy shrimp embryos survive the dry season in cyst form. Cysts "hatch" soon after pools become inundated during the wet season. Fairy shrimp complete their life cycle quickly and feed on small particles of detritus, algae, and bacteria (Eriksen and Belk 1999).

The depressional seasonal wetlands within the Sewer Alternative 2 and within the southern portion of the Project Development Area represent marginally suitable habitat for this species. There is one documented CNDDB occurrence of vernal pool fairy shrimp within five miles of the Study Area (CNDDB 2024). This occurrence (#168) is roughly 3 miles to the west near Mormon Island Dam (CNDDB 2024).

5.2.3 Monarch Butterfly

The monarch butterfly (*Danaus plexippus*) is proposed for federal listing as threatened . It is a large conspicuous species that occurs in North, Central, and South America; Australia; New Zealand; islands of the Pacific and Caribbean, and elsewhere (Malcolm and Zalucki 1993 in USFWS 2020). During the breeding season, monarchs lay their eggs on their obligate milkweed host plant (*Asclepias* spp.), and larvae emerge after two to five days (Zalucki 1982 in USFWS 2020). Larvae develop over a period of eight to 18 days, feeding on the milkweed and then pupate into chrysalis before eclosing six to 14 days later as an adult butterfly (USFWS 2020). Multiple generations of monarchs are produced during the breeding season, with most adult butterflies living approximately two to five weeks (USFWS 2020).

In California, monarchs continue to occupy and breed in areas near their overwintering groves along the California coast into northern Baja California throughout the year, and also disperse over multiple generations to occupy and breed throughout the state in the spring through fall (USFWS 2020). Migrating monarchs in western North America tend to occur more frequently near water sources such as rivers, creeks, roadside ditches, and irrigated gardens (Morris et al. 2015 in USFWS 2020). Adult monarch butterflies require a diversity of blooming nectar resources during breeding and migration (spring through fall). Monarchs also need milkweed (for both oviposition and larval feeding) embedded within this diverse nectaring habitat.

Milkweed plants throughout the Study Area represent suitable habitat for Monarch butterfly, and at least one Monarch butterfly has been observed within the Study Area. There are no documented occurrences of this species in the CNDDB within 5 miles of the Study Area (CNDDB 2024).

5.3 Amphibians

5.3.1 Foothill Yellow-Legged Frog – South Sierra DPS

Foothill yellow-legged frog (*Rana boylii*) (FYLF) South Sierra Distinct Population Segment (DPS) is listed as endangered under both the federal Endangered Species Act and the California Endangered Species Act. FYLF is a small to medium sized frog with unusual rough and granular skin with many tiny tubercules (Stebbins 2003). Their historic range extends through foothill and mountain streams from the San Gabriel River in Los Angeles County to southern Oregon west of the Sierra-Cascade crest at elevations below 5,000 feet (Nussbaum 1983, Stebbins 2003).

This species occurs in different habitats depending on life stage, season, and weather conditions. Breeding habitat includes margins of relatively wide and shallow channel sections, habitats that experience reduced flow variation (Kupferberg 1996). Foothill yellow-legged frog tadpoles also breed in water temperatures above 13 degrees Celsius in slower-moving pool habitats. The foothill yellow-legged frog occurs in a wide variety of vegetation types including valley-foothill hardwood, valley-foothill hardwood-conifer, valley-foothill riparian, ponderosa pine, mixed conifer, mixed chaparral and wet meadows. The frog is closely associated with streams and is rarely observed far from the water's edge. Breeding stream habitat is typically shallow, rocky and at least partially exposed to direct sunlight.

Carson Creek within the Study Area provides suitable habitat for this species, but the Study Area is located at the very edge of the specie's range, and as such, the likelihood of foothill yellow-legged frog occurring within the Study Area is low. There are two CNDDB occurrences of this species within 5 miles of the Study Area. The nearest of these (Occurrence #2) is located approximately 3.4 miles northwest of the Study Area near the intersection of Salmon Falls Road and Green Valley Road, and is considered extirpated. The nearest extant occurrence (#276) is located 4.2 miles to the north along Sweetwater Creek at about 700 feet in elevation, and was most recently documented at this location in October 2023 (CNDDB 2024).

5.4 Reptiles

5.4.1 Northwestern Pond Turtle

The northwestern pond turtle (*Actinemys marmorata*) is proposed for federal listing as threatened and is a CDFW species of special concern. Its favored habitats include streams, large rivers and canals with slow-moving water, aquatic vegetation, and open basking sites (Jennings and Hayes 1994). Although the turtles must live near water, they can tolerate drought by burrowing into the muddy beds of dried drainages. This species feeds mainly on invertebrates such as insects and worms, but will also consume small fish, frogs, mammals and some plants. Northwestern pond turtle predators include raccoons, coyotes, raptors,

weasels, large fish, and bullfrogs. This species breeds from mid to late spring in adjacent open grasslands or sandy banks (Jennings and Hayes 1994).

Carson Creek within the Study Area provides suitable habitat for northwestern pond turtle. There are seven documented CNDDB occurrences of northwestern pond turtle within 5 miles of the Study Area, the nearest of which (Occurrence #1646) is located 0.6 miles west of the Study Area in a drainage between ponds west of Silva Valley Parkway (CNDDB 2024).

5.5 Birds

5.5.1 Tricolored Blackbird

Tricolored blackbird (*Agelaius tricolor*) populations, which are currently in decline throughout the state, were listed as threatened under the CESA by the California Fish and Game Commission on 19 April 2018. Historically, colonies were established in freshwater marshes dominated by cattails (*Typha* spp.) and bulrushes (*Scirpus* or *Schoenoplectus* spp.). More recently, they have utilized non-native mustards (*Brassica* spp.), blackberries (*Rubus* spp.), thistles (*Circium* spp.), and mallows (*Malva* spp.) as nesting substrate (Airola et al. 2016). Since the 1980s, the largest colonies have been observed in the San Joaquin Valley in cultivated fields of triticale, which is a hybrid of wheat and rye often grown as livestock fodder (Meese 2014 in CDFW 2018b). This current trend of nesting in active agricultural fields has further imperiled the species as nestlings typically are not fledged by the time the triticale is harvested.

Annual Brome Grassland within the Study Area provides marginally suitable foraging habitat. There are 10 documented CNDDB occurrences of tricolored blackbird within five miles of the Study Area, the nearest of which (CNDDB Occurrence #93) is located approximately 0.6 miles east of the Study Area at Crazy Horse Campground (CNDDB 2024). This site is considered extirpated, but the nearest apparently extant record is #452, approximately three miles to the west, just south of Iron Point Road (CNDDB 2024).

5.5.2 Golden Eagle

Golden eagle (*Aquila chrysaetos*) is not listed pursuant to either the California or federal Endangered Species Acts; however, it is categorized as a species of special concern and a fully protected species by the CDFW, and is protected under the federal Bald and Golden Eagle Protection Act. This species is a very large solitary raptor that feeds on mammals, carrion, and reptiles. It typically nests in large trees or cliffsides in rolling to mountainous terrain, and forages in large, expansive open grasslands and savannas (Shuford and Gardali 2008). Although its natural densities are generally believed to be low, it was once relatively common to the open areas of California. Today, golden eagles are rarely observed in the Central Valley. This species typically nests between February and August.

Large, isolated trees within the Study Area provide potential nesting habitat and the Annual Brome Grassland provides suitable foraging habitat. There are two CNDDB occurrences of golden eagle nests

within 5 miles of the Study Area, the nearest of which (CNDDB Occurrence #321) is located approximately 2.1 miles west of the Study Area along Via Fiori Road in El Dorado Hills (CNDDB 2024).

5.5.3 Burrowing Owl

Burrowing owl (*Athene cunicularia*) is not listed pursuant to the federal Endangered Species Act; however, it is proposed for listing as threatened under the California Endangered Species Act and is designated as a species of special concern by the CDFW. They typically inhabit dry open rolling hills, grasslands, desert floors, and open bare ground with gullies and arroyos. This species typically uses burrows created by fossorial mammals, most notably the California ground squirrel, but may also use man-made structures such as culverts; cement, asphalt, or wood debris piles; or openings beneath cement or asphalt pavement (CDFG 1995). The breeding season extends from February 1 through August 31 (CBOC 1993, CDFG 1995).

Although no ground squirrel burrows were observed, the Annual Brome Grassland could provide marginally suitable wintering habitat under scattered debris, or in culverts. There are three CNDDB records of burrowing owls within five miles of the Study Area, the nearest of which (Occurrence #1166) is located approximately 2.3 miles southwest of the Study Area just west of the Sacramento/El Dorado County line (CNDDB 2024).

5.5.4 White-Tailed Kite

White-tailed kite (*Elanus leucurus*) is not federally or state listed, but is a CDFW fully protected species. This species is a yearlong resident in the Central Valley and is primarily found in or near foraging areas such as open grasslands, meadows, farmlands, savannahs, and emergent wetlands (Shuford and Gardali 2008). White-tailed kites typically nest from March through June in trees within riparian, oak woodland, and savannah habitats of the Central Valley and Coast Range (Shuford and Gardali 2008).

The Study Area is outside of the nesting range of the species, but the Annual Brome Grassland throughout the Study Area represents suitable foraging habitat for white-tailed kite, and this species could occur as a winter migrant or occasional summer forager. There are two records of white-tailed kite in the CNDDB, the nearest of which is Occurrence #149, which is located approximately 2.9 miles west of the Study Area just west of Sophia Parkway in El Dorado Hills (CNDDB 2024).

5.5.5 Bald Eagle

Bald eagle (*Haliaeetus leucocephalus*) is no longer federally listed, but it is listed as endangered by CDFW, and is fully protected under state law and the federal Bald and Golden Eagle Protection Act. This species requires large bodies of water or free-flowing rivers with abundant fish and adjacent snags or other perches. It nests in large, live trees with open branchwork, most frequently in stands with less than 40% canopy and near a permanent water source (Zeiner et al. 1998 as updated).

Large, scattered trees throughout the Study Area provide marginally suitable nesting habitat for bald eagle. There are records of bald eagles in the CNDDB within five miles of the Study Area, and this species is regularly documented foraging at Bass Lake and Cameron Park Lake (eBird 2024), both of which are within one mile of the Study Area. The nearest nesting record (CNDDB Occurrence #358) is located approximately 4.2 miles northwest of the Study Area along the edge of Folsom Lake (CNDDB 2024).

5.5.6 Yellow-Breasted Chat

The yellow-breasted chat (*Icteria virens*) is not federally or state listed but is designated as a Species of Special Concern by the CDFW. This species is an uncommon summer (breeding) resident in coastal California and in foothills of the Sierra Nevada. Yellow-breasted chats spend the breeding season in dense scrubs along a stream or river and frequent dense, brushy thickets and tangles near water, and thick understory in riparian woodland. In the valley foothill riparian, this species may occur up to about 4,800 feet elevation and up to 6,500 feet east of the Sierra Nevada (Garrett and Dunn 1981). Loss and degradation of riparian habitat have caused a marked decline in the breeding population in recent decades in California (Remsen 1978).

The arroyo willow riparian scrub along Carson Creek within the Study Area provides suitable habitat for this species, although the likelihood of the species occurring is low due to the small acreage of habitat within the Study Area. Yellow-breasted chat has not been documented within five miles of the Study Area in the CNDDB (CNDDB 2024).

5.5.7 Loggerhead Shrike

The loggerhead shrike (*Lanius ludovicianus*) is not listed and protected pursuant to either the California or federal Endangered Species Acts; but is a CDFW species of special concern. Loggerhead shrikes nest in small trees and shrubs in woodland and savannah vegetation communities, and forage in open habitats throughout California (Shuford and Gardali 2008). The nesting season ranges from March through June.

The Annual Brome Grassland within the Study Area provides suitable habitat for loggerhead shrike. Loggerhead shrike has not been documented within five miles of the Study Area in the CNDDB (CNDDB 2024).

5.5.8 Yellow-Headed Blackbird

The yellow-headed blackbird (*Xanthocephalus xanthocephalus*) is a California species of special concern. It nests in the deeper portions of bulrush (*Schoenoplectus* spp.), or cattail (*Typha* spp.) marshes than other blackbirds forages in adjacent grasslands, croplands, and savannahs. Yellow-headed blackbirds breed throughout the floor of the Central Valley and on the east side of the Sierra Nevada and Cascade Ranges from April to June (Shuford and Gardali 2008). Though some populations are known to over-winter in California, many migrate to Mexico and Costa Rica. Yellow-headed blackbirds, which feed on seeds and

insects, are often observed in open areas such as grasslands and agricultural fields during migration (Shuford and Gardali 2008).

The Study Area is outside of the nesting range of the species, but the Annual Brome Grassland throughout the Study Area represents suitable foraging habitat for yellow-headed blackbird, and this species could occur as a winter migrant or occasional summer forager. Yellow-headed blackbird has not been documented within five miles of the Study Area in the CNDDB (CNDDB 2024).

5.6 Mammals

5.6.1 Pallid Bat

The Pallid bat (*Antrozous pallidus*) is not federally or state listed, but is considered a CDFW species of special concern, and is classified by the WBWG as a high-priority species along the western coast in California. It favors roosting sites in crevices in rock outcrops and cliffs, caves, abandoned mines, hollows of trees, and human-made structures such as barns, attics, and sheds (WBWG 2024). Though pallid bats are gregarious, they tend to group in smaller colonies of 2 to 20 individuals and are known to roost alone as well. This species is a nocturnal hunter and captures prey in flight, but unlike most American bats, the species has been observed foraging for flightless insects, which it seizes after landing. They forage over open shrub-steppe grasslands, oak savannah grasslands, open Ponderosa pine forests, talus slopes, gravel roads, fruit orchards, and vineyards. (WBWG 2024).

Tree hollows and exfoliating bark on the trees within the Study Area represent suitable roosting habitat for pallid bat. This species has not been documented in the CNDDB within five miles of the Study Area (CNDDB 2024).

5.6.2 Townsend's Big-Eared Bat

The Townsend's big-eared bat (*Corynorhinus townsendii*) is not federally or state listed, but is considered a CDFW species of special concern, and is classified by the WBWG as a high-priority species along the western coast in California. Townsend's big-eared bat is a fairly large bat with prominent bilateral nose lumps and large rabbit-like ears. This species occurs throughout the west and ranges from the southern portion of British Columbia south along the Pacific coast to central Mexico and east into the Great Plains. This species has been reported from a wide variety of habitat types and elevations from sea level to 10,827 feet (WBWG 2024). Habitats used include coniferous forests, mixed mesophytic forests, deserts, native prairies, riparian communities, active agricultural areas, and coastal habitat types. Its distribution is strongly associated with the availability of caves and cave-like roosting habitat including abandoned mines, buildings, bridges, rock crevices, and hollow trees. This species is readily detectable when roosting due to their habit of roosting pendant-like on open surfaces. Townsend's big-eared bat is a moth specialist with over 90 percent of its diet composed of Lepidopterans. Foraging habitat includes edge habitats along streams as well as adjacent to and within a variety of wooded habitats. This species often travels long distances when foraging and large home ranges have been documented in California (WBWG 2024).

Large tree cavities in large decadent trees within the Study Area provide suitable roosting habitat for the Townsend's big-eared bat. The open areas within the Study Area provide suitable foraging habitat for this species. This species has not been documented in the CNDDB within five miles of the Study Area (CNDDB 2024).

5.6.3 Northern California Ringtail

The ringtail (*Bassariscus astutus)* is not federally or state listed but is considered a CDFW fully protected species. This nocturnal species occurs in various riparian habitats, forest brush, and shrublands in association with rocky areas. Ringtail is known to is known to nest in rock recesses, hollow trees, logs, snags, and abandoned burrows, and is usually within approximately 0.6 miles from permanent water (Zeiner et al 1988).

The arroyo willow riparian scrub and the relatively dense oak woodland south of Carson Creek within the Study Area provides suitable habitat for ringtail. This species has not been documented in the CNDDB within five miles of the Study Area (CNDDB 2024).

5.6.4 Silver-Haired Bat

Silver-haired bat (*Lasionycteris noctivagans*) is not federally or state listed but is classified by the WBWG as a Medium priority species. The silver-haired bat occurs in more xeric environments during winter and seasonal migrations (WBWG 2024). This species changes roosts frequently, and use multiple roosts within a limited area, indicating that clusters of large trees are necessary (WBWG 2024). Silver-haired bat roosts in hollow trees, abandoned woodpecker holes, under sloughing bark, in rock crevices, and occasionally under wood piles. They tend to forage above the canopy, over open meadows, and in the riparian zone along water courses. This species is known to eat a wide variety of species; however, moths appear to be a major portion of dietary prey (WBWG 2024).

Tree hollows and exfoliating bark on the trees within the Study Area represent suitable roosting habitat for this species. This species has not been documented in the CNDDB within five miles of the Study Area (CNDDB 2024).

5.6.5 Western Red Bat

The Western red bat (*Lasiurus blossevillii*) is not federally or state listed, but is considered a CDFW species of special concern, and is classified by the WBWG as a high-priority species. This species is typically solitary, roosting primarily in the foliage of trees or shrubs (WBWG 2024). Day roosts are commonly in edge habitats adjacent to streams or open fields, in orchards, and sometimes in urban areas. There may be an association with intact riparian habitat (particularly willows, cottonwoods, and sycamores). Roost sites are generally hidden from all directions except below; allowing the bat to drop downward for flight (WBWG 2024).

The arroyo willow riparian scrub along Carson Creek within the Study Area provides suitable roosting habitat for this species, although the likelihood of the species occurring is low due to the small acreage of habitat

within the Study Area. This species has not been documented in the CNDDB within five miles of the Study Area (CNDDB 2024).

5.6.6 Hoary Bat

The hoary bat (*Lasiurus cinereus*) is not federally or state listed but is classified by the WBWG as a medium priority species. It is also considered to be one of the most widespread of all American bats with a range extending from Canada to central Chile and Argentina as well as Hawaii. Hoary bats are solitary and roost primarily in foliage of both coniferous and deciduous trees, and usually at the edge of a clearing (WBWG 2024). This species is primarily crepuscular or nocturnal and requires open areas to hunt its preferred prey item, moths. The hoary bat is considered a forest/woodland species, and in California they are often associated with undisturbed riparian or stream corridors (WBWG 2024).

Trees scattered throughout the Study Area represent suitable roosting habitat for hoary bat. This species has not been documented in the CNDDB within five miles of the Study Area (CNDDB 2024).

5.7 Oak Resources

The tree inventory within the Study Area was conducted in accordance with the ORMP, which requires an inventory of all native oak trees greater than 24" DBH within Oak Woodlands, and all native oak trees greater than 6" DBH outside of the Oak Woodlands. Additionally, the ORMP specifies different mitigation requirements for trees greater than 36" DBH (Heritage Trees), so those are broken out in this section as well.

Oak resources inventoried within the Study Area include 6.2 acres of Oak Woodlands, a total of 17 individual native oak trees greater than 6" DBH outside of the Oak Woodlands (of which 5 are greater than 36" DBH, and 55 native oaks greater than 24" DBH within the Oak Woodlands (of which 28 are greater than 36" DBH) (**Attachment G** and **Table 4**).

Table 4. Oak Trees Inventoried within the Study Area

			Number of Trees (DBH)			
			Blue Oak	**Interior Live Oak**	**Valley Oak**	**Total**
Within Oak Woodlands	**Fair to Good**	24-35" DBH	4 (114.6)	16 (468.1)	1 (24.8)	21 (607.5)
		≥36" DBH	0	24 (1,148.9)	2 (78.3)	26 (1,227.2)
	Poor Condition	24-35" DBH	0	6 (170.7)	0	6 (170.7)
		≥36" DBH	0	2 (81.7)	0	2 (81.7)
Subtotal						55 (2,079.1)
Outside of Oak Woodlands	**Fair to Good**	6-35" DBH	3 (71.0)	0	6 (165.6)	9 (236.6)
		≥36" DBH	2 (83.8)	0	2 (79.7)	4 (163.5)
	Poor Condition	6-35" DBH	0	2 (50.0)	1 (15.7)	3 (65.7)
		≥36" DBH	0	0	1 (37.1)	1 (37.1)
Subtotal						17 (502.9)
Total			9 (269.4)	50 (1,911.4)	13 (401.2)	72 (2,582.0)

6.0 IMPACTS TO SENSITIVE BIOLOGICAL RESOURCES

This section details potential impacts to the biological resources discussed above within the Project Area associated with construction of the Project, as discussed in **Section 1.1** and shown on **Figure 2** and in **Attachment A**, including those associated with each of the two sewer alternatives (outlined in **Section 1.2** and shown on **Figure 2**). Waterline Alternative 1 is entirely contained within existing paved areas, would not result in impacts to sensitive biological resources and therefore is not discussed in this section. As noted in **Section 1.3**, Waterline Alternative 2 is not being evaluated in this document. Impacts within the Program Study Area are not known as this area is being evaluated at a programmatic level; therefore, this area is not discussed in this section. However, the vegetation communities and aquatic resources within the Program Study Area are summarized in **Table 1** and **Table 2**, sensitive species with potential to occur within these communities are detailed in **Section 5.0**, and mitigation measures for these resources are provided in **Section 7.0**, below.

Impacts analyzed within this section include both permanent and temporary impacts. Permanent impacts range from mass grading and lot construction to permanent shading of stream areas under bridges. Adjacent to drainages, where bridges are proposed, permanent impacts may include bridge footings and abutments, pan deck, and approach grading. Temporary impacts are impacts that will occur for less than one year's time before the area is restored, and will involve activities including but not limited to: slope grading, utility trenching, environmentally sensitive area fencing, and heavy equipment access into an area for infrastructure installation. Note that where temporary impacts overlap oak resources, those impacts are considered permanent to the oak resources, as the resource cannot be replaced within one year. Some four foot wide dirt pedestrian trails are proposed in the northern portion of the Project Development Area that are not shown on our impact maps; these trails will be designed in-situ to avoid individual oak trees, and given that no concrete will be used, they are expected to cause little to no impact and are not addressed further in this section.

6.1 Aquatic Resources

6.1.1 Project Development Impacts

Within the Project Development Area and Program Study Area, of the 0.977 acre of mapped aquatic resources, 0.560 acre will be permanently impacted by the Project, 0.038 acre will be temporarily impacted by the Project, and 0.380 acre will be avoided (**Table 5** and **Attachment F**).

6.1.2 Sewer Alternative Impacts

6.1.2.1 Sewer Alternative 1

If Sewer Alternative 1 were selected, 0.027 acre of aquatic resources would be permanently impacted, and 0.036 acre would be temporarily impacted.

6.1.2.2 Sewer Alternative 2

If Sewer Alternative 2 were selected, 0.027 acre of aquatic resources would be permanently impacted, and 0.035 acre would be temporarily impacted.

6.1.3 Overall Project Impacts

The Project combined with the sewer line would result in a total of 0.585-0.589 acre of permanent impacts and 0.072-0.073 acre of temporary impacts (**Table 5** and **Attachment F**). The range above represents the full range of cumulative aquatic resources impacts, with the lower end assuming the least impactful sewer alternative, and the upper end assuming the most impactful sewer alternative.

6.2 Special-Status Plant Species

The vegetation communities proposed for impact represent suitable habitat for a variety of special-status plant species. Protocol-level special-status plant surveys have been conducted throughout the Study Area with negative results. Given that special-status plants are not present within the Study Area, the Project is not expected to have any impact on special-status plants.

6.3 Crotch Bumble Bee

The Annual Grassland within the Project Area is suitable habitat for Crotch bumble bee. This species could be adversely affected if construction activity results in the removal of nests of the species.

6.4 Vernal Pool Fairy Shrimp

6.4.1 Project Development Area Impacts

One depressional seasonal wetland comprising 0.006 acre is suitable habitat for vernal pool fairy shrimp and will be permanently impacted by within the Project Development Area.

6.4.2 Sewer Alternative Impacts

6.4.2.1 Sewer Alternative 1

No vernal pool fairy shrimp habitat is present within Sewer Alternative 1; therefore, implementation of this alternative would not impact vernal pool fairy shrimp.

6.4.2.2 Sewer Alternative 2

One depressional seasonal wetland comprising 0.007 acre is suitable habitat for vernal pool fairy shrimp within Sewer Alternative 2. Implementation of this alternative would permanently impact this feature.

Table 5. Impacts to Aquatic Resources Associated with the Project

Aquatic Resources	Permanent Impacts								Temporary Impacts								Total Impacts							
	PDA[1]		Sewer Alt 1		Sewer Alt 2		Total		PDA[1]		Sewer Alt 1		Sewer Alt 2		Total		PDA[1]		Sewer Alt 1		Sewer Alt 2		Total	
	(acres)	(linear feet)	(acres)	(linear feet)	(acres)	(linear feet)	(acres)	(linear feet)	(acres)	(linear feet)	(acres)	(linear feet)	(acres)	(linear feet)	(acres)	(linear feet)	(acres)	(linear feet)	(acres)	(linear feet)	(acres)	(linear feet)	(acres)	(linear feet)
Seasonal Wetland	0.025		--		0.007		0.025-0.031		--		--		--		--		0.025		--		0.007		0.025-0.031	
Seasonal Wetland Swale	0.017[2]		--		--		0.017		--		--		--		--		0.017		--		--		0.017	
Seep	0.370		--		--		0.370		--		0.005		0.005		0.005		0.370		0.005		0.005		0.375	
Drainage Ditch	0.001	21	--	--	--	--	0.001	21	0.002	35	--	--	--	--	0.002	35	0.003	56	--	--	--	--	0.003	56
Ephemeral Drainage	0.003	159	0.012	176	0.007	108	0.010-0.015	267-335	--	--	0.010	153	0.010	152	0.010	152-153	0.003	159	0.022	329	0.017	260	0.020 – 0.023	419-488
Intermittent Drainage	0.019	109	--	--	--	--	0.019	109	0.015	81	--	--	--	--	0.015	81	0.034	208	--	--	--	--	0.034	208
Perennial Creek	--	--	0.013	22	0.013	22	0.013	22	--	--	0.020	33	0.020	33	0.020	33	--	--	0.033	55	0.033	55	0.033	55
Roadside Ditch	0.125	1,837	0.002	46	--	--	0.125-0.127	1,837-1,883	0.020	269	0.001	31	<0.001	16	0.020-0.021	285-300	0.145	2,106	0.003	77	<0.001	16	0.145 – 0.0148	2,122-2,199
Total	**0.560**	**2,124**	**0.027**	**244**	**0.027**	**130**	**0.585-0.589**	**2,254-2,368**	**0.038**	**244**	**0.036**	**217**	**0.035**	**201**	**0.072-0.073**	**586-602**	**0.597**	**2,529**	**0.063**	**400**	**0.062**	**331**	**0.652 – 0.664**	**2,840-2,986**

[1] Project Development Area

[2] 0.001 acre of seasonal wetland swale that is in the Program Study Area was considered permanently impacted by the Project.

Note: Small summation errors may occur due to rounding. The lower end of the impact ranges assumes the least impactful sewer alternative the upper end of the impact ranges assumes the most impactful sewer alternative.

6.4.3 Overall Project Impacts

The Project, including impacts within the Project Development Area and the sewer line would permanently impact 0.006-0.013 acre vernal pool fairy shrimp habitat. The range above represents the full range of cumulative impacts, with the lower end assuming the least impactful sewer alternative, and the upper end assuming the most impactful sewer alternative.

6.5 Monarch Butterfly

Milkweed plants within the Project Area are suitable habitat for Monarch butterfly. Eggs or caterpillars could be destroyed if construction activity results in the removal of milkweed plants that they are occupying.

6.6 Foothill Yellow-Legged Frog

Suitable habitat for foothill yellow-legged frog occurs in Carson Creek in the western portion of the sewer alternatives, and the immediately adjacent uplands. While no fill is proposed in the creek itself, individual frogs could be killed if they were present in the construction area adjacent to the creek.

6.7 Northwestern Pond Turtle

Suitable aquatic habitat for northwestern pond turtle occurs in Carson Creek in the western portion of the sewer alternatives, and the adjacent Oak Woodlands and Arroyo Willow Riparian Scrub within 150 feet provide potential movement habitat. While no fill is proposed in the creek itself, permanent and temporary impacts are proposed in the Oak Woodlands and Arroyo Willow Riparian Scrub adjacent to the creek. If western pond turtles or their nests were present in those areas during construction, individual turtles could be injured or killed, or nests could be destroyed.

Approximately 0.13 acre of northwestern pond turtle movement habitat within 150 feet of Carson Creek will be permanently impacted by the Project along the sewer alignment, and 0.15 acre will be temporarily impacted (**Attachment I**).

6.8 Nesting Raptors and Songbirds

Golden eagle, bald eagle, yellow-breasted chat, and loggerhead shrike have the potential to nest within the Project Area, as do other more common bird species protected by the MBTA. If they were nesting on-site, removal of the nests could kill individuals of these species. Furthermore, birds nesting in avoided areas adjacent to construction could be disturbed by construction, which could result in nest abandonment.

6.9 Burrowing Owl

The Annual Brome Grassland throughout the Project Area provides suitable wintering habitat for burrowing owl, and occasional ground-squirrel burrows and debris throughout the Project Area provide marginally

suitable burrow habitat. If ground disturbance occurred while burrowing owls were in burrows, individuals of this species could be killed.

6.10 Foraging Birds

Tricolored blackbird,white-tailed kite, and yellow-headed blackbird have the potential to utilize the Annual Brome Grasslands within Project Area for winter foraging. As there is a relatively large amount of this vegetation type in the vicinity, these species are not anticipated to be significantly impacted.

6.11 Roosting Bats

Trees throughout the Project Area are habitat for various special-status bat species. If special-status bats were roosting in trees to be removed by Project construction, they could be injured or killed during the removal.

6.12 Northern California Ringtail

Removal of trees, downed logs, or snags within the Arroyo Willow Riparian Scrub or dense Oak Woodland south of Carson Creek along the sewer alignment could destroy northern California ringtail nests, and kill individual ringtails if they were present.

6.13 Oak Resources

In accordance with the El Dorado County Oak Resources Conservation Ordinance, impacts to oak resources are calculated differently for Oak Woodland areas and non-Oak Woodland areas. Within mapped Oak Woodlands, impacts are calculated based on impact to oak canopy, plus impacts to any individual native oak trees within the woodland that are 36" or greater DBH. Outside of mapped Oak Woodlands, impacts are calculated based on impacts to each native oak tree that is 6" or greater DBH. Mitigation is only required for trees that are in Fair or better condition, and as a result, impacts have been broken out below based on condition. Note that trees were considered permanently impacted if the trunk fell within either the permanent or temporary impact boundary, or if greater than approximately 30% of the tree's dripline area would be permanently impacted. Impacted and avoided Oak Woodlands and oak trees are shown on **Attachment J**.

6.13.1 Project Development Area Impacts

A total of 0.3 acre of Oak Woodland will be permanently impacted within the Project Development Area, and 0.2 acre of Oak Woodland will be temporarily impacted within the Project Development Area. Within this area, a total of seven native oak trees with a DBH of 36" or greater will be impacted (six of which are in fair to good condition) (**Table 6**).

In addition, one individual native oak tree with a DBH of 6" or greater outside of Oak Woodlands will be permanently impacted within the Project Development Area, but this tree is in poor condition (**Table 6**).

In summary, a total of 0.5 acres of Oak Woodland and six individual trees in fair to good condition (with a cumulative DBH of 264.3 inches) would be subject to mitigation as a result of impacts within the Project Development Area (**Table 6**).

Table 6. Oak Tree Impacts within the Project Development Area

			Number of Impacted Trees (DBH)			
			Blue Oak	**Interior Live Oak**	**Valley Oak**	**Total**
Trees ≥36" DBH Within Oak Woodlands	**Fair to Good**		0	6 (264.3)	0	6 (264.3)
	Poor Condition		0	1 (38.4)	0	1 (38.4)
Subtotal						7 (302.7)
Trees Outside of Oak Woodlands	**Fair to Good**	6-35" DBH	0	0	0	0
		≥36" DBH	0	0	0	0
	Poor Condition	6-35" DBH	0	1 (23.4)	0	1 (23.4)
		≥36" DBH	0	0	0	0
Subtotal						1 (23.4)
Total Trees in Fair to Good Condition			0	6 (264.3)	0	6 (264.3)
TOTAL			0	8 (326.1)	0	8 (326.1)

6.13.2 Sewer Alternative Impacts

6.13.2.1 Sewer Alternative 1

A total of 1.2 acres of Oak Woodland would be permanently impacted by Sewer Alternative 1, and 1.0 acre of Oak Woodland would be temporarily impacted by Sewer Alternative 1. Within this area, two native oak trees with a DBH of 36" or greater will be impacted (both of which are in fair to good condition) (**Table 7**).

In addition, a total of four individual native oak trees with a DBH of 6" or greater outside of Oak Woodlands would be permanently impacted by Sewer Alternative 1 (three of which are in fair to good condition) (**Table 7**). Of those three trees in fair to good condition that may be impacted, one has a DBH of 36" or greater. In summary, a total of 2.2 acres of Oak Woodland and five individual trees in fair to good condition (with a cumulative DBH of 200 inches) would be subject to mitigation as a result of impacts within Sewer Alternative 1 (**Table 7**).

Table 7. Oak Tree Impacts within Sewer Alternative 1

			Number of Impacted Trees (DBH)			
			Blue Oak	Interior Live Oak	Valley Oak	Total
Trees ≥36" DBH Within Oak Woodlands	**Fair to Good**		0	2 (115.9)	0	2 (115.9)
	Poor Condition		0	0	0	0
Subtotal						2 (115.9)
Trees Outside of Oak Woodlands	**Fair to Good**	6-35" DBH	2 (41.0)	0	0	2 (41.0)
		≥36" DBH	0	0	1 (43.1)	1 (43.1)
	Poor Condition	6-35" DBH	0	1 (26.6)	0	1 (26.6)
		≥36" DBH	0	0	0	0
Subtotal						4 (110.7)
Total Trees in Fair to Good Condition			2 (41.0)	2 (115.9)	1 (43.1)	5 (200.0)
TOTAL			2 (41.0)	3 (142.5)	1 (43.1)	6 (226.6)

6.13.2.1 Sewer Alternative 2

A total of 1.2 acres of Oak Woodland would be permanently impacted by Sewer Alternative 2, and 1.0 acre of Oak Woodland would be temporarily impacted by Sewer Alternative 2. Within this area, two native oak trees with a DBH of 36" or greater will be impacted (both of which are in fair to good condition) (**Table 8**).

In addition, a total of three individual native oak trees with a DBH of 6" or greater outside of Oak Woodlands would be permanently impacted by Sewer Alternative 2 (two of which are in fair to good condition) (**Table 8**). Of those two trees in fair to good condition that may be impacted, one has a DBH of 36" or greater.

In summary, a total of 2.2 acres of Oak Woodland and four individual trees in fair to good condition (with a cumulative DBH of 189.4 inches) would be subject to mitigation as a result of impacts within Sewer Alternative 2 (**Table 8**).

Table 8. Oak Tree Impacts within Sewer Alternative 2

			Number of Impacted Trees (DBH)			
			Blue Oak	Interior Live Oak	Valley Oak	Total
Trees ≥36" DBH Within Oak Woodlands	**Fair to Good**		0	2 (115.9)	0	2 (115.9)
	Poor Condition		0	0	0	0
Subtotal						2 (115.9)
Trees Outside of Oak Woodlands	**Fair to Good**	6-35" DBH	0	0	1 (35.0)	1 (35.0)
		≥36" DBH	1 (38.5)	0	0	1 (38.5)
	Poor Condition	6-35" DBH	0	1 (26.6)	0	1 (26.6)
		≥36" DBH	0	0	0	0
Subtotal						3 (100.1)

Table 8. Oak Tree Impacts within Sewer Alternative 2

	Number of Impacted Trees (DBH)			
	Blue Oak	Interior Live Oak	Valley Oak	Total
Total Trees in Fair to Good Condition	1 (38.5)	2 (115.9)	1 (35.0)	4 (189.4)
TOTAL	1 (38.5)	3 (142.5)	1 (35.0)	5 (216.0)

6.13.3 Overall Project Impacts

The Project combined with the sewer line would permanently impact 1.5 acres of Oak Woodland, and temporarily impact 1.2 acres of Oak Woodland. Within the Oak Woodlands, the Project combined with the sewer line would impact nine native oak trees with a DBH of 36" or greater (eight of which are in fair to good condition).

In addition, a total of 3 - 4 individual native oak trees with a DBH of 6" or greater outside of Oak Woodlands would be permanently impacted by the Project combined with the sewer line (2 - 3 of which are in fair to good condition). Of the 2 - 3 trees in fair to good condition that may be impacted, 2 have a DBH of 36" or greater (one along each sewer alternative).

Of these impacts, a cumulative total of 2.7 acres of Oak Woodland and 11-12 individual trees in fair to good condition (with a cumulative DBH of 453.7 - 464.3) would be subject to mitigation. The ranges above represent the full range of cumulative impacts, with the lower end assuming the least impactful sewer alternative, and the upper end assuming the most impactful sewer alternative. Where impacts are the same for both sewer alternative, no range is presented.

6.14 Sensitive Natural Communities

One vegetation community mapped within the Project Area is considered to be a "Sensitive Natural Community" by CDFW: Arroyo Willow Riparian Scrub. Arroyo Willow Riparian Scrub does not occur within the Project Development Area, but occurs within the portion of the proposed sewer line alignment that is shared by both alternatives. Whichever sewer alternative is selected, approximately 0.03 acre of Arroyo Willow Riparian Scrub will be permanently impacted by the Project, and 0.05 acre will be temporarily impacted (**Attachment I**).

6.15 Wildlife Corridors

The majority of the Project Area is comprised of Annual Brome Grasslands and paved roadways virtually identical to surrounding areas, and largely conducive to wildlife movement, but not necessarily corridors. The Oak Woodlands around the intermittent drainage could serve as a low-quality wildlife corridor, and the Arroyo Willow Riparian Scrub and surrounding Oak Woodland along Carson Creek is also expected to serve as a wildlife corridor. Lastly, deer may utilize the Bass Lake Road undercrossing under Highway 50 to the south of the Project Area as a migration corridor to access open areas south of Highway 50.

The potential wildlife corridor along the intermittent drainage is low-quality due to the fact that the current western terminus of the drainage is a relatively small culvert that carries the flow under Bass Lake Road. This structure does not allow for large wildlife passage, and a tall (20 foot plus) road prism and the very busy Bass Lake Road are the only way for large wildlife to continue west. As a result, wildlife use of this corridor is likely minimal. However, the Project has been designed to preserve this wildlife corridor to the extent possible.

The much higher quality wildlife corridor along Carson Creek would be largely unaffected by the Project. This wildlife corridor is located within the portion of the proposed sewer line alignment that is shared by both alternatives. The Creek itself will be crossed with a bridge, and the only permanent impact in this location apart from the bridge will be a sewer maintenance road that may be used as a recreational trail by area residents. Trails are easily crossed by wildlife and maintenance vehicles will only very occasionally use the access road. As a result, this impact is not expected to significantly impact existing wildlife corridors.

Deer use of the Bass Lake Road undercrossing to access open areas south of Highway 50 could be somewhat impacted by development within the PDA, as the grasslands within the PDA will be removed. However, extensive grasslands will still be available to the west of the PDA, and some grasslands will still be present to the east, and as a result, substantial impacts to deer movement are not anticipated. Furthermore, the Project will not impact the undercrossing itself. Therefore, the Project is not expected to significantly impact deer use of the Bass Lake Road undercrossing.

In summary, no significant impacts to wildlife corridors are expected as a result of Project implementation.

7.0 MITIGATION FOR IMPACTS TO SENSITIVE BIOLOGICAL RESOURCES

The following are mitigation measures that are often required by CEQA lead agencies for impacts to sensitive biological resources that may be associated with construction of the Project.

7.1 Aquatic Resources

1. The Project proponent shall apply for a Section 404 permit from the U.S. Army Corps of Engineers for impacts to regulated Waters (Waters) of the U.S. Waters that will be impacted shall be replaced or rehabilitated on a "no-net-loss" basis. Habitat restoration, rehabilitation, and/or replacement shall be at a location and by methods acceptable to the USACE.
2. The Project proponent shall apply for WDRs and/or a Water Quality Certification from the RWQCB (depending on the limit of federal jurisdiction to wetlands and waters of the U.S. in place at the time) and adhere to the certification conditions. Waters of the state that will be impacted shall be replaced or rehabilitated on a "no-net-loss" basis. Habitat restoration, rehabilitation, and/or replacement shall be at a location and by methods acceptable to the RWQCB.
3. The Project proponent shall apply for a Section 1600 Lake or Streambed Alteration Agreement from CDFW. Minimization and avoidance measures will be proposed as appropriate and may include: preconstruction species surveys and reporting, protective fencing around avoided biological

resources, worker environmental awareness training, seeding disturbed areas adjacent to open space areas with native seed, and installation of project-specific storm water BMPs. Mitigation may include restoration or enhancement of resources on- or off-site, purchase habitat credits from an agency-approved mitigation/ conservation bank, off-site, working with a local land trust to preserve land, or any other method acceptable to CDFW.

7.2 Special-Status Plant Species

Special-status plant surveys have been conducted throughout the Study Area with negative results. However, given enough time, plants may become established in areas where suitable habitat exists. If construction does not commence prior to 21 March 2026, another round of special-status plant surveys shall be conducted in areas proposed for impact prior to commencement of construction according to the following requirements:

Before implementation of project construction activities and during the blooming period for the special-status plant species with potential to occur on the Project Site, a qualified botanist shall conduct protocol-level surveys for special-status plants in the off-site improvement areas and shall resurvey the main project site following survey methods from CDFW's *Protocols for Surveying and Evaluating Impacts on Special-Status Native Plant Populations and Natural Communities* (CDFW 2018 or most recent version). The qualified botanist shall (1) be knowledgeable about plant taxonomy; (2) be familiar with plants of the El Dorado County foothills region, including special-status plants and sensitive natural communities; (3) have experience conducting floristic botanical field surveys as described in CDFW's protocol document; (4) be familiar with the California *Manual of Vegetation* (Sawyer et al. 2009 or current version, including updated natural communities data at http://vegetation.cnps.org/); and (5) be familiar with federal and state statutes and regulations related to plants and plant collecting (Qualified Botanist).

Surveys shall be conducted area in accordance with the *Guidelines for Conducting and Reporting Botanical Inventories for Federally Listed, Proposed, and Candidate Plants* (USFWS 2000), the *Botanical Survey Guidelines of the California Native Plant Society* (CNPS 2001), and *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities* (CDFW 2018). This protocol includes conducting surveys at the appropriate time of year, when plants are in bloom.

If no special-status plant species are found, no further mitigation would be required. If special-status plants are found during special-status plant surveys and cannot be avoided, the applicant and a Qualified Botanist shall, in coordination/consultation with the County, CDFW or USFWS, as appropriate depending on species status, develop and implement a site-specific mitigation strategy to compensate for loss of occupied habitat or individuals according to CDFW and USFWS guidelines.

Mitigation measures shall include, at a minimum, preserving and enhancing existing populations, establishing populations through seed collection or transplantation from the site that is to be affected, and/or restoring or creating habitat in sufficient quantities to offset loss of occupied habitat or individuals. Potential mitigation sites could include suitable locations within or outside the project site. Habitat and

individual plants lost shall be mitigated at a minimum 1:1 ratio, considering acreage as well as function and value. The following success criteria shall be used for preserved and compensatory populations:

- The extent of occupied area and plant density (number of plants per unit area) in compensatory populations shall be equal to or greater than that in the affected occupied habitat.
- Compensatory and preserved populations shall be self-producing. Populations would be considered self-producing when:
  - plants reestablish annually for a minimum of 5 years with no human intervention, such as supplemental seeding; and
  - reestablished and preserved habitats contain an occupied area and flower density comparable to those in the existing occupied habitat areas in similar habitat types in the project vicinity.
- If off-site mitigation includes dedication of conservation easements, purchase of mitigation credits, or other off-site conservation measures, the details of these measures shall be included in the mitigation plan, including designating responsible parties for long-term management, conservation easement holders, long-term management requirements, success criteria, including at a minimum, those listed above and other details, as determined appropriate by a qualified biologist to target the preservation of long-term viable populations.
- Documentation of the completion of the mitigation strategy and coordination/consultation process with CDFW or USFWS shall be provided the County before commencement of any project construction activities.

If plants listed under FESA or CESA are located within the Project impact area and those plants cannot be avoided, the Project proponent shall coordinate with USFWS or CDFW (as appropriate) for issuance of an Incidental Take Permit (ITP) and shall implement similar mitigation measures as outlined above and ultimately approved by the appropriate agency.

7.3 Crotch Bumble Bee

Crotch bumble bee was designated as a candidate for listing under the CESA in 2019, but no decision on listing has been published. If, at the time of Project implementation, the species is not a CESA candidate or CESA listed, and it does not fall into any of the other special-status categories defined in **Section 3.0**, then it would not qualify for protections under CEQA and no mitigation is necessary. Furthermore, because Crotch bumble bee is a candidate species, appropriate mitigation measures are still being developed and refined. Madrone has developed the following measure based on current literature and research. If at a later date a different mitigation measure is determined to be more appropriate, that can be submitted to the County at that time for review and approval.

- Initial ground-disturbing work (e.g., grading, vegetation removal, staging) shall take place between 1 September and 31 March (i.e., outside the colony active period), if feasible, to avoid impacts on Crotch bumble bee.
- Regardless of the feasibility of the above limited operating period, a qualified biologist familiar with bumble bees of California and experienced using survey methods for bumble bees (Qualified Biologist) shall conduct a habitat assessment and focused survey for Crotch's bumble bee before the start of any ground-disturbing activities. Surveys shall be performed when Crotch's bumble bee

is most likely to be identified, typically from April through August (i.e., the colony active period) when floral resources and ideal weather conditions are present, and shall follow the methods in *Survey Considerations for California Endangered Species Act (CESA) Candidate Bumble Bee Species* (CDFW 2023). Surveys shall be conducted during the colony active period closest to the start of planned construction activities. Survey results shall be submitted to the applicant and El Dorado County no less than 7 days before construction begins.

- The survey shall occur during the period from one hour after sunrise to two hours before sunset, with temperatures between 65° F and 90° F, with low wind and no rain. If the timing of the start of construction makes the survey infeasible due to the temperature requirements, the surveying biologist shall select the most appropriate days based on the National Weather Service seven-day forecast and shall survey at a time of day that is closest to the temperature range stated above. The survey duration shall be commensurate with the extent of suitable floral resources (which represent foraging habitat) present within the area proposed for impact and the level of effort shall be based on the metric of a minimum of one person-hour of searching per three acres of suitable floral resources/foraging habitat. A meandering pedestrian survey shall be conducted throughout the area proposed for impact in order to identify patches of suitable floral resources. Suitable floral resources for Crotch bumble bee include species in the following families: Apocynaceae, Asteraceae, Boraginaceae, Fabaceae, and Lamiaceae.
- At a minimum, pre-construction survey methods shall include the following:
  - Search areas with floral resources for foraging bumble bees. Observed foraging activity may indicate a nest is nearby, and therefore, the survey duration shall be increased when foraging bumble bees are present.
  - If bumble bees are observed, attempt to photograph the individual and identify it to species.
  - If Crotch bumble bee is observed, watch any Crotch bumble bees present and observe their flight patterns. Attempt to track their movements between foraging areas and the nest.
  - Visually look for nest entrances. Observe burrows, any other underground cavities, logs, or other possible nesting habitat.
  - If floral resources or other vegetation preclude observance of the nest, small areas of vegetation may be removed via hand removal, line trimming, or mowing to a height of no less than 4 inches to assist with locating the nest.
  - Look for concentrated Crotch bumble bee activity.
  - Listen for the humming of a nest colony.
- The biologist conducting the survey shall record when the survey was conducted, a general description of any suitable foraging habitat/floral resources present, a description of observed bumble bee activity, a list of bumble bee species observed, a description of any vegetation removed to facilitate the survey, and their determination of if survey observations suggest a Crotch bumble bee nest(s) may be present or if construction activities could result in take of Crotch bumble bees. The report shall be submitted to the County prior to the commencement of construction activities.
- The applicant shall submit a survey report to CDFW within 1 month of survey completion and shall notify CDFW and the County within 24 hours if Crotch's bumble bees are detected.

- If no bumble bees are located during the pre-construction survey or the bumble bees located are definitively identified as common (i.e., not special-status) species, then no further mitigation or coordination with CDFW is required.
- If Crotch's bumble bees are detected during the focused survey, appropriate avoidance measures shall be implemented. Avoidance measures shall include, but not be limited to, the following:
  - Protective buffers shall be implemented around active nesting colonies or overwintering queens until these sites are no longer active. A qualified biologist, in coordination with CDFW, shall determine the appropriate buffer size to protect nesting colonies or overwintering queens; however, the buffer shall be a minimum of 50 feet.
- If any sign(s) of a bumble bee nest is observed, and if it cannot be established the species present is not a Crotch bumble bee, then construction shall not commence until either 1) the bumble bees present are positively identification as common (i.e., not special status) by an experienced bumble bee taxonomist, or 2) the completion of coordination with CDFW to identify appropriate mitigation measures, which may include but not be limited to: waiting until the colony active season ends, establishment of nest buffers, or obtaining an Incidental Take Permit (ITP) from CDFW.
- It is recommended, but not required that the Project Applicant also survey the proposed impact areas the year before construction begins in order to avoid potential last-minute delays associated with identifying Crotch bumble bees on-site immediately prior to construction activities. To be most effective, this optional survey should follow the protocol outlined above.
- If Crotch bumble bees are located, and after coordination with CDFW take of Crotch bumble bees cannot be avoided, the Applicant shall obtain an ITP from CDFW prior to County approval of permits authorizing construction, and the Project proponent shall implement all conditions identified in the ITP. Mitigation required by the ITP may include but will not be limited to, the Project Applicant translocating nesting substrate in accordance with the latest scientific research to another suitable location (i.e., a location that supports similar or better floral resources as the impact area), enhancing floral resources in portions of the Project Area that will remain appropriate habitat, worker awareness training, and/or other measures specified by CDFW.

7.4 Vernal Pool Fairy Shrimp

Two depressional seasonal wetlands within the Project Area represent potential habitat for vernal pool fairy shrimp. The applicant may choose to conduct surveys for this species; these surveys shall be conducted in accordance with the *Survey Guidelines for the Listed Large Branchiopods* (USFWS 2017). If vernal pool fairy shrimp are not found during protocol-level wet and dry season surveys, no further mitigation will be required. If protocol-level surveys of these features are not conducted, or if vernal pool fairy shrimp are found during protocol-level wet- or dry season surveys of the features, then the Project proponent or the USACE (depending on the regulatory mechanism) shall consult with the USFWS regarding impacts to vernal pool fairy shrimp associated with the Project.

If suitable habitat for vernal pool fairy shrimp or vernal pool tadpole shrimp is identified within proposed construction areas for infrastructure improvements, the project applicant will redesign or modify proposed project components to avoid this habitat to the maximum extent feasible. If avoidance of direct and indirect

impacts on this habitat is not feasible, the project applicant will either retain a USFWS-permitted biologist to conduct protocol-level branchiopod surveys to determine presence/absence of vernal pool fairy shrimp and vernal pool tadpole shrimp or the project applicant will assume presence of these species. If the presence of vernal pool fairy shrimp or vernal pool tadpole shrimp is confirmed or inferred for the proposed project, the project applicant will compensate for direct and indirect effects on occupied or presumed occupied habitat for federally listed branchiopods by purchasing the appropriate mitigation credits from a USFWS-approved conservation area/mitigation bank. Minimum mitigation ratios will be 2:1 preservation and 1:1 creation for direct effects and 1:1 preservation for indirect effects (within 250 feet of ground disturbance) or as determined by USFWS during ESA Section 7 consultation. If presence of vernal pool fairy shrimp or vernal pool tadpole shrimp is either inferred or confirmed, ESA consultation with USFWS will be required to address impacts on the species before any ground-disturbing activities can occur. Documentation of the completion of ESA consultation will be provided to the County prior to the issuance of the grading permit.

7.5 Monarch Butterfly

Monarch butterfly has been proposed for listing as a threatened species under the ESA, but the final listing determination has not been published. If, at the time of project implementation, it is not a ESA candidate or ESA listed, and it does not fall into any of the other "special-status" categories defined in **Section 3.0**, then it would not qualify for protections under CEQA and no mitigation is necessary. Furthermore, as this is species has only recently been proposed for listing as threatened, appropriate mitigation measures are still being developed and refined for this species. We have developed the following measure based on current literature and research. If at a later date, a different mitigation measure is determined to be more appropriate, that can be submitted to the County and USFWS at that time for review and approval.

If ground disturbance occurs within annual brome grassland during the time when milkweed plants may host monarch eggs or caterpillars (approximately mid-March through late September), a pre-construction survey shall be conducted by a qualified biologist who is knowledgeable and experienced in the biology, life stages, natural history, and identification of local fish and wildlife resources at the Project Site (Qualified Biologist) no earlier than 15 days prior to construction within the proposed impact area and a 50-foot buffer in accessible areas. The biologist shall comprehensively search the Survey Area for milkweed plants, and all milkweed plants found shall be surveyed for monarch eggs, larvae (i.e., caterpillars), and chrysalises. Additionally, other plants immediately adjacent to milkweed plants shall also be searched for chrysalises. If no eggs, caterpillars, or chrysalises are detected, no additional mitigation measures are necessary. Survey results shall be provided to the County within 15 days of completion of all surveys, and prior to commencement of ground disturbance.

If eggs, caterpillars or chrysalises are found, the plants shall be avoided with a 50-foot buffer until metamorphosis is completed and adult butterflies emerge and voluntarily leave the host plant. If the eggs, larvae, or chrysalises cannot be avoided, all eggs, larvae, and chrysalises, including the portion of the plant to which they are attached, will be translocated to an alternative location. That location must be a minimum of 50 feet outside of the impact area and contain a similarly sized or larger population of larval host plants.

The portions of the plants supporting eggs or chrysalises shall be tied to the live stem of the avoided larval host plant while caterpillars will be placed directly on a stem or leaf of a larval host plant. Should the species be listed under FESA in the future, coordination with USFWS shall be conducted prior to translocation.

7.6 Foothill Yellow-Legged Frog

Carson Creek represents suitable habitat for foothill yellow-legged frog (FYLF). We recommend the following measures to mitigate potential impacts to this species prior to initiation of ground disturbance activities within 100 feet of Carson Creek, associated with the off-site sewer pipe.

- As part of the CWA Section 404 USACE permitting for the Project, the USACE will conduct formal Endangered Species Act consultation with the USFWS on potential impacts to federally-listed species or species that are proposed for listing; this may include FYLF[2]. If the USACE consults with USFWS on FYLF, the Applicant shall prepare a Biological Assessment, which will include details on potential impacts and mitigation for foothill yellow-legged frog, to be submitted to the USACE and the USFWS.
- If take of FYLF is determined to be likely, the Applicant shall submit an application for an CDFW Code Section 2081 Incidental Take Permit.
- To determine the presence or absence of FYLF within Carson Creek, protocol FYLF surveys shall be conducted by a qualified biologist. To increase the likelihood of detection, surveys shall include at least one visual encounter survey (VES) during the breeding and/or oviposition period (generally April–June), a tadpole survey four to eight weeks after the breeding survey(s), and a subadult survey in late summer/early fall (generally late August–early October). The survey shall be conducted in accordance with the Peek et al (2017) Visual encounter survey protocol for Rana boylii in lotic environments and California Department of Fish and Wildlife's Considerations for Conserving the Foothill Yellow-Legged Frog.
- Regardless of whether FYLF are detected during the bioassessment surveys, the project proponent shall develop a Pre-Construction Survey Plan for FYLF and submit it to the USFWS and CDFW for review at least 30 calendar days prior to commencing ground-disturbing or in-water work activities within 500-foot buffer zone upstream and downstream of the construction area (if permitted by adjacent land owners). The Plan shall include what life-stage(s) shall be surveyed for, survey method(s), and timing of survey(s). The Plan shall provide justification for timing and methodology of survey design (e.g., watershed characteristics, regional snow pack, timing and rate of spring runoff, day length, average ambient air and water temperatures, local and seasonal conditions). For sites with suitable breeding habitat, egg mass/larval surveys will be conducted to support a negative finding.
- Within 3-5 days prior to entering or working within 100- feet of Carson Creek, a qualified biologist who is knowledgeable and experienced in the biology, life stages, natural history, and identification of local fish and wildlife resources at the Project Site (Qualified Biologist) shall perform a pre-construction survey, as specified in the Pre-Construction Survey Plan, within 500-foot buffer zone

[2] The USACE may choose not to consult with USFWS on FYLF as no direct impacts to USACE jurisdictional FYLF habitat are proposed; impacts would only be indirect.

upstream and downstream of the construction area (if permitted by adjacent land owners). The survey shall include a description of any standing or flowing water. The Proponent will provide Pre-Construction Survey results, notes, and observations to CDFW prior to commencing ground disturbing and in-water activities.

- If the Proponent encounters any life stages of FYLF during pre-construction surveys, ground-disturbing or in-water activities, work should be suspended at the Project Site, and CDFW will be notified within 24 hours. Work may not re-initiate in the Project Site until the Proponent demonstrates compliance with CESA.
- If it is determined that take of FYLF is likely to occur, the Applicant shall abide by mitigation measures developed during the course of the Endangered Species Act consultation with the USFWS and CDFW. These mitigation measures could include, but are not limited to seasonal work restrictions for initial ground disturbance, pre-construction surveys by a qualified biologist, the installation of wildlife exclusion fencing, biological monitoring, and worker environmental awareness training. A Qualified Biologist is defined as a person who is knowledgeable and experienced in the biology, life stages, natural history, and identification of local fish and wildlife resources at the Project Site. If it is determined that take of FYLF is likely to occur, additional measures could include preservation, restoration, or enhancement of habitat on- or off-site, purchase of habitat credits from an agency-approved mitigation/conservation bank, working with a local land trust to preserve land, or any other method acceptable to USFWS and CDFW. The mitigation measures listed below may be implemented if take of FYLF is likely to occur. The mitigation measures listed below may differ from mitigation measures included in a USFWS Biological Opinion or a CDFW Incidental Take Permit. If that occurs, the measures in the USFWS Biological Opinion and CDFW Incidental Take Permit take precedence.
    - The Project proponent shall develop a Pre-Construction Survey Plan for FYLF and submit it to the USFWS and CDFW for approval prior to ground-disturbing activities within 100 feet of Carson Creek. The Plan shall include what life-stage(s) shall be surveyed for, survey method(s), and timing of survey(s). The Plan shall provide justification for timing and methodology of survey design (e.g., watershed characteristics, regional snow pack, timing and rate of spring runoff, day length, average ambient air and water temperatures, local and seasonal conditions). For sites with suitable breeding habitat, two consecutive seasons of negative egg mass/larval surveys are recommended to support a negative finding.
    - Within 3-5 days prior to entering or working within 100 feet of Carson Creek, a USFWS and CDFW-approved biologist shall perform a pre-construction survey, as specified in the Pre-Construction Survey Plan, within a 500-foot buffer zone upstream and downstream of the construction area (if permitted by adjacent land owners). The survey shall include a description of any standing or flowing water. Permittee shall provide Pre-Construction Survey notes and observations to the USFWS and CDFW prior to commencing Covered Activities.
    - The Project proponent shall develop a Relocation Plan for FYLF and submit it to the USFWS and CDFW for approval prior to ground-disturbing activities within 100 feet of Carson Creek. The Relocation Plan shall include what life stage(s) will be relocated (e.g., adults or egg masses) and specific protocols for each life stage. The Relocation Plan shall quantify the amount, location, and quality of suitable receiving habitat (e.g., breeding and dispersal habitat). The Relocation

Plan shall include capture and handling methods specific to each life stage. No relocation will occur without first obtaining the proper permits from USFWS and CDFW, and all relocation will be conducted by a Qualified Biologist.

- The Project proponent shall ensure that Covered Activities involving construction and heavy equipment use (such as excavation, grading, and contouring) that are conducted in streams, ponds, and riparian areas are limited to the period from May 1 to October 15 of each year (Dry Season). Any work outside of the Dry Season shall be subject to approval of the USFWS and CDFW.
- Prior to the start of construction within 100 feet of Carson Creek, high visibility orange fencing shall be installed around approved work areas. The fencing shall remain in place while construction activities are ongoing and shall be regularly inspected and fully maintained at all times.
- The Project proponent shall develop a Water Diversion Plan for FYLF and submit it to CDFW for approval prior to any in-stream activities. The Water Diversion Plan shall contain detailed descriptions of the water intake screening (e.g., screen material, size, cleaning method, etc.), the duration of the water diversion, how the Project proponent will ensure that aquatic life will be maintained or relocated from the dewatered area, diversion materials (unacceptable materials that are deleterious to fish and wildlife include particle board, plastic sheeting, bentonite, pressure-treated lumber, creosote, concrete, or asphalt), and monitoring methods for the diversion.

- If it is determined that take of FYLF is unlikely to occur, the Applicant shall conduct a pre-construction Visual Encounter Survey (VES) survey for the species within 15 days prior to initiation of ground disturbance within 100 feet of Carson Creek. The survey shall be conducted in accordance with the Peek et al (2017) *Visual encounter survey protocol for Rana boylii in lotic environments* and California Department of Fish and Wildlife's *Considerations for Conserving the Foothill Yellow-Legged Frog*, but only implement the life-stage survey(s) that are appropriate for the time of year of the survey (which will be based on when construction commences). If survey results are negative, then no further mitigation will be required. If FYLF are found during the survey, then take should be considered likely to occur, and consultation with USFWS and CDFW as outlined above shall occur.

7.7 Northwestern Pond Turtle

Prior to ground-disturbing activities near Carson Creek a qualified biologist who is knowledgeable and experienced in the biology, life stages, natural history, and identification of local fish and wildlife resources at the Project Site (Qualified Biologist) will survey the Project Site where suitable habitat (including nest sites) occurs for northwestern pond turtle. Surveys will be performed within 30 days prior to starting Project activities and conducted within a minimum of 500 feet upstream and downstream of the Project activity where accessible. If detected during surveys, a site-specific avoidance, minimization, and/or relocation plan will be prepared and implemented by a Qualified Biologist with proper handling permits. The plan will include daily construction monitoring. The plan shall be submitted to CDFW.

Another northwestern pond turtle survey shall be conducted no more than 48 hours prior to construction where construction activities overlap with suitable aquatic habitat (Carson Creek), and where construction will occur in arroyo willow riparian scrub or oak woodlands within 150 feet of these aquatic resources. If no northwestern pond turtles or nests are found, no further mitigation is necessary. If a northwestern pond turtle is observed within the proposed impact area, work shall be suspended in a 100-foot radius of the animal until the animal leaves the Project Site on its own volition. If necessary, a qualified biologist shall notify CDFW to determine the appropriate procedures related to relocation, which shall include, but not be limited to, obtaining a valid and applicable CDFW Scientific Collecting Permit. Any worker who inadvertently injures or kills a northwestern pond turtle or who finds a northwestern pond turtle dead, injured, or entrapped must immediately report the incident to the applicant, who must then immediately notify CDFW. Entrapped northwestern pond turtles shall be relocated by a Qualified Biologist with a valid and applicable CDFW Scientific Collecting Permit if approved by CDFW.If a northwestern pond turtle nest is observed within the proposed impact area, the nest shall be fenced off and avoided until the eggs hatch. The exclusion fencing shall be placed no less than 25 feet from the nest. A qualified biologist shall monitor the nest daily during construction to ensure that hatchlings do not disperse into the construction area. Relocation of hatchlings will occur as stipulated above, if necessary.

If as part of the CWA Section 404 USACE permitting for the Project, the USACE determines that formal Endangered Species Act (ESA) consultation with the USFWS is needed, the Project proponent shall abide by the mitigation measures developed during the course of the Endangered Species Act consultation, which shall supersede these measures. These mitigation measures could include but are not limited to, seasonal work restrictions for initial ground disturbance, dewatering protocols, pre-construction surveys by a qualified biologist, the installation of wildlife exclusion fencing, turtle relocation, nest avoidance, biological monitoring, and worker environmental awareness training. Additional measures could include preservation, restoration, or enhancement of habitat on- or off-site, purchase of habitat credits from an agency-approved mitigation/conservation bank, working with a local land trust to preserve land, or any other method acceptable to USFWS.

7.8 Burrowing Owl

Burrowing owl pre-construction surveys of suitable habitat shall be conducted by a qualified biologist within 14 days prior to the beginning of any ground-disturbing construction activities on and within 500 feet of the project site and off-site improvements using survey methods consistent with the *CDFW Staff Report on Burrowing Owl Mitigation* (CDFW 2012). Inaccessible areas (e.g., adjacent private property) shall not be surveyed directly, but the qualified biologist may use binoculars or a spotting scope to survey the inaccessible areas.

If occupied burrows are not found, the qualified biologist shall submit a report documenting the survey methods and results to the project proponent and to the County, and further mitigation shall not be required.

If an active burrow is found within 500 feet of pending construction activities, the project proponent shall establish and maintain a minimum buffer of 164 feet around the occupied burrow throughout construction. The actual buffer size shall be determined by the qualified biologist based on the time of year and level of disturbance in accordance with guidance provided in the *CDFW Staff Report on Burrowing Owl Mitigation*, and may be as large as 1,640 feet (CDFW 2012). The protection buffer may be adjusted if, in coordination with CDFW, a qualified biologist determines that an alternative buffer would not disturb a burrowing owl from use of the burrow because of particular site features or other buffering measures. If occupied burrows are present that cannot be avoided or adequately protected with a no-disturbance buffer, and the burrowing owl does not depart independently within a few days, the burrow(s) shall be buffered and avoided for the duration of occupancy, through the end of nesting (as determined by a Qualified Biologist) or an Incidental Take Permit (ITP) shall be obtained in order to exclude owls from the burrow(s). Burrowing owls shall not be excluded from occupied burrows until the ITP is approved by CDFW.

If burrowing owls are evicted from burrows and the burrows are destroyed by project activities, the project proponent shall mitigate the loss of occupied habitat in accordance with the ITP, which is anticipated to state that permanent impacts on nesting, occupied and satellite burrow, and burrowing owl habitat (i.e., grassland habitat with suitable burrows) shall be mitigated such that habitat acreage and the number of burrows are replaced through permanent conservation of comparable or better habitat with similar vegetation communities and burrowing mammals (e.g., ground squirrels) present to provide nesting, foraging, wintering, and dispersal. The ITP is expected to require that the applicant retain a qualified biologist to develop a burrowing owl mitigation and management plan that incorporates the following goals and standards:

- Mitigation lands shall be selected based on comparison of the habitat lost to the compensatory habitat, including type and structure of habitat; disturbance levels; potential for conflicts with humans, pets, and other wildlife; density of burrowing owls; and relative importance of the habitat to the species throughout its range.
- If feasible, mitigation lands shall be provided adjacent or proximate to the project site so that displaced owls can relocate with reduced risk of injury or mortality. The feasibility of providing mitigation adjacent or proximate to the project site depends on availability of sufficient habitat to support displaced owls that may be preserved in perpetuity.
- If habitat suitable for burrowing owl is not available for conservation adjacent or proximate to the project site, mitigation lands can be secured off-site and shall aim to consolidate and enlarge conservation areas outside planned development areas and within foraging distance of other conservation lands. Mitigation may also be accomplished through purchase of mitigation credits at a CDFW-approved mitigation bank, if available. Alternative mitigation sites and acreages may also be determined in coordination with CDFW.

If ITP-required burrowing owl habitat mitigation is completed through permittee-responsible conservation lands, the mitigation plan shall include mitigation objectives, site selection factors, site management roles and responsibilities, vegetation management goals, financial assurances and funding mechanisms, performance standards and success criteria, monitoring and reporting protocols, and adaptive management measures. Success shall be based on the number of adult burrowing owls and pairs using the site and

whether the numbers are maintained over time. Measures of success, as suggested in the *CDFW Staff Report on Burrowing Owl Mitigation*, shall include site tenacity, the number of adult owls present and reproducing, colonization by burrowing owls from elsewhere, changes in distribution, and trends in stressors.

7.9 Nesting Raptors and Other Birds

Project construction will require the removal of vegetation that provides nesting habitat for migratory bird species, including special-status species such as tricolored blackbird, golden eagle, burrowing owl, bald eagle, yellow-breasted chat, and loggerhead shrike. If birds are nesting in the Project Area at the time of construction, activity could disturb nesting birds, resulting in the loss of eggs or young or nest abandonment. In order to prevent potential disturbance and/or direct effects to active nests, the Project proponent shall implement the following:

- If ground disturbance or other construction activities are proposed during the bird nesting season (February 1 – August 31), a focused survey for nesting raptors and migratory bird nests shall be conducted by a qualified biologist within 14 days prior to the beginning of construction activities in order to identify active nests. This survey shall be conducted within the proposed construction area and all accessible areas within the following buffer areas:
  - 0.5-mile for bald eagle and golden eagle
  - 0.25-mile for tree-nesting raptors
  - 500 feet for all other species
- If active raptor nests are found, no construction activities shall take place within 0.25-mile for golden eagles or within 500 feet of other raptor nest(s) until the young have fledged. If active songbird nests are found, a 100-foot no disturbance buffer will be established. Daily monitoring of the nest by a qualified biologist during project activities shall be required if the activity has potential to adversely affect the nest as determined by the qualified biologist or if birds within active nests are showing behavioral signs of agitation (e.g., standing up from a brooding position, flying off the nest) during project activities, as determined by the qualified biologist. Documentation of compliance with the foregoing requirements and of any required coordination with CDFW shall be provided to El Dorado County Planning and Building Department prior to commencement of any project construction activities.
- The limit of work shall be indicated by bright orange temporary fencing or other similar highly-visible marker. No construction activities or personnel shall cross the fencing, except with approval of a qualified biologist. If trees containing nests or burrows must be removed as a result of Project implementation, removal shall be completed during the nonbreeding season (late September to March) if possible, or after a qualified biologist determines that the young have fledged (during the breeding season).
- If any special-status species are encountered during project activities and the individual may be harmed, or they do not leave the Project site independently within 2 hours, work will be suspended, CDFW notified, and conservation measures will be developed in agreement with CDFW according to CDFW protocols prior to re-initiating the activity. Conversely, if during project activities, any species listed pursuant to the CESA are encountered, work shall be suspended, and CDFW notified.

Work may not re-initiate until the Project proponent has consulted with CDFW and can demonstrate compliance with CESA.

- If no active nests are found during the required pre-construction surveys, no further mitigation will be required.
- Survey results shall be provided to the County within 15 days of completion of all surveys. Surveys shall be repeated if there is a break of construction of more than 14 days during the nesting season.

7.10 Roosting Bats

A qualified biologist who is familiar with bats and bat ecology (Qualified Biologist) shall conduct a bat habitat assessment of all potential roosting trees within the proposed impact footprint. This habitat assessment shall identify all potentially suitable roosting habitat and may be conducted up to one (1) year prior to the start of construction.

If potential roosting habitat is identified within the areas proposed for impact, the Qualified Biologist shall survey the potential roosting habitat within 14 days prior to tree removal to determine presence of roosting bats in suitable habitat (e.g., large trees, crevices, cavities, exfoliating bark, foliage, buildings) on and adjacent to the Project Site. These surveys are recommended to be conducted utilizing methods that are considered acceptable by CDFW and bat experts. Methods may include evening emergence surveys, acoustic surveys, inspecting potential roosting habitat with fiberoptic cameras or a combination thereof. Survey results shall be provided to the County within 15 days of completion of all surveys.

If pre-construction surveys indicate that roosts of special-status bats are not present, or that roosts are inactive or potential habitat is unoccupied, further mitigation is not required.

If evidence of bat maternity roosts or hibernacula is observed, the species and number of bats using the roost shall be determined by a qualified biologist using noninvasive methods. Bat detectors (i.e., acoustic monitoring) or evening emergence surveys shall be used if deemed necessary to supplement survey efforts by the Qualified Biologist.

A no-disturbance buffer of 250 feet shall be established around active pallid bat, Townsend's big-eared bat, or western red bat maternity roosts or hibernacula, as well as substantial maternity roosts or hibernacula of other bat species considered to be a wildlife nursery by the qualified biologist, and project activities shall not occur within this buffer until after the roosts are unoccupied as determined by a qualified biologist.

If roosts of pallid bat, Townsend's big-eared bat, or western red bat are determined to be present and must be removed, the bats shall be excluded from the roosting site before the tree is removed. A program addressing compensation, exclusion methods, and roost removal procedures shall be developed in coordination with CDFW before implementation. Exclusion methods may include use of one-way doors at roost entrances (bats may leave but not reenter) or sealing roost entrances when the site can be confirmed to contain no bats. Exclusion efforts may be restricted during periods of sensitive activity (e.g., during hibernation or while females in maternity colonies are nursing young). The loss of each roost (if any)

resulting from the project shall be replaced in coordination with CDFW and may require construction and installation of bat boxes suitable to the bat species and colony size excluded from the original roosting site. If determined necessary during coordination with CDFW, replacement roosts shall be implemented before bats are excluded from the original roost sites.

Prior to exclusion activity the qualified biologist shall quantify the average number of bats present at the roost by species and season, compare the replacement habitat with the habitat to be removed to ensure the replacement habitat is of sufficient or equal size, and monitor the temperature of the existing roost with a temperature datalogger to compare to the replacement habitat.

Within one year of the installation of replacement habitat post-construction monitoring of the replacement habitats shall begin. A qualified biologist shall monitor the replacement habitats on year 1, 3, and 5. If the success criteria (defined below) is met, the monitoring may be reduced or discontinued as recommended by the biologist in coordination with CDFW.

For day roost monitoring, conduct daytime inspections and evening exit counts to assess presence/absence of bats and the average number of bats, collect photo documentation to show use or lack of use by bats, record the location of bat use in the replacement habitat as well as the numbers and species of bats, as possible, in the replacement structure. Mitigation can be considered successful when the target species has occupied the replacement habitat and when the estimated population of the replacement habitat has reached the goals set forth in the bat mitigation plan. If success criteria have not been met during the monitoring period, the biologist will provide recommendations for habitat modifications and additional monitoring.

After the replacement roosts are constructed and it is confirmed that bats are not present in the original roost site by a qualified biologist, the roost tree or building may be removed. For roost trees, a two-step tree removal process supervised by a qualified biologist shall be implemented, including removal of all branches that do not provide roosting habitat on the first day, and removal of the remaining portion of the tree on the following day.

7.11 Northern California Ringtail

Within 14 days prior to the initiation of any construction activities in suitable habitat (riparian habitats, oak woodlands with shrubby understory, and/or trees five inches DBH or greater in riparian areas, particularly those with cavities), a qualified biologist shall conduct non-invasive preconstruction surveys for Northern California ringtail and ringtail nests in suitable habitat that will be disturbed by construction activity. Non-invasive methods may include camera traps and track plates as well as physical surveys of suitable habitat. If ringtail are found prior to the initiation of, and/or during construction activities, a qualified biologist shall consult with CDFW prior to relocation of any individual ringtail. The camera trap may be removed once construction begins.

If a ringtail nest is observed within the Project Area during the preconstruction survey, a qualified biologist shall establish a 250 foot no-disturbance buffer and the nest shall be fenced off and avoided until the young have left the nest, and the nest is no longer active as determined by the qualified biologist. A qualified biologist shall monitor to ensure that ringtails do not disperse into the construction area.

If any ringtails are observed within the Project Area, work will be suspended in a 100-foot radius of the animal until the animal leaves the Project Area on its own volition. If necessary, the qualified biologist will notify CDFW to determine the appropriate procedures related to relocation. Any worker who inadvertently injures or kills a ringtail or who finds one dead, injured, or entrapped must immediately report the incident to a qualified biologist.

CDFW may require mitigation for potential impacts to ringtail as part of a streambed alteration agreement. If CDFW assigns mitigation that is more stringent than the measure proposed above, the CDFW measure shall take precedence.

7.12 Oak Resources

Project implementation would result in permanent impacts to Oak Woodland, as well as individual oak trees. Note that all areas of temporary impacts to Oak Woodlands have been considered permanent for purposes of this analysis as large trees cannot be removed and immediately replaced. During final review, it may be determined that some of these areas are not permanently impacted as they only fall under canopy and do not result in tree removal. An Oak Resources Technical Report as required by Chapter 130.39 of the El Dorado County Code has been prepared and is included as **Attachment G**. This document shall be updated if the Project design is modified or refined.

Heritage trees are defined as native oak trees with a DBH of 36" or greater. In accordance with the ORMP, mitigation for impacts to these trees must occur at a ratio of 3:1.

Mitigation for Oak Woodlands and Individual Oak Trees shall be accomplished using one or more of the following options:

a. In-lieu fee payment based on the percent of on-site Oak Woodland impacted by the development and the DBH inches of trees impacted (as detailed in **Sections 7.10.1 and 7.10.2** below) to be either used by the County to acquire off-site deed restrictions and/or conservation easements or to be given by the County to a land conservation organization to acquire off-site deed restrictions and/or conservation easements. Note that the current in-lieu fee is $8,285 per acre of Oak Woodland mitigation, and $153 per DBH inch for mitigation of Individual Trees.
b. Off-site deed restriction or conservation easement acquisition for purposes of off-site Oak Woodland conservation consistent with Chapter 4.0 (Priority Conservation Areas) of the ORMP;
c. Replacement planting within an area on-site for up to 50 percent of the total Oak Woodland mitigation requirement consistent with Section 2.4 (Replacement Planting Guidelines) of the ORMP. This area shall be subject to a Deed Restriction or Conservation Easement;

d. Replacement planting within an area off-site for up to 50 percent of the total Oak Woodland mitigation requirement. Off-site replacement planting areas shall be consistent with Section 2.4 (Replacement Planting Guidelines) and Chapter 4.0 (Priority Conservation Areas) of the ORMP. This area shall be subject to a Deed Restriction or Conservation Easement; or
e. A combination of options a through d above.

7.12.1 Oak Woodland

The Project as proposed would impact 0.5 acres of the 4.0 acres of Oak Woodland mapped within the Project Development Area. Implementation of either sewer alternative would result in impacts to 2.2 acres of Oak Woodland. This is a cumulative total of 2.7 acres (44%) of impact of the total 6.2 acres of Oak Woodland mapped within the Project Area. In accordance with the ORMP, the Project proponent would be required to mitigate at a ratio of 1:1 for impacts to 0-50% of the Oak Woodland within the Project Area. Based on this ratio, the Project would require 2.7 acres of Oak Woodland mitigation. Payment of the in-lieu fee for this impact would cost a total of $22,369.50, based on the current in-lieu fee.

7.12.2 Heritage and Individual Tree Mitigation

7.12.2.1 Project Development Area

As detailed in **Section 6.11.1**, six Heritage Trees in fair to good condition occur within the Oak Woodland proposed for impact within the Project Development Area. There are no individual trees outside of mapped Oak Woodland in fair to good condition that are proposed for impact. The six Heritage Trees proposed for impact have a cumulative DBH of 264.3 inches. Based on a mitigation ratio of 3:1 for Heritage Trees, impacts to these trees within the Project Development Area would incur mitigation DBH of 792.9 DBH inches. Payment of the in-lieu fee for impacts to these trees would cost a total of $121,313.70, based on the current in-lieu fee.

7.12.2.2 Sewer Alternative 1

As detailed in **Section 6.11.2.1**, two Heritage Trees in fair to good condition occur within the Oak Woodland proposed for impact within Sewer Alternative 1, and one individual Heritage Tree is also proposed for impact. In addition, two smaller individual trees outside of mapped Oak Woodland are proposed for impact. The three Heritage Trees have a cumulative DBH of 159.0 inches, and the two individual trees have a cumulative DBH of 41.0 inches. Based on a mitigation ratio of 3:1 for Heritage Trees and 1:1 for smaller trees, impacts to these trees associated with Sewer Alternative 1 would incur mitigation DBH of 518.0 DBH inches. Payment of the in-lieu fee for impacts to these trees would cost a total of $79,254.00, based on the current in-lieu fee.

7.12.2.3 Sewer Alternative 2

As detailed in **Section 6.11.2.2**, two Heritage Trees in fair to good condition occur within the Oak Woodland proposed for impact within Sewer Alternative 2, and one individual Heritage Tree is also proposed for impact. In addition, one smaller individual tree outside of mapped Oak Woodland is proposed for impact. The three Heritage Trees have a cumulative DBH of 154.4 inches, and the individual tree has a DBH of 35.0 inches. Based on a mitigation ratio of 3:1 for Heritage Trees and 1:1 for smaller trees, impacts to these trees associated with Sewer Alternative 2 would incur mitigation DBH of 498.2 DBH inches. Payment of the in-lieu fee for impacts to these trees would cost a total of $76,224.60, based on the current in-lieu fee.

7.12.2.4 Overall Project Impacts

The Project combined with the sewer line would impact nine Heritage Trees in fair to good condition within the Oak Woodland proposed for impact, and one individual Heritage Tree. In addition, the Project combined with the sewer line would impact 1 - 2 smaller individual trees outside of mapped Oak Woodland. The ten Heritage Trees have a cumulative DBH of 418.7 – 423.2 inches, and the 1 - 2 individual trees have a cumulative DBH of 35.0 – 41.0 inches. Based on a mitigation ratio of 3:1 for Heritage Trees and 1:1 for smaller trees, impacts to trees for the Project combined with the sewer line would incur mitigation DBH of 1,291.1 – 1,310.6 DBH inches. Payment of the in-lieu fee for impacts to these trees would cost a total of $197,538.3 - $200,521.80, based on the current in-lieu fee.

7.13 Worker Environmental Awareness Training

Prior to any ground-disturbing or vegetation-removal activities, a Worker Environmental Awareness Training (WEAT) shall be prepared and administered to the construction crews. The WEAT will include the following: discussion of the state and federal Endangered Species Act, the Clean Water Act, the Project's permits and CEQA documentation, and associated mitigation measures; consequences and penalties for violation or noncompliance with these laws and regulations; identification of special-status wildlife, location of any avoided Waters of the U.S; hazardous substance spill prevention and containment measures; and the contact person in the event of the discovery of a special-status wildlife species. The WEAT will also discuss the different habitats used by the species' different life stages and the annual timing of these life stages. A handout summarizing the WEAT information shall be provided to workers to keep on-site for future reference. Upon completion of the WEAT training, workers will sign a form stating that they attended the training, understand the information presented and will comply with the regulations discussed. Workers will be shown designated "avoidance areas" during the WEAT training; worker access should be restricted to outside of those areas to minimize the potential for inadvertent environmental impacts.

7.14 Program Study Area

As summarized in Tables 1 and 2 above, the Program Study Area (PSA) is comprised of 27.9 acres of annual brome grassland and 0.2 acre of paved road. No oak or other trees occur within the PSA. Within the annual

brome grassland are 0.001 acre of seasonal wetland swale and 0.100 acre of roadside ditch. These terrestrial and aquatic resources represent potential habitat for the following species:

- Big-scale balsamroot (CRPR List 1B.2)
- Spicate rosinweed (CRPR List 1B.3)
- Crotch bumblebee (California candidate for listing)
- Monarch butterfly (Federal candidate for listing)
- Tricolored blackbird foraging (California endangered and California species of special concern)
- Golden eagle foraging (California fully protected species)
- Burrowing owl wintering (California species of special concern)
- White-tailed kite foraging (California fully protected species)
- Loggerhead shrike (California species of special concern)

Depending on the ultimate development proposal, impacts within the PSA could impact up to 27.9 acres of annual brome grassland, 0.2 acre of paved road, 0.001 acre of seasonal wetland swale, and 0.100 acre of roadside ditch. Mitigation measures that may apply to potential future development within the Program Study Area include the following:

- **Section 7.1 – Aquatic Resources,**
- **Section 7.2 – Special-Status Plants,**
- **Section 7.3 – Crotch Bumblebee,**
- **Section 7.5 – Monarch Butterfly,**
- **Section 7.9 – Nesting Raptors and Other Birds, and**
- **Section 7.12 – Worker Environmental Awareness Training**.

8.0 REFERENCES

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Figures

Figure 1. Site and Vicinity

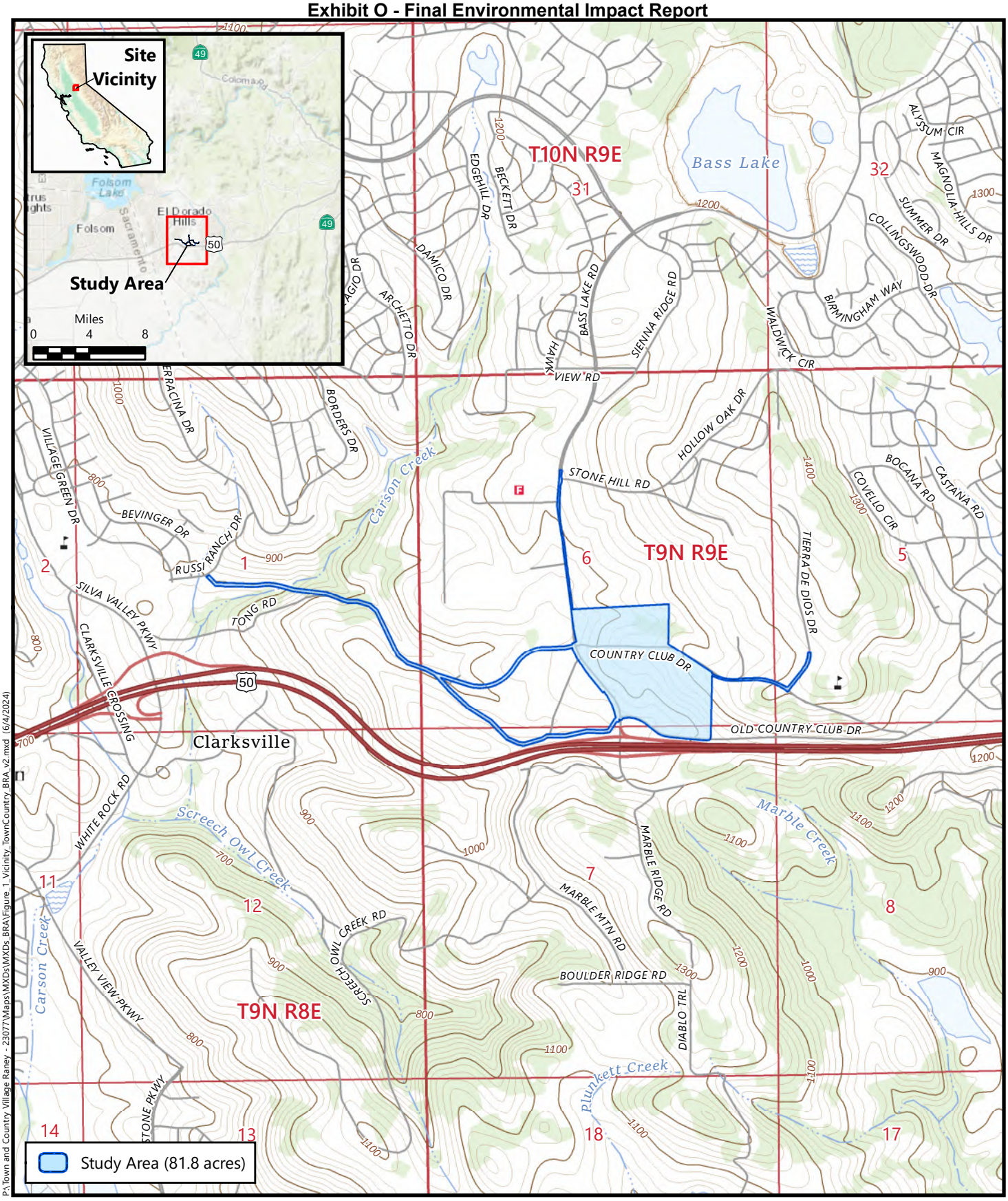
Figure 2. Project Components

Figure 3. California Natural Diversity Database Occurrences of Plant Species

Figure 4. California Natural Diversity Database Occurrences of Wildlife Species and Critical Habitat

Figure 5. Aquatic Resources and Vegetation Communities

Figure 6. NRCS Soils Map



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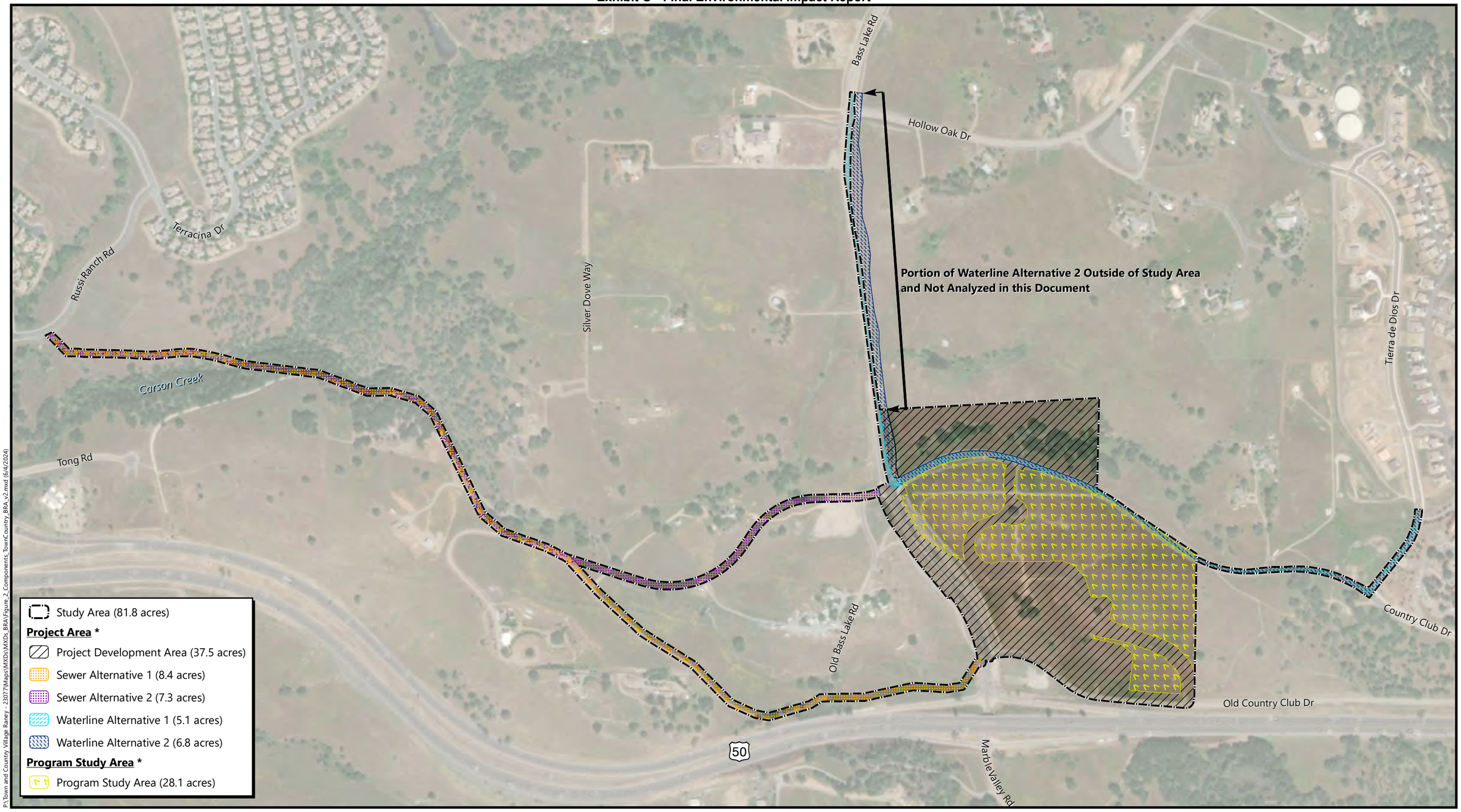
Source: United States Geologic Survey, 2021
"Clarksville, California" 7.5-Minute Topographic Quadrangle
Section 1, Township 9 North, Range 8 East, MDBM and
Sections 5-7, Township 9 North, Range 9 East, MDBM
Latitude (NAD83): 38.658668°, Longitude (NAD83): -121.029902°

Figure 1
Site and Vicinity

Town and Country Village El Dorado
El Dorado County, California

MADRONE ECOLOGICAL CONSULTING



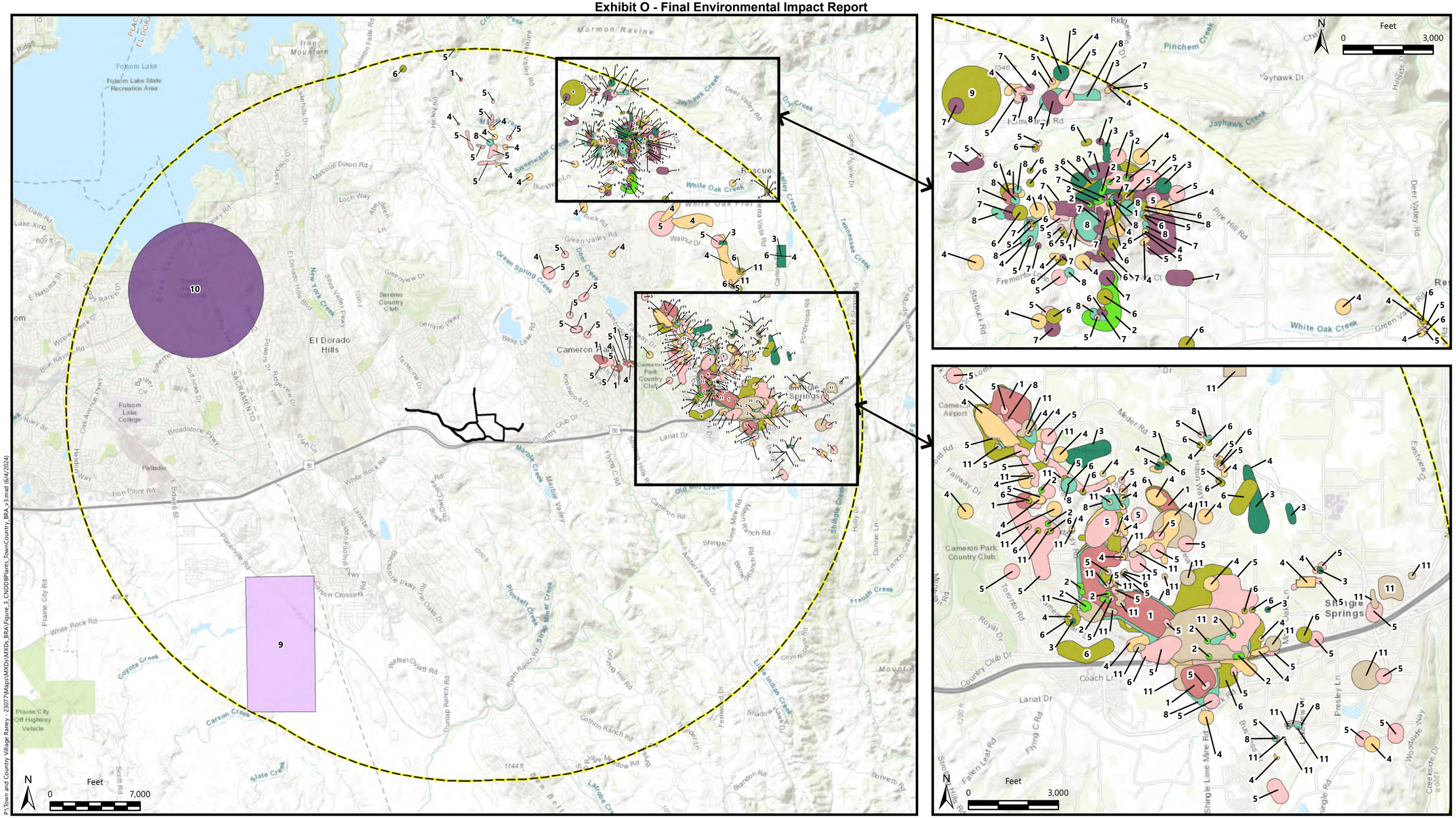
* *Component acreages do not sum to the Study Area acreage due to overlapping alternatives*

Boundary Source: CTA Engineering & Surveying
Aerial Source: Maxar, 1 May 2022

Figure 2
Project Components

Town and Country Village El Dorado
El Dorado County, California

MADRONE ECOLOGICAL CONSULTING



Study Area (81.8 acres)

5-Mile Radius

Special-Status Plant Species

1 - Bisbee Peak Rush-Rose

2 - Chaparral Sedge

3 - El Dorado Bedstraw

4 - El Dorado County Mule Ears

5 - Layne's Ragwort

6 - Pine Hill Ceanothus

7 - Pine Hill Flannelbush

8 - Red Hills Soaproot

9 - Sanford's Arrowhead

10 - Spicate Calycadenia

11 - Stebbins' Morning-Glory

Source: *California Department of Fish and Wildlife*, December 2023
Basemap Source: *ESRI* World Topography

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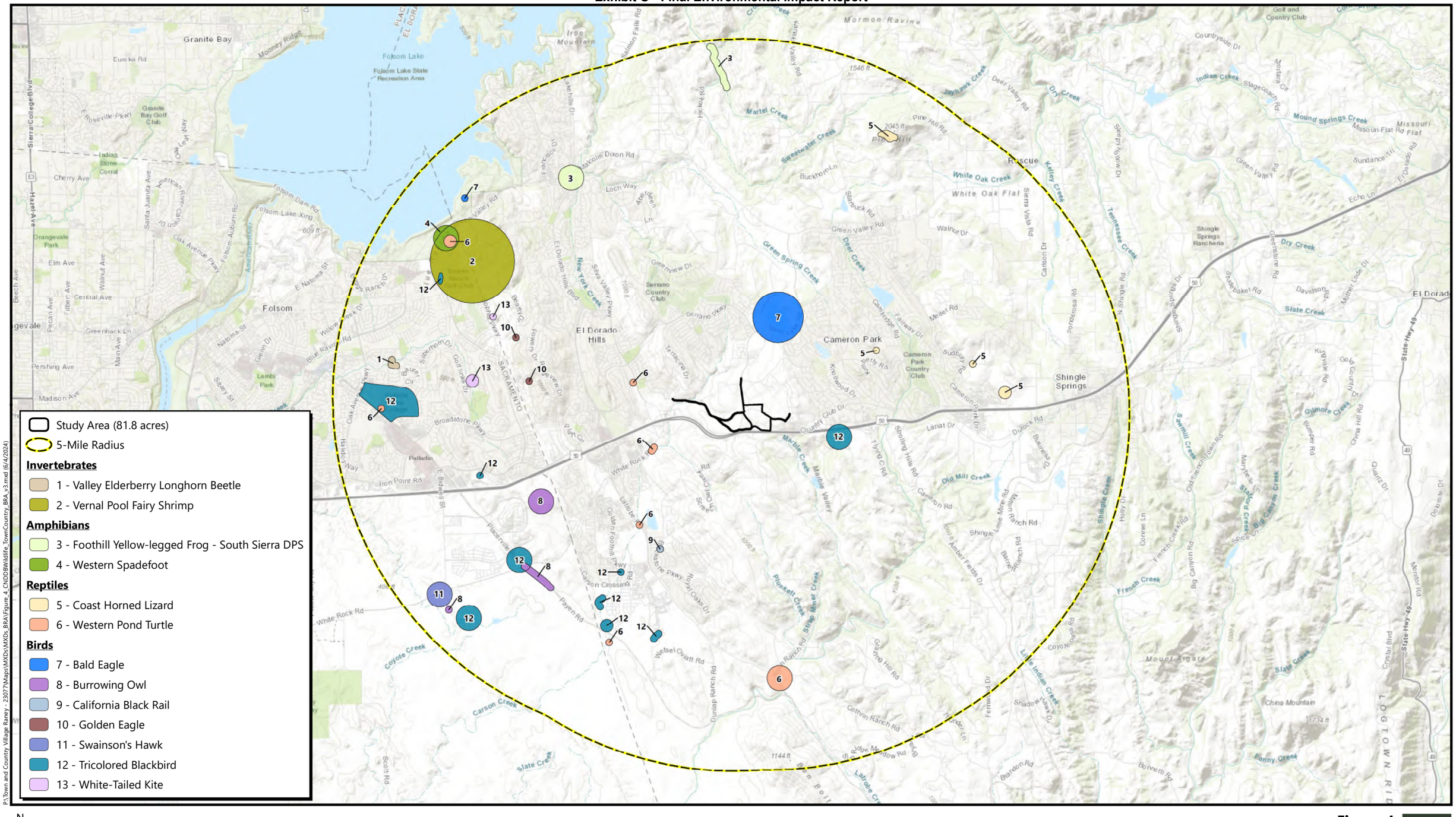
Figure 3
California Natural Diversity Database Occurrences of Plant Species

Town and Country Village El Dorado
El Dorado County, California

MADRONE ECOLOGICAL CONSULTING



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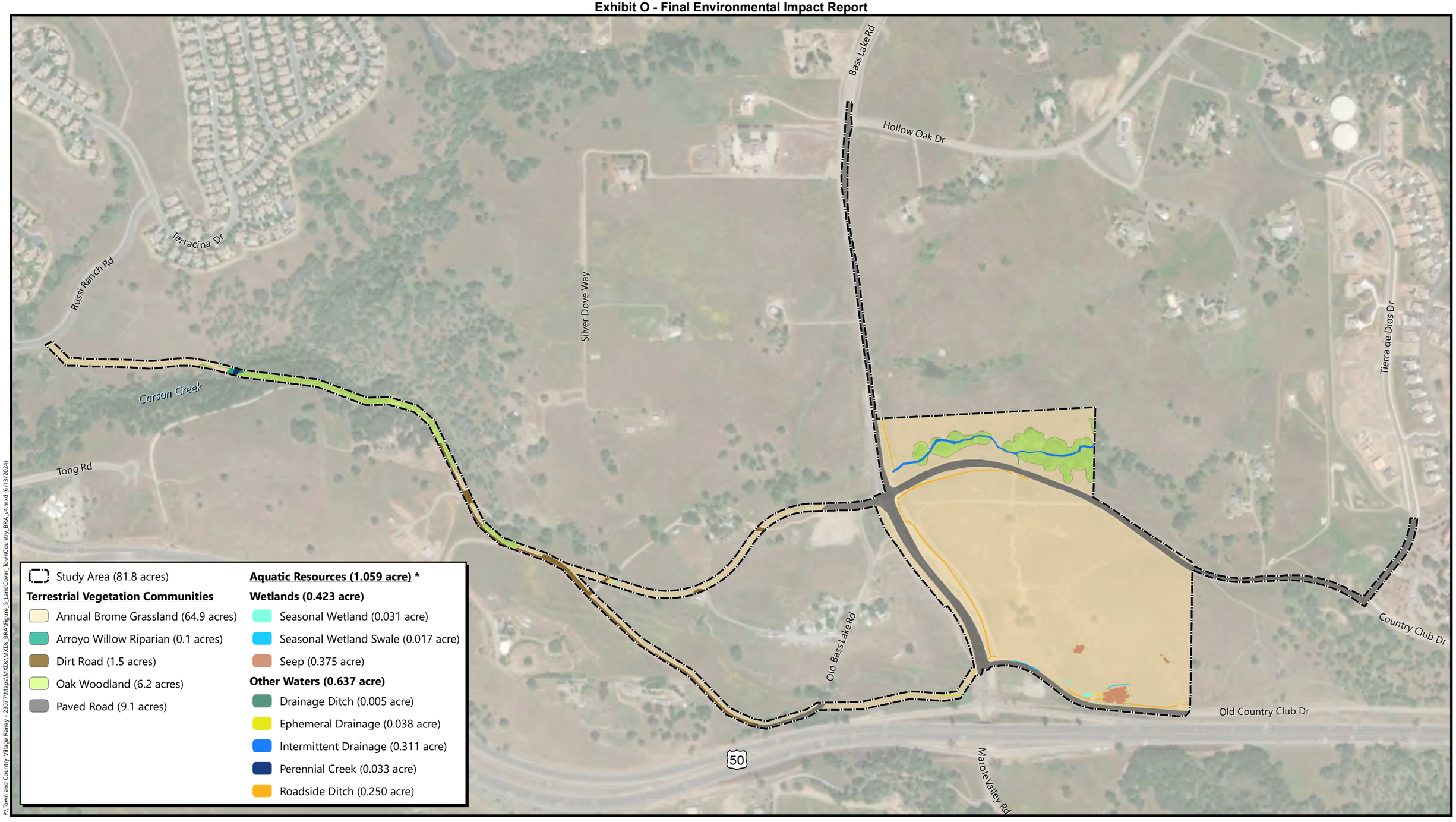
Source: *California Department of Fish and Wildlife*, May 2024
Basemap Source: *ESRI* World Topography

Figure 4
California Natural Diversity Database Occurrences of Wildlife Species

Town and Country Village El Dorado
El Dorado County, California

MADRONE ECOLOGICAL CONSULTING

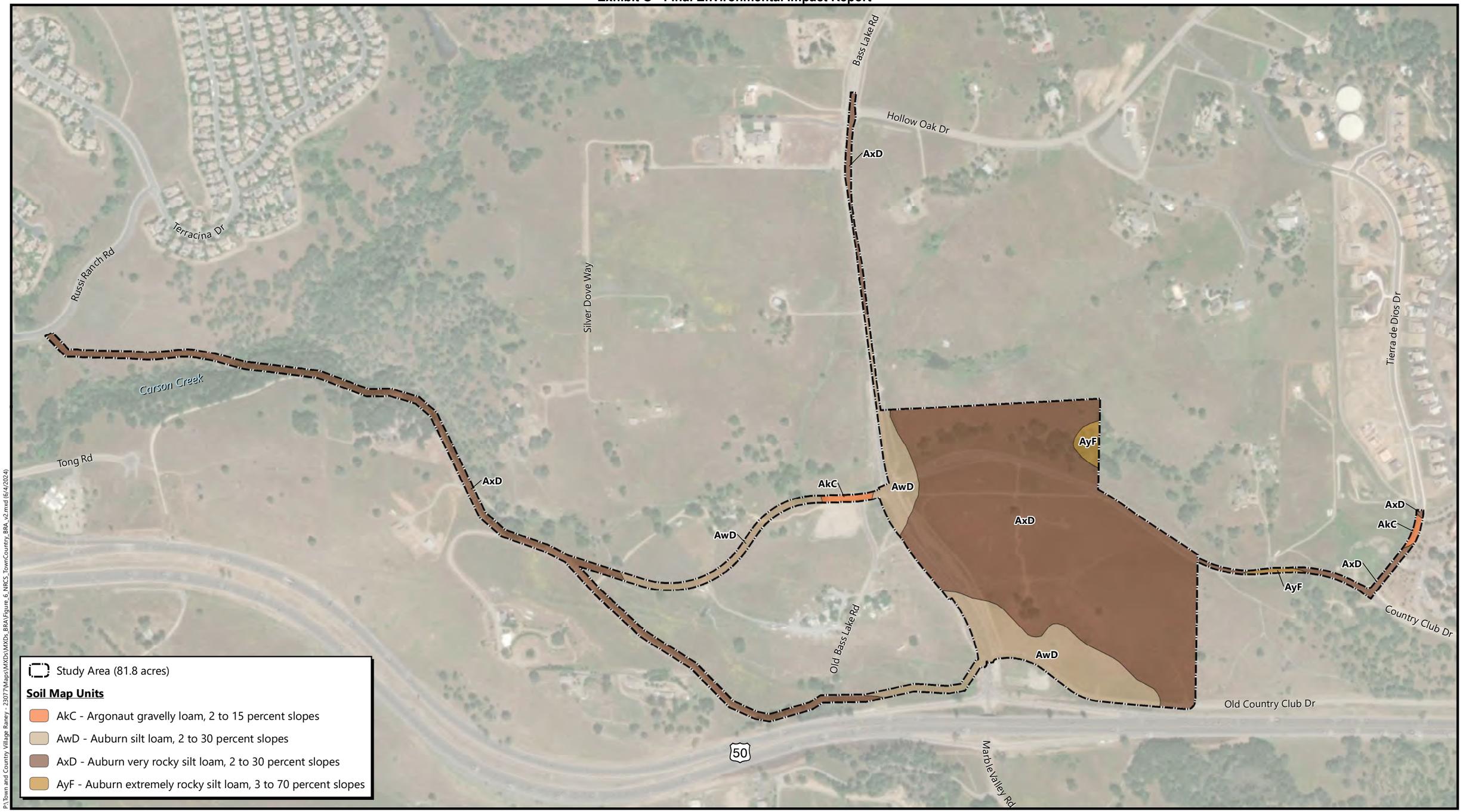


* *Small summation errors may occur due to rounding*

Boundary Source: CTA Engineering & Surveying
Aerial Source: Maxar, 1 May 2022

Figure 5
Aquatic Resources and Vegetation Communities

Town and Country Village El Dorado
El Dorado County, California



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Feet
0 600

Soil Survey Source: *USDA, Natural Resources Conservation Service Soil Survey Geographic (SSURGO) database for El Dorado County, California*
Aerial Source: Maxar, 1 May 2022

Figure 6
Natural Resources Conservation Service Soils

Town and Country Village El Dorado
El Dorado County, California

MADRONE ECOLOGICAL CONSULTING

Attachments

Attachment A. Town & Country Village El Dorado Site Plan

Attachment B. IPaC Trust Resource Report for the Study Area

Attachment C. CNPS Inventory of Rare and Endangered Plants Query for the "Clarksville, California" USGS Quadrangle and Eight Surrounding Quadrangles

Attachment D. Wildlife List

Attachment E. Special-Status Plant Survey Report for Town & Country Village El Dorado

Attachment F. Aquatic Resources Delineation Report for Town and Country Village

Attachment G. Oak Resources Technical Report for Town & Country Village El Dorado

Attachment H. Impacts to Aquatic Resources

Attachment I. Impacts to Vegetation Communities

Attachment J. Impacts to Oak Resources

Attachment A

Town & Country Village El Dorado Site Plan

TOWN & COUNTRY VILLAGE EL DORADO

OVERALL SITE PLAN

EL DORADO COUNTY, CALIFORNIA

SCALE: 1"=100' MARCH, 2024

APPLICANT

JOSH PANE
1123 J STREET, 3RD FLOOR
SACRAMENTO, CA 95814

OWNER

MOHAMMAD MOHANNA
CAP FUNDING
1025 9th STREET, SUITE 205
SACRAMENTO, CA 95814

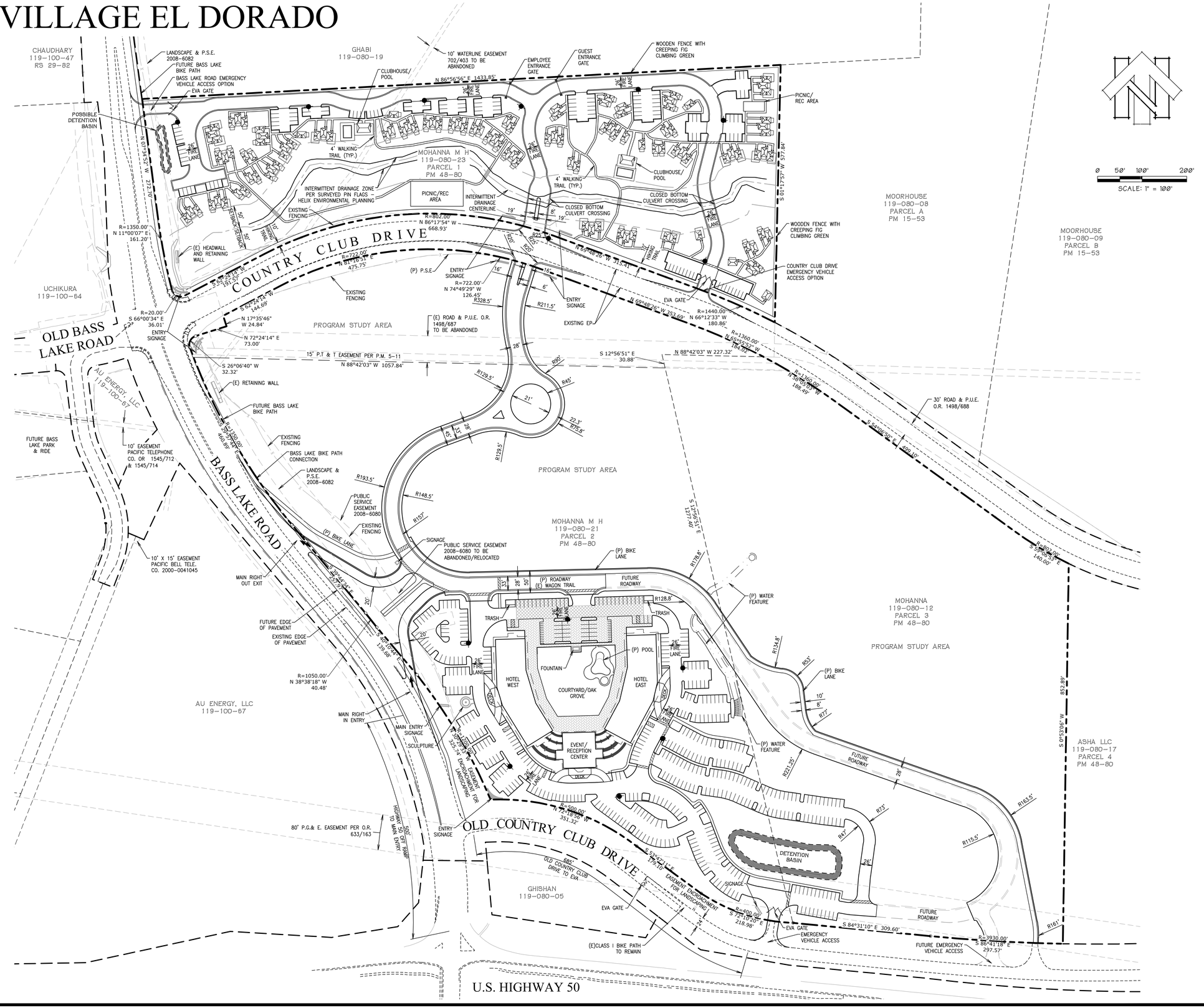
ENGINEER

cta Engineering & Surveying
Civil Engineering ■ Land Surveying ■ Land Planning
3233 Monier Circle, Rancho Cordova, CA 95742
T (916) 638-0919 ■ F (916) 638-2479 ■ www.ctaes.net

PROPOSED BUILDINGS	GROSS SQUARE FOOTAGE (FOOTPRINT)
HOTELS	16,000
EVENT CENTER	7,000
COTTAGES	280
CLUBHOUSES	600

LEGEND

- PROJECT BOUNDARY
- (E) LOT BOUNDARY
- (E) RIGHT OF WAY
- (E) EASEMENT
- (E) EDGE OF PAVEMENT
- (E) FENCE
- GRASS PAVERS
- LANDSCAPE PAVERS
- FIRE DEPARTMENT PATH OF TRAVEL TURNING RADII INSIDE RADIUS=35' OUTSIDE RADIUS=55'
- FIRE HYDRANT



Attachment B

IPaC Trust Resource Report
for the Study Area

IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

NOT FOR CONSULTATION

Location

El Dorado County, California

Local office

Sacramento Fish And Wildlife Office

(916) 414-6600
(916) 414-6713

Federal Building
2800 Cottage Way, Room W-2605
Sacramento, CA 95825-1846

NOT FOR CONSULTATION

Endangered species

This resource list is for informational purposes only and does not constitute an analysis of project level impacts.

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

1. Draw the project location and click CONTINUE.
2. Click DEFINE PROJECT.
3. Log in (if directed to do so).
4. Provide a name and description for your project.
5. Click REQUEST SPECIES LIST.

Listed species[1] and their critical habitats are managed by the Ecological Services Program of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries[2]).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact NOAA Fisheries for species under their jurisdiction.

---

1. Species listed under the Endangered Species Act are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the listing status page for more information. IPaC only shows species that are regulated by USFWS (see FAQ).

NOT FOR CONSULTATION

2. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

The following species are potentially affected by activities in this location:

Reptiles

NAME	STATUS
Northwestern Pond Turtle Actinemys marmorata Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/1111	Proposed Threatened

Amphibians

NAME	STATUS
California Red-legged Frog Rana draytonii Wherever found There is **final** critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/2891	Threatened
California Tiger Salamander Ambystoma californiense There is **final** critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/2076	Threatened
Foothill Yellow-legged Frog Rana boylii No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/5133	Endangered
Western Spadefoot Spea hammondii Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/5425	Proposed Threatened

Insects

NAME	STATUS

NOT FOR CONSULTATION

Monarch Butterfly Danaus plexippus — Candidate
Wherever found
No critical habitat has been designated for this species.
https://ecos.fws.gov/ecp/species/9743

Valley Elderberry Longhorn Beetle Desmocerus californicus dimorphus — Threatened
Wherever found
There is **final** critical habitat for this species. Your location does not overlap the critical habitat.
https://ecos.fws.gov/ecp/species/7850

Crustaceans

NAME	STATUS

Vernal Pool Fairy Shrimp Branchinecta lynchi — Threatened
Wherever found
There is **final** critical habitat for this species. Your location does not overlap the critical habitat.
https://ecos.fws.gov/ecp/species/498

Vernal Pool Tadpole Shrimp Lepidurus packardi — Endangered
Wherever found
There is **final** critical habitat for this species. Your location does not overlap the critical habitat.
https://ecos.fws.gov/ecp/species/2246

Flowering Plants

NAME	STATUS

El Dorado Bedstraw Galium californicum ssp. sierrae — Endangered
Wherever found
No critical habitat has been designated for this species.
https://ecos.fws.gov/ecp/species/5209

Layne's Butterweed Senecio layneae — Threatened
Wherever found
No critical habitat has been designated for this species.
https://ecos.fws.gov/ecp/species/4062

NOT FOR CONSULTATION

Pine Hill Ceanothus Ceanothus roderickii — Endangered
Wherever found
No critical habitat has been designated for this species.
https://ecos.fws.gov/ecp/species/3293

Pine Hill Flannelbush Fremontodendron californicum ssp. decumbens — Endangered
Wherever found
No critical habitat has been designated for this species.
https://ecos.fws.gov/ecp/species/4818

Stebbins' Morning-glory Calystegia stebbinsii — Endangered
Wherever found
No critical habitat has been designated for this species.
https://ecos.fws.gov/ecp/species/3991

Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

There are no critical habitats at this location.

You are still required to determine if your project(s) may have effects on all above listed species.

NOT FOR CONSULTATION

Bald & Golden Eagles

Bald and golden eagles are protected under the Bald and Golden Eagle Protection Act[1] and the Migratory Bird Treaty Act[2].

Any person or organization who plans or conducts activities that may result in impacts to bald or golden eagles, or their habitats[3], should follow appropriate regulations and consider implementing appropriate conservation measures, as described in the links below. Specifically, please review the "Supplemental Information on Migratory Birds and Eagles".

Additional information can be found using the following links:

- Eagle Management https://www.fws.gov/program/eagle-management

- Measures for avoiding and minimizing impacts to birds https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds
- Nationwide conservation measures for birds https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf
- Supplemental Information for Migratory Birds and Eagles in IPaC https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action

There are bald and/or golden eagles in your project area.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, see the PROBABILITY OF PRESENCE SUMMARY below to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
Bald Eagle *Haliaeetus leucocephalus* This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.	Breeds Jan 1 to Aug 31
Golden Eagle *Aquila chrysaetos* This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1680	Breeds Jan 1 to Aug 31

NOT FOR CONSULTATION

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read "Supplemental Information on Migratory Birds and Eagles", specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey

effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is 0.25/0.25 = 1; at week 20 it is 0.05/0.25 = 0.2.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

Breeding Season ( )
Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)
Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

To see a bar's survey effort range, simply hover your mouse cursor over the bar.

No Data (–)
A week is marked as having no data if there were no survey events for that week.

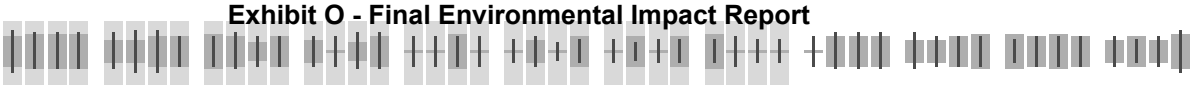
Survey Timeframe
Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.

probability of presence breeding season survey effort no data

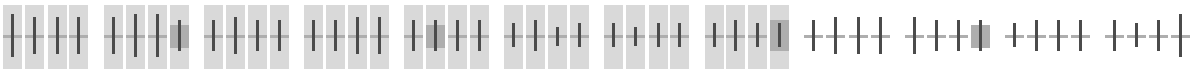
SPECIES	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC

NOT FOR CONSULTATION

Bald Eagle
Non-BCC
Vulnerable



Golden Eagle
Non-BCC
Vulnerable



What does IPaC use to generate the potential presence of bald and golden eagles in my specified location?

The potential for eagle presence is derived from data provided by the Avian Knowledge Network (AKN). The AKN data is based on a growing collection of survey, banding, and citizen science datasets and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle (Eagle Act requirements may apply). To see a list of all birds potentially present in your project area, please visit the Rapid Avian Information Locator (RAIL) Tool.

What does IPaC use to generate the probability of presence graphs of bald and golden eagles in my specified location?

The Migratory Bird Resource List is comprised of USFWS Birds of Conservation Concern (BCC) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the Avian Knowledge Network (AKN). The AKN data is based on a growing collection of survey, banding, and citizen science datasets and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle (Eagle Act requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the Rapid Avian Information Locator (RAIL) Tool.

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to obtain a permit to avoid violating the Eagle Act should such impacts occur. Please contact your local Fish and Wildlife Service Field Office if you have questions.

Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act[1] and the Bald and Golden Eagle Protection Act[2].

NOT FOR CONSULTATION

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats[3] should follow appropriate regulations and consider implementing appropriate conservation measures, as described in the links below. Specifically, please review the "Supplemental Information on Migratory Birds and Eagles".

1. The Migratory Birds Treaty Act of 1918.
2. The Bald and Golden Eagle Protection Act of 1940.

Additional information can be found using the following links:

- Eagle Management https://www.fws.gov/program/eagle-management
- Measures for avoiding and minimizing impacts to birds https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds
- Nationwide conservation measures for birds https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf
- Supplemental Information for Migratory Birds and Eagles in IPaC https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action

The birds listed below are birds of particular concern either because they occur on the USFWS Birds of Conservation Concern (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ below. This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the E-bird data mapping tool (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found below.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, see the PROBABILITY OF PRESENCE SUMMARY below to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
Bald Eagle *Haliaeetus leucocephalus* This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.	Breeds Jan 1 to Aug 31

NOT FOR CONSULTATION

Belding's Savannah Sparrow Passerculus sandwichensis beldingi This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/8	Breeds Apr 1 to Aug 15
Black Tern Chlidonias niger This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/3093	Breeds May 15 to Aug 20
Bullock's Oriole Icterus bullockii This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA	Breeds Mar 21 to Jul 25
California Gull Larus californicus This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Mar 1 to Jul 31
California Thrasher Toxostoma redivivum This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Jan 1 to Jul 31
Cassin's Finch Carpodacus cassinii This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9462	Breeds May 15 to Jul 15
Clark's Grebe Aechmophorus clarkii This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Jun 1 to Aug 31
Common Yellowthroat Geothlypis trichas sinuosa This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/2084	Breeds May 20 to Jul 31

NOT FOR CONSULTATION

Golden Eagle Aquila chrysaetos — Breeds Jan 1 to Aug 31

This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.
https://ecos.fws.gov/ecp/species/1680

Lawrence's Goldfinch Carduelis lawrencei — Breeds Mar 20 to Sep 20

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/9464

Marbled Godwit Limosa fedoa — Breeds elsewhere

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/9481

Nuttall's Woodpecker Picoides nuttallii — Breeds Apr 1 to Jul 20

This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA
https://ecos.fws.gov/ecp/species/9410

Oak Titmouse Baeolophus inornatus — Breeds Mar 15 to Jul 15

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/9656

Olive-sided Flycatcher Contopus cooperi — Breeds May 20 to Aug 31

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/3914

Tricolored Blackbird Agelaius tricolor — Breeds Mar 15 to Aug 10

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/3910

Western Grebe aechmophorus occidentalis — Breeds Jun 1 to Aug 31

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/6743

NOT FOR CONSULTATION

Willet Tringa semipalmata — Breeds elsewhere
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Wrentit Chamaea fasciata — Breeds Mar 15 to Aug 10
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Yellow-billed Magpie Pica nuttalli — Breeds Apr 1 to Jul 31
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/9726

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read "Supplemental Information on Migratory Birds and Eagles", specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is 0.25/0.25 = 1; at week 20 it is 0.05/0.25 = 0.2.

NOT FOR CONSULTATION

3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

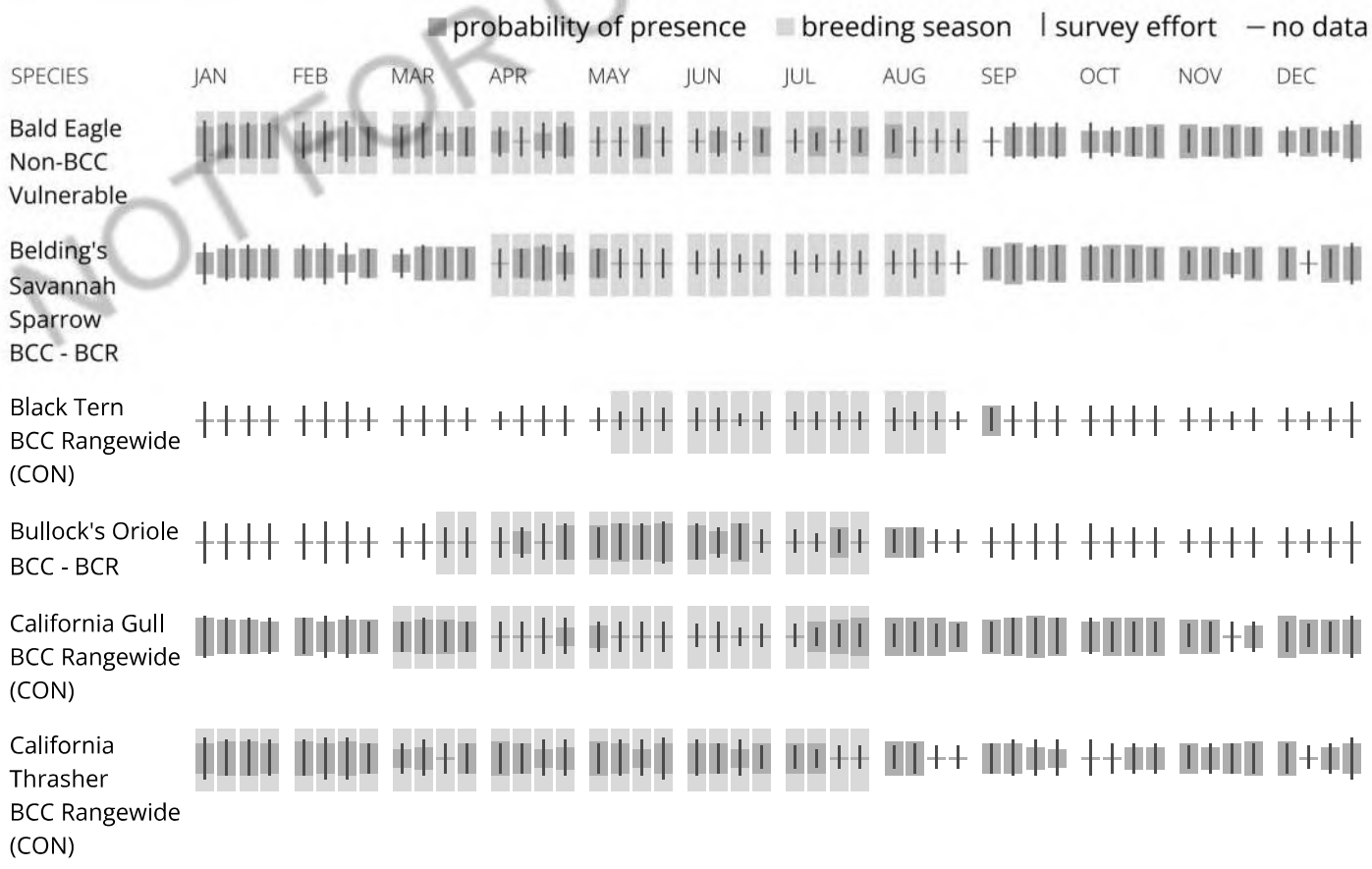
Breeding Season ( )
Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)
Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

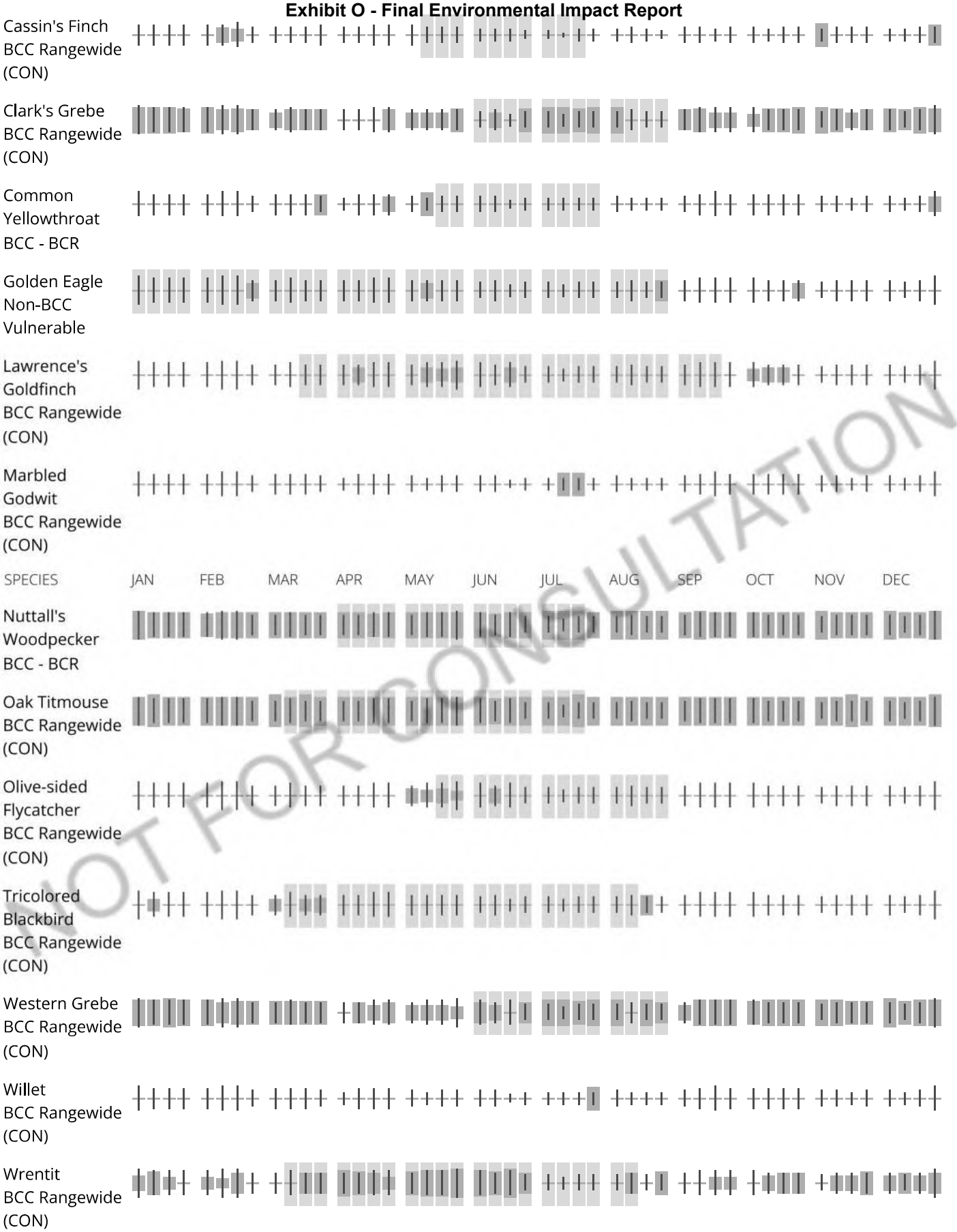
To see a bar's survey effort range, simply hover your mouse cursor over the bar.

No Data (–)
A week is marked as having no data if there were no survey events for that week.

Survey Timeframe
Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.

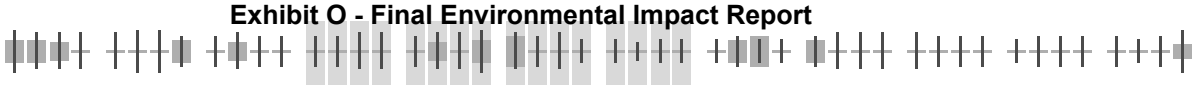


NOT FOR CONSULTATION



NOT FOR CONSULTATION

Yellow-billed Magpie
BCC Rangewide (CON)



Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

Nationwide Conservation Measures describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. Additional measures or permits may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the list of migratory birds that potentially occur in my specified location?

The Migratory Bird Resource List is comprised of USFWS Birds of Conservation Concern (BCC) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the Avian Knowledge Network (AKN). The AKN data is based on a growing collection of survey, banding, and citizen science datasets and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle (Eagle Act requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the Rapid Avian Information Locator (RAIL) Tool.

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the Avian Knowledge Network (AKN). This data is derived from a growing collection of survey, banding, and citizen science datasets.

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering or migrating in my area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may query your location using the RAIL Tool and look at the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. If a bird

NOT FOR CONSULTATION

on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are Birds of Conservation Concern (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the Eagle Act requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the Northeast Ocean Data Portal. The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the Diving Bird Study and the nanotag studies or contact Caleb Spiegel or Pam Loring.

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to obtain a permit to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key

NOT FOR CONSULTATION

component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

Facilities

National Wildlife Refuge lands

Any activity proposed on lands managed by the National Wildlife Refuge system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

There are no refuge lands at this location.

Fish hatcheries

There are no fish hatcheries at this location.

NOT FOR CONSULTATION

Wetlands in the National Wetlands Inventory (NWI)

Impacts to NWI wetlands and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local U.S. Army Corps of Engineers District.

Wetland information is not available at this time

This can happen when the National Wetlands Inventory (NWI) map service is unavailable, or for very large projects that intersect many wetland areas. Try again, or visit the NWI map to view wetlands at this location.

Data limitations

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tuberficid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

Data precautions

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate Federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

NOT FOR CONSULTATION

Attachment C

CNPS Inventory of Rare and Endangered Plants Query for the "Clarksville, California" USGS Quadrangle and Eight Surrounding Quadrangles

CALIFORNIA NATIVE PLANT SOCIETY

CNPS Rare Plant Inventory

Search Results

36 matches found. Click on scientific name for details

Search Criteria: 9-Quad include [**3812058:3812068:3812078:3812151:3812162:3812161:3812171:3812172:3812152**]

▲ SCIENTIFIC NAME	COMMON NAME	FAMILY	BLOOMING PERIOD	FED LIST	STATE LIST	CA RARE PLANT RANK
Allium jepsonii	Jepson's onion	Alliaceae	Apr-Aug	None	None	1B.2
Allium sanbornii var. *sanbornii*	Sanborn's onion	Alliaceae	May-Sep	None	None	4.2
Balsamorhiza macrolepis	big-scale balsamroot	Asteraceae	Mar-Jun	None	None	1B.2
Brodiaea rosea ssp. *vallicola*	valley brodiaea	Themidaceae	Apr-May(Jun)	None	None	4.2
Calandrinia breweri	Brewer's calandrinia	Montiaceae	(Jan)Mar-Jun	None	None	4.2
Calystegia stebbinsii	Stebbins' morning-glory	Convolvulaceae	Apr-Jul	FE	CE	1B.1
Carex xerophila	chaparral sedge	Cyperaceae	Mar-Jun	None	None	1B.2
Ceanothus fresnensis	Fresno ceanothus	Rhamnaceae	(Apr)May-Jul	None	None	4.3
Ceanothus roderickii	Pine Hill ceanothus	Rhamnaceae	Apr-Jun	FE	CR	1B.1
Chlorogalum grandiflorum	Red Hills soaproot	Agavaceae	(Apr)May-Jun	None	None	1B.2
Clarkia biloba ssp. *brandegeeae*	Brandegee's clarkia	Onagraceae	(Mar)May-Jul	None	None	4.2
Claytonia parviflora ssp. *grandiflora*	streambank spring beauty	Montiaceae	Feb-May	None	None	4.2
Crocanthemum suffrutescens	Bisbee Peak rush-rose	Cistaceae	Apr-Aug	None	None	3.2
Downingia pusilla	dwarf downingia	Campanulaceae	Mar-May	None	None	2B.2
Eriogonum tripodum	tripod buckwheat	Polygonaceae	May-Jul	None	None	4.2
Eriophyllum jepsonii	Jepson's woolly sunflower	Asteraceae	Apr-Jun	None	None	4.3
Eryngium pinnatisectum	Tuolumne button-celery	Apiaceae	May-Aug	None	None	1B.2
Fremontodendron decumbens	Pine Hill flannelbush	Malvaceae	Apr-Jul	FE	CR	1B.2
Fritillaria agrestis	stinkbells	Liliaceae	Mar-Jun	None	None	4.2
Galium californicum ssp. *sierrae*	El Dorado bedstraw	Rubiaceae	May-Jun	FE	CR	1B.2
Githopsis pulchella ssp. *serpentinicola*	serpentine bluecup	Campanulaceae	May-Jun	None	None	4.3
Gratiola heterosepala	Boggs Lake hedge-hyssop	Plantaginaceae	Apr-Aug	None	CE	1B.2
Hesperevax caulescens	hogwallow starfish	Asteraceae	Mar-Jun	None	None	4.2
Iris longipetala	coast iris	Iridaceae	Mar-May(Jun)	None	None	4.2
Juncus leiospermus var. *ahartii*	Ahart's dwarf rush	Juncaceae	Mar-May	None	None	1B.2
Legenere limosa	legenere	Campanulaceae	Apr-Jun	None	None	1B.1
Leptosiphon ambiguus	serpentine leptosiphon	Polemoniaceae	Mar-Jun	None	None	4.2
Lilium humboldtii ssp. *humboldtii*	Humboldt lily	Liliaceae	May-Jul(Aug)	None	None	4.2
Navarretia heterandra	Tehama navarretia	Polemoniaceae	Apr-Jun	None	None	4.3

Navarretia myersii ssp. *myersii*	pincushion navarretia	Polemoniaceae	Apr-May	None	None	1B.1
Orcuttia tenuis	slender Orcutt grass	Poaceae	May-Sep(Oct)	FT	CE	1B.1
Orcuttia viscida	Sacramento Orcutt grass	Poaceae	Apr-Jul(Sep)	FE	CE	1B.1
Packera layneae	Layne's ragwort	Asteraceae	Apr-Aug	FT	CR	1B.2
Sagittaria sanfordii	Sanford's arrowhead	Alismataceae	May-Oct(Nov)	None	None	1B.2
Trichostema rubisepalum	Hernandez bluecurls	Lamiaceae	Jun-Aug	None	None	4.3
Wyethia reticulata	El Dorado County mule ears	Asteraceae	Apr-Aug	None	None	1B.2

Showing 1 to 36 of 36 entries

Suggested Citation:

California Native Plant Society, Rare Plant Program. 2024. Rare Plant Inventory (online edition, v9.5). Website https://www.rareplants.cnps.org [accessed 22 January 2024].

Attachment D

Wildlife List

Wildlife Species Observed within the
Town and Country Village Study Area
13 April 2022, 27 September and 6 October 2023

Species Name	Common name
Reptiles	
Crotalus oreganus oreganus	Northern Pacific rattlesnake
Sceloporus occidentalis	Western fence lizard
Birds	
Cathartes aura	Turkey vulture
Accipiter cooperi	Cooper's hawk
Buteo lineatus	Red-shouldered hawk
Buteo jamaicensis	Red-tailed hawk
Tyto alba	Barn owl
Melanerpes formicivorus	Acorn woodpecker
Falco sparverius	American kestrel
Aphelocoma californica	California scrub jay
Sitta carolinensis	White-breasted nuthatch
Agelaius phoeniceus	Red-wing blackbird
Melozone crissalis	California towhee
Sturnella neglecta	Western meadowlark
Mammals	
Lepus californicus	Black-tailed jackrabbit

Attachment E

Special-Status Plant Survey Report
for Town & Country Village El Dorado

Special-Status Plant Survey Report

Town and Country Village El Dorado

El Dorado County, California
June 2024

MADRONE ECOLOGICAL CONSULTING

Prepared for:
Raney Planning & Management, Inc.
1501 Sports Drive, Suite A
Sacramento, CA 95834

Recommended Citation:
Madrone Ecological Consulting, LLC (Madrone). 2024. *Special-Status Plant Survey Report for Town and Country Village El Dorado*. Prepared for Raney Planning & Management, Inc. Published on 5 June 2024.

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Town and Country Village El Dorado

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Attachment A: Botanist Qualifications
Attachment B: Target Plant Species Reference Population Information
Attachment C: Plant Species Observed within the Town and Country Village El Dorado Study Area

1.0 INTRODUCTION

This report presents the results of a special-status plant survey conducted for the approximately 81.8-acre Town and Country Village El Dorado Study Area. The Study Area is located north of Interstate Highway 50, largely south of Stone Hill Road, east of Silva Valley Parkway, and largely west of Morrison Road in western El Dorado County, California. The Study Area is located in portions of Section 1, Township 9 North, Range 8 East and Sections 5-7, Township 9 North, Range 9 East (MDBM) of the "Clarksville, California" 7.5-Minute Series USGS Topographic Quadrangle (USGS 2021) (**Figure 1**).

2.0 METHODOLOGY

Madrone Ecological Consulting, LLC (Madrone) botanists Daria Snider and Bonnie Peterson conducted protocol-level rare plant surveys of the Study Area on 13 April 2022, 27 September 2023, 6 October 2023, 26 April 2024 and 29 May 2024 in accordance with the *Guidelines for Conducting and Reporting Botanical Inventories for Federally Listed, Proposed, and Candidate Plants* (USFWS 2000), the *Botanical Survey Guidelines of the California Native Plant Society* (CNPS 2001), and *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities* (CDFW 2018). The surveys occurred over the course of three years due to changes in the Study Area boundary; however, all areas received both early season (April and May) surveys and late season (September and October) surveys such that surveys were comprehensive for all target plant species.

A list of special-status plant species with potential to occur within the Study Area was developed by reviewing the following:

- the California Native Plant Society (CNPS) Rare and Endangered Plant Inventory (CNPS 2024) query of CRPR Lists 1A, 1B, 2A, 2B, and 3 within the "Clarksville, California" USGS topo quadrangle, and the eight surrounding quadrangles; and
- the California Natural Diversity Database occurrences of special-status plant species within 5 miles of the Study Area (CNDDB 2024).

The target species for this survey were:

- Big-scale balsamroot (*Balsamorhiza macrolepis*)
- Spicate rosinweed (*Calycadenia spicata*)
- Red Hills soaproot (*Chlorogalum grandiflorum*)
- Dwarf downingia (*Downingia pusilla*)
- Tuolumne button-celery (*Eryngium pinnatisectum*)
- Sanford's arrowhead (*Sagittaria sanfordii*)

The Study Area was comprehensively surveyed on foot by walking rough transects through the site to ensure full coverage. The surveys were floristic in nature, which means that all plant species observed on-site were identified to the taxonomic level necessary to determine rarity. Thus, if a special-status plant was present but not on the target list, it would have been detected and documented. Plant taxonomy was based on the nomenclature in the *Jepson eFlora* (Jepson Flora Project 2024). Vegetation communities were

classified according to the *Manual of California Vegetation, Second Edition* (Sawyer et al. 2009). Qualifications for the botanists that conducted the surveys are included in **Attachment A**, a list of reference populations of target plants visited is included in **Attachment B**, and a comprehensive list of all plant species observed during surveys of the Study Area is included in **Attachment C**.

3.0 EXISTING CONDITIONS

The Study Area is largely comprised of ungrazed Annual Brome Grasslands with widely scattered oak trees (**Figure 2**). Oak Woodlands occur in the vicinity of the intermittent drainage and perennial Carson Creek. The intermittent drainage is located in the northern portion of the Study Area, and Carson Creek is in the western portion. Carson Creek runs over bedrock, and the adjacent slopes are quite steep, restricting the extent of riparian vegetation, which consists of a narrow band of Arroyo Willow Riparian Scrub. The Oak Woodland south of the creek has a dense, closed canopy, as is typical for north-facing slopes in the region. Bass Lake Road cuts from north to south through the Study Area, and Country Club Drive runs from west to east. Portions of Old Bass Lake Road and Old Country Club Drive also occur within portions of the Study Area. Several seasonal wetlands and two seasonal wetland swales occur just north of Old Country Club Drive, and one seasonal wetland occurs near an ephemeral drainage in the western portion of the Study Area. A few seeps occur on slopes in the Annual Brome Grasslands. Roadside ditches run along the edges of a number of roadways within the Study Area, and three portions of ephemeral drainages occur within infrastructure-related portions of the Study Area. Inclusions of unvegetated areas are scattered throughout the Study Area along farm roads. The terrain within the Study Area is gently rolling, and generally slopes from the east down towards the west.

Elevations range from approximately 1,320 feet above mean sea level (MSL) at the eastern edge of the Study Area to approximately 800 feet at the western extent along Carson Creek and Russi Ranch Drive (**Figure 1**).

Surrounding properties are similar to those within the Study Area. They are largely comprised of ungrazed Annual Brome Grasslands, scattered Oak Woodlands, and rural residences. The western and eastern ends of the Study Area abut urban residential areas, and the Study Area is bordered by Interstate Highway 50 to the south.

3.1 Terrestrial Vegetation Communities

3.1.1 Annual Brome Grassland

The Annual Brome Grassland within the Study Area is dominated by ripgut brome (*Bromus diandrus*), soft brome (*B. hordeaceus*), wild oat (*Avena fatua*), Italian ryegrass (*Festuca perennis*), purple false brome (*Brachypodium distachyon),* and winter vetch *(Vicia villosa* subsp. *varia)*. Other species occurring frequently in this vegetation community within the Study Area include wild radish (*Raphanus sativus*), Ithuriel's spear (*Triteleia laxa*), rose clover (*Trifolium hirtum*), and purple clarkia (*Clarkia purpurea* subsp. *quadrivulnera*). Seasonal wetlands, seasonal wetland swales, and seeps occur occasionally throughout this community.

3.1.2 Arroyo Willow Riparian Scrub

A narrow band of Arroyo Willow Riparian Scrub occurs along Carson Creek within the sewer alternative overlap portion of the Study Area. This canopy of this community is dominated by arroyo willow (*Salix lasiolepis*) and buttonwillow (*Cephalanthus occidentalis*). The understory is comprised primarily of bedrock, but a few herbaceous species have established in cracks in the bedrock, and in sediment along the creek's edge. These include Indian hemp (*Apocynum cannabinum*), Torrey's willowherb (*Epilobium torreyi),* sticktight (*Bidens frondosa)*, Lady's thumb (*Persicaria maculosa),* False waterpepper (*Persicaria hydropiperoides),* western goldenrod (*Euthamia occidentalis),* mugwort (*Artemisia douglasiana),* tall nutsedge (*Cyperus eragrostis),* rice cutgrass (*Leersia oryzoides),* and seep monkeyflower (*Erythranthe guttata)*.

3.1.3 Oak Woodland

Oak woodland occurs in the northern portion of the Study Area, in association with the intermittent creek, and in the portions of the sewer alternatives. The Oak Woodland has a primarily closed canopy that is dominated by interior live oak (*Quercus wislizeni*) and blue oak (*Quercus douglasii*). Other commonly occurring species include Valley oak (*Quercus lobata*), California buckeye (*Aesculus californica*) and foothill pine (*Pinus sabiniana)*. Western poison oak (*Toxicodendron diversilobum*) and chaparral honeysuckle (*Lonicera interrupta*) are dominants in the shrub layer. The herbaceous understory is dominated by ripgut brome, slender wild oat (*Avena barbata*), and tall sock-destroyer (*Torilis arvensis*), as well as occasional Italian thistle (*Carduus pycnocephalus* subsp. *pycnocephalus*), bristly dogtail grass (*Cynosurus echinatus),* goldback fern (*Pentagramma triangularis),* twining brodiaea (*Dichelostemma volubile),* soft brome, and common soap plant (*Chlorogalum pomeridianum var. pomeridianum)*. Several rock outcrops are interspersed within the Oak Woodland area.

3.1.4 Roads

Bass Lake Road, Country Club Drive, and Old Country Club Drive are paved roadways within the Study Area. Just west of the Bass Lake Road and Country Club Drive intersection is an area that was under active construction at the time of our survey – this is presumed to be developed now and was also mapped as paved road. Old Bass Lake Road and regularly used driveways within the Sewer Alternatives have been mapped as dirt road – these are well maintained, regularly used dirt roads. We did not map the portion of the dirt road that runs through the Oak Woodlands, as the tree canopies overhang almost the entire roadway, and as such, we anticipate that impacts within the roadway could impact the adjacent oak trees.

3.2 Aquatic Resources

3.2.1 Seasonal Wetland

Five seasonal wetlands occur within the southern portion of the Study Area. Seasonal wetlands are depressional wetlands that pond water seasonally. Two of the seasonal wetlands are depressional and are

dominated by needle-leaf navarretia (*Navarretia intertexta*), Mediterranean beard grass (*Polypogon maritimus*) and Mediterranean barley (*Hordeum marinum*). Other species in these features include bractless hedge-hyssop (*Gratiola ebracteata*), slender popcorn flower (*Plagiobothrys stipitatus var. micranthus*), annual hairgrass (*Deschampsia danthonioides*), hyssop loosestrife (*Lythrum hyssopifolium*), slender tarweed (*Holocarpha virgata*), turkey mullein (*Croton setiger*), creeping spikerush (*Eleocharis macrostachya*), stinkwort (*Dittrichia graveolens*), and hairy cat's ear (*Leontodon saxatilis*). The remaining seasonal wetlands are slope wetlands, and are dominated by iris-leaved rush (*Juncus xiphioides*) and annual rabbitsfoot grass (*Polypogon monspeliensis*). Other species commonly occurring in these features include Baltic rush (*Juncus balticus*) and Spanish lotus (*Acmispon americanus*).

3.2.2 Seasonal Wetland Swale

Two seasonal wetland swales are present within the Study Area. Seasonal wetland swales are linear seasonal wetlands that convey surface runoff and may detain it for short periods of time. The vegetation in the seasonal wetland swales is similar to that found in the sloping seasonal wetlands. They are dominated by iris-leaved rush. Other species commonly found in these features include Spanish lotus, curly dock (*Rumex crispus*), and Mediterranean beard grass.

3.2.3 Seep

Seeps are areas where groundwater reaches the surface through porous soil or cracks in rock. Seeps result in seasonal or perennial soil saturation with minimal standing water and gentle flows. Three seeps were mapped within the Study Area. Dominant plant species identified within the seeps include iris-leaved rush, Baltic rush, and Sonoma hedge nettle (*Stachys stricta*). Other common plants include hyssop loosestrife, annual quaking grass (*Briza minor),* cut-leaf geranium (*Geranium dissectum*), common sow thistle (*Sonchus oleraceus),* and Italian thistle (*Carduus pycnocephalus*).

3.2.4 Drainage Ditch

A constructed drainage ditch conveys flows collected in roadside ditches along Country Club Drive into the intermittent drainage to the north. This drainage ditch is lined with rocks and is entirely unvegetated.

3.2.5 Ephemeral Drainage

Five ephemeral drainages occur within the Study Area. Ephemeral drainages are linear features that convey runoff for short periods of time, during and immediately following rain events, and do not convey any groundwater flows. Several ephemeral drainages occur within the sewer alternatives. These features are almost entirely unvegetated, and any sparse vegetation that does occur is typical of the surrounding terrestrial vegetation community.

3.2.6 Intermittent Drainage

One intermittent drainage runs through the northern portion of the Study Area. This feature has a variable substrate, ranging from sand and mud in some areas to bedrock in others. It is entirely unvegetated within the channel due to the depth and scouring effects of water. This feature runs through Oak Woodlands for much of its length, and as a result of the closed canopy, very little herbaceous vegetation occurs along the banks in those areas. Portions of the drainage that run through Annual Brome Grasslands are primarily bordered by grasses and forbs typical of that community, but also support scattered seep monkeyflower (*Erythranthe guttata*) and other herbaceous hydrophytes.

3.2.7 Perennial Creek (Carson Creek)

Carson Creek, which is perennial with a bedrock substrate, runs through the western portion of the Study Area. It is almost entirely unvegetated within the channel, but there are a few plants occurring on the banks and in areas where sediment has accumulated within the channel. These plants are described above in the description of Arroyo Willow Scrub, which borders the creek. To reiterate, plants observed within and adjacent to Carson Creek include narrow-leaved cattail (*Typha angustifolia),* Torrey's willowherb*,* sticktight, Lady's thumb*,* False waterpepper*,* western goldenrod*,* mugwort*,* tall nutsedge*,* rice cutgrass*,* and seep monkeyflower.

3.2.8 Roadside Ditch

Several roadside ditches were mapped within the Study Area along Bass Lake Road, Country Club Drive, and Old Country Club Drive. The roadside ditches were constructed adjacent to the roadways, and serve to convey stormwater runoff away from the road. These features are entirely unvegetated due to ditch maintenance and due to the fact that many of these features are lined with rock, presumably for flow attenuation.

3.3 Soils

According to the Natural Resources Conservation Service (NRCS) Soil Survey Database (NRCS 2024), four soil mapping units occur within the Study Area (**Figure 3**): (AkC) Argonaut gravelly loam, 2 to 15 percent slopes; (AwD) Auburn silt loam, 2 to 30 percent slopes; (AxD) Auburn very rocky silt loam, 2 to 30 percent slopes; and (AyF) Auburn extremely rocky silt loam, 3 to 70 percent slopes. These soils are all somewhat acidic. The Auburn soils are formed in amphibolite schist (metamorphic rock) while the Argonaut soils are formed in weathered meta-andesite (weathered volcanic rock) (NRCS 2024).

4.0 SURVEY RESULTS

4.1 Big-Scale Balsamroot

Big-scale balsamroot (*Balsamorhiza macrolepis*) is not federally or state listed, but it is classified as a CRPR List 1B.2 plant. It is a perennial herbaceous species that occurs in chaparral, cismontane woodland and valley and foothill grasslands between 150 and 5100 feet (CNPS 2024). Big-scale balsamroot blooms from March through June and may be found on serpentine soils, though it is known to grow on other soil types as well (CNPS 2024).

The Annual Brome Grassland and Oak Woodlands throughout the Study Area provide marginally suitable habitat for big-scale balsamroot. This species was not observed during the 2022-2024 protocol-level special status plant surveys, which were conducted in April when this species would have been in bloom.

4.2 Spicate Rosinweed

Spicate rosinweed (*Calycadenia spicata*) is not federally or state listed, but it is classified as a CRPR List 1B.3 plant. It is a perennial herbaceous species that occurs in disturbed areas and openings in annual grasslands and cismontane woodland between 130 and 4,600 feet (CNPS 2024). Spicate rosinweed blooms from May through September and has been found on a variety of open habitats including adobe clay, rock outcrops, gravelly areas, and mine tailings (CNPS 2024).

The Annual Brome Grassland and Oak Woodlands throughout the Study Area provide suitable habitat for spicate rosinweed. However, this species was not observed during the 2023 protocol level late-season special-status plant survey of the Study Area, which were conducted when this plant would have been in bloom and identifiable.

4.3 Red Hills Soaproot

Red Hills soaproot (*Chlorogalum grandiflorum*) is not a state or federally listed species but is classified as a CRPR List 1B.2 plant. Red Hill soaproot is a bulbiferous perennial that is commonly found in chaparral, cismontane woodland, and lower montane coniferous forests. Occurs frequently on serpentine or gabbro soils, but can also occur on non-ultramafic substrates; often on "historically disturbed" sites. This species blooms from as early as April, but typically from May through June at elevations from 805 to 5545 feet (CNPS 2024).

The Oak Woodlands throughout the Study Area provide marginally suitable habitat for Red Hills soaproot. This species was not observed during the 2022-2024 protocol level special-status plant survey of the Study Area, which was conducted in May, when this species was observed in bloom at other nearby sites.

4.4 Dwarf Downingia

Dwarf downingia (*Downingia pusilla*) is not federally or state listed, but it is classified as a CRPR List 2B.2 plant. It is a diminutive annual herb that is strongly associated with vernal pools and mesic valley and foothill grassland, and is found in elevations ranging from five to 1460 feet (CNPS 2024). Dwarf downingia is typically associated with areas that experience a moderate degree of disturbance, and it blooms from March to May (CNPS 2024).

The seasonal wetlands and seasonal wetland swales within the Study Area represent marginal habitat for this species. This species was not observed during the 2022-2024 protocol level special-status plant survey of the Study Area, which was conducted in April, when this species was observed in bloom at other nearby sites.

4.5 Tuolumne Button-Celery

Tuolumne button-celery (*Eryngium pinnatisectum*) is not federally or state listed, but it is classified as a CRPR List 1B.2 plant. This species occurs in mesic areas in cismontane woodlands and coniferous forests, as well as vernal pools. Tuolumne button-celery blooms from May through August and is found from approximately 230 feet to 3,000 feet (CNPS 2024).

Aquatic resources throughout the Study Area provide suitable habitat for this species. However, this species was not observed during the 2023 protocol level late-season special-status plant survey of the Study Area.

4.6 Sanford's Arrowhead

Sanford's arrowhead is not federally or state listed, but it is classified as a CRPR List 1B.2 plant. It generally occurs in shallow freshwater habitats associated with drainages, canals, and larger ditches that sustain inundation and/or slow-moving water into early summer. It is a perennial rhizomatous emergent species that blooms from May to October at elevations from sea level to 2,130 feet (CNPS 2016).

Suitable habitat is present for this species in Carson Creek and the intermittent drainage within the Study Area. However, this species was not observed during the 2023 late-season special-status plant survey of the Study Area.

5.0 CONCLUSION

No special-status plants were observed during the 2022-2024 special-status plant survey of the Study Area.

6.0 REFERENCES

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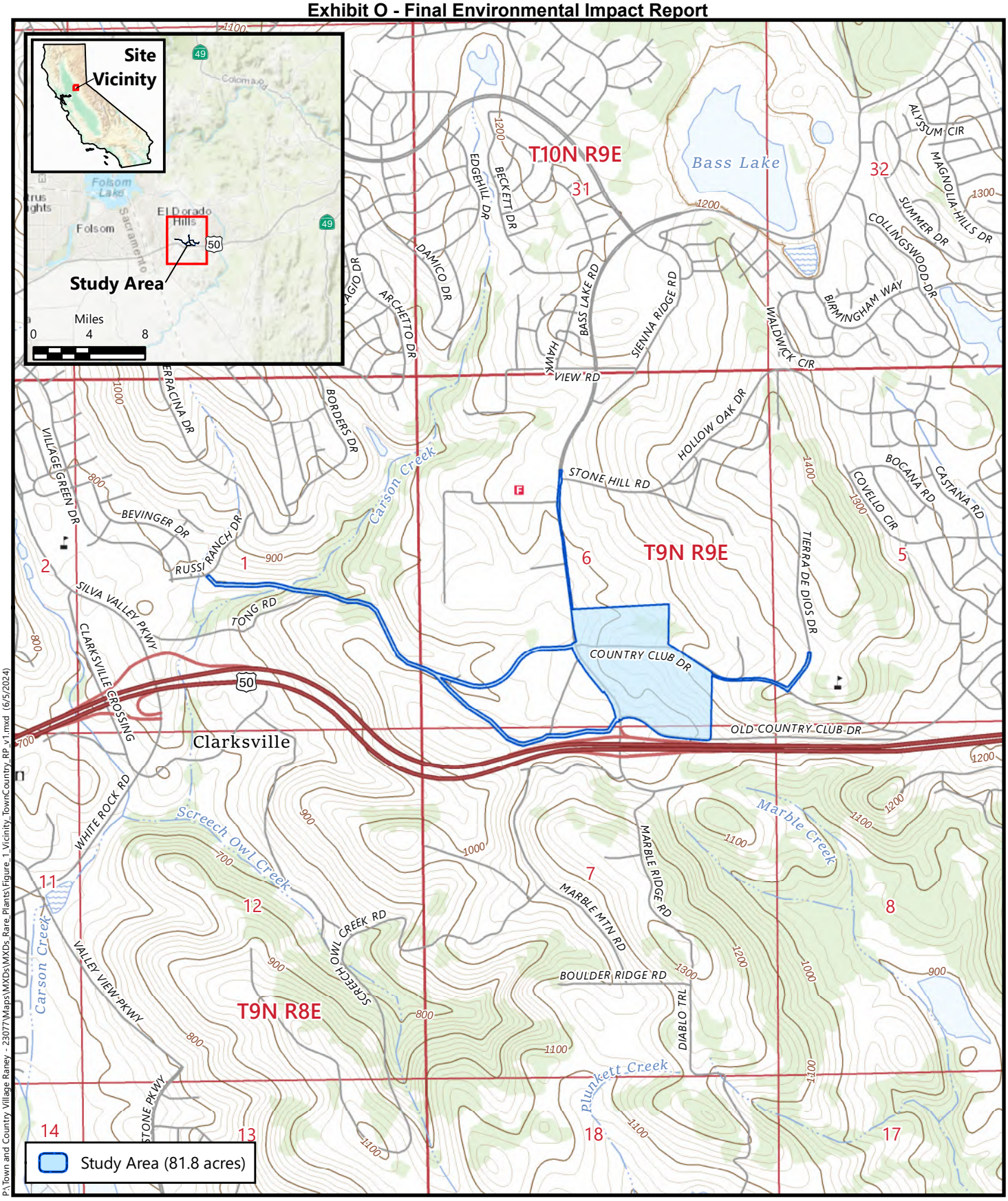
Figures

Figure 1. Vicinity Map

Figure 2. Aquatic Resources and Vegetation Communities

Figure 3. Natural Resources Conservation Service Soils



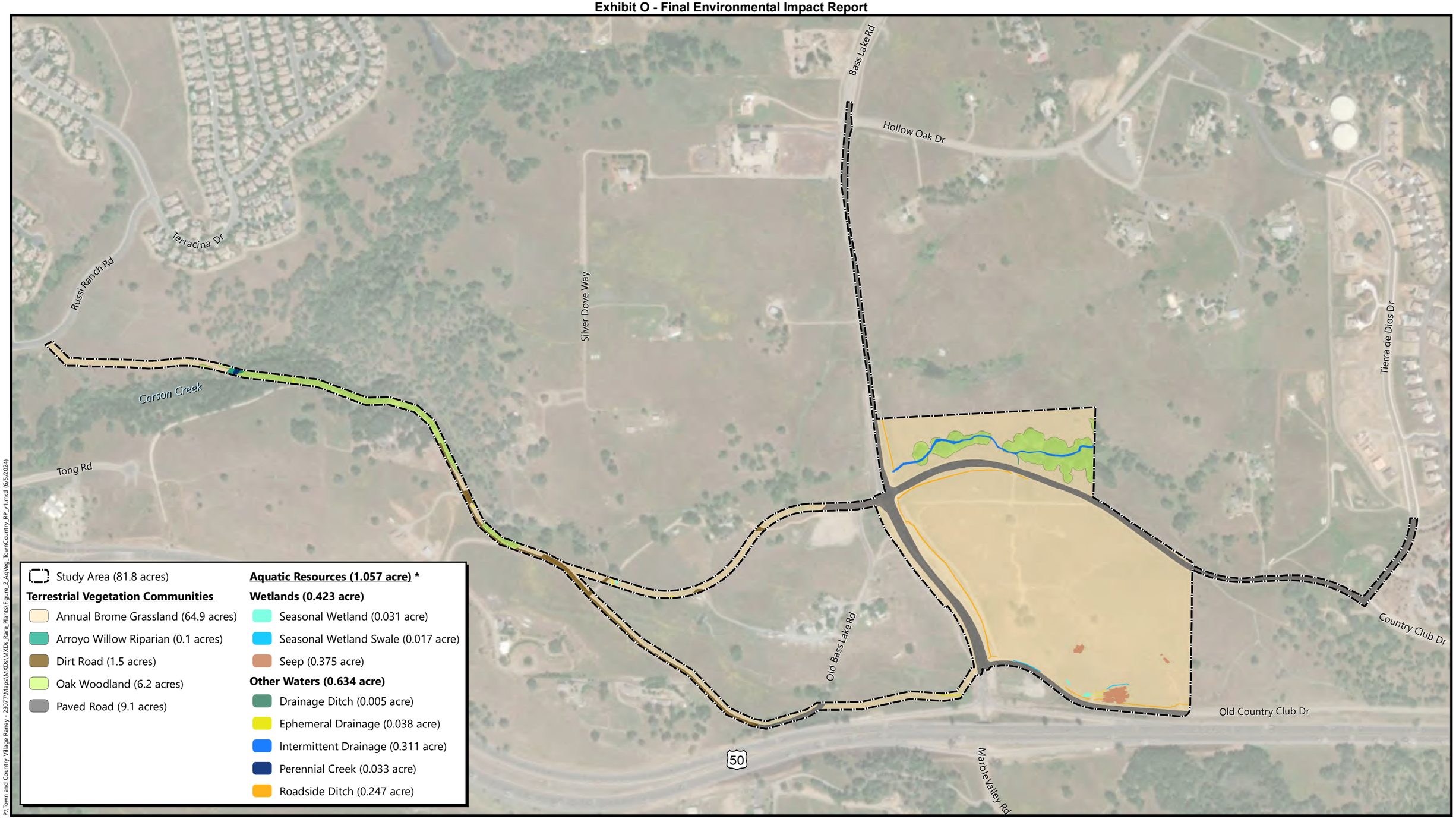
P:\Town and Country Village Raney - 23077\Maps\MXDs\MXDs_Rare_Plants\Figure_1_Vicinity_TownCountry_RP_v1.mxd (6/5/2024)

Source: United States Geologic Survey, 2021
"Clarksville, California" 7.5-Minute Topographic Quadrangle
Section 1, Township 9 North, Range 8 East, MDBM and
Sections 5-7, Township 9 North, Range 9 East, MDBM
Latitude (NAD83): 38.658668°, Longitude (NAD83): -121.029902°

Figure 1
Site and Vicinity

Town and Country Village El Dorado
El Dorado County, California

MADRONE ECOLOGICAL CONSULTING



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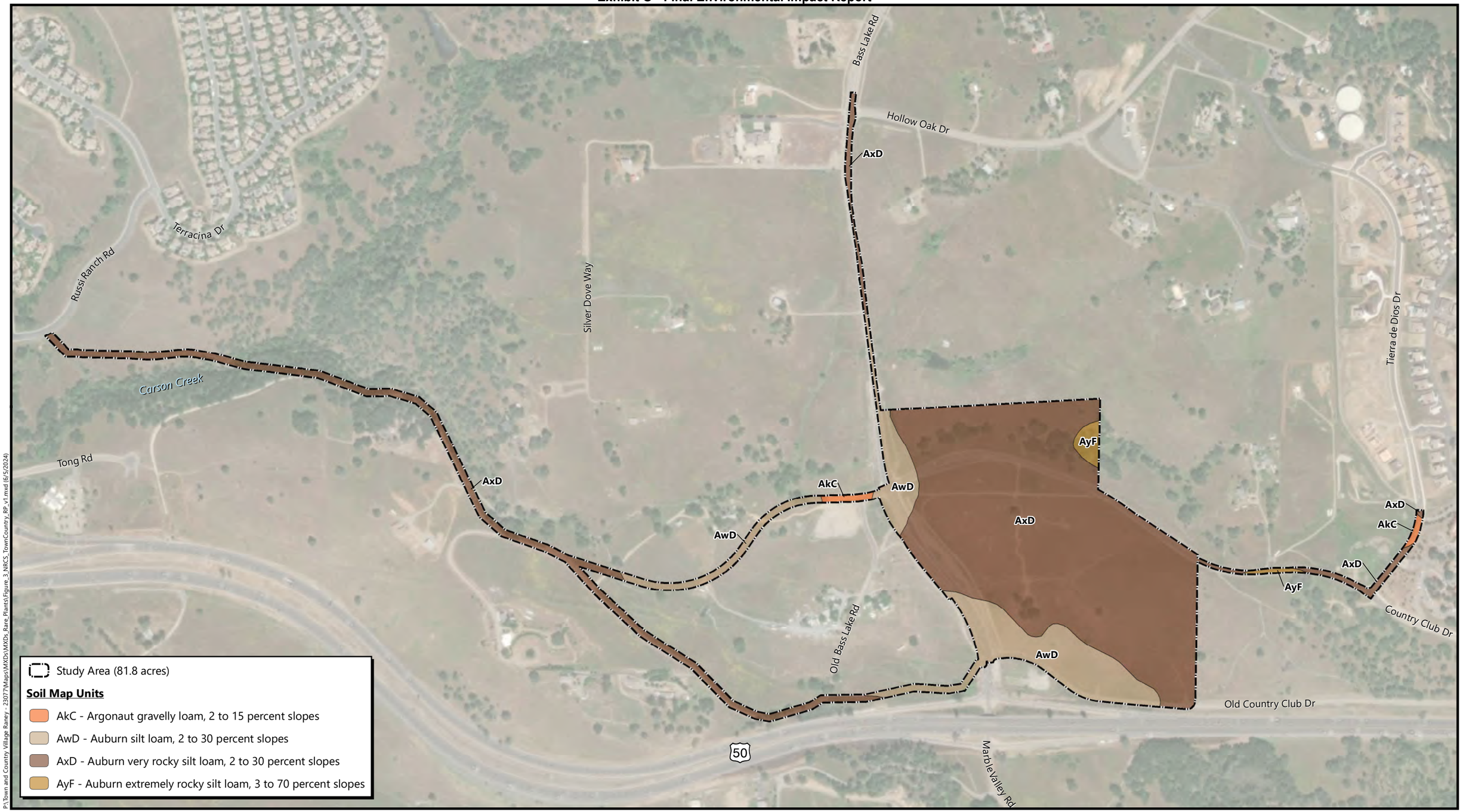
* *Small summation errors may occur due to rounding*

Boundary Source: CTA Engineering & Surveying
Aerial Source: Maxar, 1 May 2022

Figure 2
Aquatic Resources and Vegetation Communities

Town and Country Village El Dorado
El Dorado County, California



P:\Town and Country Village Raney - 23077\Maps\MXDs\MXDs_Rare_Plants\Figure_3_NRCS_TownCountry_RP_v1.mxd (6/5/2024)

Soil Survey Source: *USDA, Natural Resources Conservation Service Soil Survey Geographic (SSURGO) database for El Dorado County, California*
Aerial Source: Maxar, 1 May 2022

Figure 3
Natural Resources Conservation Service Soils

Town and Country Village El Dorado
El Dorado County, California

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Attachments

Attachment A: Botanist Qualifications

Attachment B: Target Plant Species Reference Population Information

Attachment C: Plant Species Observed within the Town and Country Village El Dorado Study Area

Attachment A

Botanist Qualifications

Special-Status Plant Survey Botanist Qualifications

Daria Snider

Ms. Snider has more than 20 years of experience conducting botanical inventories. As a senior biologist, she specializes in rare plant surveys, wetland delineations, and general biological resource inventories. In addition to rare plant surveys, her botanical experience includes general vegetation surveys, aerial and field vegetation mapping, Certified Arborist tree inventories, CRAM Assessments, floristic monitoring, and invasive species identification and mapping. Ms. Snider's experience includes a wide variety of habitat types, including vernal pools, annual grasslands, oak woodland, riparian communities, coastal sage scrub, chaparral, cismontane and montane forests, and desert. Her geographic expertise covers much of California, from Shasta County in the north to the Mojave Desert and San Gabriel Mountains in the south, and from Sonoma County in the west to the Sierra Nevada foothills and mountains in the east. Her primary focus is on the Sacramento Valley and the adjacent Sierra Nevada foothills.

Bonnie Peterson

Ms. Peterson has a B.S. in Conservation Biology from California State University, Sacramento, and more than 20 years of experience in environmental consulting. As a senior biologist she conducts a range of activities to aid in planning and to assure regulatory compliance, including rare plant surveys, wetland delineations, environmental awareness training, and surveys and habitat assessments for valley elderberry longhorn beetle, burrowing owl, Swainson's hawk, giant garter snake, listed vernal pool branchiopods, and other special-status species; riparian and oak tree monitoring; and vernal pool floristic monitoring. She has monitored constructed and reference wetlands, monitored conservation areas and mitigation banks, prepared annual reports; prepared Mitigation Monitoring Plans and Open Space Monitoring Plans; and prepared a variety of other biological resource documentation. She has completed plant taxonomy courses at the University level, as well as continuing education through participation in California Native Plant Society sponsored plant identification workshops. She possesses a plant voucher collecting permit issued by the California Department of Fish and Wildlife.

Attachment B

Target Plant Species
Reference Population Information

Target Plant Species Reference Population Information for the Town and Country Village El Dorado Special-Status Plant Survey

Plant Species	Location of Reference Population	Date of Visit	Phenology of Reference Population/ Distinctive Characteristics
Balsamorhiza macrolepis Big-scale balsamroot	Herbarium specimen at UC Davis Center for Plant Diversity Online Jepson Manual and Calflora	23 April 2019 March through May 2024	Pressed specimen. Similar to *Wyethia*, but with grey, dissected leaves. Leaves are mostly basal (as opposed to *Wyethia*, which has basal and cauline leaves).
Calycadenia spicata Spicate rosinweed	Online Jepson Manual and Calflora	May through August 2024	Identified from other *Calycadenia* species by a central ray lobe much smaller than the lateral ray lobes and 4-15 disk flowers with white corollas 7-10 mm in size.
Chlorogalum grandiflorum Red Hills soaproot	Hillside just north of Meder Road in Cameron Park (CNDDB Occurrence #33)	29 May 2024	Abundant. Plants were just coming into bloom, and the characteristic short pedicel that is indicative of this species was readily identifiable. Plants are relatively small rosettes with wavy leaf margins.
Downingia pusilla Dwarf downingia	Woodcreek Oaks Open Space Preserve (CNDDB #142)	10 April 2024	Plants are just coming into bloom below *Plagiobothrys stipitatus* and *Ranunculus bonariensis*. Should be in full bloom in about a week.
Eryngium pinnatisectum Tuolumne button-celery	Herbarium specimen at UC Davis Center for Plant Diversity Online Jepson Manual and Calflora	31 March 2016 2022-2024	Pressed specimen. Flowers have very distinctive inflorescence bracts with thickened margins and no marginal spines.
Sagittaria sanfordii Sanford's arrowhead	Population in Laguna Creek north of Elk Grove Blvd in Elk Grove (CNDDB Occurrence #43)	20 May 2024	Plants were in early bloom, with some plants still entirely aquatic. Those that had terrestrial leaves exhibited the typical triangular cross-section, and the blooms and fruit made blooming plants readily identifiable to species.

Attachment C

Plant Species Observed within the Town and Country Village El Dorado Study Area

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Plant Species Observed within the Town and Country Village El Dorado Study Area

13 April 2022, 27 September 2023, 6 October 2023, 26 April 2024 and 29 May 2024

Family / Species Name	Common Name	Native / Non-Native
AGAVACEAE		
Chlorogalum angustifolium	Narrow-leaved soap plant	Native
Chlorogalum pomeridianum var. pomeridianum	Common soap plant	Native
ALLIACEAE		
Allium hyalinum	Glassy onion	Native
ANACARDIACEAE		
Pistacia altantica	Atlas pistachio	Non-Native
Schinus molle	Pepper tree	Non-Native
Toxicodendron diversilobum	Western poison oak	Native
APIACEAE		
Anthriscus caucalis	Bur-chervil	Non-Native
Daucus pusillus	Wild carrot	Native
Eryngium castrense	Great valley coyote-thistle	Native
Lomatium marginatum var. marginatum	Hartweg's lomatium	Native
Perideridia kelloggii	Yampah	Native
Sanicula bipinnatifida	Purple sanicle	Native
Sanicula crassicaulis	Pacific sanicle	Native
Scandix pecten-veneris	Venus' needle	Non-Native
Torilis arvensis	Tall sock-destroyer	Non-Native
APOCYNACEAE		
Apocynum cannabinum	Hemp dogbane	Native
Asclepias fascicularis	Narrow-leaf milkweed	Native
Vinca major	Greater periwinkle	Non-Native
ASTERACEAE		
Achillea millefolium	Yarrow	Native
Artemisia douglasiana	Mugwort	Native
Baccharis pilularis subsp. pilularis	Coyote brush	Native
Bidens frondosa	Sticktight	Native

Plant Species Observed within the Town and Country Village El Dorado Study Area

13 April 2022, 27 September 2023, 6 October 2023, 26 April 2024 and 29 May 2024

Family / Species Name	Common Name	Native / Non-Native
ASTERACEAE (continued)		
Carduus pycnocephalus subsp. pycnocephalus	Italian thistle	Non-Native
Dittrichia graveolens	Stinkwort	Non-Native
Erigeron canadensis	Horseweed	Native
Euthamia occidentalis	Western goldenrod	Native
Helminthotheca echioides	Bristly ox-tongue	Non-Native
Holocarpha virgata	Narrow tarplant	Native
Hypochaeris glabra	Smooth cat's-ear	Non-Native
Lactuca serriola	Prickly lettuce	Non-Native
Leontodon saxatilis	Hairy hawkbit	Non-Native
Logfia gallica	Daggerleaf cottonrose	Non-Native
Madia gracilis	Gumweed	Native
Matricaria discoidea	Pineapple weed	Native
Micropus californicus	Q-tips	Native
Psilocarphus oregonus	Oregon woollyheads	Native
Senecio vulgaris	Common groundsel	Non-Native
Silybum marianum	Milk thistle	Non-Native
Soliva sessilis	South American soliva	Non-Native
Sonchus asper subsp. asper	Prickly sow thistle	Non-Native
Sonchus oleraceus	Common sow thistle	Non-Native
Wyethia angustifolia	Narrow leaved mule ears	Native
BORAGINACEAE		
Amsinckia eastwoodiae	Eastwood's fiddleneck	Native
Amsinckia intermedia	Common fiddleneck	Native
Amsinckia menziesii	Common fiddleneck	Native
Amsinckia retrorsa	Rigid fiddleneck	Native
Cryptantha muricata	Prickly-nut cryptantha	Native
Phacelia cicutaria var. cicutaria	Caterpillar phacelia	Native
Plagiobothrys fulvus var. campestris	Field popcornflower	Native
Plagiobothrys infectivus	Dye popcornflower	Native
Plagiobothrys nothofulvus	Rusty popcornflower	Native
Plagiobothrys stipitatus var. micranthus	Slender popcornflower	Native

Plant Species Observed within the Town and Country Village El Dorado Study Area

13 April 2022, 27 September 2023, 6 October 2023, 26 April 2024 and 29 May 2024

Family / Species Name	Common Name	Native / Non-Native
BRASSICACEAE		
Brassica nigra	Black mustard	Non-Native
Cardamine oligosperma	Little western bittercress	Native
Lepidium didymum	Lesser swine cress	Non-Native
Lepidium nitidum	Shining peppergrass	Native
Raphanus sativus	Radish	Non-Native
Thysanocarpus curvipes	Common fringe pod	Native
CAPRIFOLIACEAE		
Lonicera interrupta	Chaparral honeysuckle	Native
CARYOPHYLLACEAE		
Cerastium fontanum subsp. vulgare	Common mouse-ear chickweed	Non-Native
Cerastium glomeratum	Sticky mouse-ear chickweed	Non-Native
Petrorhagia dubia	Grass pink	Non-Native
Silene gallica	Small-flower catchfly	Non-Native
Spergularia rubra	Red sand-spurrey	Non-Native
Stellaria media	Common chickweed	Non-Native
CONVOLVULACEAE		
Convolvulus arvensis	Bindweed	Non-Native
CRASSULACEAE		
Crassula tillaea	Moss pygmyweed	Non-Native
CUCURBITACEAE		
Marah fabacea	California man-root	Native
CYPERACEAE		
Carex praegracilis	Black creeper or freeway sedge	Native
Cyperus eragrostis	Tall nutsedge	Native
Eleocharis macrostachya	Creeping spikerush	Native

Plant Species Observed within the Town and Country Village El Dorado Study Area

13 April 2022, 27 September 2023, 6 October 2023, 26 April 2024 and 29 May 2024

Family / Species Name	Common Name	Native / Non-Native
EUPHORBIACEAE		
Croton setiger	Turkey-mullein	Native
FABACEAE		
Acmispon americanus	Spanish lotus	Native
Acmispon micranthus	Small flowered lotus	Native
Lupinus bicolor	Miniature lupine	Native
Lupinus nanus	Valley sky lupine	Native
Melilotus indicus	Sourclover	Non-Native
Trifolium bifidum var. bifidum	Pinole clover	Native
Trifolium ciliolatum	Foothill clover	Native
Trifolium depauperatum	Dwarf sack clover	Native
Trifolium dubium	Little hop clover	Non-Native
Trifolium glomeratum	Clustered clover	Non-Native
Trifolium hirtum	Rose clover	Non-Native
Trifolium incarnatum	Crimson clover	Non-Native
Trifolium microcephalum	Small-head clover	Native
Trifolium microdon	Thimble clover	Native
Trifolium subterraneum	Subterranean clover	Non-Native
Trifolium variegatum var. variegatum	Variegated clover	Native
Vicia hirsuta	Hairy vetch	Non-Native
Vicia sativa	Spring vetch	Non-Native
Vicia villosa subsp. varia	Winter vetch	Non-Native
Vicia villosa subsp. villosa	Hairy vetch	Non-Native
FAGACEAE		
Quercus douglasii	Blue oak	Native
Quercus lobata	Valley oak	Native
Quercus wislizeni	Interior live oak	Native
GERANIACEAE		
Erodium botrys	Filaree	Non-Native
Erodium cicutarium	Redstem filaree	Non-Native
Geranium dissectum	Cut-leaf geranium	Non-Native

Plant Species Observed within the Town and Country Village El Dorado Study Area

13 April 2022, 27 September 2023, 6 October 2023, 26 April 2024 and 29 May 2024

Family / Species Name	Common Name	Native / Non-Native
GERANIACEAE (continued)		
Geranium molle	Soft geranium	Non-Native
HYPERICACEAE		
Hypericum perforatum subsp. perforatum	Klamathweed	Non-Native
JUNCACEAE		
Juncus acuminatus	Tapered rush	Native
Juncus balticus subsp. ater	Baltic rush	Native
Juncus bufonius	Toad rush	Native
Juncus oxymeris	Pointed rush	Native
Juncus tenuis	Poverty or slender rush	Native
Juncus xiphioides	Iris-leaved rush	Native
LAMIACEAE		
Mentha pulegium	Pennyroyal	Non-Native
Stachys stricta	Sonoma hedge nettle	Native
Trichostema lanceolatum	Vinegar weed	Native
LIMNANTHACEAE		
Limnanthes alba subsp. versicolor	White meadowfoam	Native
Limnanthes douglasii subsp. striata	Foothill meadowfoam	Native
LINACEAE		
Linum bienne	Flax	Non-Native
LYTHRACEAE		
Lythrum hyssopifolia	Hyssop loosestrife	Non-Native
MONTIACEAE		
Calandrinia menziesii	Red maids	Native
Claytonia parviflora subsp. parviflora	Miner's lettuce	Native

Plant Species Observed within the Town and Country Village El Dorado Study Area

13 April 2022, 27 September 2023, 6 October 2023, 26 April 2024 and 29 May 2024

Family / Species Name	Common Name	Native / Non-Native
MORACEAE		
Ficus carica	Edible fig	Non-Native
MYRSINACEAE		
Lysimachia arvensis	Scarlet pimpernel	Non-Native
ONAGRACEAE		
Clarkia gracilis subsp. gracilis	Graceful clarkia	Native
Clarkia purpurea subsp. quadrivulnera	Four-spot	Native
Epilobium brachycarpum	Willowherb	Native
Epilobium ciliatum	Slender willow herb	Native
Epilobium torreyi	Torrey's willowherb	Native
OROBANCHACEAE		
Bellardia viscosa	Yellow parentucellia	Non-Native
Castilleja attenuata	Valley tassels	Native
OXALIDACEAE		
Oxalis micrantha	Dwarf wood-sorrel	Non-Native
PAPAVERACEAE		
Eschscholzia californica	California poppy	Native
Eschscholzia lobbii	Frying pans	Native
PHRYMACEAE		
Erythranthe guttata	seep monkeyflower	Native
Erythranthe microphylla	Small leaved monkeyflower	Native
PINACEAE		
Pinus sabiniana	Gray pine	Native
PLANTAGINACEAE		
Collinsia heterophylla var. heterophylla	Chinese-houses	Native
Collinsia sparsiflora var. collina	Hillside collinsia	Native

Plant Species Observed within the Town and Country Village El Dorado Study Area

13 April 2022, 27 September 2023, 6 October 2023, 26 April 2024 and 29 May 2024

Family / Species Name	Common Name	Native / Non-Native
PLANTAGINACEAE (continued)		
Gratiola ebracteata	Bractless hedge-hyssop	Native
Plantago erecta	California plantain	Native
Plantago lanceolata	English plantain	Non-Native
POACEAE		
Aegilops triuncialis	Barbed goat grass	Non-Native
Aira caryophyllea	Silver hair grass	Non-Native
Avena barbata	Slender wild oat	Non-Native
Brachypodium distachyon	Purple false brome	Non-Native
Briza minor	Annual quaking grass	Non-Native
Bromus diandrus	Ripgut grass	Non-Native
Bromus hordeaceus	Soft chess	Non-Native
Bromus madritensis spp. *rubens*	Red brome	Non-Native
Bromus rubens	Red brome	Non-Native
Bromus sitchensis var. carinatus	California brome	Native
Bromus sterilis	Sterile brome	Non-Native
Cynosurus echinatus	Bristly dogtail grass	Non-Native
Deschampsia danthonioides	Annual hair grass	Native
Elymus caput-medusae	Medusa head	Non-Native
Elymus ponticus	Tall wheat grass	Non-Native
Festuca bromoides	Brome fescue	Non-Native
Festuca microstachys	Small fescue	Native
Festuca myuros	Rattail sixweeks grass	Non-Native
Festuca perennis	Rye grass	Non-Native
Hordeum marinum subsp. gussoneanum	Mediterranean barley	Non-Native
Hordeum murinum	Wall barley	Non-Native
Leersia oryzoides	Rice cutgrass	Native
Melica torreyana	Torrey's melic	Native
Muhlenbergia rigens	Deer grass	Native
Poa annua	Annual blue grass	Non-Native
Poa bulbosa	Bulbous blue grass	Non-Native
Polypogon maritimus	Mediterranean beard grass	Non-Native
Polypogon monspeliensis	Annual rabbitfoot grass	Non-Native

Plant Species Observed within the Town and Country Village El Dorado Study Area

13 April 2022, 27 September 2023, 6 October 2023, 26 April 2024 and 29 May 2024

Family / Species Name	Common Name	Native / Non-Native
POACEAE (continued)		
Stipa pulchra	Purple needle grass	Native
POLEMONIACEAE		
Leptosiphon ciliatus	Whisker brush	Native
Navarretia intertexta	Needle-leaf navarretia	Native
POLYGONACEAE		
Persicaria hydropiperoides	False waterpepper	Native
Persicaria maculosa	Lady's thumb	Non-Native
Pterostegia drymarioides	Fairy mist	Native
Rumex crispus	Curly dock	Non-Native
Rumex pulcher	Fiddle dock	Non-Native
Rumex salicifolius	Willow dock	Native
POLYPODIACEAE		
Polypodium calirhiza	Licorice fern	Native
PTERIDACEAE		
Adiantum jordanii	California maidenhair	Native
Pentagramma triangularis	Goldback fern	Native
RANUNCULACEAE		
Delphinium variegatum subsp. variegatum	Royal larkspur	Native
Ranunculus bonariensis var. trisepalus	Vernal pool buttercup	Native
RHAMNACEAE		
Frangula californica subsp. tomentella	Hoary coffeeberry	Native
ROSACEAE		
Aphanes occidentalis	Ladie's mantle	Native
Heteromeles arbutifolia	Toyon	Native
Horkelia californica var. elata	California horkelia	Native

Plant Species Observed within the Town and Country Village El Dorado Study Area

13 April 2022, 27 September 2023, 6 October 2023, 26 April 2024 and 29 May 2024

Family / Species Name	Common Name	Native / Non-Native
ROSACEAE (continued)		
Rubus armeniacus	Armenian blackberry	Non-Native
RUBIACEAE		
Cephalanthus occidentalis	California button willow	Native
Galium aparine	Goose grass	Native
Galium parisiense	Wall bedstraw	Non-Native
Galium porrigens var. tenue	Climbing bedstraw	Native
Sherardia arvensis	Field madder	Non-Native
SALICACEAE		
Salix gooddingii	Goodding's black willow	Native
Salix laevigata	Red willow	Native
Salix lasiandra	Pacific willow	Native
Salix lasiolepis	Arroyo willow	Native
SAPINDACEAE		
Aesculus californica	California buckeye	Native
SAXIFRAGACEAE		
Lithophragma heterophyllum	Woodland star	Native
SCROPHULARIACEAE		
Verbascum blattaria	Moth mullein	Non-Native
SELAGINELLACEAE		
Selaginella hansenii	Hansen's spike-moss	Native
SOLANACEAE		
Datura wrightii	Jimsonweed	Native
THEMIDACEAE		
Brodiaea elegans	Harvest brodiaea	Native
Dichelostemma volubile	Twining brodiaea	Native

Plant Species Observed within the Town and Country Village El Dorado Study Area

13 April 2022, 27 September 2023, 6 October 2023, 26 April 2024 and 29 May 2024

Family / Species Name	Common Name	Native / Non-Native
THEMIDACEAE (continued)		
Dipterostemon capitatus	Blue dicks	Native
Triteleia hyacinthina	White brodiaea	Native
Triteleia laxa	Ithuriel's spear	Native
TYPHACEAE		
Typha angustifolia	Narrow-leaved cattail	Native or Non-Native
Typha domingensis	Southern cattail	Native
Typha latifolia	Broad-leaved cattail	Native
VISCACEAE		
Phoradendron leucarpum subsp. tomentosum	Oak mistletoe	Native

Attachment F

Aquatic Resources Delineation Report
for Town and Country Village

Aquatic Resources Delineation Report

Town and Country Village

El Dorado County, California

February 2024

MADRONE ECOLOGICAL CONSULTING

Prepared for:

Raney Planning & Management, Inc.
1501 Sports Drive, Suite A
Sacramento, CA 95834

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Town and Country Village

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1.0 INTRODUCTION

This report presents the results of a delineation of aquatic resources within Town and Country Village (Study Area) conducted by Madrone Ecological Consulting, LLC (Madrone). The approximately 81.8-acre Study Area is generally located north of Interstate Highway 50, largely south of Stone Hill Road, east of Silva Valley Parkway, and largely west of Morrison Road in western El Dorado County, California. The Study Area is within portions of Section 1, Township 9 North, Range 8 East and Sections 5-7, Township 9 North, Range 9 East (MDBM) of the "Clarksville, California" 7.5-Minute Series USGS Topographic Quadrangle (USGS 2021) (**Figure 1**).

1.1 Contact Information

Property Owner
Moe Mohanna
M.H, Mohanna & Co.
1025 9th Street, 2nd Floor
Sacramento, CA 95814
Telephone: 916-870-7236
Email: moe@mohannadevelopment.com

Agent
Sarah VonderOhe
Madrone Ecological Consulting
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Citrus Heights, CA 95610
Telephone: (916) 822-3230
Email: svonderohe@madroneeco.com

2.0 METHODOLOGY

Madrone biologists Daria Snider and Bonnie Peterson conducted a delineation of aquatic resources within the Study Area on 27 September and 6 October 2023. Water features and data points were mapped in the field with a GPS unit capable of sub-meter accuracy (Arrow 100). Three-parameter data (vegetation, soils, and hydrology) were collected at each data point, documenting wetland/waters or upland status, as appropriate. The delineation map was prepared in accordance with the *Updated Map and Drawing Standards for the South Pacific Division Regulatory Program* (USACE 2016a). The GPS data was overlaid on aerial photographs (Maxar 2022).

The delineation was performed in accordance with the *Corps of Engineers Wetlands Delineation Manual* (Environmental Laboratory 1987), the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0)* (USACE 2008a), *A Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States* (USACE 2008b), and the Sacramento District's *Minimum Standards for Acceptance of Preliminary Wetlands Delineations* (USACE 2016b). U.S. Army Corps of Engineers (USACE) regulations (33 CFR 328) were used to determine the presence of Waters of the United States other than wetlands. The most recent *National Wetland Plant List* (USACE 2020) was used to determine the wetland indicator status of plants observed in the Study Area. The *Jepson eFlora* (Jepson Flora Project 2024) was used for plant nomenclature.

3.0 EXISTING CONDITIONS

The Study Area is largely comprised of ungrazed annual brome grasslands with widely scattered oak trees. Oak woodlands occur in the vicinity of the intermittent drainage and perennial Carson Creek. The intermittent drainage is located in the northern portion of the Study Area, and Carson Creek is in the western portion. Carson Creek runs over bedrock, and the adjacent slopes are quite steep, restricting the extent of riparian vegetation, which consists of a narrow band of arroyo willow riparian scrub. The oak woodland south of the creek has a dense, closed canopy, as is typical for north-facing slopes in the region. Bass Lake Road cuts from north to south through the Study Area, and Country Club Drive runs from west to east. Portions of Old Bass Lake Road and Old Country Club Drive also occur within portions of the Study Area. Several seasonal wetlands and two seasonal wetland swales occur just north of Old Country Club Drive, and one seasonal wetland occurs near an ephemeral drainage in the western portion of the Study Area. A few seeps occur on slopes in the annual brome grasslands. Roadside ditches run along the edges of a number of roadways within the Study Area, and three portions of ephemeral drainages occur within infrastructure-related portions of the Study Area. Inclusions of unvegetated areas are scattered throughout the Study Area along farm roads. The terrain within the Study Area is gently rolling, and generally slopes from the east down towards the west. Elevations range from approximately 1,320 feet above mean sea level (MSL) at the eastern edge of the Study Area to approximately 800 feet at the western extent along Russi Ranch Drive (**Figure 1**).

Surrounding properties are similar to those within the Study Area. They are largely comprised of ungrazed annual grasslands, scattered oak woodlands, and rural residences. The western and eastern ends of the Study Area abut urban residential areas, and the Study Area is bordered by Interstate Highway 50 to the south.

3.1 Hydrology

Surface water within the Study Area is primarily driven by rainfall, but there are also some groundwater inputs. Water across the site generally drains from east to west. The wetlands generally drain into the roadside ditches and ephemeral drainages, which are tributary to the intermittent drainage and Carson Creek. The seeps and some of the seasonal wetlands are supported by varying amounts of groundwater inputs. Carson Creek is a tributary to Deer Creek, which empties into the Cosumnes River. The Study Area is located in the *Carson Creek Watershed*, which is part of the larger *Upper Cosumnes River Watershed* (HUC 18040013) (USGS 1984).

3.2 Soils

According to the Natural Resources Conservation Service (NRCS) Soil Survey Database (NRCS 2024), four soil mapping units occur within the Study Area (Figure 6) (**Table 1**). These soils are all somewhat acidic. The Auburn soils are formed in amphibolite schist (metamorphic rock) while the Argonaut soils are formed in weathered meta-andesite (weathered volcanic rock) (NRCS 2024). None of the soil units have hydric components, but the Argonaut soils has 1% hydric inclusions on fan remnants (NRCS 2024).

Table 1. Hydric Rating of Soils within the Study Area

Soil Unit Name	Map Unit Symbol	Hydric Rating
Argonaut gravelly loam, 2 to 15% slopes	AkC	No
Auburn silt loam, 2 to 30% slopes	AwD	No
Auburn very rocky silt loam, 2 to 30% slopes	AxD	No
Auburn extremely rocky silt loam, 3 to 70% slopes	AyF	No

3.3 Driving Directions

The Study Area is located off of Old Country Club Drive in El Dorado County, California. To access the Study Area from Sacramento, drive east on Highway 50 towards Clarksville. Take exit 32 towards Bass Lake Road. Head north on Bass Lake Road. The Study Area is on either side of Bass Lake Road just north of the Highway.

4.0 RESULTS

A total of approximately 0.909 acre of aquatic resources were delineated within the Study Area, including approximately 0.278 acre of wetlands and 0.631 acre of other waters. Seasonal wetlands, seasonal wetland swales, seeps, a drainage ditch, ephemeral drainages, intermittent drainages, Carson Creek, and roadside ditches were delineated within the Study Area. A summary of the aquatic resources found on-site and their acreages is shown in **Table 2** below.

Table 2. Aquatic Resources Delineated within the Study Area

Resource Type	Acreage[1]
Wetlands	
Seasonal Wetland	0.211
Seasonal Wetland Swale	0.017
Seep	0.051
Other Waters	
Drainage Ditch	0.005
Ephemeral Drainage	0.035
Intermittent Drainage	0.311
Perennial Creek (Carson Creek)	0.033
Roadside Ditch	0.247
Total	**0.909**

[1] *Small summation errors may occur due to rounding.*

Data sheets are included in **Attachment A**. Maps of the aquatic resources within the Study Area are included as **Figure 3** and **Attachment B**, and a list of the plant species observed in the Study Area with their wetland indicator status is included in **Attachment C**. GIS Shapefiles and the *Aquatic Resources Excel Spreadsheet* for the aquatic resources shown on **Figure 3** and **Attachment B** will be digitally transmitted with this document when it is submitted. Each of the feature types are described below.

4.1 Seasonal Wetland

Five seasonal wetlands occur within the southern portion of the Study Area. Seasonal wetlands are depressional wetlands that pond water seasonally. Two of the seasonal wetlands are depressional and are dominated by needle-leaf navarretia (*Navarretia intertexta*), Mediterranean beard grass (*Polypogon maritimus*) and Mediterranean barley (*Hordeum marinum*). Other species in these features include bractless hedge-hyssop (*Gratiola ebracteata*), slender popcorn flower (*Plagiobothrys stipitatus var. micranthus*), annual hairgrass (*Deschampsia danthonioides*), hyssop loosestrife (*Lythrum hyssopifolium*), slender tarweed (*Holocarpha virgata*), turkey mullein (*Croton setiger*), creeping spikerush (*Eleocharis macrostachya*), stinkwort (*Dittrichia graveolens*), and hairy cat's ear (*Leontodon saxatilis*). The remaining seasonal wetlands are slope wetlands, and are dominated by iris-leaved rush (*Juncus xiphioides*) and annual rabbitsfoot grass (*Polypogon monspeliensis*). Other species commonly occurring in these features include Baltic rush (*Juncus balticus*) and Spanish lotus (*Acmispon americanus*).

Three data points were collected within seasonal wetlands (DP 3, DP 5, and DP 7). Wetland hydrology indicators at these points included oxidized rhizospheres along living roots, presence of biotic crust, and the Fac-neutral test. Soils at points were considered hydric based on the presence of Field Indicators F3 (Depleted Matrix), F8 (Redox Depressions) or TF2 (Red Parent Material).

4.2 Seasonal Wetland Swale

Two seasonal wetland swales are present within the Study Area. Seasonal wetland swales are linear seasonal wetlands that convey surface runoff and may detain it for short periods of time. The vegetation in the seasonal wetland swales is similar to that found in the sloping seasonal wetlands. They are dominated by iris-leaved rush. Other species commonly found in these features include Spanish lotus, curly dock (*Rumex crispus*), and Mediterranean beard grass.

One data point was collected within a seasonal wetland swale (DP 9). Wetland hydrology indicators at these points included oxidized rhizospheres along living roots, and the Fac-neutral test. Soils at this point were considered hydric based on the presence of Field Indicators F3 (Depleted Matrix).

4.3 Seep

Seeps are areas where groundwater reaches the surface through porous soil or cracks in rock. Seeps result in seasonal or perennial soil saturation with minimal standing water and gentle flows. Three seeps were mapped within the Study Area. Dominant plant species identified within the seeps include iris-leaved rush, Baltic rush, and Sonoma hedge nettle (*Stachys stricta*). Other common plants include hyssop loosestrife, annual quaking grass (*Briza minor),* cut-leaf geranium (*Geranium dissectum*), common sow thistle (*Sonchus oleraceus),* and Italian thistle (*Carduus pycnocephalus*).

One data point was collected within a seep (DP 1). Wetland hydrology indicators at these points included saturation, and the Fac-neutral test. Soils at this point were considered hydric based on the presence of TF2 (Red Parent Material).

4.4 Drainage Ditch

A constructed drainage ditch conveys flows collected in roadside ditches along Country Club Drive into the intermittent drainage to the north. This drainage ditch is lined with rocks and is entirely unvegetated.

The drainage ditch was mapped at the OHWM, which was determined based on drift deposits and water marks.

4.5 Ephemeral Drainage

Five ephemeral drainages occur within the Study Area. Ephemeral drainages are linear features that convey runoff for short periods of time, during and immediately following rain events, and do not convey any groundwater flows. Several ephemeral drainages occur within the sewer alternatives. These features are almost entirely unvegetated, and any sparse vegetation that does occur is typical of the surrounding terrestrial vegetation community.

The ephemeral drainages were mapped at the OHWM, which was identified based on the extent of scour and extent of adjacent vegetation.

4.6 Intermittent Drainage

One intermittent drainage runs through the northern portion of the Study Area. This feature has a variable substrate, ranging from sand and mud in some areas to bedrock in others. It is entirely unvegetated within the channel due to the depth and scouring effects of water. This feature runs through oak woodlands for much of its length, and as a result of the closed canopy, very little herbaceous vegetation occurs along the banks in those areas. Portions of the drainage that run through annual brome grasslands are primarily bordered by grasses and forbs typical of that community, but also support scattered seep monkeyflower (*Erythranthe guttata*) and other herbaceous hydrophytes.

The intermittent drainage was mapped at the OHWM, which was identified based on the extent of scour, topographic breaks, and changes in vegetation.

4.7 Perennial Creek (Carson Creek)

Carson Creek, which is perennial with a primarily bedrock substrate, runs through the western portion of the Study Area. . It is almost entirely unvegetated within the channel, but there are a few plants occurring on the banks and in areas where sediment has accumulated within the channel. These plants include narrow-leaved cattail (*Typha angustifolia*), Torrey's willowherb (*Epilobium torreyi*), sticktight (*Bidens frondosa*), Lady's

thumb (*Persicaria maculosa*), False waterpepper (*Persicaria hydropiperoides*), western goldenrod (*Euthamia occidentalis*), mugwort (*Artemesia douglasiana*), tall nutsedge (*Cyperus eragrostis*), rice cutgrass (*Leersia oryzoides*), and seep monkeyflower.

The perennial creek was mapped at the OHWM, which was identified based on water marks, sediment sorting, topographic breaks, and changes in vegetation.

4.8 Roadside Ditch

Several roadside ditches were mapped within the Study Area along Bass Lake Road, Country Club Drive, and Old Country Club Drive. The roadside ditches were constructed adjacent to the roadways, and serve to convey stormwater runoff away from the road. These features are entirely unvegetated due to ditch maintenance and due to the fact that many of these features are lined with rock, presumably for flow attenuation.

The ephemeral drainages were mapped at the OHWM, which was identified based on the extent of scour, water marks, and extent of adjacent vegetation.

5.0 CONCLUSION

We believe that of the 0.909 acre of aquatic resources mapped within the Study Area, 0.622 acre may be subject to USACE jurisdiction, and the remaining 0.287 acre may be exempt from USACE jurisdiction, or otherwise non-jurisdictional.

The drainage ditch (0.005 acre) and roadside ditches (0.247 acre) were all constructed in uplands to convey stormwater runoff from the associated constructed roadways, and have ephemeral flow. We feel that these features would be categorically exempt from USACE jurisdiction under paragraph (b)(3) of the Confirming Clean Water Rule.

The ephemeral drainages (0.035 acre) are tributary to Carson Creek, but do not meet the relatively permanent standard, and do not fit any other jurisdictional category, and therefore would not be considered subject to USACE jurisdiction.

The remaining features may be subject to USACE jurisdiction. We are requesting an Approved Jurisdictional Determination for the Aquatic Resources Delineation Map of the Study Area (**Attachment B**) at this time to document the extent of aquatic resources and USACE jurisdiction. A JD request form is attached in **Attachment D**.

6.0 REFERENCES

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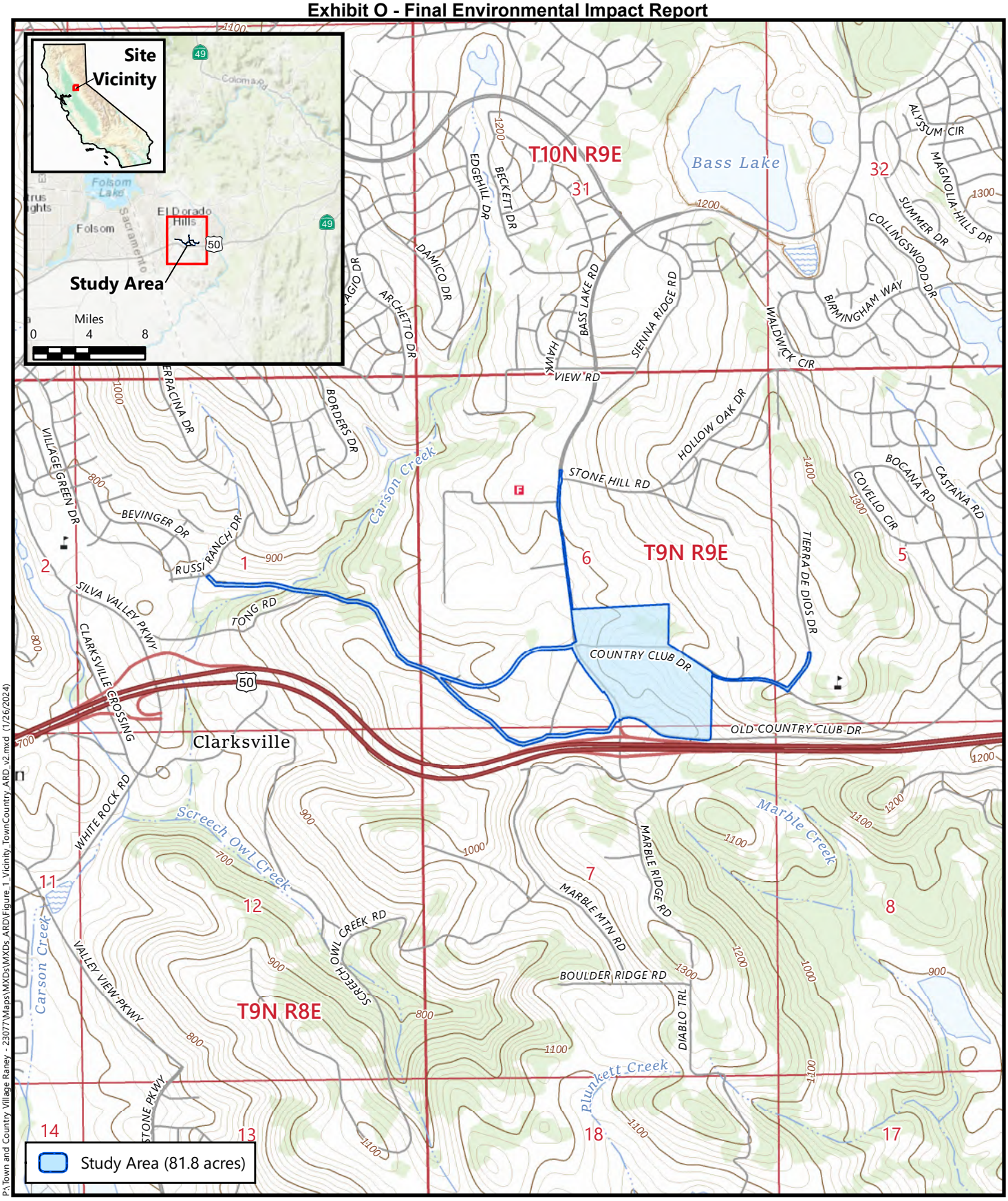
Figures

Figure 1. Vicinity Map

Figure 2. Natural Resources Conservation Service Soils

Figure 3. Aquatic Resources



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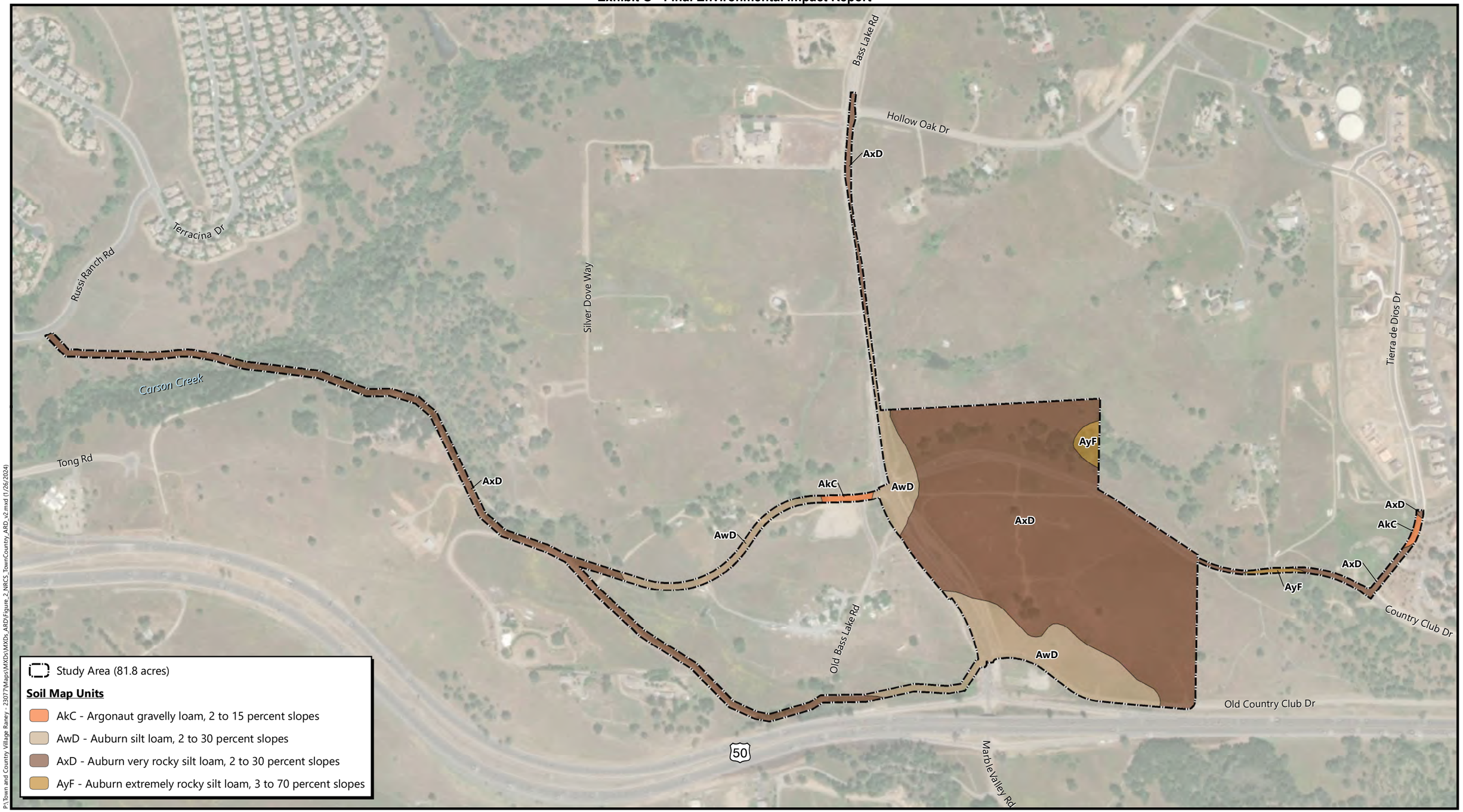
N
Feet
0 1,000 2,000

Source: United States Geologic Survey, 2021
"Clarksville, California" 7.5-Minute Topographic Quadrangle
Section 1, Township 9 North, Range 8 East, MDBM and
Sections 5-7, Township 9 North, Range 9 East, MDBM
Latitude (NAD83): 38.658668°, Longitude (NAD83): -121.029902°

Figure 1
Site and Vicinity

Town and Country Village
El Dorado County, California

MADRONE ECOLOGICAL CONSULTING



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N
Feet
0 600

Soil Survey Source: *USDA, Natural Resources Conservation Service Soil Survey Geographic (SSURGO) database for El Dorado County, California*
Aerial Source: Maxar, 1 May 2022

Figure 2
Natural Resources Conservation Service Soils

Town and Country Village
El Dorado County, California

MADRONE ECOLOGICAL CONSULTING

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** Small summation errors may occur due to rounding*

Boundary Source: CTA Engineering & Surveying
Aerial Source: Maxar, 1 May 2022

Figure 3
Aquatic Resources

Town and Country Village
El Dorado County, California

MADRONE ECOLOGICAL CONSULTING

Attachments

Attachment A. Arid West Wetland Determination Data Forms

Attachment B. Aquatic Resources Delination Map

Attachment C. Plant Species Observed within the Study Area

Attachment D. JD Request Form

Attachment A

Arid West

Wetland Determination Data Forms

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Town and Country Village City/County: El Dorado Sampling Date: 09/27/23
Applicant/Owner: Raney Planning & Management, Inc State: CA Sampling Point: DP1
Investigator(s): Daria Snider Section, Township, Range: Section 1, Township 9 North, Range 8 East
Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): None Slope (%): 5-10%
Subregion (LRR): Mediterranean California (LRR C) Lat: -121.0505833 Long: 38.66218167 Datum: NAD83
Soil Map Unit Name: AxD - Auburn very rocky silt loam, 2 to 30 percent slopes NWI Classification: None
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)
Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X No _____	**Is the Sampled Area within a Wetland?**	**Yes X No _____**
Hydric Soil Present?	Yes X No _____		
Wetland Hydrology Present?	Yes X No _____		

Remarks:

Representative seep.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	0	=Total Cover	

Sapling/Shrub Stratum (Plot size: _____)			
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	

Herb Stratum (Plot size: 1 meter^2)			
1. *Typha latifolia*	30	X	OBL
2. *Epilobium ciliatum*	10	X	FACW
3. *Carduus pycnocephalus*	10	X	UPL
4. *Helminthotheca echioides*	T		FAC
5. *Asclepias fascicularis*	T		FAC
6.			
7.			
8.			
	50	=Total Cover	

Woody Vine Stratum (Plot size: _____)			
1.			
2.			
		=Total Cover	

% Bare Ground in Herb Stratum 50* % Cover of Biotic Crust 0

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: **2** (A)
Total Number of Dominant Species Across All Strata: **3** (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: **67%** (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	**30**	x1 =	**30**
FACW species	**10**	x2 =	**20**
FAC species	**0**	x3 =	**0**
FACU species	**0**	x4 =	**0**
UPL species	**10**	x5 =	**50**
Column Totals:	**50** (A)		**100** (B)

Prevalence Index = B/A = **2.0**

Hydrophytic Vegetation Indicators:
X Dominance Test is >50%
X Prevalence Index is ≤3.0[1]
_____ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
_____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes X No _____**

Remarks:

*Thatch present.

SOIL

Sampling Point: DP1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-6	7.5YR 3/4	50	7.5YR 4/3	50	C	M	clay loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR C**)
- ___ 1 cm Muck (A9) (**LRR D**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR C**)
- ___ 2 cm Muck (A10) (**LRR B**)
- ___ Reduced Vertic (F18)
- X Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** X **No** ___

Remarks:

Shovel refusal at 6 inches.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- X Saturation (A3)
- ___ Water Marks (B1) (**Nonriverine**)
- ___ Sediment Deposits (B2) (**Nonriverine**)
- ___ Drift Deposits (B3) (**Nonriverine**)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (**Riverine**)
- ___ Sediment Deposits (B2) (**Riverine**)
- ___ Drift Deposits (B3) (**Riverine**)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No X Depth (inches): _____

Water Table Present? Yes ___ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes X No ___ Depth (inches): surface

Wetland Hydrology Present? **Yes** X **No** ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

US Army Corps of Engineers

Arid West - Version 2.0

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Town and Country Village City/County: El Dorado Sampling Date: 09/27/23
Applicant/Owner: Raney Planning & Management, Inc State: CA Sampling Point: DP2
Investigator(s): Daria Snider Section, Township, Range: Section 1, Township 9 North, Range 8 East
Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): None Slope (%): 10
Subregion (LRR): Mediterranean California (LRR C) Lat: -121.0505149 Long: 38.66219586 Datum: NAD83
Soil Map Unit Name: AxD - Auburn very rocky silt loam, 2 to 30 percent slopes NWI Classification: None
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)
Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____ No **X**	**Is the Sampled Area within a Wetland?**	**Yes** _____ **No** **X**
Hydric Soil Present?	Yes _____ No **X**		
Wetland Hydrology Present?	Yes _____ No **X**		

Remarks:

Upland comparison to DP 1

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: _____)			
1.			
2.			
3.			
4.			
	0	=Total Cover	
Sapling/Shrub Stratum (Plot size: _____)			
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Herb Stratum (Plot size: 1 meter^2)			
1. *Elymus caput-medusae*	50	X	UPL
2. *Carduus pycnocephalus*	20	X	UPL
3. *Avena barbata*	20	X	UPL
4. *Festuca perennis*	10		FAC
5. *Dittrichia graveolens*	T		UPL
6.			
7.			
8.			
	100	=Total Cover	
Woody Vine Stratum (Plot size: _____)			
1.			
2.			
		=Total Cover	
% Bare Ground in Herb Stratum 0	% Cover of Biotic Crust 0		

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: **0** (A)
Total Number of Dominant Species Across All Strata: **3** (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: **0%** (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:
OBL species	**0**	x1 = **0**
FACW species	**0**	x2 = **0**
FAC species	**10**	x3 = **30**
FACU species	**0**	x4 = **0**
UPL species	**90**	x5 = **450**
Column Totals:	**100** (A)	**480** (B)

Prevalence Index = B/A = **4.8**

Hydrophytic Vegetation Indicators:
_____ Dominance Test is >50%
_____ Prevalence Index is ≤3.0[1]
_____ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
_____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** _____ **No** **X**

Remarks:

SOIL

Sampling Point: DP2

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-4	7.5YR 3/4	100					clay loam	no redox

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR C**)
- ___ 1 cm Muck (A9) (**LRR D**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR C**)
- ___ 2 cm Muck (A10) (**LRR B**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** _____ **No** X

Remarks:

No hydric soil indicators detected.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (**Nonriverine**)
- ___ Sediment Deposits (B2) (**Nonriverine**)
- ___ Drift Deposits (B3) (**Nonriverine**)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (**Riverine**)
- ___ Sediment Deposits (B2) (**Riverine**)
- ___ Drift Deposits (B3) (**Riverine**)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No X Depth (inches): ___

Water Table Present? Yes ___ No X Depth (inches): ___

Saturation Present? (includes capillary fringe) Yes ___ No X Depth (inches): ___

Wetland Hydrology Present? **Yes** ___ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No wetland hydrology indicators detected.

US Army Corps of Engineers — Arid West - Version 2.0

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Town and Country Village City/County: El Dorado Sampling Date: 10/06/23
Applicant/Owner: Raney Planning & Management, Inc State: CA Sampling Point: DP3
Investigator(s): Daria Snider Section, Township, Range: Section 6, Township 9 North, Range 9 East
Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): Concave Slope (%): 1-3
Subregion (LRR): Mediterranean California (LRR C) Lat: -121.0383376 Long: 38.65812073 Datum: NAD83
Soil Map Unit Name: AxD - Auburn very rocky silt loam, 2 to 30 percent slopes NWI Classification: None
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)
Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No _____	**Is the Sampled Area within a Wetland?** Yes X No _____
Hydric Soil Present?	Yes X	No _____	
Wetland Hydrology Present?	Yes X	No _____	

Remarks:

Representative depressional seasonal wetland.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: _____)			
1.			
2.			
3.			
4.			
	0	=Total Cover	
Sapling/Shrub Stratum (Plot size: _____)			
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Herb Stratum (Plot size: 1 meter^2)			
1. *Navarretia intertexta*	20	X	FACW
2. *Plagiobothrys stipitatus*	15	X	FACW
3. *Polypogon maritimus*	10	X	OBL
4. *Eryngium castrense*	5		OBL
5. *Gratiola ebracteata*	T		OBL
6. *Deschampsia danthanioides*	T		FACW
7. *Hordeum marinum*	T		FAC
8. *Lythrum hyssopilolium*	T		OBL
9. *Croton setiger*	T		UPL
10 *Eleocharis macrostachya*	T		OBL
	50	=Total Cover	
		=Total Cover	
% Bare Ground in Herb Stratum 50	% Cover of Biotic Crust 20		

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: **3** (A)
Total Number of Dominant Species Across All Strata: **3** (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: **100%** (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	**15**	x1 =	**15**
FACW species	**35**	x2 =	**70**
FAC species	**0**	x3 =	**0**
FACU species	**0**	x4 =	**0**
UPL species	**0**	x5 =	**0**
Column Totals:	**50** (A)		**85** (B)

Prevalence Index = B/A = **1.7**

Hydrophytic Vegetation Indicators:
X Dominance Test is >50%
X Prevalence Index is ≤3.0[1]
_____ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
_____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No _____

Remarks:

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SOIL

Sampling Point: DP3

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-10	2.5YR 5/2	95	7.5YR 4/4	5	C	M	gravelly silt loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR C**)
- ___ 1 cm Muck (A9) (**LRR D**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- X Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- X Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR C**)
- ___ 2 cm Muck (A10) (**LRR B**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** X **No** ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (**Nonriverine**)
- ___ Sediment Deposits (B2) (**Nonriverine**)
- ___ Drift Deposits (B3) (**Nonriverine**)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- X Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (**Riverine**)
- ___ Sediment Deposits (B2) (**Riverine**)
- ___ Drift Deposits (B3) (**Riverine**)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No X Depth (inches): _____

Water Table Present? Yes ___ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes ___ No X Depth (inches): _____

Wetland Hydrology Present? **Yes** X **No** ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Town and Country Village City/County: El Dorado Sampling Date: 10/06/23
Applicant/Owner: Raney Planning & Management, Inc State: CA Sampling Point: DP4
Investigator(s): Daria Snider Section, Township, Range: Section 6, Township 9 North, Range 9 East
Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): None Slope (%): 1-3
Subregion (LRR): Mediterranean California (LRR C) Lat: -121.0382912 Long: 38.65809882 Datum: NAD83
Soil Map Unit Name: AxD - Auburn very rocky silt loam, 2 to 30 percent slopes NWI Classification: None
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)
Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____ No **X**	**Is the Sampled Area within a Wetland?**	**Yes** _____ **No** **X**
Hydric Soil Present?	Yes _____ No **X**		
Wetland Hydrology Present?	Yes _____ No **X**		

Remarks:

Upland comparison to DP 3

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: _____)			
1.			
2.			
3.			
4.			
	0	=Total Cover	
Sapling/Shrub Stratum (Plot size: _____)			
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Herb Stratum (Plot size: 1 meter^2)			
1. *Elymus caput-medusae*	40	X	UPL
2. *Bromus hordeaceus*	30	X	FACU
3. *Holocarpha virgata*	10		UPL
4. *Bromus diandrus*	10		UPL
5. *Silene gallica*	T		UPL
6.			
7.			
8.			
	90	=Total Cover	
Woody Vine Stratum (Plot size: _____)			
1.			
2.			
		=Total Cover	
% Bare Ground in Herb Stratum 10	% Cover of Biotic Crust 0		

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: **0** (A)
Total Number of Dominant Species Across All Strata: **2** (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: **0%** (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	**0**	x1 =	**0**
FACW species	**0**	x2 =	**0**
FAC species	**0**	x3 =	**0**
FACU species	**30**	x4 =	**120**
UPL species	**60**	x5 =	**300**
Column Totals:	**90** (A)		**420** (B)

Prevalence Index = B/A = **4.7**

Hydrophytic Vegetation Indicators:
_____ Dominance Test is >50%
_____ Prevalence Index is ≤3.0[1]
_____ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
_____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** _____ **No** **X**

Remarks:

SOIL

Sampling Point: DP4

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-6	2.5YR 4/3	100					sandy silt loam	no redox

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR C**)
- ___ 1 cm Muck (A9) (**LRR D**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR C**)
- ___ 2 cm Muck (A10) (**LRR B**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ___ **No** X

Remarks:

Refusal at 6". No hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (**Nonriverine**)
- ___ Sediment Deposits (B2) (**Nonriverine**)
- ___ Drift Deposits (B3) (**Nonriverine**)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (**Riverine**)
- ___ Sediment Deposits (B2) (**Riverine**)
- ___ Drift Deposits (B3) (**Riverine**)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No X Depth (inches): _____

Water Table Present? Yes ___ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes ___ No X Depth (inches): _____

Wetland Hydrology Present? **Yes** ___ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No wetland hydrology indicators.

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Town and Country Village City/County: El Dorado Sampling Date: 09/27/23
Applicant/Owner: Raney Planning & Management, Inc CA Sampling Point: DP5
Investigator(s): Bonnie Peterson Section, Township, Range: Section 6, Township 9 North, Range 9 East
Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): concave Slope (%): 2
Subregion (LRR): Mediterranean California (LRR C) Lat: -121.0278307 Long: 38.6562025 Datum: NAD83
Soil Map Unit Name: AwD - Auburn silt loam, 2 to 30 percent slopes NWI Classification: None
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)
Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____
Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No ____	**Is the Sampled Area within a Wetland?** Yes X No ____
Hydric Soil Present?	Yes X	No ____	
Wetland Hydrology Present?	Yes X	No ____	

Remarks:

Seasonal wetland located in tire ruts at the base of hill that slopes to a roadside drainage.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: ____)			
1.			
2.			
3.			
4.			
	0	=Total Cover	
Sapling/Shrub Stratum (Plot size: ____)			
1.			
2.			
3.			
4.			
5. *Navarettia intertexta*			
	0	=Total Cover	
Herb Stratum (Plot size: 1 meter^2)			
1. *Hordeum marinum*	20	X	FAC
2. *Croton setiger*	15	X	UPL
3. *Navarettia intertexta*	15	X	FACW
4. *Leontodon saxatilis*	5		FACU
5. *Lythrum hyssopifolium*	4		OBL
6. *Dittrichia graveolens*	3		UPL
7. *Polypogon monspeliensis*	2		FACW
8. *Holocarpha virgata*	1		UPL
9. *Galium parisiense*	1		UPL
Woody Vine Stratum (Plot size: ____)	66	=Total Cover	
1.			
2.			
		=Total Cover	
% Bare Ground in Herb Stratum 39	% Cover of Biotic Crust 20		

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: **2** (A)
Total Number of Dominant Species Across All Strata: **3** (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: **67%** (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:
OBL species	**4** x1 =	**4**
FACW species	**17** x2 =	**34**
FAC species	**20** x3 =	**60**
FACU species	**5** x4 =	**20**
UPL species	**18** x5 =	**90**
Column Totals:	**64** (A)	**208** (B)

Prevalence Index = B/A = **3.3**

Hydrophytic Vegetation Indicators:
X Dominance Test is >50%
____ Prevalence Index is ≤3.0[1]
____ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No ____

Remarks:

Marginal hydrophytic vegetation.

SOIL Sampling Point: DP5

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-8	5YR 4/4	68	5YR 4/2	30	RM	M	clay loam	
			5YR 2.5/1	2	C	M		

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR C**)
- ___ 1 cm Muck (A9) (**LRR D**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR C**)
- ___ 2 cm Muck (A10) (**LRR B**)
- ___ Reduced Vertic (F18)
- X Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: ___

Depth (inches): ___

Hydric Soil Present? Yes X No ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (**Nonriverine**)
- ___ Sediment Deposits (B2) (**Nonriverine**)
- ___ Drift Deposits (B3) (**Nonriverine**)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- X Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (**Riverine**)
- ___ Sediment Deposits (B2) (**Riverine**)
- ___ Drift Deposits (B3) (**Riverine**)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No X Depth (inches): ___

Water Table Present? Yes ___ No X Depth (inches): ___

Saturation Present? (includes capillary fringe) Yes ___ No X Depth (inches): ___

Wetland Hydrology Present? Yes X No ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Town and Country Village | City/County: El Dorado | Sampling Date: 09/27/23
Applicant/Owner: Raney Planning & Management, Inc | State: CA | Sampling Point: DP6
Investigator(s): Bonnie Peterson | Section, Township, Range: Section 6, Township 9 North, Range 9 East
Landform (hillslope, terrace, etc.): hillslope | Local relief (concave, convex, none): convex | Slope (%): 3
Subregion (LRR): Mediterranean California (LRR C) | Lat: -121.0278377 | Long: 38.65618779 | Datum: NAD83
Soil Map Unit Name: AwD - Auburn silt loam, 2 to 30 percent slopes | NWI Classification: None
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)
Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____
Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No **X**	**Is the Sampled Area within a Wetland?** Yes ____ No **X**
Hydric Soil Present?	Yes ____	No **X**	
Wetland Hydrology Present?	Yes ____	No **X**	

Remarks:

Paired upland point on small berm downslope of DP5.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: ____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	0	=Total Cover	

Sapling/Shrub Stratum (Plot size: ____)			
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	

Herb Stratum (Plot size: 1 meter^2)			
1. *Carduus pycnocephalus*	40	X	UPL
2. *Elymus caput-medusae*	20	X	UPL
3. *Leontodon saxatilis*	10		FACU
4. *Amsinckia intermedia*	5		UPL
5. *Galium sp.*	5		UPL
6.			
7.			
8.			
	80	=Total Cover	

Woody Vine Stratum (Plot size: ____)			
1.			
2.			
		=Total Cover	

% Bare Ground in Herb Stratum: 20 | % Cover of Biotic Crust: 0

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: **0** (A)
Total Number of Dominant Species Across All Strata: **2** (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: **0%** (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	**0**	x1 =	**0**
FACW species	**0**	x2 =	**0**
FAC species	**0**	x3 =	**0**
FACU species	**10**	x4 =	**40**
UPL species	**65**	x5 =	**325**
Column Totals:	**75** (A)		**365** (B)

Prevalence Index = B/A = **4.9**

Hydrophytic Vegetation Indicators:
____ Dominance Test is >50%
____ Prevalence Index is ≤3.0[1]
____ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ____ No **X**

Remarks:

SOIL Sampling Point: DP6

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-8	5YR 4/4	100					clay loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR C**)
- ___ 1 cm Muck (A9) (**LRR D**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR C**)
- ___ 2 cm Muck (A10) (**LRR B**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ___ **No** X

Remarks:

No hydric soil indicators detected.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (**Nonriverine**)
- ___ Sediment Deposits (B2) (**Nonriverine**)
- ___ Drift Deposits (B3) (**Nonriverine**)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (**Riverine**)
- ___ Sediment Deposits (B2) (**Riverine**)
- ___ Drift Deposits (B3) (**Riverine**)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No X Depth (inches): _____

Water Table Present? Yes ___ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes ___ No X Depth (inches): _____

Wetland Hydrology Present? **Yes** ___ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No wetland hydrology indicators detected.

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Town and Country Village City/County: El Dorado Sampling Date: 09/27/23
Applicant/Owner: Raney Planning & Management, Inc State: CA Sampling Point: DP7
Investigator(s): Bonnie Peterson Section, Township, Range: Section 7, Township 9 North, Range 9 East
Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): flat Slope (%): 3
Subregion (LRR): Mediterranean California (LRR C) Lat: -121.0266484 Long: 38.65605898 Datum: NAD83
Soil Map Unit Name: AwD - Auburn silt loam, 2 to 30 percent slopes NWI Classification:
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)
Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X No	**Is the Sampled Area within a Wetland?**	**Yes No X**
Hydric Soil Present?	Yes No X		
Wetland Hydrology Present?	Yes No X		

Remarks:

Representative sloped seasonal wetland.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size:)			
1.			
2.			
3.			
4.			
	0	=Total Cover	
Sapling/Shrub Stratum (Plot size:)			
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Herb Stratum (Plot size: 1 meter^2)			
1. *Juncus xiphioides*	40	X	OBL
2. *Polypogon monspeliensis*	40	X	FACW
3. *Acmispon americanus*	15		UPL
4. *Juncus balticus*	5		OBL
5.			
6.			
7.			
8.			
	100	=Total Cover	
Woody Vine Stratum (Plot size:)			
1.			
2.			
		=Total Cover	
% Bare Ground in Herb Stratum 0	% Cover of Biotic Crust 0		

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: **2** (A)
Total Number of Dominant Species Across All Strata: **2** (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: **100%** (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	**45**	x1 =	**45**
FACW species	**40**	x2 =	**80**
FAC species	**0**	x3 =	**0**
FACU species	**0**	x4 =	**0**
UPL species	**15**	x5 =	**75**
Column Totals:	**100** (A)		**200** (B)

Prevalence Index = B/A = **2.0**

Hydrophytic Vegetation Indicators:
X Dominance Test is >50%
X Prevalence Index is ≤3.0[1]
Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes X No**

Remarks:

SOIL Sampling Point: DP7

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-10	7.5YR 4/2	90	5YR 4/4	5	C	PL	clay loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR C**)
- ___ 1 cm Muck (A9) (**LRR D**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- X Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR C**)
- ___ 2 cm Muck (A10) (**LRR B**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** X **No** ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (**Nonriverine**)
- ___ Sediment Deposits (B2) (**Nonriverine**)
- ___ Drift Deposits (B3) (**Nonriverine**)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- X Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (**Riverine**)
- ___ Sediment Deposits (B2) (**Riverine**)
- ___ Drift Deposits (B3) (**Riverine**)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No X Depth (inches): ___

Water Table Present? Yes ___ No X Depth (inches): ___

Saturation Present? (includes capillary fringe) Yes ___ No X Depth (inches): ___

Wetland Hydrology Present? **Yes** X **No** ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Town and Country Village City/County: El Dorado Sampling Date: 09/27/23
Applicant/Owner: Raney Planning & Management, Inc State: CA Sampling Point: DP8
Investigator(s): Bonnie Peterson Section, Township, Range: Section 7, Township 9 North, Range 9 East
Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): None Slope (%): 3
Subregion (LRR): Mediterranean California (LRR C) Lat: -121.0266268 Long: 38.65607059 Datum: NAD83
Soil Map Unit Name: AwD - Auburn silt loam, 2 to 30 percent slopes NWI Classification: None
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)
Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____
Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No **X**	**Is the Sampled Area within a Wetland?** Yes ____ No **X**
Hydric Soil Present?	Yes ____	No **X**	
Wetland Hydrology Present?	Yes ____	No **X**	

Remarks:

Upland comparison to DP 7.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: ____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	0	=Total Cover	
Sapling/Shrub Stratum (Plot size: ____)			
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Herb Stratum (Plot size: 1 meter^2)			
1. *Acmispon americanus*	80	X	UPL
2. *Carduus pycnocephalus*	10		UPL
3. *Juncus xiphioides*	10		OBL
4.			
5.			
6.			
7.			
8.			
	100	=Total Cover	
Woody Vine Stratum (Plot size: ____)			
1.			
2.			
		=Total Cover	
% Bare Ground in Herb Stratum 0	% Cover of Biotic Crust 0		

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: **0** (A)
Total Number of Dominant Species Across All Strata: **1** (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: **0%** (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:
OBL species	**10**	x1 = **10**
FACW species	**0**	x2 = **0**
FAC species	**0**	x3 = **0**
FACU species	**0**	x4 = **0**
UPL species	**90**	x5 = **450**
Column Totals:	**100** (A)	**460** (B)

Prevalence Index = B/A = **4.6**

Hydrophytic Vegetation Indicators:
____ Dominance Test is >50%
____ Prevalence Index is ≤3.0[1]
____ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ____ No **X**

Remarks:

SOIL Sampling Point: DP8

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-10	7.5 YR 4/3	100					clay loam	no redox

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR C**)
- ___ 1 cm Muck (A9) (**LRR D**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR C**)
- ___ 2 cm Muck (A10) (**LRR B**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ___ **No** X

Remarks:

No hydric soil indicators detected.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (**Nonriverine**)
- ___ Sediment Deposits (B2) (**Nonriverine**)
- ___ Drift Deposits (B3) (**Nonriverine**)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (**Riverine**)
- ___ Sediment Deposits (B2) (**Riverine**)
- ___ Drift Deposits (B3) (**Riverine**)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No X Depth (inches): _____

Water Table Present? Yes ___ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes ___ No X Depth (inches): _____

Wetland Hydrology Present? **Yes** ___ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No wetland hydrology indicators detected.

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Town and Country Village City/County: El Dorado Sampling Date: 09/27/23
Applicant/Owner: Raney Planning & Management, Inc State: CA Sampling Point: DP9
Investigator(s): Bonnie Peterson Section, Township, Range: Section 7, Township 9 North, Range 9 East
Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): concave Slope (%): <2
Subregion (LRR): Mediterranean California (LRR C) Lat: -121.0264348 Long: 38.65615871 Datum: NAD83
Soil Map Unit Name: AwD - Auburn silt loam, 2 to 30 percent slopes NWI Classification: None
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)
Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____
Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No ____	**Is the Sampled Area within a Wetland?** Yes X No ____
Hydric Soil Present?	Yes X	No ____	
Wetland Hydrology Present?	Yes X	No ____	

Remarks:

Seasonal wetland swale - DP located in upper portion.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: ____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	0	=Total Cover	
Sapling/Shrub Stratum (Plot size: ____)			
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Herb Stratum (Plot size: 1 meter^2)			
1. *Juncus xiphioides*	40	X	OBL
2. *Acmispon americanus*	10		UPL
3. *Rumex crispus*	5		FAC
4. *Polypogon monspeliensis*	5		FACW
5.			
6.			
7.			
8.			
	60	=Total Cover	
Woody Vine Stratum (Plot size: ____)			
1.			
2.			
		=Total Cover	
% Bare Ground in Herb Stratum 40	% Cover of Biotic Crust 0		

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: **1** (A)
Total Number of Dominant Species Across All Strata: **1** (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: **100%** (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:
OBL species	**40**	x1 = **40**
FACW species	**5**	x2 = **10**
FAC species	**5**	x3 = **15**
FACU species	**10**	x4 = **40**
UPL species		x5 = **0**
Column Totals:	**60** (A)	**105** (B)

Prevalence Index = B/A = **1.8**

Hydrophytic Vegetation Indicators:
X Dominance Test is >50%
X Prevalence Index is ≤3.0[1]
____ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No ____

Remarks:

SOIL Sampling Point: DP9

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-8	5YR 4/2	95	2.5YR 4/8	5	C	M/PL	clay loam	rock at 8 inches

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR C**)
- ___ 1 cm Muck (A9) (**LRR D**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- X Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR C**)
- ___ 2 cm Muck (A10) (**LRR B**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** X **No** ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (**Nonriverine**)
- ___ Sediment Deposits (B2) (**Nonriverine**)
- ___ Drift Deposits (B3) (**Nonriverine**)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- X Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (**Riverine**)
- ___ Sediment Deposits (B2) (**Riverine**)
- ___ Drift Deposits (B3) (**Riverine**)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No X Depth (inches): ___

Water Table Present? Yes ___ No X Depth (inches): ___

Saturation Present? (includes capillary fringe) Yes ___ No X Depth (inches): ___

Wetland Hydrology Present? **Yes** X **No** ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Town and Country Village City/County: El Dorado Sampling Date: 09/27/23
Applicant/Owner: Raney Planning & Management, Inc State: CA Sampling Point: DP10
Investigator(s): Bonnie Peterson Section, Township, Range: Section 7, Township 9 North, Range 9 East
Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): concave Slope (%): 3
Subregion (LRR): Mediterranean California (LRR C) Lat: -121.0263914 Long: 38.65616465 Datum: NAD83
Soil Map Unit Name: AxD - Auburn very rocky silt loam, 2 to 30 percent slopes NWI Classification: None
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)
Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____
Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____ No **X**	**Is the Sampled Area within a Wetland?**	**Yes** ____ **No** **X**
Hydric Soil Present?	Yes ____ No **X**		
Wetland Hydrology Present?	Yes ____ No **X**		

Remarks:

Upland comparison to DP 9.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: ____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	0	=Total Cover	
Sapling/Shrub Stratum (Plot size: ____)			
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Herb Stratum (Plot size: 1 meter^2)			
1. *Acmispon americanus*	40	X	UPL
2. *Carduus pycnocephalus*	30	X	UPL
3. *Festuca perennis*	20	X	FAC
4.			
5.			
6.			
7.			
8.			
	90	=Total Cover	
Woody Vine Stratum (Plot size: ____)			
1.			
2.			
		=Total Cover	
% Bare Ground in Herb Stratum 20	% Cover of Biotic Crust 0		

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: **1** (A)
Total Number of Dominant Species Across All Strata: **3** (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: **33%** (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:
OBL species	**0** x1 =	**0**
FACW species	**0** x2 =	**0**
FAC species	**20** x3 =	**60**
FACU species	**0** x4 =	**0**
UPL species	**70** x5 =	**350**
Column Totals:	**90** (A)	**410** (B)

Prevalence Index = B/A = **4.6**

Hydrophytic Vegetation Indicators:
____ Dominance Test is >50%
____ Prevalence Index is ≤3.0[1]
____ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks:

SOIL Sampling Point: DP10

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-8	5YR 4/4	100					clay loam	rock at 8 inches

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR C**)
- ___ 1 cm Muck (A9) (**LRR D**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR C**)
- ___ 2 cm Muck (A10) (**LRR B**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** _____ **No** X

Remarks:

No hydric soil indicators detected.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (**Nonriverine**)
- ___ Sediment Deposits (B2) (**Nonriverine**)
- ___ Drift Deposits (B3) (**Nonriverine**)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (**Riverine**)
- ___ Sediment Deposits (B2) (**Riverine**)
- ___ Drift Deposits (B3) (**Riverine**)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No X Depth (inches): ___

Water Table Present? Yes ___ No X Depth (inches): ___

Saturation Present? (includes capillary fringe) Yes ___ No X Depth (inches): ___

Wetland Hydrology Present? **Yes** ___ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Erosion has occurred in this location, but no hydrology indicators are present.

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Town and Country Village City/County: El Dorado Sampling Date: 10/06/23
Applicant/Owner: Raney Planning & Management, Inc State: CA Sampling Point: DP11
Investigator(s): Bonnie Peterson Section, Township, Range: Section 6, Township 9 North, Range 9 East
Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): concave Slope (%): <2
Subregion (LRR): Mediterranean California (LRR C) Lat: -121.0299037 Long: 38.65775732 Datum: NAD83
Soil Map Unit Name: AxD - Auburn very rocky silt loam, 2 to 30 percent slopes NWI Classification: None
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)
Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____
Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No **X**	**Is the Sampled Area within a Wetland?**	**Yes** ____	**No** **X**
Hydric Soil Present?	Yes ____	No **X**			
Wetland Hydrology Present?	Yes ____	No **X**			

Remarks:

Located in slight depression downslope from a mowed fire break. Suspect due to topography and green color on aerials. None of the wetland criteria are satisfied in this location.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: ____)			
1.			
2.			
3.			
4.			
	0	=Total Cover	
Sapling/Shrub Stratum (Plot size: ____)			
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Herb Stratum (Plot size: 1 meter^2)			
1. *Bromus hordeaceus*	80	X	FACU
2. *Festuca perennis*	15		FAC
3. *Holocarpha virgata*	5		UPL
4.			
5.			
6.			
7.			
8.			
	100	=Total Cover	
Woody Vine Stratum (Plot size: ____)			
1.			
2.			
		=Total Cover	
% Bare Ground in Herb Stratum 0	% Cover of Biotic Crust 0		

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: **0** (A)
Total Number of Dominant Species Across All Strata: **1** (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: **0%** (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	**0**	x1 =	**0**
FACW species	**0**	x2 =	**0**
FAC species	**15**	x3 =	**45**
FACU species	**80**	x4 =	**320**
UPL species	**5**	x5 =	**25**
Column Totals:	**100** (A)		**390** (B)

Prevalence Index = B/A = **3.9**

Hydrophytic Vegetation Indicators:
____ Dominance Test is >50%
____ Prevalence Index is ≤3.0[1]
____ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks:

SOIL Sampling Point: DP11

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-8	7.5YR 3/3	100					clay loam	rock at 8 inches

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

___ Histosol (A1)
___ Histic Epipedon (A2)
___ Black Histic (A3)
___ Hydrogen Sulfide (A4)
___ Stratified Layers (A5) (**LRR C**)
___ 1 cm Muck (A9) (**LRR D**)
___ Depleted Below Dark Surface (A11)
___ Thick Dark Surface (A12)
___ Sandy Mucky Mineral (S1)
___ Sandy Gleyed Matrix (S4)
___ Sandy Redox (S5)
___ Stripped Matrix (S6)
___ Loamy Mucky Mineral (F1)
___ Loamy Gleyed Matrix (F2)
___ Depleted Matrix (F3)
___ Redox Dark Surface (F6)
___ Depleted Dark Surface (F7)
___ Redox Depressions (F8)
___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

___ 1 cm Muck (A9) (**LRR C**)
___ 2 cm Muck (A10) (**LRR B**)
___ Reduced Vertic (F18)
___ Red Parent Material (TF2)
___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____
Depth (inches): _____

Hydric Soil Present? **Yes** _____ **No** X

Remarks:

No hydric soil indicators detected.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

___ Surface Water (A1)
___ High Water Table (A2)
___ Saturation (A3)
___ Water Marks (B1) (**Nonriverine**)
___ Sediment Deposits (B2) (**Nonriverine**)
___ Drift Deposits (B3) (**Nonriverine**)
___ Surface Soil Cracks (B6)
___ Inundation Visible on Aerial Imagery (B7)
___ Water-Stained Leaves (B9)
___ Salt Crust (B11)
___ Biotic Crust (B12)
___ Aquatic Invertebrates (B13)
___ Hydrogen Sulfide Odor (C1)
___ Oxidized Rhizospheres along Living Roots (C3)
___ Presence of Reduced Iron (C4)
___ Recent Iron Reduction in Tilled Soils (C6)
___ Thin Muck Surface (C7)
___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

___ Water Marks (B1) (**Riverine**)
___ Sediment Deposits (B2) (**Riverine**)
___ Drift Deposits (B3) (**Riverine**)
___ Drainage Patterns (B10)
___ Dry-Season Water Table (C2)
___ Crayfish Burrows (C8)
___ Saturation Visible on Aerial Imagery (C9)
___ Shallow Aquitard (D3)
___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____
Water Table Present? Yes _____ No X Depth (inches): _____
Saturation Present? (includes capillary fringe) Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? **Yes** _____ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No wetland hydrology indicators were detected.

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Town and Country Village | City/County: El Dorado | Sampling Date: 10/06/23
Applicant/Owner: Raney Planning & Management, Inc | State: CA | Sampling Point: DP12
Investigator(s): Bonnie Peterson | Section, Township, Range: Section 6, Township 9 North, Range 9 East
Landform (hillslope, terrace, etc.): Hillslope | Local relief (concave, convex, none): concave | Slope (%): 5
Subregion (LRR): Mediterranean California (LRR C) | Lat: -121.0277883 | Long: 38.65793268 | Datum: NAD83
Soil Map Unit Name: AxD - Auburn very rocky silt loam, 2 to 30 percent slopes | NWI Classification: None
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)
Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____
Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X No ____	**Is the Sampled Area within a Wetland?**	**Yes** ____ **No** X
Hydric Soil Present?	Yes ____ No X		
Wetland Hydrology Present?	Yes ____ No X		

Remarks:

Located in an erosional feature upslope of a mowed fire break. This is an erosional feature, and no OHWM is present, and it does not meet all 3 wetland criteria.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: ____)			
1.			
2.			
3.			
4.			
	0	=Total Cover	
Sapling/Shrub Stratum (Plot size: ____)			
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Herb Stratum (Plot size: 1 meter^2)			
1. *Festuca perennis*	30	X	FAC
2. *Holocarpha virgata*	10		UPL
3. *Bromus hordeaceus*	5		FACU
4. *Avena barbata*	5		UPL
5. *Briza minor*	5		FAC
6.			
7.			
8.			
	55	=Total Cover	
Woody Vine Stratum (Plot size: ____)			
1.			
2.			
		=Total Cover	
% Bare Ground in Herb Stratum 45	% Cover of Biotic Crust 0		

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: **1** (A)
Total Number of Dominant Species Across All Strata: **1** (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: **100%** (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:
OBL species	**0**	x1 = **0**
FACW species	**0**	x2 = **0**
FAC species	**35**	x3 = **105**
FACU species	**5**	x4 = **20**
UPL species	**15**	x5 = **75**
Column Totals:	**55** (A)	**200** (B)

Prevalence Index = B/A = **3.6**

Hydrophytic Vegetation Indicators:
X Dominance Test is >50%
____ Prevalence Index is ≤3.0[1]
____ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** X **No** ____

Remarks:

SOIL Sampling Point: DP12

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-8	7.5YR 3/3	100					clay loam	rock at 8 inches

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR C**)
- ___ 1 cm Muck (A9) (**LRR D**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR C**)
- ___ 2 cm Muck (A10) (**LRR B**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ___ **No** X

Remarks:

No hydric soil indicators detected.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (**Nonriverine**)
- ___ Sediment Deposits (B2) (**Nonriverine**)
- ___ Drift Deposits (B3) (**Nonriverine**)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (**Riverine**)
- ___ Sediment Deposits (B2) (**Riverine**)
- ___ Drift Deposits (B3) (**Riverine**)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No X Depth (inches): _____

Water Table Present? Yes ___ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes ___ No X Depth (inches): _____

Wetland Hydrology Present? **Yes** ___ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Although erosion is evident in this location, and OHWM is not present. No wetland hydrology indicators detected.

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Town and Country Village | City/County: El Dorado | Sampling Date: 10/06/23
Applicant/Owner: Raney Planning & Management, Inc | State: CA | Sampling Point: DP13
Investigator(s): Bonnie Peterson | Section, Township, Range: Section 6, Township 9 North, Range 9 East
Landform (hillslope, terrace, etc.): Hillslope | Local relief (concave, convex, none): concave | Slope (%): <2
Subregion (LRR): Mediterranean California (LRR C) | Lat: -121.0272672 | Long: 38.65831687 | Datum: NAD83
Soil Map Unit Name: AxD - Auburn very rocky silt loam, 2 to 30 percent slopes | NWI Classification: None
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)
Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____
Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No ____	**Is the Sampled Area within a Wetland?** Yes ____ No X
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:

Located upslope of a berm. Location sampled due to dominance of hydrophytic vegetation; however the other two wetland criteria are not met in this location, and it is therefore not a wetland.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: ____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	0	=Total Cover	
Sapling/Shrub Stratum (Plot size: ____)			
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Herb Stratum (Plot size: 1 meter^2)			
1. *Festuca perennis*	50	X	FAC
2. *Elymus-caput medusae*	10		UPL
3. *Bromus hordeaceus*	5		FACU
4. *Avena barbata*	5		UPL
5. *Briza minor*	5		FAC
6. *Holocarpha virgata*	1		UPL
7.			
8.			
	76	=Total Cover	
Woody Vine Stratum (Plot size: ____)			
1.			
2.			
		=Total Cover	
% Bare Ground in Herb Stratum 76	% Cover of Biotic Crust 0		

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: **1** (A)
Total Number of Dominant Species Across All Strata: **1** (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: **100%** (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:
OBL species	**0**	x1 = **0**
FACW species	**0**	x2 = **0**
FAC species	**55**	x3 = **165**
FACU species	**5**	x4 = **20**
UPL species	**16**	x5 = **80**
Column Totals:	**76** (A)	**265** (B)

Prevalence Index = B/A = **3.5**

Hydrophytic Vegetation Indicators:
X Dominance Test is >50%
____ Prevalence Index is ≤3.0[1]
____ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No ____

Remarks:

SOIL Sampling Point: DP13

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-10	7.5YR 3/3	100					clay loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR C**)
- ___ 1 cm Muck (A9) (**LRR D**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR C**)
- ___ 2 cm Muck (A10) (**LRR B**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ____ **No** **X**

Remarks:

No hydric soil indicators detected.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (**Nonriverine**)
- ___ Sediment Deposits (B2) (**Nonriverine**)
- ___ Drift Deposits (B3) (**Nonriverine**)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (**Riverine**)
- ___ Sediment Deposits (B2) (**Riverine**)
- ___ Drift Deposits (B3) (**Riverine**)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches): _____

Water Table Present? Yes ____ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes ____ No X Depth (inches): _____

Wetland Hydrology Present? **Yes** ____ **No** **X**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No wetland hydrology indicators were detected.

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Town and Country Village | City/County: El Dorado | Sampling Date: 10/06/23
Applicant/Owner: Raney Planning & Management, Inc | State: CA | Sampling Point: DP14
Investigator(s): Bonnie Peterson | Section, Township, Range: Section 6, Township 9 North, Range 9 East
Landform (hillslope, terrace, etc.): Hillslope | Local relief (concave, convex, none): flat | Slope (%): <2
Subregion (LRR): Mediterranean California (LRR C) | Lat: -121.0267312 | Long: 38.65913396 | Datum: NAD83
Soil Map Unit Name: AxD - Auburn very rocky silt loam, 2 to 30 percent slopes | NWI Classification: None
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)
Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____
Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No **X**	**Is the Sampled Area within a Wetland?** Yes ____ No **X**
Hydric Soil Present?	Yes ____	No **X**	
Wetland Hydrology Present?	Yes ____	No **X**	

Remarks:

Suspect location due to presence of a fair amount of *Navarretia intertexta*. None of the wetland criteria are satisfied in this location.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: ____)			
1.			
2.			
3.			
4.			
	0	=Total Cover	
Sapling/Shrub Stratum (Plot size: ____)			
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Herb Stratum (Plot size: 1 meter^2)			
1. *Bromus diandrus*	50	X	UPL
2. *Erodium botrys*	20	X	FACU
3. *Navarretia intertexta*	15		FACW
4. *Elymus caput-medusae*	10		UPL
5. *Avena barbata*	10		UPL
6. *Bromus hordeaceus*	5		FACU
7.			
8.			
	110	=Total Cover	
Woody Vine Stratum (Plot size: ____)			
1.			
2.			
		=Total Cover	

% Bare Ground in Herb Stratum: 78 | % Cover of Biotic Crust: 0

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: **0** (A)
Total Number of Dominant Species Across All Strata: **2** (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: **0%** (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:
OBL species	**0**	x1 = **0**
FACW species	**15**	x2 = **30**
FAC species	**0**	x3 = **0**
FACU species	**25**	x4 = **100**
UPL species	**70**	x5 = **350**
Column Totals:	**110** (A)	**480** (B)

Prevalence Index = B/A = **4.4**

Hydrophytic Vegetation Indicators:
____ Dominance Test is >50%
____ Prevalence Index is ≤3.0[1]
____ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ____ No **X**

Remarks:

SOIL Sampling Point: DP14

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-10	7.5YR 3/8	100					clay loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR C**)
- ___ 1 cm Muck (A9) (**LRR D**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR C**)
- ___ 2 cm Muck (A10) (**LRR B**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** _____ **No** **X**

Remarks:

No hydric soil indicators detected.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (**Nonriverine**)
- ___ Sediment Deposits (B2) (**Nonriverine**)
- ___ Drift Deposits (B3) (**Nonriverine**)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (**Riverine**)
- ___ Sediment Deposits (B2) (**Riverine**)
- ___ Drift Deposits (B3) (**Riverine**)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches): ____

Water Table Present? Yes ____ No X Depth (inches): ____

Saturation Present? (includes capillary fringe) Yes ____ No X Depth (inches): ____

Wetland Hydrology Present? **Yes** ____ **No** **X**

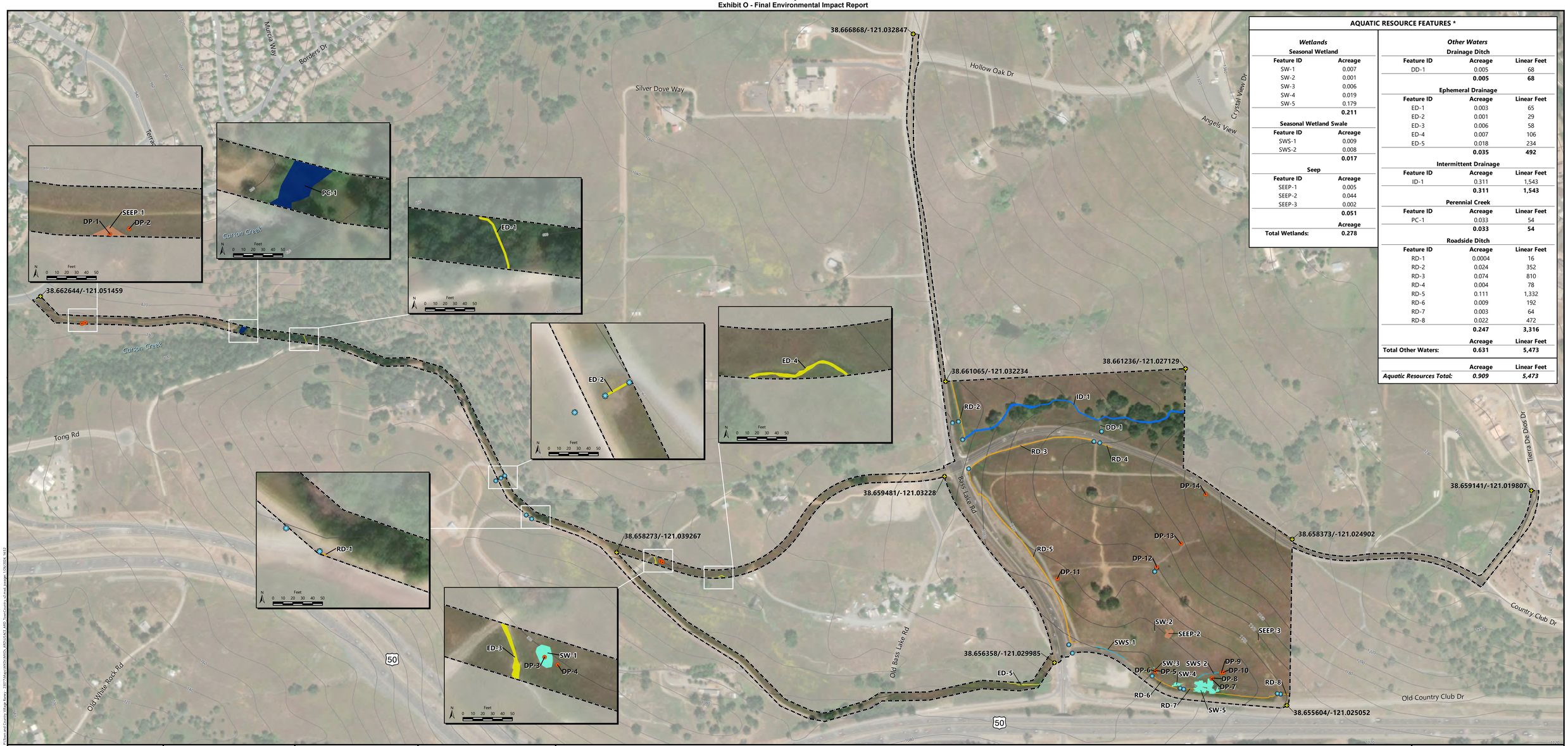
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No wetland hydrology. Slightly damp soil but no saturation.

Attachment B

Aquatic Resources Delineation Map



AQUATIC RESOURCE FEATURES *

Wetlands

Seasonal Wetland

Feature ID	Acreage
SW-1	0.007
SW-2	0.001
SW-3	0.006
SW-4	0.019
SW-5	0.179
	0.211

Seasonal Wetland Swale

Feature ID	Acreage
SWS-1	0.009
SWS-2	0.008
	0.017

Seep

Feature ID	Acreage
SEEP-1	0.005
SEEP-2	0.044
SEEP-3	0.002
	0.051

	Acreage
Total Wetlands:	**0.278**

Other Waters

Drainage Ditch

Feature ID	Acreage	Linear Feet
DD-1	0.005	68
	0.005	**68**

Ephemeral Drainage

Feature ID	Acreage	Linear Feet
ED-1	0.003	65
ED-2	0.001	29
ED-3	0.006	58
ED-4	0.007	106
ED-5	0.018	234
	0.035	**492**

Intermittent Drainage

Feature ID	Acreage	Linear Feet
ID-1	0.311	1,543
	0.311	**1,543**

Perennial Creek

Feature ID	Acreage	Linear Feet
PC-1	0.033	54
	0.033	**54**

Roadside Ditch

Feature ID	Acreage	Linear Feet
RD-1	0.0004	16
RD-2	0.024	352
RD-3	0.074	810
RD-4	0.004	78
RD-5	0.111	1,332
RD-6	0.009	192
RD-7	0.003	64
RD-8	0.022	472
	0.247	**3,316**

	Acreage	Linear Feet
Total Other Waters:	**0.631**	**5,473**

	Acreage	Linear Feet
Aquatic Resources Total:	***0.909***	***5,473***

Prepared For:
Raney Planning & Management, Inc.
1501 Sports Drive, Suite A
Sacramento, CA 95834

Sources
Aerial: Maxar, 1 May 2022
Boundary : CTA Engineering & Surveying
Topographic Contours: USGS 1/3 ArcSecond

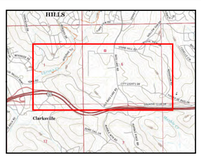
Delineation Performed by: D.Snider
Map Prepared by: J.Swager
Date Map Prepared: 26 January 2024

Made in accordance with the *Updated Map and Drawing Standards for the South Pacific Division Regulatory Program,* as amended on February 10, 2016

** Small summation errors may occur due to rounding*

N
Feet
0 100 200 300 600

Main Map Scale:
1 inch = 300 feet (at 18"x33")
Coordinate System
NAD 1983 State Plane California II (U.S. Feet)



- Study Area (81.8 acres)
- Culvert
- Data Point
- Reference Coordinate (NAD83)
- 20' Contour (NAVD88 U.S. Feet)

Aquatic Resources (0.909 acre) *

Wetlands (0.278 acre)
- Seasonal Wetland (0.211 acre)
- Seasonal Wetland Swale (0.017 acre)
- Seep (0.051 acre)

Other Waters (0.631 acre)
- Drainage Ditch (0.005 acre)
- Ephemeral Drainage (0.035 acre)
- Intermittent Drainage (0.311 acre)
- Perennial Creek (0.033 acre)
- Roadside Ditch (0.247 acre)

Aquatic Resources Delineation
Town and Country Village
El Dorado County, California

MADRONE ECOLOGICAL CONSULTING
8421 Auburn Boulevard, Suite 248
Citrus Heights, California 95610
(916) 822.3230 | www.madroneeco.com

Attachment C

Plant Species Observed within the Study Area

Plant Species Observed within the Town and Country Village Study Area 13 April 2022, and 27 September and 6 October 2023

Species Name	Common Name	Wetland Indicator Status
Achillea millefolium	Yarrow	FACU
Acmispon americanus	Spanish lotus	UPL
Acmispon micranthus	Small flowered lotus	UPL
Adiantum jordanii	California maidenhair	FAC
Aegilops triuncialis	Barbed goat grass	UPL
Aesculus californica	California buckeye	UPL
Aira caryophyllea	Silver hair grass	FACU
Allium hyalinum	Glassy onion	FACU
Amsinckia intermedia	Common fiddleneck	UPL
Amsinckia menziesii	Fiddleneck	UPL
Anthriscus caucalis	Bur-chervil	UPL
Aphanes occidentalis	Ladie's mantle	UPL
Apocynum cannabinum	Hemp dogbane	FAC
Artemisia douglasiana	Mugwort	FAC
Asclepias fascicularis	Narrow-leaf milkweed	FAC
Avena barbata	Slender wild oat	UPL
Baccharis pilularis subsp. pilularis	Coyote brush	UPL
Bidens frondosa	Sticktight	FACW
Brachypodium distachyon	Purple false brome	UPL
Brassica nigra	Black mustard	UPL
Briza minor	Annual quaking grass	FAC
Brodiaea elegans	Harvest brodiaea	UPL
Bromus diandrus	Ripgut grass	UPL
Bromus hordeaceus	Soft chess	FACU
Bromus madritensis spp. *rubens*	Red brome	UPL
Bromus sitchensis var. carinatus	California brome	UPL
Bromus sterilis	Sterile brome	UPL
Calandrinia menziesii	Red maids	FACU
Cardamine oligosperma	Little western bittercress	FAC
Carduus pycnocephalus subsp. pycnocephalus	Italian thistle	UPL
Carex praegracilis	Common sedge	FACW
Castilleja attenuata	Valley tassels	UPL
Cephalanthus occidentalis	California button willow	OBL
Cerastium glomeratum	Sticky mouse-ear chickweed	UPL
Chlorogalum pomeridianum var. pomeridianum	Common soap plant	UPL
Clarkia gracilis subsp. gracilis	Graceful clarkia	UPL

Clarkia purpurea subsp. quadrivulnera	Purple clarkia	UPL
Croton setiger	Turkey-mullein	UPL
Cynosurus echinatus	Bristly dogtail grass	UPL
Cyperus eragrostis	Tall nutsedge	FACW
Datura wrightii	Jimsonweed	UPL
Daucus pusillus	Wild carrot	UPL
Deschampsia danthonioides	Annual hair grass	FACW
Dichelostemma volubile	Twining brodiaea	UPL
Dipterostemon capitatus	Blue dicks	UPL
Dittrichia graveolens	Stinkwort	UPL
Eleocharis macrostachya	Creeping spikerush	OBL
Elymus caput-medusae	Medusa head	UPL
Elymus ponticus	Tall wheat grass	UPL
Epilobium brachycarpum	Willowherb	FAC
Epilobium ciliatum	Slender willow herb	FACW
Epilobium torreyi	Torrey's willowherb	FACW
Erigeron canadensis	Horseweed	FACU
Erodium botrys	Filaree	FACU
Erodium cicutarium	Redstem filaree	UPL
Eryngium castrense	Great Valley coyote-thistle	OBL
Erythranthe guttata	Seep monkeyflower	FAC
Erythranthe microphylla	Small leaved monkeyflower	OBL
Euthamia occidentalis	Western goldenrod	FACW
Festuca bromoides	Brome fescue	FACU
Festuca microstachys	Small fescue	UPL
Festuca myuros	Rattail sixweeks grass	FACU
Festuca perennis	Rye grass	FAC
Ficus carica	Edible fig	FACU
Frangula californica subsp. tomentella	Hoary coffeeberry	UPL
Galium aparine	Goose grass	FACU
Galium parisiense	Wall bedstraw	UPL
Geranium dissectum	Cut-leaf geranium	UPL
Geranium molle	Soft geranium	UPL
Gratiola ebracteata	Bractless hedge-hyssop	OBL
Helminthotheca echioides	Bristly ox-tongue	FAC
Heteromeles arbutifolia	Toyon	UPL
Holocarpha virgata	Narrow tarplant	UPL
Hordeum marinum subsp. gussoneanum	Mediterranean barley	FAC
Hordeum murinum	Wall barley	FACU
Horkelia californica var. elata	California horkelia	UPL
Hypericum perforatum subsp. perforatum	Klamathweed	FACU
Juncus acuminatus	Tapered rush	OBL
Juncus balticus subsp. ater	Baltic rush	FACW

Juncus bufonius	Toad rush	FACW
Juncus xiphioides	Iris-leaved rush	OBL
Lactuca serriola	Prickly lettuce	FACU
Leersia oryzoides	Rice cutgrass	OBL
Leontodon saxatilis	Hairy hawkbit	FACU
Limnanthes alba subsp. versicolor	White meadowfoam	FACU
Linum bienne	Flax	UPL
Lithophragma heterophyllum	Woodland star	UPL
Logfia gallica	Daggerleaf cottonrose	UPL
Lonicera interrupta	Chaparral honeysuckle	UPL
Lupinus bicolor	Miniature lupine	UPL
Lysimachia arvensis	Scarlet pimpernel	FAC
Lythrum hyssopifolia	Hyssop loosestrife	OBL
Madia gracilis	Gumweed	UPL
Marah fabacea	California man-root	UPL
Mentha pulegium	Pennyroyal	OBL
Micropus californicus	Q-tips	FACU
Muhlenbergia rigens	Deer grass	FAC
Navarretia intertexta	Needle-leaf navarretia	FACW
Oxalis micrantha	Dwarf wood-sorrel	UPL
Bellardia viscosa	Yellow parentucellia	FAC
Pentagramma triangularis	Goldback fern	UPL
Perideridia kelloggii	Yampah	UPL
Persicaria hydropiperoides	False waterpepper	OBL
Persicaria maculosa	Lady's thumb	FACW
Phacelia cicutaria var. cicutaria	Caterpillar phacelia	UPL
Phoradendron leucarpum subsp. tomentosum	Oak mistletoe	UPL
Pinus sabiniana	Gray pine	UPL
Plagiobothrys nothofulvus	Rusty popcornflower	FAC
Plagiobothrys stipitatus	Great valley popcornflower	FACW
Plantago erecta	California plantain	UPL
Poa bulbosa	Bulbous blue grass	FACU
Polypodium calirhiza	Licorice fern	UPL
Polypogon maritimus	Mediterranean beard grass	OBL
Polypogon monspeliensis	Annual rabbitfoot grass	FACW
Quercus douglasii	Blue oak	UPL
Quercus lobata	Valley oak	FACU
Quercus wislizeni	Interior live oak	UPL
Raphanus sativus	Wild radish	UPL
Rumex crispus	Curly dock	FAC
Rumex pulcher	Fiddle dock	FAC
Salix gooddingii	Goodding's black willow	FACW
Salix laevigata	Red willow	FACW

Salix lasiandra	Pacific willow	FACW
Sanicula bipinnatifida	Purple sanicle, shoe buttons	UPL
Sanicula crassicaulis	Pacific sanicle	UPL
Schinus molle	Pepper tree	FACU
Senecio vulgaris	Common groundsel	FACU
Sherardia arvensis	Field madder	UPL
Silene gallica	Small-flower catchfly	UPL
Silybum marianum	Milk thistle	UPL
Sonchus oleraceus	Common sow thistle	UPL
Spergularia rubra	Red sand-spurrey	FAC
Stachys stricta	Sonoma hedge nettle	OBL
Stellaria media	Common chickweed	FACU
Thysanocarpus curvipes	Common fringe pod	UPL
Torilis arvensis	Tall sock-destroyer	UPL
Toxicodendron diversilobum	Western poison oak	FACU
Trichostema lanceolatum	Vinegar weed	FACU
Trifolium bifidum var. bifidum	Pinole clover	UPL
Trifolium ciliolatum	Foothill clover	UPL
Trifolium depauperatum	Dwarf sack clover	FAC
Trifolium dubium	Little hop clover	UPL
Trifolium glomeratum	Clustered clover	UPL
Trifolium hirtum	Rose clover	UPL
Trifolium incarnatum	Crimson clover	UPL
Trifolium microcephalum	Small-head clover	FAC
Trifolium subterraneum	Subterranean clover	UPL
Trifolium variegatum	Variegated clover	FAC
Triteleia hyacinthina	White brodiaea	FAC
Triteleia laxa	Ithuriel's spear	UPL
Typha angustifolia	Narrow-leaved cattail	OBL
Typha latifolia	Broad-leaved cattail	OBL
Vicia sativa	Spring vetch	FACU
Vicia villosa subsp. varia	Winter vetch	UPL

Attachment D

JD Request Form

U.S. Army Corps of Engineers (USACE)

REQUEST FOR JURISDICTIONAL DETERMINATION (JD)

For use of this form, see Sec 404 CWA, Sec 10 RHA, Sec 103 MPRSA; the proponent agency is CECW-COR.

Form Approved - OMB No. 0710-0024 Expires 2024-04-30

DATA REQUIRED BY THE PRIVACY ACT OF 1974

Authority Rivers and Harbors Act, Section 10, 33 USC 403; Clean Water Act, Section 404, 33 USC 1344; Marine Protection, Research, and Sanctuaries Act, Section 103, 33 USC 1413; Regulatory Programs of the Corps of Engineers; Final Rule 33 CFR 320-332.

Principal Purpose The information that you provide will be used in evaluating your request to determine whether there are any aquatic resources within the review area that are or that may be subject to federal jurisdiction under the regulatory authorities referenced above.

Routine Uses This information may be shared with the Department of Justice and other federal, state, and local government agencies, and the public, and may be made available as part of a public notice or FOIA request as required by federal law. Your name and property location where federal jurisdiction is to be determined will be included in any approved jurisdictional determination (AJD), which will be made available to the public on the District's website and on the Headquarters USACE website.

Disclosure Submission of requested information is voluntary, however, if the information is not provided there may be some delay in processing your request. Failure to provide this information will not result in an adverse action.
System of Record Notice (SORN): The information received is entered into our permit tracking database and a SORN has been completed (SORN #A1145b) and may be accessed at the following website:
http://dpcld.defense.gov/Privacy/SORNsIndex/DOD-wide-SORN-Article-View/Article/570115/a1145b-ce.aspx

The Agency Disclosure Notice (ADN)

The Public reporting burden for this collection of information, 0710-0024, is estimated to average 10 minutes per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or burden reduction suggestions to the Department of Defense, Washington Headquarters Services, at whs.mc-alex.esd.mbx.dd-dod-information-collections@mail.mil. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number.

1. To (*District Name*): Sacramento District

2. I am requesting a JD on property located at (*Street Address*): 2120 Country Club Drive

City/Township/Parish: El Dorado Hills County: El Dorado State: California

Acreage of Parcel/Review Area for JD: 81.8

Section: Sections 1, 5, 6, and 7 Township: 9 North Range: 8 and 9 East

Latitude (*decimal degrees*): 38.658668 ° Longitude (*decimal degrees*): -121.02990 °

(*For linear projects, please include the center point of the proposed alignment.*)

3. Please attach a survey/plat map and vicinity map identifying location and review area for the JD.

4. ☒ I currently own this property. ☐ I plan to purchase this property.

☐ I am an agent/consultant acting on behalf of the requester.

☐ Other (*please explain*):

5. Reason for request: (*check as many as applicable*)

- ☐ I intend to construct/develop a project or perform activities on this parcel which would be designed to avoid all aquatic resources.
- ☐ I intend to construct/develop a project or perform activities on this parcel which would be designed to avoid all jurisdictional aquatic resources under Corps authority.
- ☒ I intend to construct/develop a project or perform activities on this parcel which may require authorization from the Corps, and the JD would be used to avoid and minimize impacts to jurisdictional aquatic resources and as an initial step in a future permitting process.
- ☐ I intend to construct/develop a project or perform activities on this parcel which may require authorization from the Corps; this request is accompanied by my permit application and the JD is to be used in the permitting process.
- ☐ I intend to construct/develop a project or perform activities in a navigable water of the U.S. which is included on the district Section 10 list and/or is subject to the ebb and flow of the tide.
- ☐ A Corps JD is required in order to obtain my local/state authorization.
- ☐ I intend to contest jurisdiction over a particular aquatic resource and request the Corps confirm that jurisdiction does/does not exist over the aquatic resource on the parcel.
- ☐ I believe that the site may be comprised entirely of dry land.
- ☐ Other:

6. Type of determination being requested:

- ☒ I am requesting an approved JD.
- ☐ I am requesting a preliminary JD.
- ☐ I am requesting a "no permit required" letter as I believe my proposed activity is not regulated.
- ☐ I am unclear as to which JD I would like to request and require additional information to inform my decision.

7. Typed or Printed Name: Moe Mohanna Daytime Phone No.: 916-870-7236

Company Name: M.H. Mohanna & Co. Email Address: moe@mohannadevelopment.com

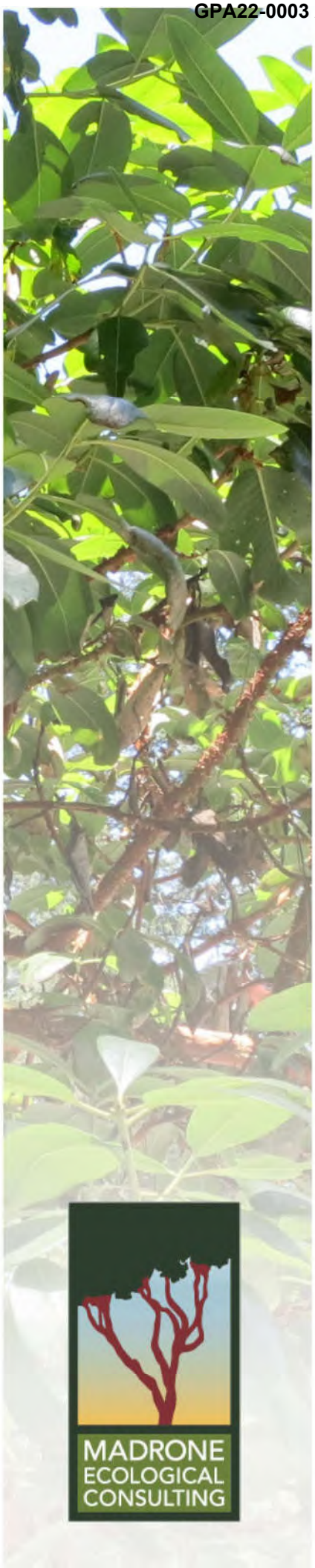
Address: 1025 9th Street, 2nd Floor
Sacramento, CA 95814

By signing below, you are indicating that you have the authority, or are acting as the duly authorized agent of a person or entity with such authority, to and do hereby grant Corps personnel right of entry to legally access the site if needed to perform the JD. Your signature shall be an affirmation that you possess the requisite property rights to request a JD on the subject property.

Signature: Moe Mohanna Date: Feb 6, 2024

Attachment G

Oak Resources Technical Report for
Town & Country Village El Dorado



Oak Resources Technical Report

Town & Country Village
El Dorado

El Dorado County, California
June 2024

MADRONE ECOLOGICAL CONSULTING

Prepared for:

Raney Planning & Management, Inc.
1501 Sports Drive, Suite A
Sacramento, CA 95834

Recommended Citation:

Madrone Ecological Consulting, LLC (Madrone). 2024. *Oak Resources Technical Report for Town & Country Village El Dorado*. Prepared for Raney Planning & Management, Inc. Published on 17 June 2024.

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Town & Country Village El Dorado

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Figures

Figure 1. Site and Vicinity

Figure 2. Project Components

Attachments

Attachment A. Site Plan

Attachment B. Tree Inventory Data

Attachment C. Map of Impacts to Oak Resources

Attachment D. Summary Data Sheet of Oak Resources Impacts for the Project Plus Sewer Alternative 1

Attachment E. Summary Data Sheet of Oak Resources Impacts for the Project Plus Sewer Alternative 2

Attachment F. Avoidance and Minimization Measures

Attachment G. Oak Resources Technical Report Checklist

1.0 INTRODUCTION

This report summarizes the Oak Resources present within the Town & Country Village El Dorado Study Area (Study Area). This report has been prepared to comply with El Dorado County's *Oak Resources Management Plan* (ORMP) (EDC 2017) and the associated *Oak Resources Technical Report Checklist* (Checklist).

The Study Area is located north of Interstate Highway 50, largely south of Stone Hill Road, east of Silva Valley Parkway, and largely west of Morrison Road in western El Dorado County, California (**Figure 1**). The Development Area is located generally north of Country Club Drive and east of Bass Lake Road. The approximately 81.8-acre Study Area is located in portions of Section 1, Township 9 North, Range 8 East and Sections 5-7, Township 9 North, Range 9 East (MDBM) of the "Clarksville, California" 7.5-Minute Series USGS Topographic Quadrangle (USGS 2021) (**Figure 1**).

2.0 METHODOLOGY

Madrone Ecological Consulting, LLC (Madrone) Certified Arborist Daria Snider (#WE 8666A) mapped the oak woodlands within the Project Area and conducted an inventory of the following native oak trees within the Study Area or with driplines overhanging the Study Area on 27 September and 6 October 2023:

- All native oak trees outside of mapped oak woodlands that have a single trunk 6" in Diameter at Breast Height (DBH) or greater or multiple trunks with an aggregate of 10" DBH or greater
- All native oak trees within mapped oak woodlands that were 24" DBH or greater

For each tree inventoried, Ms. Snider nailed aluminum tags with a unique identification number into the trunk (for those that did not already have a tag), recorded the tree identification number, tree species, DBH, approximate dripline radius, and general health and structure. Health and structure rating criteria are listed in **Table 1**, below. The location of each tree was recorded with a GPS unit capable of sub-meter accuracy (Arrow 100).

Table 1. Health and Structure Rating Criteria

Rating	Health Criteria	Structure Criteria
Excellent	Foliage is vigorous with virtually no dead branches	No cavities are present, major branch attachments have no included bark and have ideal attachment angles, and general structure is appropriate for the species.
Good	Foliage is vigorous with few dead branch tips	One or two small cavities may be present, or one or two major branch attachments may not be ideal, but none of these compromise the longevity of the tree. General structure is appropriate for the species.

Table 1. Health and Structure Rating Criteria

Rating	Health Criteria	Structure Criteria
Fair	Foliage is acceptable, but there may be a few dead branches, and some foliage may be discolored.	Several cavities may be present, several branch attachments may have included bark or attachment angles could make them prone to failure, and/or the tree may be inappropriately branched for the species. All of these issues could be rectified with treatment.
Poor	Tree is obviously in decline with extensive dead areas, some conks may be present, and foliage is extremely sparse.	Large, decaying cavities may be present within the main trunk of the tree, large portions of the tree may have fallen off, destabilizing the remainder of the tree, or other structural problem that cannot be treated.
Dead	No live foliage present when foliage is present on other trees.	

Note that the health and structure ratings recorded during the course of this survey may be used for general planning purposes but shall not be considered to be a hazard assessment for public safety purposes.

The Town & Country Village El Dorado Project (Project) includes work proposed onsite within the Project Development Area as well as off-site infrastructure, comprised of water and sewer lines (collectively, the Project Area). At the present time, two alternatives have been identified for both the off-site sewer line and the off-site water line; the impacts analysis presented in **Section 4.0** presents impact estimates for each scenario. The Site Plan is included as **Attachment A**, and a Project Components map that shows the different areas is included as **Figure 2**. Please note that no oak resources occur within the Program Study Area shown on **Figure 2**, and no impacts within that area are currently proposed, so this report only discusses oak resources and impacts within the Project Area, as defined above.

3.0 EXISTING CONDITIONS AND OAK RESOURCES

The Study Area is largely comprised of ungrazed Annual Brome Grasslands with widely scattered oak trees. Oak Woodlands occur in the vicinity of the intermittent drainage and perennial Carson Creek. The intermittent drainage is located in the northern portion of the Study Area, and Carson Creek is in the western portion. Carson Creek runs over bedrock, and the adjacent slopes are quite steep, restricting the extent of riparian vegetation, which consists of a narrow band of Arroyo Willow Riparian Scrub. The Oak Woodland south of the creek has a dense, closed canopy, as is typical for north-facing slopes in the region. Bass Lake Road cuts from north to south through the Study Area, and Country Club Drive runs from west to east. Portions of Old Bass Lake Road and Old Country Club Drive also occur within portions of the Study Area. Several seasonal wetlands and two seasonal wetland swales occur just north of Old Country Club Drive, and one seasonal wetland occurs near an ephemeral drainage in the western portion of the Study Area. A few seeps occur on slopes in the Annual Brome Grasslands. Roadside ditches run along the edges of a number of roadways within the Study Area, and three portions of ephemeral drainages occur within infrastructure-related portions of the Study Area. Inclusions of unvegetated areas are scattered throughout the Study

Area along farm roads. The terrain within the Study Area is gently rolling, and generally slopes from the east down towards the west. Elevations range from approximately 1,320 feet above mean sea level (MSL) at the eastern edge of the Study Area to approximately 800 feet at the western extent along Carson Creek and Russi Ranch Drive (**Figure 1**).

Surrounding properties are similar to those within the Study Area. They are largely comprised of ungrazed Annual Brome Grasslands, scattered Oak Woodlands, and rural residences. The western and eastern ends of the Study Area abut urban residential areas, and the Study Area is bordered by Interstate Highway 50 to the south.

3.1 Oak Resources

A total of 6.2 acres of Oak Woodland is present within the 81.8-acre Project Area. An additional 17 individual native oak trees greater than 6" DBH occur outside of the Oak Woodlands in the Study Area. 72 native oak trees were inventoried, including 17 individual native oaks outside of Oak Woodlands, 27 native oaks between 24" and 25" within Oak Woodlands, and 28 Heritage oaks (equal to or greater than 36" DBH) within Oak Woodlands (**Table 2**) (**Attachment B**).

Table 2. Oak Trees Inventoried within the Study Area

			Number of Trees (DBH)			
			Blue Oak	**Interior Live Oak**	**Valley Oak**	**Total**
Within Oak Woodlands	**Fair to Good**	24-35" DBH	4 (114.6)	16 (468.1)	1 (24.8)	21 (607.5)
		≥36" DBH	0	24 (1,148.9)	2 (78.3)	26 (1,227.2)
	Poor Condition	24-35" DBH	0	6 (170.7)	0	6 (170.7)
		≥36" DBH	0	2 (81.7)	0	2 (81.7)
Subtotal						55 (2,079.1)
Outside of Oak Woodlands	**Fair to Good**	6-35" DBH	3 (71.0)	0	6 (165.6)	9 (236.6)
		≥36" DBH	2 (83.8)	0	2 (79.7)	4 (163.5)
	Poor Condition	6-35" DBH	0	2 (50.0)	1 (15.7)	3 (65.7)
		≥36" DBH	0	0	1 (37.1)	1 (37.1)
Subtotal						17 (502.9)
Total			9 (269.4)	50 (1,911.4)	13 (401.2)	72 (2,582.0)

4.0 IMPACTS TO OAK RESOURCES

In accordance with the El Dorado County Oak Resources Conservation Ordinance, impacts to oak resources are calculated differently for Oak Woodland areas and non-Oak Woodland areas. Within mapped Oak Woodlands, impacts are calculated based on impact to oak canopy, plus impacts to any individual native oak trees within the woodland that are 36" of greater DBH. Outside of mapped Oak Woodlands, impacts are calculated based on impacts to each native oak tree that is 6" or greater DBH. Mitigation is only required

for trees that are in Fair or better condition[1], and as a result, impacts have been broken out below based on condition. Note that trees were considered permanently impacted if the trunk fell within either the permanent or temporary impact boundary, or if greater than approximately 30% of the tree's dripline area would be permanently impacted. Impacted and avoided Oak Woodlands and oak trees are shown on **Attachment C**.

4.1 Project Development Area Impacts

A total of 0.3 acres of Oak Woodland will be permanently impacted within the Project Development Area, and 0.2 acre of Oak Woodland will be temporarily impacted within the Project Development Area. Within this area, a total of seven native oak trees with a DBH of 36" or greater will be impacted (six of which are in fair to good condition) (**Table 3**).

In addition, one individual native oak tree with a DBH of 6" or greater outside of Oak Woodlands will be permanently impacted within the Project Development Area, but this tree is in poor condition (**Table 3**).

In summary, a total of 0.5 acres of Oak Woodland and six individual trees in fair to good condition (with a cumulative DBH of 264.3 inches) would be subject to mitigation as a result of impacts within the Project Development Area (**Table 3**).

Table 3. Oak Tree Impacts within the Project Development Area

			Number of Impacted Trees (DBH)			
			Blue Oak	Interior Live Oak	Valley Oak	Total
Trees ≥36" DBH Within Oak Woodlands	**Fair or Better**		0	6 (264.3)	0	6 (264.3)
	Poor Condition		0	1 (38.4)	0	1 (38.4)
Subtotal						7 (302.7)
Trees Outside of Oak Woodlands	**Fair or Better**	6-35" DBH	0	0	0	0
		≥36" DBH	0	0	0	0
	Poor Condition	6-35" DBH	0	1 (23.4)	0	1 (23.4)
		≥36" DBH	0	0	0	0
Subtotal						1 (23.4)
Total Trees in Fair to Good Condition			0	6 (264.3)	0	6 (264.3)
TOTAL			0	8 (326.1)	0	8 (326.1)

[1] Dead, dying and diseased trees are exempted from mitigation requirements in Section 2.1.9 of the ORMP.

4.2 Sewer Alternative Impacts

4.2.1 Sewer Alternative 1

A total of 1.2 acres of Oak Woodland would be permanently impacted by Sewer Alternative 1, and 1.0 acre of Oak Woodland would be temporarily impacted by Sewer Alternative 1. Within this area, two native oak trees with a DBH of 36" of greater will be impacted (both of which are in fair to good condition) (**Table 4**).

In addition, a total of four individual native oak trees with a DBH of 6" of greater outside of Oak Woodlands would be permanently impacted by Sewer Alternative 1 (three of which are in fair to good condition) (**Table 4**). Of those three trees in fair to good condition that may be impacted, one has a DBH of 36" of greater. In summary, a total of 2.2 acres of Oak Woodland and five individual trees in fair to good condition (with a cumulative DBH of 200 inches) would be subject to mitigation as a result of impacts within Sewer Alternative 1 (**Table 4**).

Table 4. Oak Tree Impacts within Sewer Alternative 1

			Number of Impacted Trees (DBH)			
			Blue Oak	Interior Live Oak	Valley Oak	Total
Trees ≥36" DBH Within Oak Woodlands	**Fair to Good**		0	2 (115.9)	0	2 (115.9)
	Poor Condition		0	0	0	0
Subtotal						2 (115.9)
Trees Outside of Oak Woodlands	**Fair to Good**	6-35" DBH	2 (41.0)	0	0	2 (41.0)
		≥36" DBH	0	0	1 (43.1)	1 (43.1)
	Poor Condition	6-35" DBH	0	1 (26.6)	0	1 (26.6)
		≥36" DBH	0	0	0	0
Subtotal						4 (110.7)
Total Trees in Fair to Good Condition			2 (41.0)	2 (115.9)	1 (43.1)	5 (200.0)
TOTAL			2 (41.0)	3 (142.5)	1 (43.1)	6 (226.6)

4.2.2 Sewer Alternative 2

A total of 1.2 acres of Oak Woodland would be permanently impacted by Sewer Alternative 2, and 1.0 acre of Oak Woodland would be temporarily impacted by Sewer Alternative 2. Within this area, two native oak trees with a DBH of 36" of greater will be impacted (both of which are in fair to good condition) (**Table 5**). In addition, a total of three individual native oak trees with a DBH of 6" of greater outside of Oak Woodlands would be permanently impacted by Sewer Alternative 2 (two of which are in fair to good condition) (**Table 5**). Of those two trees in fair to good condition that may be impacted, one has a DBH of 36" of greater. In summary, a total of 2.2 acres of Oak Woodland and four individual trees in fair to good condition (with a cumulative DBH of 189.4 inches) would be subject to mitigation as a result of impacts within Sewer Alternative 2 (**Table 5**).

Table 5. Oak Tree Impacts within Sewer Alternative 2

			Number of Impacted Trees (DBH)			
			Blue Oak	Interior Live Oak	Valley Oak	Total
Trees ≥36" DBH Within Oak Woodlands	**Fair to Good**		0	2 (115.9)	0	2 (115.9)
	Poor Condition		0	0	0	0
Subtotal						2 (115.9)
Trees Outside of Oak Woodlands	**Fair to Good**	6-35" DBH	0	0	1 (35.0)	1 (35.0)
		≥36" DBH	1 (38.5)	0	0	1 (38.5)
	Poor Condition	6-35" DBH	0	1 (26.6)	0	1 (26.6)
		≥36" DBH	0	0	0	0
Subtotal						3 (100.1)
Total Trees in Fair to Good Condition			1 (38.5)	2 (115.9)	1 (35.0)	4 (189.4)
TOTAL			1 (38.5)	3 (142.5)	1 (35.0)	5 (216.0)

4.3 Overall Project Impacts

The Project combined with the sewer line would permanently impact 1.5 acres of Oak Woodland, and temporarily impact 1.2 acres of Oak Woodland. Within the Oak Woodlands, the Project combined with the sewer line would impact nine native oak trees with a DBH of 36" or greater (eight of which are in fair to good condition).

In addition, a total of 3 - 4 individual native oak trees with a DBH of 6" or greater outside of Oak Woodlands would be permanently impacted by the Project combined with the sewer line (2 - 3 of which are in fair to good condition). Of the 2 - 3 trees in fair to good condition that may be impacted, 2 have a DBH of 36" or greater (one along each sewer alternative).

Of these impacts, a cumulative total of 2.7 acres of Oak Woodland and 11-12 individual trees in fair to good condition (with a cumulative DBH of 453.7 - 464.3) would be subject to mitigation. The ranges above represent the full range of cumulative impacts, with the lower end assuming the least impactful sewer alternative, and the upper end assuming the most impactful sewer alternative. Where impacts are the same for both sewer alternative, no range is presented. A summary data sheet of oak resources impacts for the Project plus Sewer Alternative 1 is included as **Attachment D**, and a summary data sheet of oak resources impacts for the Project plus Sewer Alternative 2 is included as **Attachment E**.

The Project will avoid indirect impacts to Oak Resources outside of the impact area by implementing the tree avoidance and minimization measures outlined in **Attachment F**.

5.0 MITIGATION

The total cost to mitigate impacts to oak resources associated with the Project if accomplished via in-lieu fee ranges from $552,102.75 to $555,132.15, depending on which Sewer Alternative is implemented. Mitigation calculations are detailed below. We have attached the completed Checklist in **Attachment G**. As noted above, separate *Planning and Building Department Summary Data Sheet of Oak Resources Impacts for Oak Tree/Oak Woodland Removal Permits* have completed for the Project including Sewer Alternative 1 and the Project including Sewer Alternative 2. These are included as **Attachments D and E**, respectively.

5.1 Oak Woodland

The Project intends to mitigate for impacts to oak woodlands through payment of in-lieu fees to the County's Oak Woodland Conservation Fund. The Project as proposed would impact 0.5 acres of the 4.0 acres of Oak Woodland mapped within the Project Development Area. Implementation of either sewer alternative would result in impacts to 2.2 acres of Oak Woodland. This is a cumulative total of 2.7 acres (44%) of impact of the total 6.2 acres of Oak Woodland mapped within the Project Area[2]. In accordance with the ORMP, the Project proponent would be required to mitigate at a ratio of 1:1 for impacts to 0-50% of the Oak Woodland within the Project Area. Based on this ratio, the Project would require 2.7 acres of Oak Woodland mitigation. Based on the current fee of $8,285, payment of the in-lieu fee for this impact would cost a total of $22,369.50.

5.2 Individual and Heritage Oak Trees

Mitigation estimates are broken down by sewer alternative below. Per the ORMP, the mitigation may be accomplished via replacement planting on or off-site, via payment of an in-lieu fee, or via a combination of the two. Replacement planting on or off-site would require that the planting area be placed under a conservation easement; tree replacement sizes and inch for inch equivalency are provided in **Table 6**, below. If replacement planting is selected, a replacement planting plan must be prepared as detailed in the ORMP, and the planting density may be no greater than 200 trees per acre. The current in-lieu fee is $153 per DBH inch.

Table 6. Oak Tree Replacement Equivalencies

Replacement Tree Size	Number of Replacement Trees Required per DBH Inch of Mitigation
Acorn	3
1-gallon/TreePot 4	2
5-gallon	1.5
15-gallon	1

[2] The 2.2 acres of oak woodland that will be impacted by the sewer alternatives is a tiny portion of the oak woodland in that area; however, as the Project Proponent does not control that area, they cannot place a conservation easement over it. Therefore, impacts must be analyzed for the Project Area in isolation.

5.2.1 Project Plus Sewer Alternative 1

If Sewer Alternative 1 is selected, the cumulative oak tree impacts for the Project plus the sewer alternative would be two individual oak trees (41.0 DBH inches) and nine Heritage oak trees (423.3 DBH inches). The ORMP requires mitigation of individual oak trees at a 1:1 ratio, and mitigation of Heritage oak trees at a 3:1 ratio. Based on these ratios, the Project plus the Sewer Alternative 1 would require 1,310.9 DBH inches of mitigation. If this is accomplished via in-lieu fee, then based on the current in-lieu fee of $153 per DBH inch, this would cost $200,567.70. If this were accomplished entirely via replacement planting, it would require planting 1,311 15-gallon trees on a property no smaller than 6.6 acres.

5.2.2 Project Plus Sewer Alternative 2

If Sewer Alternative 2 is selected, the cumulative oak tree impacts for the Project plus the sewer alternative would be one individual oak tree (35.0 DBH inches) and nine Heritage oak trees (418.7 DBH inches). The ORMP requires mitigation of individual oak trees at a 1:1 ratio, and mitigation of Heritage oak trees at a 3:1 ratio. Based on these ratios, the Project plus the Sewer Alternative 2 would require 1,291.1 DBH inches of mitigation. If this is accomplished via in-lieu fee, then based on the current in-lieu fee of $153 per DBH inch, this would cost $197,538.30. If this were accomplished entirely via replacement planting, it would require planting 1,292 15-gallon trees on a property no smaller than 6.5 acres.

6.0 REFERENCES

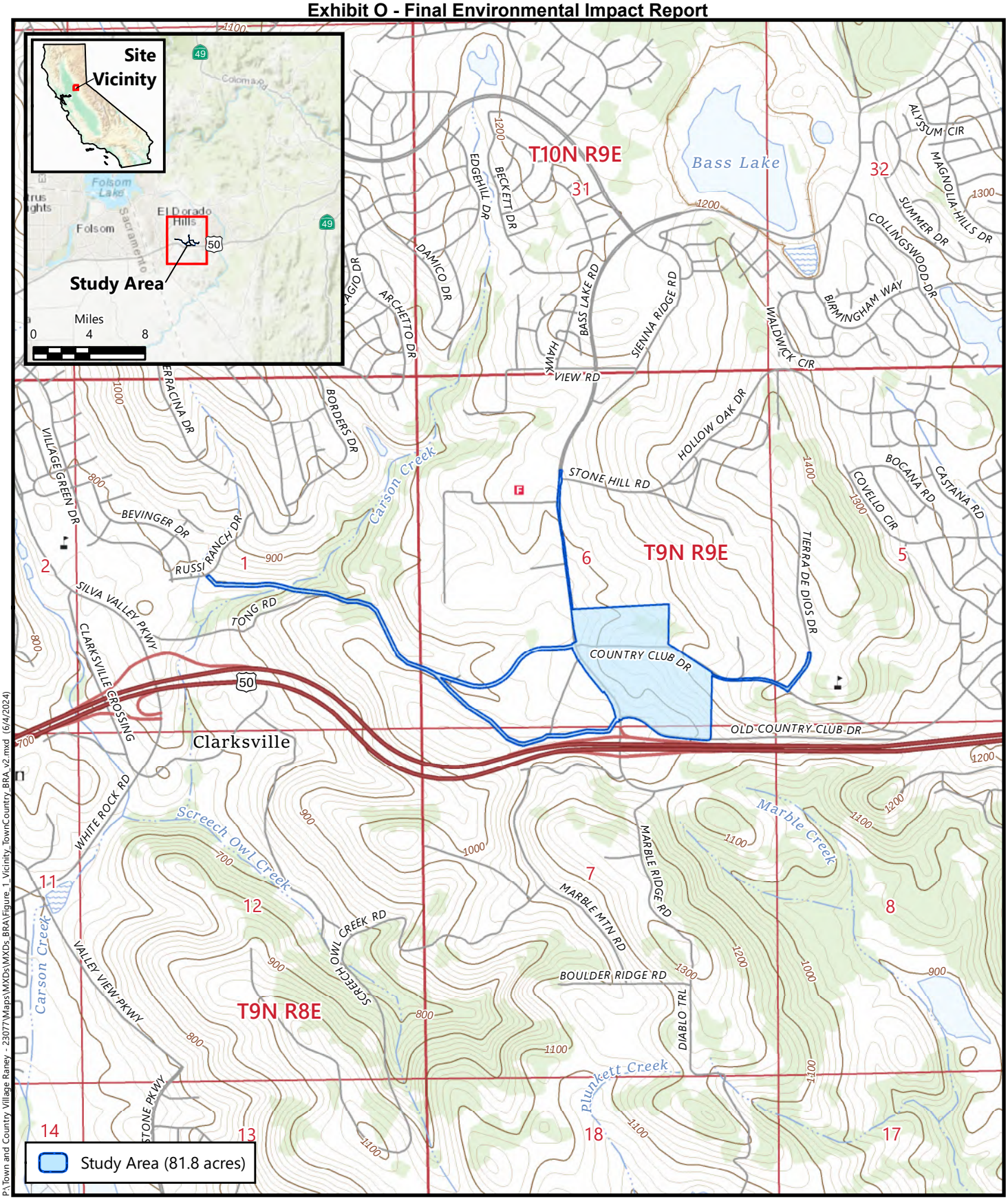
El Dorado County (EDC). 2017. *El Dorado County Oak Resources Management Plan*. Published by El Dorado County Community Development Agency, Long Range Planning Division. Dated September 2017.

U.S. Department of the Interior, Geological Survey (USGS). 2021. *Clarksville, California* 7.5-minute Quadrangle. Geological Survey. Denver, Colorado.

Figures

Figure 1. Site and Vicinity

Figure 2. Project Components



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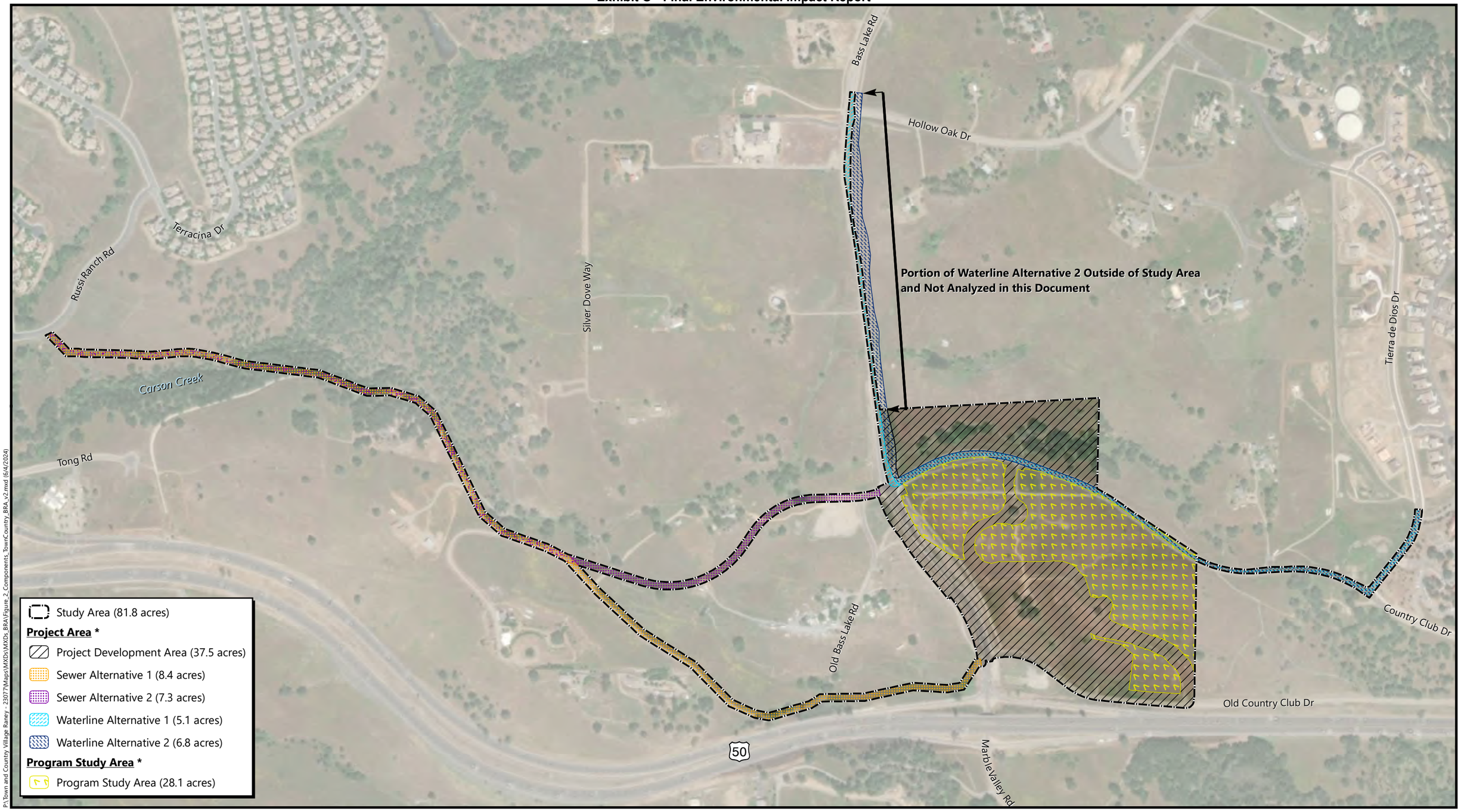
Source: United States Geologic Survey, 2021
"Clarksville, California" 7.5-Minute Topographic Quadrangle
Section 1, Township 9 North, Range 8 East, MDBM and
Sections 5-7, Township 9 North, Range 9 East, MDBM
Latitude (NAD83): 38.658668°, Longitude (NAD83): -121.029902°

Figure 1
Site and Vicinity

Town and Country Village El Dorado
El Dorado County, California

MADRONE ECOLOGICAL CONSULTING



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* *Component acreages do not sum to the Study Area acreage due to overlapping alternatives*

Boundary Source: CTA Engineering & Surveying
Aerial Source: Maxar, 1 May 2022

Figure 2
Project Components

Town and Country Village El Dorado
El Dorado County, California

MADRONE ECOLOGICAL CONSULTING

Attachments

Attachment A. Site Plan

Attachment B. Tree Inventory Data

Attachment C. Map of Impacts to Oak Resources

Attachment D. Summary Data Sheet of Oak Resources Impacts for the Project Plus Sewer Alternative 1

Attachment E. Summary Data Sheet of Oak Resources Impacts for the Project Plus Sewer Alternative 2

Attachment F. Avoidance and Minimization Measures

Attachment G. Oak Resources Technical Report Checklist

Attachment A

Site Plan

TOWN & COUNTRY VILLAGE EL DORADO

OVERALL SITE PLAN

EL DORADO COUNTY, CALIFORNIA

SCALE: 1"=100' MARCH, 2024

APPLICANT

JOSH PANE
1123 J STREET, 3RD FLOOR
SACRAMENTO, CA 95814

OWNER

MOHAMMAD MOHANNA
CAP FUNDING
1025 9th STREET, SUITE 205
SACRAMENTO, CA 95814

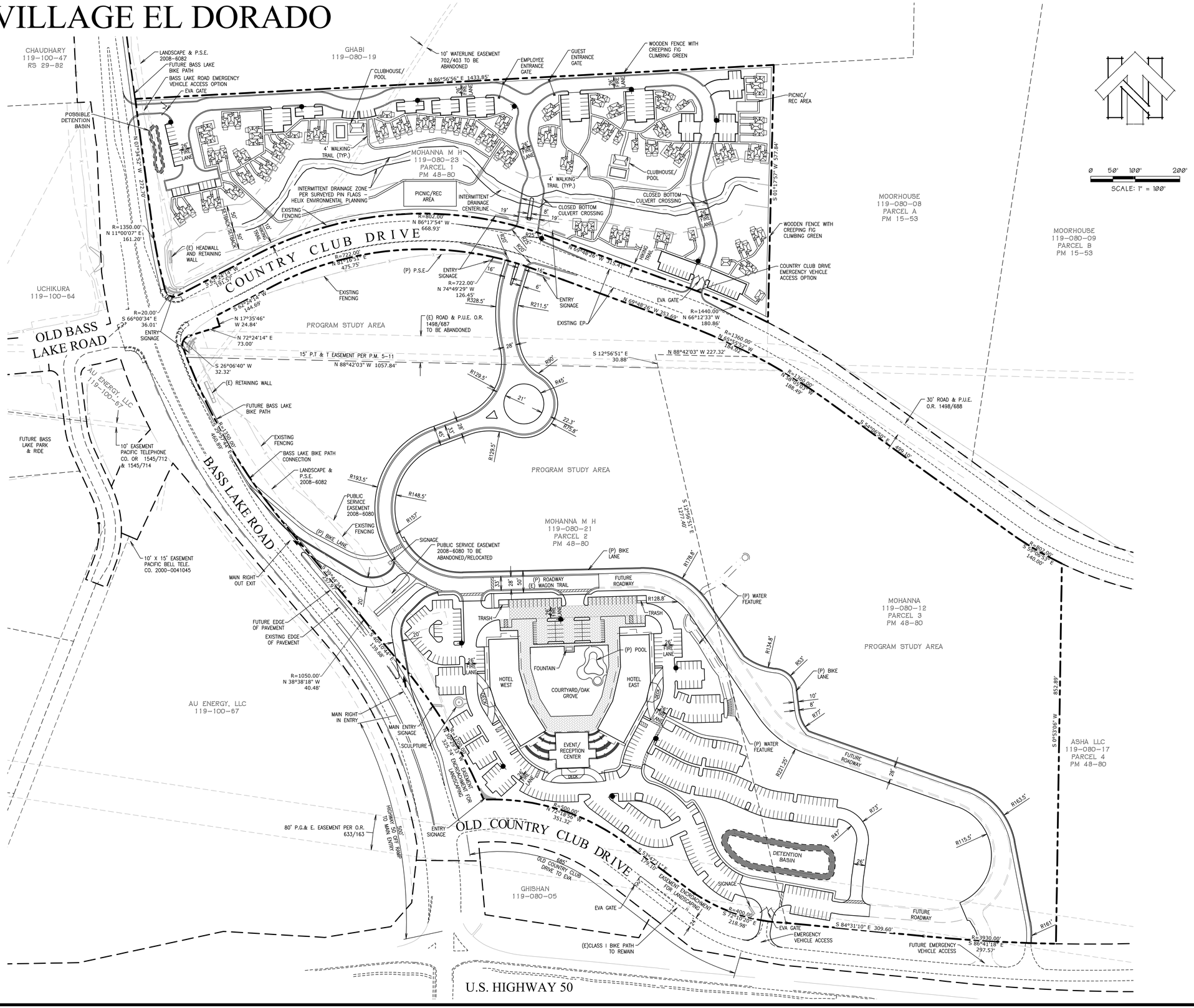
ENGINEER

cta Engineering & Surveying
Civil Engineering ■ Land Surveying ■ Land Planning
3233 Monier Circle, Rancho Cordova, CA 95742
T (916) 638-0919 ■ F (916) 638-2479 ■ www.ctaes.net

PROPOSED BUILDINGS	GROSS SQUARE FOOTAGE (FOOTPRINT)
HOTELS	16,000
EVENT CENTER	7,000
COTTAGES	280
CLUBHOUSES	600

LEGEND

- PROJECT BOUNDARY
- (E) LOT BOUNDARY
- (E) RIGHT OF WAY
- (E) EASEMENT
- (E) EDGE OF PAVEMENT
- (E) FENCE
- GRASS PAVERS
- LANDSCAPE PAVERS
- FIRE DEPARTMENT PATH OF TRAVEL TURNING RADII INSIDE RADIUS=35' OUTSIDE RADIUS=55'
- FIRE HYDRANT



Attachment B

Tree Inventory Data

Oak Tree Inventory for Town and Country Village

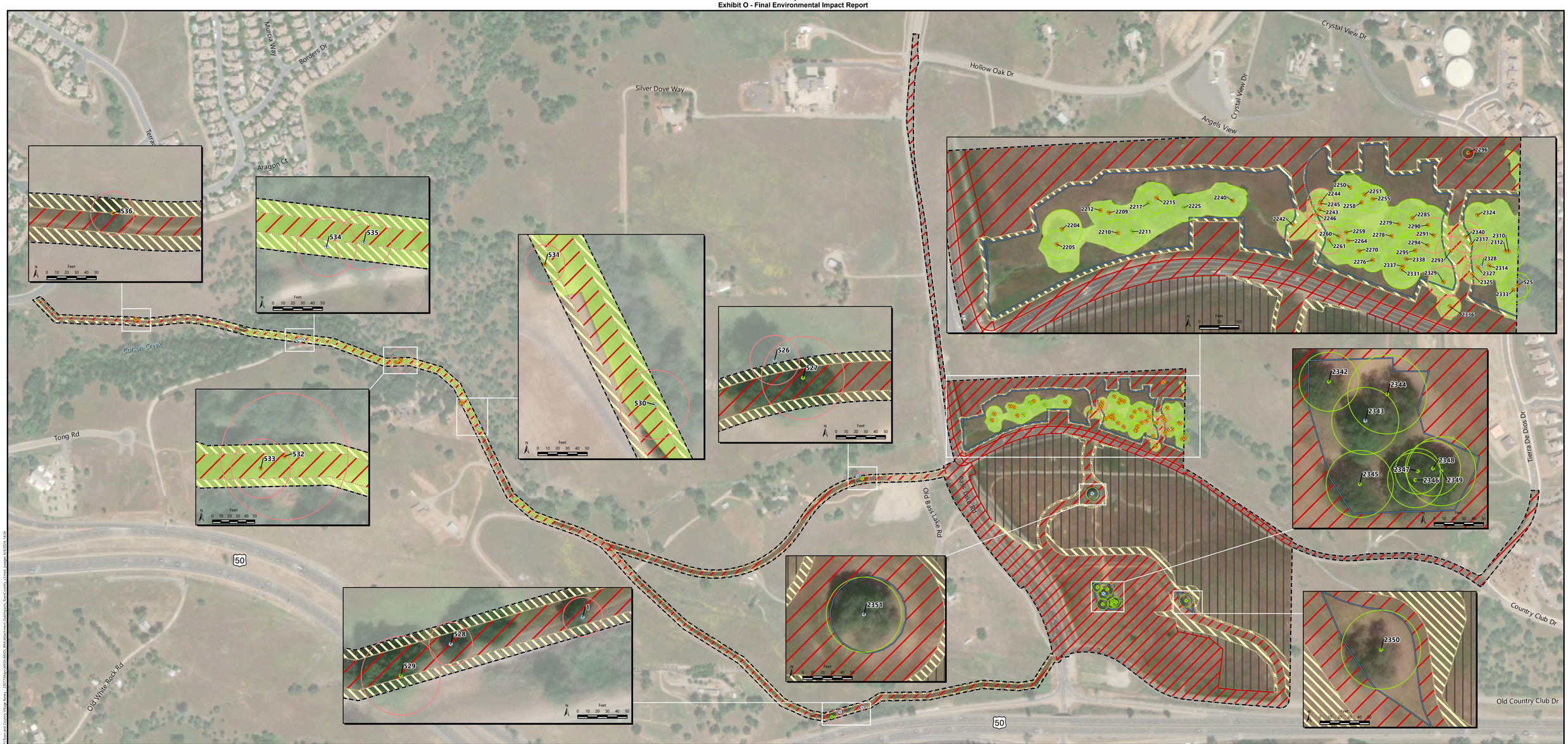
Tree #	Common Name	Scientific Name	DBH (in)	Dripline Radius (ft)	Condition	MultiStem DBH	Notes	Woodland Classification
1	Blue Oak	*Quercus douglasii*	24.0	20	Fair to Good	12, 12	Health and structure fair. No tag and DBH estimated due to poison oak. Evidence of past mistletoe infestation, but currently minimal. Included bark at 2 main trunk unions	Not Oak Woodland
525	Interior Live Oak	*Quercus wislizenii*	25.5	32	Fair to Good		Health and Structure Fair	Oak Woodland
526	Blue Oak	*Quercus douglasii*	38.5	25	Fair to Good		Health and Structure Good	Not Oak Woodland
527	Valley Oak	*Quercus lobata*	35.0	42	Fair to Good		Health and Structure Excellent	Not Oak Woodland
528	Blue Oak	*Quercus douglasii*	17.0	22	Fair to Good		Health fair, structure good	Not Oak Woodland
529	Valley Oak	*Quercus lobata*	43.1	40	Fair to Good		Health and Structure Excellent	Not Oak Woodland
530	Blue Oak	*Quercus douglasii*	31.4	35	Fair to Good		Health good, structure fair. Large cavity at base that appears to be healing, no evidence of decay	Oak Woodland
531	Interior Live Oak	*Quercus wislizenii*	58.2	20	Fair to Good	13.7, 21.9, 6.1, 16.5	Health and Structure Good	Oak Woodland
532	Interior Live Oak	*Quercus wislizenii*	57.7	75	Fair to Good	12.8, 13.7, 19.6, 11.6	Health fair, Structure fair to poor. Tree has a very substantial uphill lean. Would not be acceptable in an urban setting, but does not indicate increased potential for the trees premature mortality.	Oak Woodland
533	Interior Live Oak	*Quercus wislizenii*	26.5	35	Fair to Good		Health and Structure Fair	Oak Woodland
534	Blue Oak	*Quercus douglasii*	24.5	30	Fair to Good		Health and Structure Good	Oak Woodland
535	Blue Oak	*Quercus douglasii*	28.9	28	Fair to Good		Health fair, structure good	Oak Woodland
536	Interior Live Oak	*Quercus wislizenii*	26.6	22	Poor		Health and structure poor. Fair amount of branch die off, mistletoe growing out of trunk, cavity under the trunk	Not Oak Woodland
2204	Interior Live Oak	*Quercus wislizenii*	43.7	50	Fair to Good		Health and Structure Fair. DBH measured at 3 ft due to branching.	Oak Woodland
2205	Interior Live Oak	*Quercus wislizenii*	48.0	35	Fair to Good	22.0, 26.0	Health and Structure Fair. Numerous branches have fallen off recently, so few that are dead remain.	Oak Woodland
2209	Interior Live Oak	*Quercus wislizenii*	25.4	25	Poor		Health poor, structure fair	Oak Woodland
2210	Interior Live Oak	*Quercus wislizenii*	37.8	35	Fair to Good		Health and Structure Fair	Oak Woodland
2211	Valley Oak	*Quercus lobata*	40.3	35	Fair to Good		Health fair, structure good	Oak Woodland
2212	Interior Live Oak	*Quercus wislizenii*	31.7	12.5	Fair to Good	18.5, 13.2	Health and Structure Fair	Oak Woodland
2215	Interior Live Oak	*Quercus wislizenii*	29.0	38	Poor	14.9, 14.1	Health fair, structure poor. Cavities below trunk	Oak Woodland
2217	Valley Oak	*Quercus lobata*	38.0	35	Fair to Good		Health and structure good. DBH estimated due to poison oak	Oak Woodland
2225	Valley Oak	*Quercus lobata*	24.8	35	Fair to Good		Health and Structure Good	Oak Woodland
2240	Interior Live Oak	*Quercus wislizenii*	43.3	35	Poor	26.2, 17.1	Health and structure poor. One of main trunks has been girdled - no bark all the way around.	Oak Woodland
2242	Interior Live Oak	*Quercus wislizenii*	57.1	40	Fair to Good	16.6, 11.0, 29.5	Health good, structure fair. Several cavities and one main branch rests on ground. DBH of biggest trunk measured at 2 ft due to branching.	Oak Woodland
2243	Interior Live Oak	*Quercus wislizenii*	26.1	32	Poor		Health and structure poor. Extensive branch tip die back. Polypore mushrooms growing out of cavity in trunk.	Oak Woodland
2244	Interior Live Oak	*Quercus wislizenii*	38.4	35	Poor	15.9, 22.5	Health fair, structure poor. Numerous cavities with active decay	Oak Woodland
2245	Interior Live Oak	*Quercus wislizenii*	24.0	20	Fair to Good	16.0, 8.0	Health and Structure Fair	Oak Woodland
2246	Interior Live Oak	*Quercus wislizenii*	28.9	24	Poor	9.5, 11.0, 8.4	Health and structure poor. Numerous extensive cavities with decay	Oak Woodland
2250	Interior Live Oak	*Quercus wislizenii*	36.7	35	Fair to Good		Health good, structure fair. One good sized cavity with decay, remainder of tree looks good.	Oak Woodland
2251	Interior Live Oak	*Quercus wislizenii*	46.2	25	Fair to Good	4.8, 8.2, 17.2, 16.0	Health good, structure fair.	Oak Woodland
2255	Interior Live Oak	*Quercus wislizenii*	33.4	35	Fair to Good	18.7, 5.4, 9.3	Health good, structure fair to poor. 1 branch with numerous cavities, some small healing cavities in main trunk	Oak Woodland
2258	Interior Live Oak	*Quercus wislizenii*	30.5	22	Poor	11.4, 10.5, 8.6	Health and structure poor. 2 of 3 branches are dead and the third appears to be dying.	Oak Woodland
2259	Interior Live Oak	*Quercus wislizenii*	39.6	35	Fair to Good	15.4, 13.2, 11.0	Health good, structure fair. DBH estimated due to poison oak	Oak Woodland
2260	Interior Live Oak	*Quercus wislizenii*	29.1	28	Fair to Good	25.0, 4.1	Health good, structure fair.	Oak Woodland
2261	Interior Live Oak	*Quercus wislizenii*	46.4	35	Fair to Good	22.1, 7.8, 16.5	Health and structure fair. DBH estimated due to poison oak.	Oak Woodland
2264	Interior Live Oak	*Quercus wislizenii*	36.2	45	Fair to Good	15.6, 20.6	Health good, structure fair.	Oak Woodland
2270	Interior Live Oak	*Quercus wislizenii*	41.1	42	Fair to Good	20.2, 20.9	Health and Structure Good	Oak Woodland

Oak Tree Inventory for Town and Country Village

Tree #	Common Name	Scientific Name	DBH (in)	Dripline Radius (ft)	Condition	MultiStem DBH	Notes	Woodland Classification
2276	Interior Live Oak	*Quercus wislizenii*	64.9	30	Fair to Good	17.2, 23.8, 14.9, 9.0	Health good, structure fair.	Oak Woodland
2278	Interior Live Oak	*Quercus wislizenii*	26.6	32	Fair to Good		Health and structure fair. an additional stem 19.4 dbh is almost dead and not included in size Calc	Oak Woodland
2279	Interior Live Oak	*Quercus wislizenii*	54.8	35	Fair to Good	21.9, 21.4, 11.5	Health fair and Structure fair to poor. Several cavities.	Oak Woodland
2285	Interior Live Oak	*Quercus wislizenii*	29.9	50	Fair to Good		Health and Structure Fair	Oak Woodland
2290	Interior Live Oak	*Quercus wislizenii*	59.4	50	Fair to Good	14.4, 20.0, 25.0	Health good, structure fair	Oak Woodland
2291	Interior Live Oak	*Quercus wislizenii*	40.1	45	Fair to Good	29.8, 10.3	Health and Structure Fair	Oak Woodland
2293	Interior Live Oak	*Quercus wislizenii*	39.2	38	Fair to Good	30.5, 8.7	Health and Structure Fair	Oak Woodland
2294	Interior Live Oak	*Quercus wislizenii*	31.1	45	Fair to Good	11.2, 19.9	Health and Structure Fair	Oak Woodland
2295	Interior Live Oak	*Quercus wislizenii*	48.2	50	Fair to Good	11.8, 32.9, 3.5	Health good, structure fair	Oak Woodland
2296	Interior Live Oak	*Quercus wislizenii*	23.4	15	Poor	9.8, 4.7, 8.9	Health poor, structure fair	Not Oak Woodland
2310	Interior Live Oak	*Quercus wislizenii*	44.9	45	Fair to Good	13.0, 10.7, 21.2	Health and Structure Fair	Oak Woodland
2312	Interior Live Oak	*Quercus wislizenii*	30.8	32	Poor	17.0, 13.8	Health fair, structure poor. Very large basal cavity.	Oak Woodland
2314	Interior Live Oak	*Quercus wislizenii*	27.0	25	Fair to Good	9.5, 17.5	Health and Structure Fair	Oak Woodland
2317	Interior Live Oak	*Quercus wislizenii*	25.2	38	Fair to Good	17.0, 8.2	Health and Structure Fair	Oak Woodland
2324	Interior Live Oak	*Quercus wislizenii*	49.2	32	Fair to Good	15.3, 11.7, 13.5, 8.7	Health and Structure Fair	Oak Woodland
2325	Interior Live Oak	*Quercus wislizenii*	34.0	25	Fair to Good	21.8, 12.2	Health and Structure Fair	Oak Woodland
2327	Interior Live Oak	*Quercus wislizenii*	33.8	30	Fair to Good	9.5, 9.4, 14.9	Health and Structure Fair	Oak Woodland
2328	Blue Oak	*Quercus douglasii*	29.8	40	Fair to Good		Health and Structure Good	Oak Woodland
2329	Interior Live Oak	*Quercus wislizenii*	37.3	40	Fair to Good		Health and structure good. DBH measured at 18" due to branching	Oak Woodland
2331	Interior Live Oak	*Quercus wislizenii*	71.1	48	Fair to Good	16.0, 16.7, 38.4	Health and Structure Good	Oak Woodland
2333	Interior Live Oak	*Quercus wislizenii*	46.9	35	Fair to Good	14.2, 15.0, 17.7	Health and Structure Fair	Oak Woodland
2336	Interior Live Oak	*Quercus wislizenii*	31.5	28	Fair to Good		Health good, structure fair	Oak Woodland
2337	Interior Live Oak	*Quercus wislizenii*	29.4	35	Fair to Good	17.9, 7.6, 3.9	Health and Structure Fair	Oak Woodland
2338	Interior Live Oak	*Quercus wislizenii*	29.4	24	Fair to Good	11.8, 17.6	Health and Structure Fair	Oak Woodland
2340	Interior Live Oak	*Quercus wislizenii*	44.2	40	Fair to Good	11.5, 13.1, 19.6	Health and Structure Fair	Oak Woodland
2342	Valley Oak	*Quercus lobata*	30.0	30	Fair to Good		Health and Structure Good	Not Oak Woodland
2343	Blue Oak	*Quercus douglasii*	30.0	34	Fair to Good		Health and Structure Good	Not Oak Woodland
2344	Valley Oak	*Quercus lobata*	33.3	40	Fair to Good		Health and Structure Fair	Not Oak Woodland
2345	Valley Oak	*Quercus lobata*	37.1	34	Poor		Health good, structure poor. Large cavity under uphill side of tree. Some major roots gone, and root flare is getting undermined. With almost all foliage on downhill side of tree, this tree could fail during strong easterly	Not Oak Woodland
2346	Valley Oak	*Quercus lobata*	25.2	28	Fair to Good		Health and Structure Good	Not Oak Woodland
2347	Valley Oak	*Quercus lobata*	15.7	23	Poor		Health fair, structure poor. Large cavity in the base of the trunk; unhealed, extensive decay	Not Oak Woodland
2348	Valley Oak	*Quercus lobata*	16.3	28	Fair to Good		Health and Structure Good	Not Oak Woodland
2349	Valley Oak	*Quercus lobata*	25.8	35	Fair to Good		Health and Structure Good	Not Oak Woodland
2350	Valley Oak	*Quercus lobata*	36.6	40	Fair to Good		Health good, structure fair to poor. Large unhealed cavity on uphill side of trunk and strange sinuous branch growth.	Not Oak Woodland
2351	Blue Oak	*Quercus douglasii*	45.3	38	Fair to Good		Health good, structure fair to poor	Not Oak Woodland

Attachment C

Map of Impacts to Oak Resources



Prepared For:
Raney Planning & Management, Inc.
1501 Sports Drive, Suite A
Sacramento, CA 95834

Sources
Aerial: Maxar, 1 May 2022
Boundary : CTA Engineering & Surveying

Biologist: D.Snider
Map Prepared by: J.Swager
Date Map Prepared: 4 June 2024
** Small summation errors may occur due to rounding*

N
Feet
0 100 200 300 600

Main Map Scale:
1 inch = 300 feet (at 18"x33")
Coordinate System
NAD 1983 State Plane California II (U.S. Feet)

Study Area (81.8 acres)

Project Impact and Avoidance Areas *
- Permanent Impact (37.8 acres)
- Temporary Impact (8.9 acres)
- Program Level (28.1 acres)
- Avoided (7.0 acres)

Oak Resources
- Blue Oak (9)
- Interior Live Oak (50)
- Valley Oak (13)
- Oak Woodland (6.2 acres)

Oak Dripline
- Avoided Tree (46)
- Permanently Impacted Tree (26)

Impacts to Oak Resources
Town and Country Village El Dorado
El Dorado County, California

MADRONE ECOLOGICAL CONSULTING
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Attachment D

Summary Data Sheet of
Oak Resources Impacts for the
Project Plus Sewer Alternative 1

COMMUNITY DEVELOPMENT SERVICES
PLANNING AND BUILDING DEPARTMENT
2850 Fairlane Court, Placerville, CA 95667
Phone: (530) 621-5355 www.edcgov.us/Planning/

Summary Data Sheet of Oak Resources Impacts for Oak Tree/Oak Woodland Removal Permits

Description		Blue (*Quercus douglasii*)	California Black (*Quercus kelloggii*)	Canyon Live (*Quercus chrysolepis*)	Interior Live (*Quercus wislizeni*)	Oregon White (*Quercus garryana*)	Valley (*Quercus loabata*)	Oracle (hybrid) (*Quercus x morehus*)
Individual Native Oak Trees								
Quantity (number of trees) of individual native oak trees to be removed, by species (6-23.9")		1	0	0	0	0	0	0
Quantity (number of trees) of individual native oak trees to be removed, greater than 24 inches and less than 36 inches (dbh), by species (outside of oak woodland)		1	0	0	0	0	0	0
Total trunk diameter inches (dbh) to be removed*	41.0							
Heritage Trees								
Quantity (number of trees) of Heritage Trees to be removed, by species		0	0	0	8	0	1	0
Total trunk diameter inches (dbh) to be removed*	423.3							
Oak Woodlands								
Total Acreage of existing oak woodlands**	6.2							
Acreage of existing oak woodlands to be removed	2.7							
Percentage of existing oak woodlands to be removed*	44%							

Information used for purposes of calculating in-lieu mitigation fee payment.
****If Heritage Trees occur within oak woodlands, the area of impacted Heritage Tree(s) should be included in oak woodland acreage calculations.***

Revised 11/22/2017

Attachment E

Summary Data Sheet of
Oak Resources Impacts for the
Project Plus Sewer Alternative 2

COMMUNITY DEVELOPMENT SERVICES
PLANNING AND BUILDING DEPARTMENT
2850 Fairlane Court, Placerville, CA 95667
Phone: (530) 621-5355 www.edcgov.us/Planning/

Summary Data Sheet of Oak Resources Impacts for Oak Tree/Oak Woodland Removal Permits

Description		Blue (*Quercus douglasii*)	California Black (*Quercus kelloggii*)	Canyon Live (*Quercus chrysolepis*)	Interior Live (*Quercus wislizeni*)	Oregon White (*Quercus garryana*)	Valley (*Quercus loabata*)	Oracle (hybrid) (*Quercus x morehus*)
Individual Native Oak Trees								
Quantity (number of trees) of individual native oak trees to be removed, by species (6-23.9")		0	0	0	0	0	0	0
Quantity (number of trees) of individual native oak trees to be removed, greater than 24 inches and less than 36 inches (dbh), by species (outside of oak woodland)		0	0	0	0	0	1	0
Total trunk diameter inches (dbh) to be removed*	35.0							
Heritage Trees								
Quantity (number of trees) of Heritage Trees to be removed, by species		1	0	0	8	0	0	0
Total trunk diameter inches (dbh) to be removed*	418.7							
Oak Woodlands								
Total Acreage of existing oak woodlands**	6.2							
Acreage of existing oak woodlands to be removed	2.7							
Percentage of existing oak woodlands to be removed*	44%							

**** Information used for purposes of calculating in-lieu mitigation fee payment.***
***** If Heritage Trees occur within oak woodlands, the area of impacted Heritage Tree(s) should be included in oak woodland acreage calculations.***

Revised 11/22/2017

Attachment F

Avoidance and Minimization Measures

Measures to Avoid and Minimize Impacts to Retained Oak Resources

Pre-construction

- The limits of project disturbance within 50 feet of all oak trees shall be clearly defined with bright colored flagging or orange construction fencing prior to construction. Flagging and/or the fence shall remain in place until construction is complete. No construction activities shall occur outside the construction limits. Flagging or fencing shall be removed and cleared from the Project area upon completion of the project to prevent wildlife entrapment in refuse left onsite.
- There shall be no driving, parking, or storage of supplies or equipment outside the flagged/fenced project limits.
- Limb pruning of any retained trees should be conducted by an arborist or tree worker that is ISA certified and licensed by the State of California for tree service. Pruning shall be conducted in accordance with American National Standard Institute (ANSI) A300 Pruning Standard and adhere to the most recent edition of ANSI Z133.1.
- Canopy thinning or additional pruning shall not occur outside the flagged/fenced project limits. It is more beneficial for a tree to have the most amount of foliage possible in order to promote new root growth.

During Vegetation Clearing

- Trees shall be felled inside the flagged/fenced project limits

Attachment G

Oak Resources

Technical Report Checklist

COMMUNITY DEVELOPMENT SERVICES
PLANNING AND BUILDING DEPARTMENT
2850 Fairlane Court, Placerville, CA 95667
Phone: (530) 621-5355 www.edcgov.us/Planning/

OAK RESOURCES TECHNICAL REPORT CHECKLIST

The following information is required for all Oak Resources Technical Reports consistent with Section 2.5 (Oak Resources Technical Reports) of the Oak Resources Management Plan (ORMP):

FORMS AND MAPS REQUIRED

Place a check (√) on the "Applicant" lines for those items completed. The planner receiving the application will check (√) the "County" line.

Check (√) Applicant	County		
[X]	[ ]	1)	Identify, locate, and quantify all oak resources on the property, as applicable:
Attachment C		a)	Oak woodlands shall be mapped and assessed in accordance with the CDFG 2009 *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities* and subsequent updates, and the *List of Vegetation Alliances and Associations* (CDFG 2010) and subsequent updates;
Attachment B		b)	Data collected for individual native oak trees and Heritage Trees shall include: location, species, trunk diameter (dbh), height, canopy radius, and general health and structural condition.
[X]	[ ]	2)	Identify and quantify project-related impacts to oak resources Section 4.0
[X]	[ ]	3)	Measures identifying how specific trees and woodlands (or retained portions thereof) shall be protected during development and related work
			Attachment F

Check (√) Applicant	Check (√) County		
☒	☐	4)	Proposed actions to mitigate impacts to oak resources, consistent with the requirements included in the ORMP: Section 5.0
			a) For replacement planting, the report shall provide detail regarding the quantity, location, planting density, replacement tree size(s), and acorn/seedling source consistent with the definition of Replacement Planting included in the ORMP;
			b) For conservation easement placement/acquisition and/or land acquisition in fee title, the report shall provide documentation of easement placement on-site and/or documentation of easement or land acquisition off-site to the satisfaction of the County;
			c) For in-lieu fee payment, the report shall document the quantity of impacts (acreage of oak woodlands and/or total diameter inches of individual native oak trees/Heritage Trees) and the total in-lieu fee payment necessary (presented separately for oak woodlands, individual native oak trees, and Heritage Trees, where applicable).
☐	☐	5)	Identification of responsible parties N/A
☐	☐	6)	Identification of maintenance, monitoring, and reporting requirements N/A
☐	☐	7)	Analysis of non-PCA conservation easement areas, where applicable N/A
☒	☐	8)	Site map(s) depicting:
			a) location of all oak woodlands, individual native oak trees, and Heritage Trees; Attachment C
			b) location of all proposed project-related improvements (including, but not limited to, the limits of grading, fuel modification/defensible space areas, and above- and below-ground infrastructure); Attachment A
			c) Site map(s) shall also clearly identify impacted oak resources. Attachment C
☒	☐	9)	Planning and Building Department Summary Data Sheet of Oak Resources Impacts for Oak Tree/Oak Woodland Removal Permits. Attachments D and E

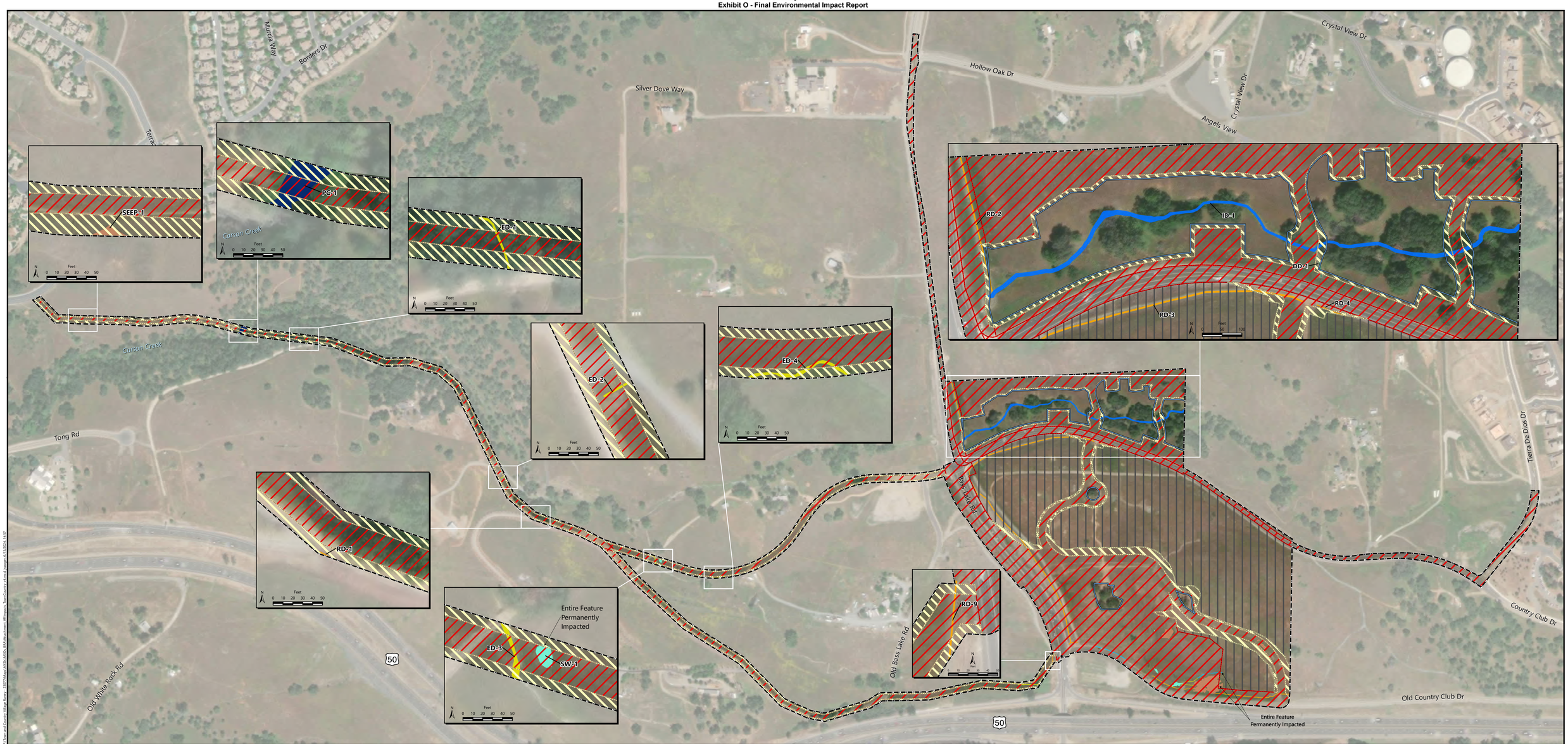
SUPPLEMENTAL DATA FOR INDIVIDUAL NATIVE OAK TREES WITHIN OAK WOODLANDS:

The ORMP and Oak Resources Conservation Ordinance (No. 5061) was adopted on October 24, 2017 and the Board of Supervisors will review implementation within 12 months after adoption. The Board requested the following supplemental information:

☒	☐	10)	Provide an inventory (species and size) of impacted Individual Native Oak Trees greater than 24 inches and less than 36 inches (dbh) in oak woodlands. Attachment B

Attachment H

Impacts to Aquatic Resources



Prepared For:
Raney Planning & Management, Inc.
1501 Sports Drive, Suite A
Sacramento, CA 95834

Sources
Aerial: Maxar, 1 May 2022
Boundary : CTA Engineering & Surveying

Biologist: D.Snider
Map Prepared by: J.Swager
Date Map Prepared: 13 June 2024
** Small summation errors may occur due to rounding*

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Main Map Scale:
1 inch = 300 feet (at 18"x33")
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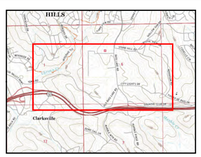

Study Area (81.8 acres)

Project Impact and Avoidance Areas *
- Permanent Impact (37.8 acres)
- Temporary Impact (8.9 acres)
- Program Level (28.1 acres)
- Avoided (7.0 acres)

Aquatic Resources (1.059 acre) *

Wetlands (0.423 acre)
- Seasonal Wetland (0.031 acre)
- Seasonal Wetland Swale (0.017 acre)
- Seep (0.375 acre)

Other Waters (0.637 acre)
- Drainage Ditch (0.005 acre)
- Ephemeral Drainage (0.038 acre)
- Intermittent Drainage (0.311 acre)
- Perennial Creek (0.033 acre)
- Roadside Ditch (0.250 acre)

Impacts to Aquatic Resources
Town and Country Village El Dorado
El Dorado County, California

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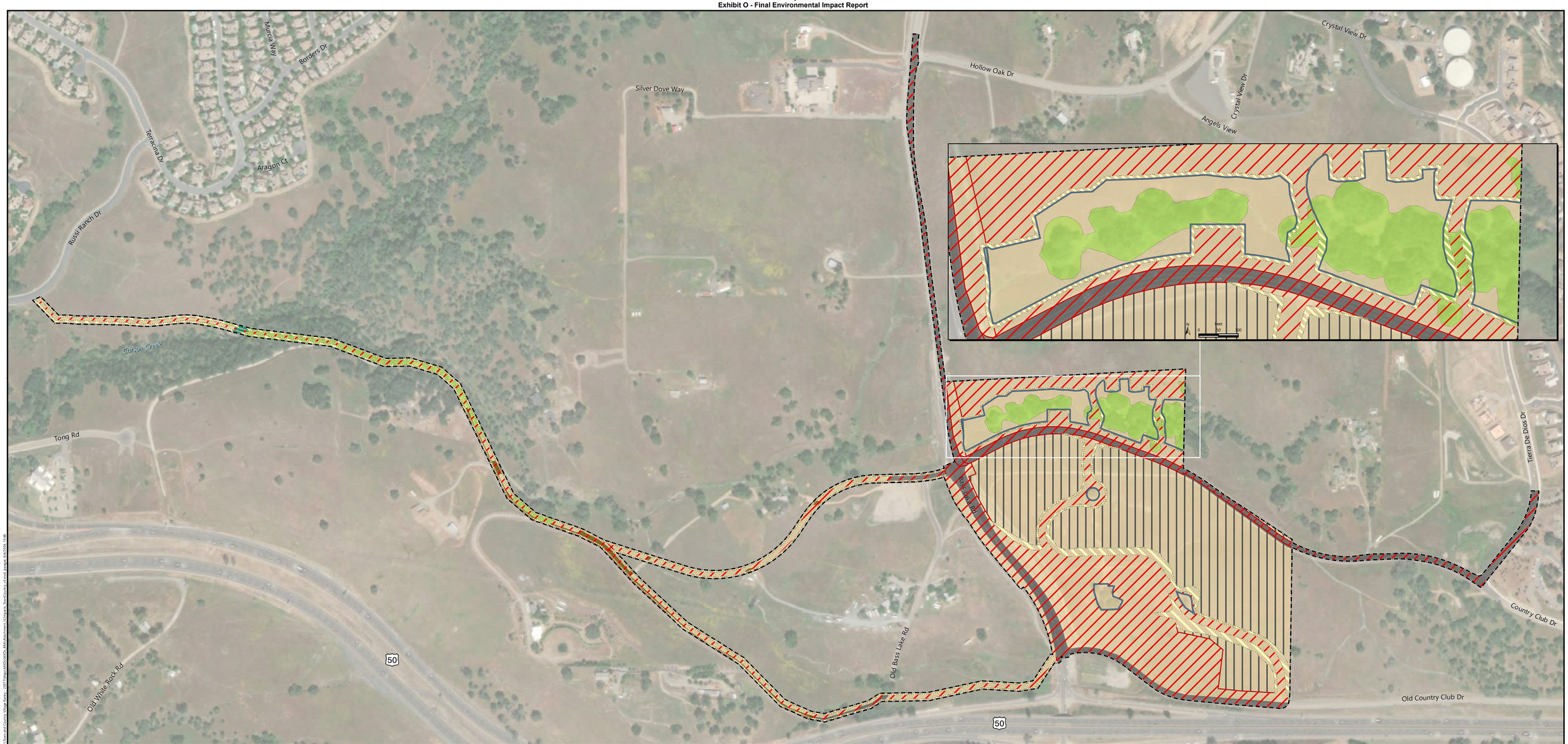
Attachment I

Impacts to Vegetation Communities



Prepared For:
Raney Planning & Management, Inc.
1501 Sports Drive, Suite A
Sacramento, CA 95834

Sources
Aerial: Maxar, 1 May 2022
Boundary : CTA Engineering & Surveying

Biologist: D.Snider
Map Prepared by: J.Swager
Date Map Prepared: 4 June 2024
** Small summation errors may occur due to rounding*

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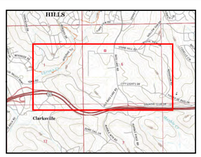

Study Area (81.8 acres)

Project Impact and Avoidance Areas *
- Permanent Impact (37.8 acres)
- Temporary Impact (8.9 acres)
- Program Level (28.1 acres)
- Avoided (7.0 acres)

Terrestrial Vegetation Communities *
- Annual Brome Grassland (64.9 acres)
- Arroyo Willow Riparian (0.1 acres)
- Dirt Road (1.5 acres)
- Oak Woodland (6.2 acres)
- Paved Road (9.1 acres)

Impacts to Vegetation Communities
Town and Country Village El Dorado
El Dorado County, California

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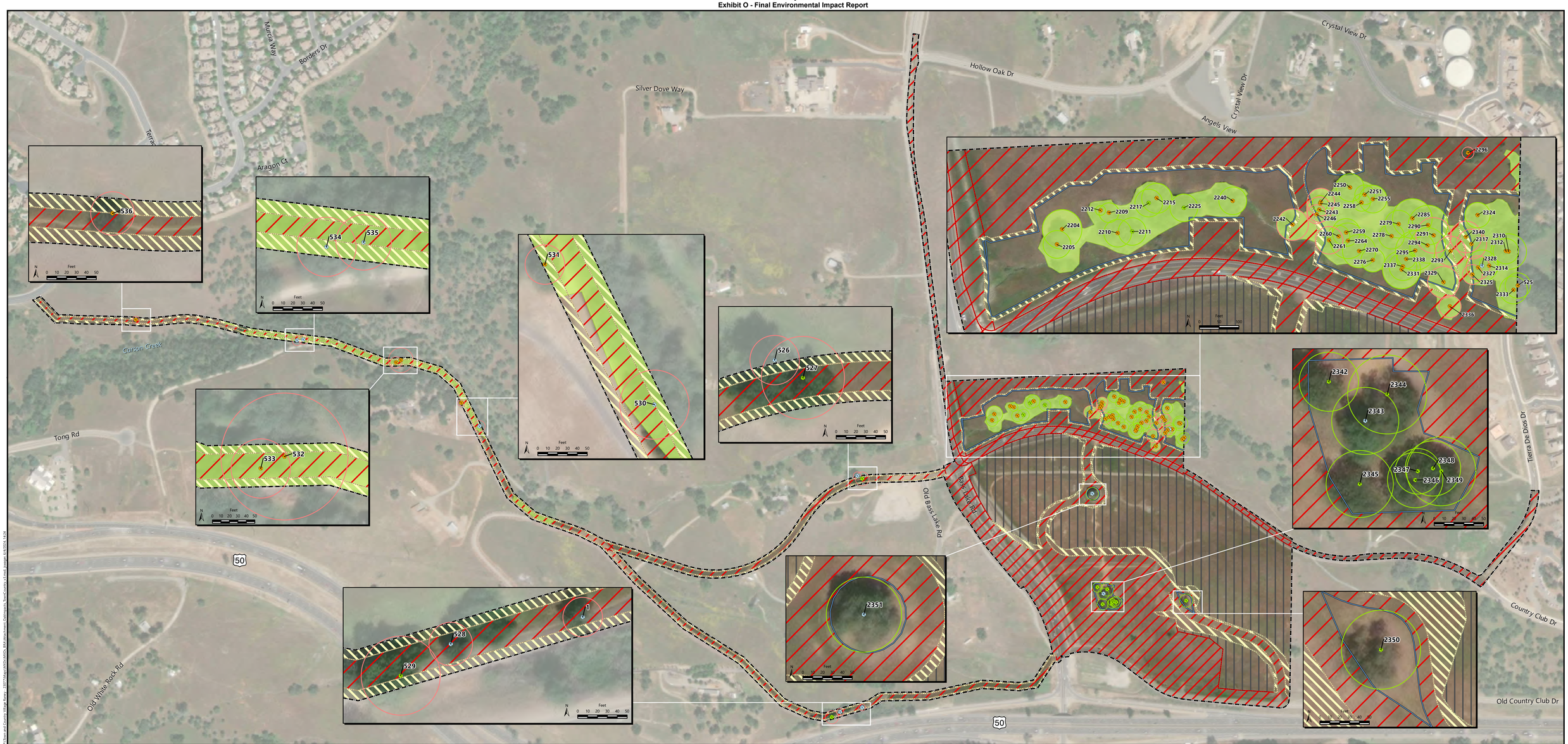
Attachment J

Impacts to Oak Resources



Prepared For:
Raney Planning & Management, Inc.
1501 Sports Drive, Suite A
Sacramento, CA 95834

Sources
Aerial: Maxar, 1 May 2022
Boundary : CTA Engineering & Surveying

Biologist: D.Snider
Map Prepared by: J.Swager
Date Map Prepared: 4 June 2024
** Small summation errors may occur due to rounding*

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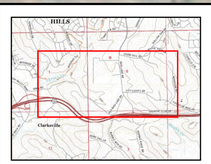

Study Area (81.8 acres)

Project Impact and Avoidance Areas *
- Permanent Impact (37.8 acres)
- Temporary Impact (8.9 acres)
- Program Level (28.1 acres)
- Avoided (7.0 acres)

Oak Resources
- Blue Oak (9)
- Interior Live Oak (50)
- Valley Oak (13)
- Oak Woodland (6.2 acres)

Oak Dripline
- Avoided Tree (46)
- Permanently Impacted Tree (26)

Impacts to Oak Resources
Town and Country Village El Dorado
El Dorado County, California

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Appendix B

DOWNEYBRAND

Amy R. Higuera
ahiguera@downeybrand.com
415.848.4836 Direct
415.848.4801 Fax

Downey Brand LLP
455 Market Street, Suite 1500
San Francisco, CA 94105
415.848.4800 Main
downeybrand.com

Sent Via Email; Original to Follow by US Mail

January 15, 2025

Ande Flower, Planning Manager
County of El Dorado
Planning and Building Department
2850 Fairlane Court
Placerville, CA 95667
Email: Ande.Flower@edcgov.us

Re: UPDATED Town and Country Village El Dorado Project Employee/Workforce Housing Program

Dear Ande:

On behalf of the applicant for the Town and Country Village El Dorado Project, we submit the following updated information on the proposed Employee/Workforce Housing Program for the Project, including additional research done by the Applicant team following our December 31, 2024 letter.

The portion of the Project known as the Project Development Area includes 181,000 square feet (sf) of commercial development, including two hotels, retail services, two restaurants, and an event center/museum (Project Businesses), the development of which could result in an estimated 145 new employees. In accordance with one of the Project's stated objectives—to "develop a mixed-use project that reduces traffic impacts and vehicles miles traveled through the provision of on-site workforce housing for those employed in the proposed project" (see Town and County Village El Dorado Project Draft Environmental Impact Report, p. 3-4)—the Project will be developed with a total of 112 residential cottage units; 56 units of which will be available for rental by employees of the Project Businesses (Employee/Workforce Housing Units) on a first-come, first-served basis, pursuant to the attached Employee/Workforce Housing Program.

As you know, El Dorado County is facing a significant shortage of "missing middle" and workforce housing as a result of the lack of statewide programs and projects aimed at providing these types of units. Less than 12% of the population in El Dorado Hills is living in a rental unit due to the extreme lack of rental housing units in the area. By providing rental units, the project accomplishes the goal of increasing the missing middle housing supply for those who cannot yet afford home ownership in El Dorado Hills.

Additionally, the smaller size of the Project's proposed rental units results in an overall rental rate that is lower than the average rental rates of housing units available in the County, making them affordable by design. At approximately 560 square feet, the Project's rental units will be significantly smaller than the average apartment unit size in El Dorado Hills, which is 996 square feet, and the average single-family house size in El Dorado Hills, which is 2,976 square feet.

Developing workforce housing requires a thoughtful approach that meets the needs of employees in the area through its design. Affordability by design is a recent solution to the housing affordability challenges in the region that does not rely upon state or county funding, which has been limited in recent years. Affordability by design is not affordable by subsidy, but rather by smart, innovative architectural design that creates a smaller average size and subsequently lower rental rate. Affordability by design has recently been proven to be a successful concept in several neighboring jurisdictions, including Sacramento, offering affordable housing options for the service industry and beyond.

The affordable-by-design units are a community benefit being provided voluntarily by the Project to assist employees that will be employed at the Project with more affordable housing options nearby. The Project will provide a much-needed product type that does not yet exist in El Dorado Hills. As a result, the units will be in high demand by the employees of the Project, reducing commute times, car dependency, costs of car ownership, and providing a more affordable housing option directly adjacent to their employment.

The applicant team has researched several examples of employee housing offered on a similar basis as proposed by the Project and offers the below list of projects located throughout California at ski resorts, hotels, and college campuses. Based on the research, these projects did not appear to include any deed-restrictions associated from the planning documents, and instead appear to be voluntarily provided by the hotels/resorts/campuses as a benefit to their employees. Of the examples that the applicant team was able to contact by telephone, most confirmed that they were fully occupied by employees of the associated businesses and had a waitlist of employees for any future vacancies.

Mammoth Resorts: 450 beds for employee housing currently 100% occupied by hotel and resort employees of the nearby Westin Mammoth and Village Mammoth (verified via phone:760-934-3717).

Palisades Tahoe: 100% occupied by hotel and resort employees, no availability at the moment, but employees can get on the housing interest list for future updates (verified via phone: 530-452-7112).

Sugar Bowl: 150 dormitory-style beds for employee housing for resort, as well as some new apartments for management staff. Current waitlist for employees, who must contact HR to apply (verified via phone: 530-426-6749).

Post Ranch Inn, Monterey County: 40-room hotel with 44 units of on-site staff housing. Currently 100% occupied by employees, with a waitlist for additional employees (verified via phone: 800-527-2200).

Alila Ventana Big Sur: 45 employee housing units, currently 100% occupied by the employees of their 54-room hotel (verified via phone: 831-667-2331).

Alisal Ranch, Saint Ynez Valley: Ranch-style resort with limited employee housing on-site. Currently fully occupied by employees, who must contact the HR department if interested in getting on waitlist (verified via phone: 800-425-4725).

Yosemite Rush Creek Lodge, Evergreen Lodge and Firefall Ranch, Yosemite: 286 hotel rooms and cottages, with limited on-site and 13 off-site employee housing properties ranging from condos to apartments. Majority of hotel staff live in either the on-site housing or off-site housing provided and must apply to HR to receive further information on housing (verified via phone: 209-379-2373).

Four Seasons Resort, Napa Valley: 85 rooms and residences with employee housing offered for hotel staff (could not reach housing department via phone to verify occupancy).

Inn at the Abbey, St. Helena in Napa Valley: Proposed 79-room hotel with 11 employee housing units, not built yet (still in entitlement stage).

Sacramento State Nine Ten Place: first-ever faculty housing offered for Sac State University staff and faculty, 30 units completed Summer 2024; current waitlist for employees who must sign up with HR department of Sac State to get on waitlist (verified via phone through University Enterprises Inc. who manages the apartments: 916-278-7001).

Sonoma State Cabernet Village Apartments and Marina Crossing Apartments: 90 units reserved for faculty and university staff who must present Sonoma State ID to get on waitlist for upcoming year (verified via phone: 707-664-2541).

Based on the above, we believe there is sufficient evidence to support an assumption that the Town and Country Village El Dorado Employee/Workforce Housing Program will be utilized by employees of Project Businesses and the applicant is committed to maintaining and renting the Employee/Workforce Housing Units through the Program in perpetuity, which shall be required as a Condition of Approval for the Project.

Sincerely,

DOWNEY BRAND LLP

Amy R. Higuera

Attachment: Town and Country Village El Dorado Employee/Workforce Housing Program

Cc (via mail): Moe Mohanna
Nikky Mohanna
Josh Pane
Nick Pappani

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Town and Country Village El Dorado Employee/Workforce Housing Program

The project applicant (Developer) for the Town and Country Village El Dorado Project ("T&C Project" or "Project") intends to administer a program that encourages and incentivizes T&C Project employees ("T&C Employees") to rent affordable-by-design housing units that are located near the Project's planned commercial businesses ("T&C Employee/Workforce Housing Program" or "Program") in order to reduce the Project's traffic impacts and vehicle miles traveled.

I. Structure of Program

The portion of the Project known as the Project Development Area includes 181,000 square feet (sf) of commercial development, including two hotels, retail services, two restaurants, and an event center/museum ("T&C Business(es)"), the development of which could result in an estimated 145 new employees. In accordance with one of the Project's stated objectives—to "develop a mixed-use project that reduces traffic impacts and vehicles miles traveled through the provision of on-site workforce housing for those employed in the proposed project" (see Town and County Village El Dorado Project Draft Environmental Impact Report, p. 3-4)—the Project will be developed with a total of 112 residential cottage units; 56 units of which will be intended for employees of T&C Businesses and available to rent through the T&C Employee/Workforce Housing Program ("T&C Employee/Workforce Housing Units" or "Units"). Each Unit is affordable-by-design and is comprised of two stories totaling no more than approximately 560 sf, including a separate bedroom, bathroom, full kitchen facilities, and an outdoor deck. There will be no physical distinction between the T&C Employee/Workforce Housing Units, and the other 56 cottages that will be used for daily rental or on an extended stay basis. The residents of the T&C Employee/Workforce Housing Units will enjoy the same amenities and living experience as all other residents of the Project. All T&C Employee/Workforce Housing Units will be leased on a month-to-month basis, or on a lease term commensurate with employment term, and the leases will contain all necessary lease agreement components and disclosures as required by California state law.

As required by the terms of their commercial leases from the Developer, T&C Businesses will be required to notify their employees of the T&C Employee/Workforce Housing Program and provide contact information to any employee who is interested in the Program. The Program is voluntary and T&C Employees are not required to participate. The Developer will employ management staff (Program Administrator) to help provide information to prospective Program applicants, administer the Program, and maintain a waitlist for all T&C Employees that wish to be included in the Program. The Program Administrator will also maintain records of the amount and duration of housing that is occupied by T&C Employees, and the T&C Employee/Workforce Housing Program will be monitored on an annual basis to determine effectiveness. The Program Administrator shall submit these annual reports to the County of El Dorado ("County") for inspection on an annual basis.

II. Qualification for T&C Employee/Workforce Housing Units

T&C Employees will receive preference on a first-come, first-served basis for available T&C Employee/Workforce Housing Units due to the beneficial reduction in traffic impacts and vehicle miles traveled associated with T&C Employees residing in close proximity to T&C Businesses. In order to be eligible for the Program's incentives, which include right of first refusal and abbreviated waitlist-status for T&C Employees, T&C Employees must demonstrate that they are employed at a T&C Business, on average, for 30 or more hours a week—as verified by the Program Administrator. Evidence of T&C Business employment can be provided by the Program applicant's W-2, recent pay stubs, or through other information that the Program Administrator deems appropriate. For T&C Employees that are placed in a T&C Employee/Workforce Housing Unit, the Program Administrator may periodically request confirmation of continued employment at T&C Businesses.

The Program Administrator will be responsible for distributing available T&C Employee/Workforce Housing Units consistent with all state and federal fair housing laws, including, but not limited to the Fair Housing Act (42 U.S.C. § 3604) ("FHA"), the California Fair Employment and Housing Act (Gov. Code, § 12900 et seq.) ("FEHA"), and the Unruh Civil Rights Act (Gov. Code, § 51) (collectively, "Fair Housing Laws"). The Program Administrator shall reasonably consider changes to the eligibility criteria for the T&C Employee/Workforce Housing Program if deemed necessary to comply with Fair Housing Laws.

III. Condition of Approval

The 56 T&C Employee/Workforce Housing Units shall be maintained and rented in perpetuity through the Program, which shall be required as a Condition of Approval for the Project.