

LIME ROCK VALLEY SPECIFIC PLAN PARTIAL RECIRCULATED DRAFT ENVIRONMENTAL IMPACT REPORT

STATE CLEARINGHOUSE #2013022042

PREPARED FOR:

El Dorado County
Planning and Building Department
2850 Fairlane Court, Building C
Placerville, CA 95667
Contact: Cameron Welch
530.621.5355

PREPARED BY:

ICF
980 9th Street, Suite 1200
Sacramento, CA 95814
Contact: James Alcorn
916.737.3000

April 2025

ICF. 2025. *Lime Rock Valley Specific Plan Partial Recirculated Draft Environmental Impact Report*. April. (ICF 103659.) Sacramento, CA.
Prepared for El Dorado County, Placerville, CA.

Contents

List of Acronyms and Abbreviations	ii
Chapter 1 Introduction	1-1
1.1 Purpose of this Document	1-1
1.1.1 Reason for Recirculation	1-1
1.1.2 Project and DEIR Changes	1-2
1.1.3 Additional Environmental Analysis	1-4
1.2 Organization of the Document and Summary of Changes	1-4
1.3 Public Review Process	1-5
1.3.1 Limitation on Comments	1-5
1.4 Use of this Document	1-6
Chapter 3 Impact Analysis	3.3-1
3.3 Biological Resources	3.3-1
3.4 Cultural Resources	3.4-1
3.7 Hazards and Hazardous Materials	3.7-1
3.13 Recreation	3.13-1
Chapter 7 References Cited	7-1
Chapter 1, Introduction	7-1
Chapter 3, Impact Analysis	7-1
Section 3.3, Biological Resources	7-1
Section 3.7, Hazards and Hazardous Materials	7-1
Section 3.13, Recreation	7-1
Appendix A Updated Biological Resources Report Lime Rock Valley Specific Plan	
Appendix B Cameron Park CSD and El Dorado Hills CSD Parks and Recreation Facilities Demand Assessment	
Appendix C Memorandum in Response to Lotusland Case	
Appendix D Biological Resources Offsite Reconnaissance Survey Results Shingle Lime Mine Road, El Dorado County, California	
Appendix E CONFIDENTIAL: Due Diligence Consistency Memo for the Lime Rock Valley Specific Plan – Shingle Lime Mine Road Emergency Vehicle Route Project, El Dorado County, California (confidential but available for review in person at the county).	

Acronyms and Abbreviations

Term	Definition
CEQA	California Environmental Quality Act
CDFW	California Department of Fish and Wildlife
CPCSD	Cameron Park Community Services District
CSD	Community Services District
CSD Assessment	Cameron Park Community Services District and El Dorado Hills Community Services District Parks and Recreation Facilities Demand Assessment
DEIR	draft environmental impact report
EDHCSD	El Dorado Hills Community Services District
ESA	Endangered Species Act
EVA	Emergency Vehicle Access
Lotusland	People of the State of California Ex Rel. Rob Bonta, Attorney General v. County of Lake & Lotusland Investment Holdings, Inc.
LRVSP	Lime Rock Valley Specific Plan
VMVSP	Village of Marble Valley Specific Plan

1.1 Purpose of this Document

Section 15088.5 of the California Environmental Quality Act (CEQA) Guidelines provides that all or a portion of a draft environmental impact report (DEIR) shall be recirculated for public review and comment when there is a new or more severe significant impact not analyzed in the DEIR.

“Recirculation” simply means that the public is provided an opportunity to comment on the new or revised section(s) of the DEIR. Recirculation is not required unless significant new information is being added to the DEIR. Recirculation is not required where the new information merely clarifies or amplifies or makes insignificant modifications to the DEIR.

This document is the Partial Recirculated DEIR for the Lime Rock Valley Specific Plan (LRVSP) (proposed project). As authorized under Section 15088.5(c), the revisions to the DEIR are limited to portions of the DEIR and therefore, only those portions are included in the Partial Recirculated DEIR. For that reason, the Partial Recirculated DEIR includes only those chapter(s) in which changes are being made. In addition, none of the figures in the DEIR have been changed with the exception of the Emergency Vehicle Access (EVA) figure below; therefore, figures are not included in the Partial Recirculated DEIR. This Partial Recirculated DEIR does include the following appendices: Appendix A is the Updated Biological Resources Report Lime Rock Valley Specific Plan; Appendix B is the Cameron Park CSD (CPCSD) and El Dorado Hills CSD (EDHCSD) Parks and Recreation Facilities Demand Assessment (Michael Baker International 2025); Appendix C is the memorandum in response to the *Lotusland* case (Firesafe Planning, Inc. 2025); Appendix D is the Biological Resources Offsite Reconnaissance Survey Results Shingle Lime Mine Road, El Dorado County, California (LSA 2025). Appendix E is the *CONFIDENTIAL: Due Diligence Consistency Memo for the Lime Rock Valley Specific Plan – Shingle Lime Mine Road Emergency Vehicle Route Project, El Dorado County, California* (confidential but available for review in person at the County).

In summary, the proposed project would consist of up to 800 residential units on approximately 358 acres, an 8-acre village park with recreational amenities, and approximately 335 acres of public and private open space. The balance of the area, approximately 39 acres, would be comprised of roads and rights of way. Other features of the plan include a network of pedestrian trails and pathways that would connect to and enhance existing and proposed trails in the area, including the El Dorado Trail.

1.1.1 Reason for Recirculation

El Dorado County (County) released the LRVSP DEIR for a 60-day public review period between May 22, 2024 and July 22, 2024. The LRVSP DEIR is available online at <https://www.eldoradocounty.ca.gov/Land-Use/Planning-and-Building/Planning-Division/Environmental-Impact-Report-EIR-Documents/Lime-Rock-Valley-Specific-Plan-Notice-of-Availability-of-the-DEIR>.

The LRVSP DEIR (SCH #2013022042) has been partially revised to include analysis of the Crotch bumble bee (*Bombus crotchii*) because it was added as a candidate species for state listing in 2022 and was not included in the DEIR. Also, 3 additional impacts for offsite improvement area impacts under Biological Resources were added for clarification. The *Biological Resources Report* for the LRVSP (LSA 2024) that identified the Crotch bumble bee as a newly listed species since preparation of the prior biological resources report is also included (Appendix A).

Additional information has been provided for recreation as it relates to the El Dorado Hills and Cameron Parks CSDs. A facilities demand assessment has been prepared and is attached as Appendix B. This additional information is included in this recirculation for public review, although the conclusions to the DEIR related to Section 3.13, *Recreation*, remain the same.

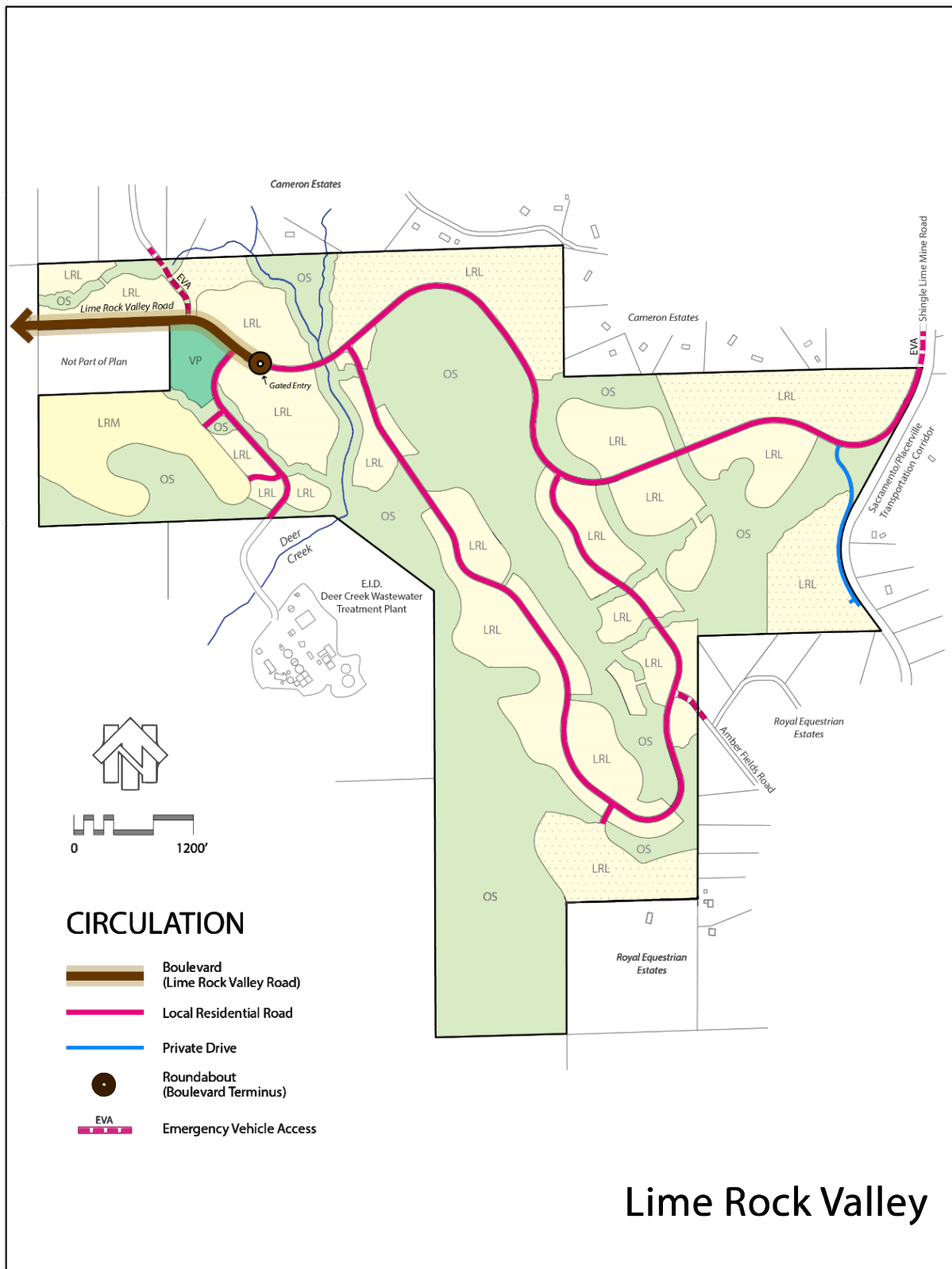
After circulation of the DEIR, an October 23, 2024, decision in *People of the State of California Ex Rel. Rob Bonta, Attorney General v. County of Lake & Lotusland Investment Holdings, Inc. (Lotusland)* held that an EIR should have provided additional explanation about the extent to which bringing new residents to a largely undeveloped project site would increase the “risk of human-caused wildfire over the existing baseline risk” ((2024) 105 Cal.App.5th 1222, 1233). Additional analysis was completed to respond to *Lotusland* and that analysis is included in the recirculation even though the conclusions in the DEIR remain the same.

1.1.2 Project and DEIR Changes

No changes to the LRVSP project are proposed. Revisions will be made in the Final EIR to correct figures and text to accurately describe the EVA routes and a figure depicting the correct EVA routes is included herein for clarity. The changes to the DEIR contained in this Partial Recirculated DEIR are limited to 1) revising the Biological Resources section of the DEIR with regard to the Crotch bumble bee and 3 offsite improvement area impacts along with an updated *Biological Resources Report* for the LRVSP (2024); 2) additional information has been provided for recreation as it relates to the El Dorado Hills and Cameron Parks CSDs, a facilities demand assessment has been prepared and is attached as Appendix B; 3) and additional information has been included in response to *Lotusland*.

Regarding the EVA routes, 2 memorandums were prepared that provide additional analysis in support of the DEIR for the LRVSP, specifically potential impacts along the 1.5-mile Shingle Mine Road. Appendix D includes the *Biological Resources Offsite Reconnaissance Survey Results Shingle Lime Mine Road, El Dorado County, California*; and Appendix E includes the *CONFIDENTIAL: Due Diligence Consistency Memo for the Lime Rock Valley Specific Plan – Shingle Lime Mine Road Emergency Vehicle Route Project, El Dorado County, California* (confidential but available for review in person at the County).

The EVA routes, including the connection to Shingle Lime Mine Road, are correctly depicted below and corrections will be made in the FEIR to figures to correctly reflect the EVA routes described on page 3.1-17 of the DEIR and depicted below:



Torrence Planning
August 2024

1.1.3 Additional Environmental Analysis

1.1.3.1 Biological Resources

The Crotch bumble bee was not included in the Biological Resources section of the DEIR; therefore, this Partial Recirculated DEIR includes impact analysis and mitigation for this species. Additionally, impact analysis and mitigation for interference with the movement of resident or migratory wildlife within the offsite improvement areas, potential conflict with the County General Plan oak protection policies within the offsite improvement areas, and potential introduction and spread of invasive plant species within the offsite improvement areas is also included. The updated *Biological Resources Report* for the LRVSP (2024) is included as Appendix A.

1.1.3.2 Cultural Resources

Because Shingle Lime Mine Road could be required to be widened from 15 feet to 20 feet, additional analysis was performed in support of the DEIR for cultural resources. The confidential due diligence consistency memorandum for the LRVSP Shingle Lime Mine Road EVA route is included as Appendix D (confidential but available for review in person at the County).

1.1.3.3 Hazards and Hazardous Materials

Hazards and Hazardous Materials has been updated to include additional information in response to the *Lotusland* case regarding the risk of human-caused wildfire over the existing baseline risk.

1.1.3.4 Recreation

Based on comments received on the DEIR with regard to the CSDs, the County prepared the CPCSD and EDHCSD parks and recreation facilities demand assessment. This report is summarized below and is attached as Appendix B.

1.2 Organization of the Document and Summary of Changes

The Partial Recirculated DEIR includes the following sections:

- Chapter 1. *Introduction*. This chapter discusses the purpose of this Partial Recirculated DEIR, summarizes the revisions being made to the LRVSP DEIR, the public review process, and use of this document.
- *New Information*: Section 3.3, *Biological Resources*, 3.3.2, *Environmental Impacts*, *Impact BIO-33*. These new impacts include analysis and mitigation for the Crotch bumble bee and 3 offsite improvement area impacts.
- *New Information*: Section 3.13, *Recreation*, 3.13.2, *Environmental Impacts*, *Impact REC-1* and *Impact REC-2*. Additional information with regard to the CPCSD and EDHCSD has been incorporated into the text and mitigation measure.
- *Revised*: Chapter 7, *References*. This includes new references cited in the Partial Recirculated DEIR that are not included in Chapter 7, *References*, of the DEIR.

- *Appendices.* Appendix A includes the 2024 *Biological Resources Report* for the LRVSP. Appendix B includes the CPCSD and EDHCSD Parks and Recreation Facilities Demand Assessment. Appendix C includes the memorandum in response to the *Lotusland* case. Appendix D includes the *Biological Resources Offsite Reconnaissance Survey Results Shingle Lime Mine Road, El Dorado County, California*; and Appendix E includes the *CONFIDENTIAL: Due Diligence Consistency Memo for the Lime Rock Valley Specific Plan – Shingle Lime Mine Road Emergency Vehicle Route Project, El Dorado County, California* (confidential but available for review in person at the County).

1.3 Public Review Process

The Partial Recirculated DEIR will be available for a 60-day public review period. The Partial Recirculated DEIR was circulated to state agencies for review through the State Clearinghouse of the Governor's Office of Planning and Research. Copies of the Partial Recirculated DEIR are available for public review on the County's website (<https://www.edcgov.us/Planning/>); at the El Dorado Hills Library, 7455 Silva Valley Parkway, El Dorado Hills; the Placerville Library, 345 Fair Lane, Placerville; and during normal business hours at the public counter at the Community Development Agency, 2850 Fairlane Court, Building C, Placerville.

Written comments can be submitted by mail to:

Mr. Cameron Welch
El Dorado County, Planning and Building Department
2850 Fairlane Court, Building C
Placerville, CA 95667

Written comments can be submitted by email to: LRVSP@edcgov.us.

1.3.1 Limitation on Comments

State CEQA Guidelines Section 15088.5(f)(2) states that:

When the EIR is revised only in part and the lead agency is recirculating only the revised chapters or portions of the EIR, the lead agency may request that reviewers limit their comments to the revised chapters or portions of the recirculated EIR. The lead agency need only respond to (i) comments received during the initial circulation period that relate to chapters or portions of the document that were not revised and recirculated, and (ii) comments received during the recirculation period that relate to the chapters or portions of the earlier EIR that were revised and recirculated. The lead agency's request that reviewers limit the scope of their comments shall be included either within the text of the revised EIR or by an attachment to the revised EIR.

In keeping with this provision, **El Dorado County requests that commenters limit their written comments to the revisions and new material presented in the Partial Recirculated DEIR, which consists only of the new information included in this Partial Recirculated DEIR for Section 3.3, *Biological Resources*, 3.3.2, *Environmental Impacts*; Section 3.4, *Cultural Resources*, 3.4.2, *Environmental Impacts*; Section 3.7, *Hazards and Hazardous Materials*, 3.7.2, *Environmental Impacts* (EVAs and Wildfire); and Section 3.13, *Recreation*, 3.13.2, *Environmental Impacts*.** The Final EIR will include written responses to the comments submitted on the portions of the previously circulated DEIR that have not been recirculated, as well as the comments received on the Partial Recirculated DEIR.

1.4 Use of this Document

The Partial Recirculated DEIR will be combined with the previously circulated DEIR as part of the Final EIR. The Final EIR will also include the comments received on the un-recirculated portions of the DEIR and the Partial Recirculated DEIR, along with written responses to those comments.

The Board of Supervisors will consider certification of the Final EIR prior to completing its deliberations on the project. If it approves the project, then the Board will adopt the findings, statement of overriding considerations, and mitigation monitoring and reporting program that are required by CEQA.

The Partial Recirculated DEIR is not the Final EIR. The Final EIR will include other revisions and clarifications (i.e., an errata chapter) in response to the comments received on the DEIR and the Partial Recirculated DEIR, or as needed to otherwise clarify the Final EIR.

3.3 Biological Resources

Section 3.3, Biological Resources, 3.3.2, Environmental Impacts, has been updated to include impact analysis and mitigation for the Crotch bumble bee which is now a candidate species, 3 offsite improvement area impacts, and potential impacts on biological resources as a result of the proposed EVA along Shingle Lime Mine Road. The 3 offsite improvement area impacts, which are separate from the EVA along Shingle Lime Mine Road are included to address comments received on the DEIR and to provide more detailed information about potential offsite improvement area impacts. New text is underlined and deleted text in ~~strikethrough~~.

The following text for Impact BIO-18 is added to page 3.3-91 of the DEIR before Mitigation Measure BIO-1a. The following text for Impacts BIO-31 through BIO-34 are added to page 3.3-102 of the DEIR after Mitigation Measure BIO-14.

3.3.2 Environmental Impacts

Impacts and Mitigation Measures

Impact BIO-18: Potential loss of sensitive natural communities within the offsite improvement areas (less than significant with mitigation)

LRVSP proposes EVA along Shingle Lime Mine Road. While Shingle Lime Mine Road is an existing road open to the public that serves existing residences along the road, it was constructed prior to current and more stringent firesafe standards for roads. The current width of the road varies from approximately 15 feet wide in some locations to approximately 20 feet wide in other locations. Under current fire safe regulations adopted consistent with Public Resources Code Section 4290, the Fire Department could require that the entire length of the road be widened to 20 feet to serve as an EVA for LRVSP. While the Fire Department will ultimately make this determination based on the standards in effect at the time of approval of a tentative map, there is the potential that the Fire Department will require widening of Shingle Lime Mine Road to 20 feet and thus additional offsite impacts could occur in the locations where the existing roadway is less than 20 feet in width.

To address these potential impacts, qualified biologists performed records searches and physical surveys of the entire approximately 1.5 miles of Shingle Lime Mine Road that would serve as an EVA for LRVSP. The findings of these studies are provided in the Biological Resources Offsite Reconnaissance Survey Results (Feb. 5, 2024) prepared by LSA (Appendix D; LSA 2025). The analysis of potential impacts assumed that any widening of the road could occur on either side of the existing edge of pavement to ensure that all potential impacts were considered in advance of the requirement or design for any such improvements.

LSA concluded that “[t]he results of the reconnaissance survey of the Shingle Lime Mine Road alignment indicate that a subset of species could potentially be impacted by widening the road for emergency vehicle access.” LSA did not identify any new species or habitats with potential presence in the EVA Area that were not present in the onsite LRVSP project area. As such, LSA determined that mitigation measures Mitigation Measure BIO-1a, BIO-1b, BIO-1c, BIO-1d, BIO-2, BIO-18a and BIO-18b should be applied to any work along Shingle Lime Mine Road. With implementation of these mitigation measures, LSA concluded the impacts would remain less than significant.

Regarding the offsite improvements within Shingle Lime Mine Road for the anticipated water transmission line and utility lines, Mitigation Measure BIO-18a would reduce the impact to less than significant.

Mitigation Measure BIO-18a: ~~Map~~ Implement mitigation measures for sensitive natural communities adjacent to the proposed Shingle Lime Mine Road construction area and Interim Phase 1 Potable Water alignments for the offsite improvements.

Any offsite improvements within or along Shingle Lime Mine Road, including the water transmission line, utility lines, and road improvements required by the Fire Department for EVA use, shall implement the following mitigation measures: BIO-1a (Install construction barriers around the construction area to protect sensitive biological resources to be avoided); BIO-1b (Conduct environmental awareness training for construction employees); BIO-1c (Conduct periodic site visits during construction); BIO-1d (Avoid and minimize potential disturbance of oak woodland habitat); BIO-18b (Compensate for loss of oak woodland in offsite improvement areas); BIO-2 (Compensate for permanent loss of riparian woodland); BIO-3a (Avoid and minimize disturbance of waters of the United States, including wetlands); BIO-3b (Compensate for loss of jurisdictional wetlands); BIO-4 (Compensate for loss of other waters of the United States); BIO-7 (Conduct preconstruction survey and implement California red-legged frog avoidance and minimization measures); BIO-9 (Conduct preconstruction surveys for northwestern pond turtle and exclude turtles from the work area); BIO-10a (Avoid and minimize impacts on Blainville’s horned lizard); BIO-11a (Conduct vegetation removal activities outside the breeding season for birds and raptors); BIO-11b (Conduct preconstruction nesting surveys for special-status birds and non-special-status birds and implement protective measures if present during construction); BIO-11c (Conduct preconstruction surveys for burrowing owls within the project area and offsite improvement areas and compensate for the loss of burrowing owl habitat if nesting owls are found onsite); BIO-12 (Identify suitable roosting sites for bats and implement avoidance and minimization measures); BIO-13 (Implement measures to avoid and minimize potential impacts on American badger); BIO-14 (Identify suitable shelter and denning habitat for ringtail and implement avoidance and protective measures); BIO-20a (Conduct floristic surveys in the offsite improvement areas for special-status plants during appropriate identification periods); and BIO-20b (Avoid or compensate for substantial effects on special-status plants in the offsite improvement areas). Based on the methods used in the Oak Resources Management Plan (ORMP) for the LRVSP, oak canopy shall be mapped in the additional construction area around the Shingle Lime Mine Road and interim Phase 1 potable water improvements parts of the offsite improvement areas. In addition, for any mitigation measures identified above requiring compensatory mitigation for temporary or permanent impacts or offsite improvements areas not already surveyed, riparian woodland and any other sensitive natural communities shall be mapped in these areas. The mapping of sensitive natural communities shall be suitable for calculating the temporary and permanent impacts of the offsite improvements.

Impact BIO-31: Potential Mortality or Disturbance of Crotch Bumble Bee within LRVSP Project Area (less than significant with mitigation)

The Crotch bumble bee was determined to be a candidate species for state listing in 2022, after previous field studies were conducted onsite. Consequently, Crotch bumble bee was not included in any target lists for field surveys. It is included in the 2024 updated Biological Resources Report prepared by LSA. An impact discussion and avoidance and minimization measures for potential effects on Crotch bumble bee were not included in the DEIR but are included below.

Up to 99.9 acres of annual grassland, 82 acres of existing oak woodlands, 162.9 acres of chaparral, and 0.3 acres of riparian woodland habitat, some of which could support Crotch bumble bee overwintering, nesting, and foraging habitat, would be converted to urban uses during project construction. If Crotch bumble bee is present in the project area during construction, clearing and grubbing, excavation, and other construction activities could result in mortality of adults or larvae from being crushed or buried by equipment. Adult Crotch bumble bees could be struck by vehicles and construction equipment traveling along access roads during construction if they are foraging or flying through the area. Construction could also disrupt nesting or foraging activities. Because Crotch bumble bees are a state candidate for listing, this impact would be significant.

As described under Impact BIO-1, the project applicant would implement general protection measures for biological resources, including Mitigation Measures BIO-1a, BIO-1b, and BIO-1c, which require barriers to protect sensitive Crotch bumble bee habitat as determined by the biological monitor prior to construction, environmental awareness training for construction employees, and periodic site visits during construction. Mitigation Measure BIO-1d avoids and minimizes potential disturbances of oak woodland, Mitigation Measure BIO-2 compensates for the permanent loss of riparian woodland, and Mitigation Measure BIO-31 would minimize impacts on Crotch bumble bee individuals. With implementation of these mitigation measures the impact would be less than significant.

Mitigation Measure BIO-31: Conduct preconstruction surveys and implement Crotch bumble bee avoidance and minimization measures.

If the Crotch bumble bee is a Candidate or formally Listed species under the California Endangered Species Act (ESA) at the time vegetation- or ground-disturbing activities occur, the following shall apply:

In accordance with the Survey Considerations for California ESA Candidate Bumble Bee Species (CDFW 2023), the applicant shall conduct 2 onsite surveys prior to construction of each phase and during the colony active period for Crotch's bumble bee (April–August) when detection probability is the highest and floral resources are in bloom. Space the surveys 2–4 weeks apart to ensure that they cover a range of dates and account for variability in resource use by the candidate species and floral resource phenology within the site. Survey methods and best practices shall follow California Department of Fish and Wildlife (CDFW) guidelines (CDFW 2023).

If Crotch's bumble bees or potential Crotch's bumble bees are observed within the development area, develop a plan to protect Crotch's bumble bee nests and individuals in consultation with CDFW. The plan must include, but not be limited to, the following measures:

- Specifications for construction timing and sequencing requirements (e.g., avoidance of raking, mowing, tilling, or other ground disturbance until late March to protect overwintering queens);
- A requirement for a preconstruction survey to be conducted prior to the start of ground-disturbing activities to identify active nests;
- Establishment of no-disturbance buffers for nest sites determined by a qualified biologist as adequate to avoid any disturbance to the nest site or an accidental take and construction monitoring by a qualified biologist to ensure compliance;
- Restrictions associated with construction practices, equipment, or materials that may harm bumble bees as determined by a qualified biologist (e.g., avoidance of pesticides/herbicides, best management practices to minimize the spread of invasive plant species);
- Provisions to avoid Crotch's bumble bees or potential Crotch's bumble bees if observed away from a nest during project activities (i.e., ceasing of project activities until the animal has left the work area of its own volition); and
- Prescription of an appropriate restoration seed mix identified by a qualified biologist that is targeted for the Crotch's bumble bee and the Sierra Nevada foothills, including native plant species known to be visited by native bumble bee species and containing a mix of flowering plant species with continual floral availability through the entire active season of the Crotch's bumble bee (March to October). The seed mix should be applied to temporarily disturbed areas within annual grasslands and oak savanna on the project site.

Impact BIO-32: Interfere with the movement of resident or migratory wildlife within the offsite improvement areas (less than significant with mitigation)

The types of impacts on wildlife movement from the construction of the offsite improvement areas would be similar to those described above under Impact BIO-15 but impacts would be of a lesser magnitude. Protection of open space lands, compensation for the loss of oak woodland habitat, and implementation of Mitigation Measures BIO-1d would reduce indirect impacts on the movement of resident and migratory wildlife. Furthermore, County Code Section 9.46.600 requires dogs and other domestic animals to be on a leash, which would also apply in the offsite improvement areas. Because the construction of the offsite improvement areas would avoid and minimize impacts on resident and migratory wildlife and their habitat, it would not substantially reduce the habitat of a wildlife species, cause a wildlife population to drop below self-sustaining levels, threaten to eliminate an animal community, or reduce the number or restrict the range of a rare or endangered animal. Therefore, the offsite improvement areas would have a less-than-significant impact on movement of resident and migratory wildlife.

Mitigation Measure BIO-1d: Avoid and minimize potential disturbance of oak woodland habitat and compensate for loss of oak woodland and individual trees

Impact BIO-33: Potential conflict with the County General Plan oak protection policies within the offsite improvement areas (less than significant with mitigation)

The impacts related to potential conflict with the County General Plan oak protection policies from the construction of the offsite improvement areas would be similar to those described above under Impact BIO-16. As described in Impact BIO-18, the existing oak woodland mapping in the proposed VMVSP area to the west of the project area indicates that up to 16.9 acres of oak could be removed for construction of the offsite Lime Rock Valley Road/utilities and Marble Lake Road/Marble Valley Parkway extension/utilities. Depending on the timing of construction and on the approval of the VMVSP, these direct impacts might occur as part of the VMVSP and not be associated with the LRVSP project.

There is no existing mapping of oak woodland at the interim improvements to US 50/Bass Lake Road Interchange, potable water line/dry utilities extension, or dry utilities tie in to existing 21 kilovolts to the west; along the offsite water transmission/utilities line in Shingle Lime Mine Road to the east; or the offsite interim Phase 1 potable water improvements to the north. However, there would likely be some impacts on oak canopy as a result of these improvements and potential for impacts on riparian woodland.

To the extent feasible, any construction within the offsite improvement areas would remain within existing easements to minimize impacts on sensitive natural communities. With implementation of Mitigation Measures BIO-1d, BIO-18a, and BIO-18b, the project would not conflict with the 2017 ORMP, and this impact would be less than significant. Implementation of Mitigation Measures BIO-1a, BIO-1b, and BIO-1c would further reduce impacts on oak woodland in the offsite improvement areas by requiring barriers to protect sensitive areas, environmental awareness training for construction employees, periodic site visits during construction, avoidance or minimization of construction disturbance on retained oak woodland, and maintaining retained oaks.

Mitigation Measure BIO-1a: Install construction barriers around the construction area to protect sensitive biological resources to be avoided

Mitigation Measure BIO-1b: Conduct environmental awareness training for construction employees

Mitigation Measure BIO-1c: Conduct periodic site visits during construction

Mitigation Measure BIO-1d: Avoid and minimize potential disturbance of oak woodland habitat and compensate for loss of oak woodland and individual trees

Mitigation Measure BIO-18a: Map sensitive natural communities adjacent to the proposed Shingle Lime Mine Road construction area and Interim Phase 1 Potable Water alignments for the offsite improvements

Mitigation Measure BIO-18b: Compensate for loss of oak woodland in offsite infrastructure improvement areas

Impact BIO-34: Potential introduction and spread of invasive plant species within the offsite improvement areas (less than significant with mitigation)

The impacts related to potential introduction and spread of invasive plant species from the construction of the offsite improvement areas would be similar to those described above under Impact BIO-17. Implementation of Mitigation Measure BIO-17 during construction in the offsite improvement areas would reduce this impact to a less-than-significant level.

Mitigation Measure BIO-17: Minimize the introduction and spread of invasive plants

3.4 Cultural Resources

Section 3.4, Cultural Resources, 3.4.2, Environmental Impacts, has been updated to include impact analysis as a result of the proposed EVA along Shingle Lime Mine Road. New text is underlined and deleted text is in ~~strikethrough~~.

The following additional text and mitigation for Impact CUL-1 is added to page 3.4-18 of the DEIR following the second full paragraph.

Impact CUL-1: Cause a substantial adverse change in the significance of a historic period district that is a historical resource as defined in Section 15064.5 (less than significant with mitigation)

LRVSP proposes EVA along Shingle Lime Mine Road. While Shingle Lime Mine Road is an existing road open to the public that serves existing residences along the road, it was constructed prior to more stringent firesafe standards for roads. The current width of the road varies from approximately 15 feet wide in some locations to approximately 20 feet wide in other locations. Under current fire safe regulations adopted consistent with Public Resources Code Section 4290, the Fire Department could require that the entire length of the road be widened to 20 feet to serve as an EVA for LRVSP. While the Fire Department will ultimately make this determination based on the standards in effect at the time of approval of a tentative map, there is the potential that the Fire Department will require widening of Shingle Lime Mine Road to 20 feet and thus additional offsite impacts could occur in the locations where the existing roadway is less than 20 feet in width.

To address these potential impacts, qualified archaeologists performed records searches and physical surveys of the entire approximately 1.5 miles of Shingle Lime Mine Road that would serve as an EVA for LRVSP. The findings of this study are provided in the *Confidential Due Diligence Consistency Memo for the Lime Rock Valley Specific Plan – Shingle Lime Mine Road Emergency Vehicle Route Project* (March 25, 2025) prepared by ECORP Consulting, Inc (Appendix E, confidential, available for review at the County). As noted in the study, the analysis of potential impacts assumed that any widening of the road could occur on either side of the existing edge of pavement to ensure that all potential impacts were considered in advance of the requirement or design for any such improvements (EVA Area).

ECORP concluded that the “EVA Area will have No Impact to Historical Resources, it will not cause a substantial adverse change to the significance of the Lime Rock Valley Historic District, nor will it cause a substantial adverse change in the significance of an archaeological resource that is a historic resource, as specified in CEQA Guidelines 125064.5.” ECORP also determined that it “concurs with the existing mitigation measure for resource P-9-5550 (CUL-1) and that it should be applied to work within the EVA Area.” ECORP determined that any potential future widening of Shingle Lime Mine Road required for the road to serve as an EVA for LRVSP would not result in a new significant environmental impact, a substantial increase in the severity of an environmental impact, and that implementation of Mitigation Measure CUL-1 would result in a less-than-significant impact. CUL-1 is not limited to work on the project site and therefore will be required prior to issuance of any grading permit for any work along Shingle Lime Mine Road.

To address any unanticipated discoveries during construction, ECORP also recommended that Mitigation Measure CUL-2d (Implement cultural resources training and monitoring during ground-disturbing activities and halt work if previously unrecorded cultural resources are encountered) and CUL-3 (Perform archaeological construction monitoring during ground-disturbing activities and stop work if human remains are encountered) be implemented for any work in the EVA Area. CUL-2d and CUL-3 apply to any ground-disturbing activities and are not limited to the project site and therefore would apply to work along Shingle Lime Mine Road.

Because the survey along Shingle Lime Mine Road was completed, CUL-4a would no longer apply and is revised as follows:

Mitigation Measure CUL-4a: Perform cultural resources surveys of the offsite improvement areas and address any eligible resources in accordance with State CEQA Guidelines Section 15126.4

When the locations of offsite improvements are finalized, the project applicant shall retain qualified cultural resources professionals, who meet the Secretary of Interior's standards, to conduct studies to determine whether cultural resources are located in the area that would be affected by the construction and operation of the improvements. These studies shall include, as appropriate, a records search, archival research, contacting NAHC and interested parties, and pedestrian inventories. Recommendations made for avoidance and minimization shall be considered by the County and implemented, as necessary. These measures could include monitoring and presence/absence testing in sensitive areas, or training for construction personnel. Any resources that are located shall be evaluated for eligibility for listing in the California Register of Historical Places or the National Register of Historical Places. If resources found eligible cannot be avoided through project design, mitigation measures shall be designed in consultation with the County, the State Historic Preservation Office, and other appropriate agencies or parties. These mitigation measures may include data recovery, site capping, interpretation, or other means. This mitigation measure would not apply to offsite improvement areas along Shingle Lime Mine Road that were studied in the *Confidential Due Diligence Consistency Memo for the Lime Rock Valley Specific Plan – Shingle Lime Mine Road Emergency Vehicle Route Project* (March 25, 2025).

3.7 Hazards and Hazardous Materials

Section 3.7, Hazards and Hazardous Materials, has been updated to include additional information in response to the *Lotusland* case. The less-than-significant impact conclusion in Impact HAZ-8 is unchanged from the DEIR. New text is underlined and deleted text is in ~~striketrough~~.

The following additional text for Impact HAZ-8 is added to page 3.7-23 of the DEIR between the second and third paragraphs.

After the DEIR was circulated, a decision in *People of the State of California Ex Rel. Rob Bonta, Attorney General v. County of Lake & Lotusland Investment Holdings, Inc.* (2024) 105 Cal.App.5th 1222 (*Lotusland*) was reached on October 23, 2024. In *Lotusland*, the appellate court faulted the EIR for not explaining the extent to which bringing new residents to the largely undeveloped project site would increase the “risk of human-caused wildfire over the existing baseline risk” (*Id.* at p. 1233). The court also explained that if quantifying the risk is not possible, the “EIR itself must explain why, in a manner reasonably calculated to inform the public of the scope of what is and is not yet known about the Project’s impacts” (*Id.* at fn. 8).

While the DEIR for the LRVSP explained that most wildfires are caused by people and increasing people in the area would expose those new residents and the surrounding community to potential wildfire risk, the DEIR did not, as in *Lotusland*, attempt to quantify the increased risk of human-caused wildfires as a result of the increased population from development of the project. The Memorandum in Response to *Lotusland* Case in Appendix D was prepared in an effort to quantify the risk to the extent possible (Firesafe Planning, Inc. 2025).

The Memorandum in Response to *Lotusland* Case concludes that, while the project increases the general potential for human-ignited wildfires as disclosed in the DEIR, there is not a direct or linear correlation between increased population and wildfire that can be precisely calculated. Studies discussed in the Memorandum in Response to *Lotusland* Case have determined that, at a certain point, increased density in terms of units per acre and population combined with development under current standards begins to actually minimize the risks of wildfires even though the population has increased. Studies discussed therein have also shown that construction under current standards reduces the threat of wildfire and communities built after 2008 face less wildfire risk. After considering available data regarding human causes of wildfires and historical data of wildfires in the project area from 2000 to 2023 and the system’s approach to reducing wildfire risks and severity, the Memorandum in Response to *Lotusland* Case concludes that population does not appear to be a significant driving force to wildland fires and per capita rates suggest that population density may reduce the ignition rate per capita, even if it increases the total number of fires overall. The Memorandum in Response to *Lotusland* Case ultimately concludes that the addition of new residents and people to the undeveloped project site will have a less than significant impact on the increase of wildfires from human-caused wildfire over the existing baseline risk.

The Memorandum in Response to *Lotusland* Case also explains that the wildfire safety plan implemented through Mitigation Measure HAZ-8 and approved at each small lot tentative subdivision map will include measures to reduce the risks of wildfire from humans based on the most current standards at the time of the tentative map. This will ensure that the most current standards, which are expected to become more stringent over time, are adopted and the wildfire

safety plan is able to address the layout of each tentative map. While the wildfire safety plan would address all of the human-causes addressed herein and apply the most current stringent standards, to provide further assurances at this programmatic stage, Mitigation Measure HAZ-8 is amended to include minimums that would expressly address wildfires caused by humans. Mitigation Measure HAZ-8 is therefore amended as follows:

Prior to ~~the submittal of the first~~ approval of a small lot tentative subdivision map, the County will require a ~~the preparation of a~~ wildfire safety plan reviewed and approved by CAL FIRE and the local fire protection district that is appropriate to the high and very high fire classifications of the plan area on the CAL FIRE Hazard Severity Zone Map for El Dorado County. The wildfire safety plan will include, but not be limited to, the following.

- *Site and project description*
- *Applicable codes and regulations*
- *Fire department response capabilities*
- *Site fire risk assessment (weather, fuels, topography, fire and ignition history, and potential fire behavior)*
- *Fire safety requirements (vegetation management, structural hardening site access, water availability, alternative materials and methods)*
- *Response strategies for emergency evacuations related to wildfire (number of people using routes; accessibility of routes; any disruptions to routes from natural hazards; and location and capacity of emergency shelters)*
- *Frequency of fuel management*
- *Prohibition of smoking in public open space areas*
- *Ban of solid fuel outdoor fires within the community without spark arrestor and only in approved devices*
- *No Open Burning in the fuel modification zones, open space or within 50 feet of the wildland interface.*
- *Adoption/application of most current regulations and standards regarding the type and nature of equipment utilized in open space areas*
- *Sites with wildland fuels below (lower than the project structures) must have additional protections provided that is equal to or greater than the risk associated with the configuration, as approved by the fire authority having jurisdiction. This may include radiant heat walls, increased built-in fire protection features and/or placement of the structure so that the impacts of "underslung fuels" are addressed.*
- *Structures and features shall be sited to maximize the role of low-flammability landscape features and roadways that may buffer the development from fire spread as required by 14 California Code of Regulations Section 1276.03(Fuel Breaks)*
- *Funding source*

3.13 Recreation

Section 3.13, Recreation, 3.13.2, Environmental Impacts, Impact REC-1 and Impact REC-2 have been updated to include revisions and additional background information to the results of a CSD park demand assessment prepared by the County, and updated information in the mitigation measure. The less than significant with mitigation conclusion is unchanged from the DEIR. New text is underlined and deleted text is in ~~striketrough~~.

The following text for Impact REC-1 is added to page 3.13-12 of the DEIR after the first paragraph, and the text for Impact REC-2 is added to page 3.13-13 of the DEIR before Mitigation Measure REC-1.

Impact REC-1: Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated (less than significant with mitigation)

The County prepared the Cameron Park Community Services District and El Dorado Hills Community Services District Parks and Recreation Facilities Demand Assessment (CSD Assessment) documenting the results of the Cameron Park Community Services District (CPCSD) and El Dorado Hills Community Services District (EDHCSD) parks and recreation facilities demand assessment (Appendix B; Michael Baker International 2025). The assessment, which evaluates the potential demand on parks and recreation facilities in the CPCSD and EDHCSD resulting from development of the proposed VMVSP and LRVSP, was initiated by and is under the direction of the El Dorado County Planning and Building Department.

The VMVSP and LRVSP would increase the residential population in the vicinity of CPCSD and EDHCSD. Each project will include public park facilities that would be available to residents within the specific plans, but the parks would also be available to the population outside the project areas.

Existing demand on CPCSD and EDHCSD facilities was estimated by the EDHCSD using Placer Labs, Inc. artificial intelligence software platform. The data show that, as expected, most of the demand within each CSD is from residents in those districts, and there is also cross-district use. However, there is also visitation from the population outside both district boundaries (e.g., Folsom and the greater Sacramento region and beyond). When the results of the existing demand are combined with projected demand using the gravity model utilized in the CSD Assessment, it is reasonable to assume such trends would continue into the future and that visitors would continue travel to parks and facilities that best meet their needs, even if there are parks closer to them. The results of the assessment suggest that there would be a range of potential demand on the CPCSD and EDHCSD from the LRVSP. Based on available information, precise quantification of potential population demand on the CPCSD and the EDHCSD facilities resulting from the LRVSP is not possible at this time because: 1) the planned parks in the specific plans would not be designed until after tentative maps are approved, which would only occur after project approvals, so the specific amenities that would be provided in the planned parks of the specific plans are currently unknown; 2) while the Placer.ai software can be used to generate visitor data for existing conditions, its usefulness for predicting future visits is constrained because the specific plan areas are not developed. There is no “real-time” trip origin and destination visitor trip data; and 3) the data indicate cross-district and non-resident use, including a substantial number of visits to the CPCSD and EDHCSD from locations

not within the districts. Thus, the projections using the gravity model must be viewed in conjunction with the Placer.ai datasets.

Using a gravity model described in the CSD Assessment (Appendix B: Table 5), it is estimated that 33% of annual park user visits by LRVSP residents would be to LRVSP parks. It is further estimated that 27% of park user visits would be to VMVSP parks (assuming that the proposed specific plan is approved and subsequently developed) and 29% of park user visits would be to existing EDHCSD parks. Since VMVSP parks are proposed to be within the EDHCSD, the gravity model anticipates that approximately 56% of park user visits would be to EDHCSD parks (not including LRVSP parks). The CSD Assessment further estimates that approximately 11% of park user visits would be to CPCSD parks (not including LRVSP parks). This park visitation preference by project residents is expected given the project site design where roadway access out of the site would pass the proposed village park site along Lime Rock Valley Road and would also direct resident travel adjacent to several village park sites within the Village of Marble Valley Specific Plan. As noted above and in the CSD Assessment, anticipated park use cannot be precisely calculated and the gravity model does not account for all amenities that may attract a user to a park. Combined with the Placer Labs, Inc. data provided by the EDHCSD on behalf of both EDHCSD and CPCSD, the data on actual park use by current residents and the gravity model together show that residents use parks close to their homes and also travel to other areas outside of their park district to use parks. As the Placer Labs, Inc. data shows, residents of EDHCSD use CPCSD parks and residents of CPCSD use EDHCSD parks. This use across park district lines would be anticipated to equalize demands on parks with each district serving residents of the other district while also having less residents to serve when those residents use a park outside of the resident's district.

The CSD Assessment further estimates that, with the addition of the LRVSP Village Park that would be available to Cameron Park residents, approximately 4,900 visits by CPCSD residents would be made to the LRVSP Village Park. With an offset for these CPCSD resident trips to the LRVSP Village Park, it is estimated that LRVSP residents would have an approximately net increase of 6,000 annual park user visits to existing CPCSD parks (approximately 6% of total LRVSP park user visits or 16 visits per day). When compared to projected CPCSD visits by CPCSD residents, LRVSP residents' park user visits of 6,000 to CPCSD parks would be less than 1% of the park user visits by CPCSD residents. Specifically, Attachment B-1 of the CSD Assessment estimates 38.6265 annual visits per resident and anticipates 22,600 residents in the CPCSD service area by 2036, thus approximately 872,959 park user visits would be anticipated by CPCSD residents in 2036 and thus LRVSP park user visits at full buildout of the LRVSP would be less than 1% of those park user visits (6,000 park user visits increase / 872,959 total CPCSD population annual park user visits).

New residents of LRVSP are therefore not anticipated to cause such a substantial increase in the use of existing neighborhood and regional parks or other recreational facilities in EDHCSD or CPCSD such that substantial physical deterioration of an existing facility would occur or be accelerated. It is acknowledged in the CSD Assessment that there is high visitation on park and recreation facilities of regional interest (e.g., pool facilities, community centers, and parks with sports fields) in both CSDs that the project would contribute additional visitation. Both CSD control access to these facilities charge user fees and/or rental fees to fund operation and maintenance. The EDHCSD and CPCSD maintain the ability to control use of these regional recreation facilities and address deterioration due to usage.

As discussed in the Draft EIR and CSD Assessment, LRVSP is not currently within the service area of either CSD and would require annexation approval by the El Dorado Local Agency Formation

Commission after LRVSP approval by the County. The Draft EIR has analyzed and assumed annexation into EDHCSD in part because that CSD is adjacent to LRVSP. It is possible that LRVSP could instead be annexed into CPCSD.

While annexation into either CSD remains possible, the CSD Assessment illustrates that park user visits by LRVSP residents is unlikely to be significantly altered based on whether LRVSP is annexed to EDHCSD or CPCSD. As reflected in the CSD Assessment, numerous factors influence a park user's decision on which park to utilize, including amenities at the park, organized sports offerings, and distance from the residence. Regardless of which CSD serves LRVSP, the LRVSP residents' future decisions related to park use would likely be primarily influenced by factors other than which CSD service area the property is in.

The annexation decision would determine whether the 8-acre village park provided within LRVSP would become an EDHCSD or CPCSD park and the CSD to which LRVSP is annexed would receive the park impact fees to address the need for construction of park and recreational facilities as a result of the new development recreation demands. Because the CSD service area of LRVSP is unlikely to significantly influence park use decisions and the park use by LRVSP residents is not anticipated to degrade existing parks, the annexation decision remains an economic issue affecting which CSD would receive the park impact and potential in-lieu Quimby fees and also assume the ownership and ongoing responsibility for new LRVSP parks.

To anticipate the possibility of annexation to LRVSP, Mitigation Measure REC-1 is revised to provide that the CSD to which LRVSP is annexed would determine whether additional 5.2 acres of private neighborhood parkland would be constructed within LRVSP or LRVSP would pay in-lieu fees to meet its Quimby obligation. The CSD to which LRVSP is annexed would be able to account for the new parkland or utilize the in-lieu fees to construct new parkland.

The revision of Mitigation Measure REC-1 to anticipate potential annexation to either EDHCSD or CPCSD does not affect the conclusion in the Draft EIR that, with implementation of Mitigation Measure REC-1, the impacts from the increased use of existing neighborhood and regional parks and facilities such that a substantial physical deterioration would occur or be accelerated would remain less than significant in combination of payment park impact fees. Both CSDs have established park impact fees pursuant to the "Mitigation Fee Act" as found in Government Code Section 66000 and El Dorado County Code Chapter 13.20 (Development Impact Fees for Special Districts), which ensures that fees charged have a reasonable relationship or nexus between new development and the need for additional park and recreational facilities within the CSD as a result of new development. These fees are \$13,495 per single-family dwelling unit, \$8,907 per multifamily or affordable dwelling unit, and \$7,886 per age-restricted dwelling unit for EDHCSD, and \$6,645 per single-family dwelling unit, \$5,435 per multifamily dwelling unit, and \$3,402 per mobile home dwelling unit for CPCSD.

Mitigation Measure REC-1 is therefore revised to state:

Mitigation Measure REC-1: Designate at least 5.2 acres of private neighborhood parkland in the LRVSP or pay in-lieu fees

To compensate for the shortfall of parkland associated with the proposed project, the project applicant shall either designate a minimum of 5.2 acres of private neighborhood parkland within the LRVSP area or pay in-lieu fees to the ~~El Dorado Hills~~ CSD to which the LRVSP is annexed. The ~~El Dorado Hills~~ CSD to which the LRVSP is annexed shall determine which of these approaches it prefers at the time of development. This requirement shall be included in

the Development Agreement. The dedication of parkland or payment of in-lieu fees may be prorated with each subdivision map that is filed.

Impact REC-2: Require the construction or expansion of offsite recreational facilities that might have an adverse physical effect on the environment (less than significant with mitigation)

As described in *Existing Conditions* and Impact REC-1, ~~the El Dorado Hills CSD service area is deficient in community parkland and the Cameron Park CSD service area is deficient in neighborhood parkland. The~~ the proposed project at buildout would introduce new park users to an area already deficient in parks. As noted above, although the proposed project would provide some parkland, either dedication of additional parkland or payment of in-lieu fees and payment of park impact fees that address the need for construction of park and recreational facilities as a result of new development would still be required to accommodate project residents. Additional dedication or payment of in-lieu fees as required by Mitigation Measure REC-1 would ensure establishment of additional parkland within the EDHCSD or in the CPCSD.

Construction or expansion of offsite park and recreation facilities or establishment of an additional 5.2 acres of private neighborhood parkland within the project area as required by Mitigation Measure REC-1 to achieve and maintain acceptable service ratios accommodating project residents could result in significant impacts on such resources as aesthetics, air quality, biology, cultural resources, geology, hazards and hazardous materials, water quality, noise, and transportation.

Because the location of any such offsite recreation facilities has not been determined, and ~~neither~~ the LRVSP, the EDHCSD 2021 Master Plan, and CPCSD 2014 Master Plan identifies actual facilities or locations for future projects, precise environmental impacts associated with them would be speculative to address at this time. The actual impacts of new park facilities would depend on the precise type and location of those facilities and would, therefore, be required to undergo project-specific environmental review. However, implementation of Mitigation Measure REC-1 would ensure establishment of additional parkland ~~within the El Dorado Hills CSD~~ by providing additional parkland and/or payment of in-lieu fees. In addition, project payment of park impact fees would address the need for construction of park and recreational facilities as a result of new development.

Mitigation Measure REC-1: Designate at least 5.2 acres of private neighborhood parkland in the LRVSP or pay in-lieu fees

Chapter 1, Introduction

Firesafe Planning, Inc. 2025. *Memorandum in Response to Lotusland Case*. March 27, 2025.

LSA. 2024. *Updated Biological Resources Report Lime Rock Valley Specific Plan El Dorado County, California*. Prepared for Lime Rock Valley, LLC. September.

LSA. 2025. *Biological Resources Offsite Reconnaissance Survey Results Shingle Lime Mine Road, El Dorado County, California*. February 5.

Michael Baker International. 2025. *Cameron Park Community Services District and El Dorado Hills Community Services District Parks and Recreation Facilities Demand Assessment*. Prepared for El Dorado County. February 11.

Chapter 3, Impact Analysis

Section 3.3, Biological Resources

California Department of Fish and Wildlife (CDFW). 2023. *Survey Considerations for California Endangered Species Act Bumble Bee Species*. Available: <https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=213150&inline>. Accessed: June 6, 2024.

LSA. 2025. *Biological Resources Offsite Reconnaissance Survey Results Shingle Lime Mine Road, El Dorado County, California*. February 5.

Section 3.7, Hazards and Hazardous Materials

Firesafe Planning, Inc. 2025. *Memorandum in Response to Lotusland Case*. March 27, 2025.

Section 3.13, Recreation

Michael Baker International. 2025. *Cameron Park Community Services District and El Dorado Hills Community Services District Parks and Recreation Facilities Demand Assessment*. Prepared for El Dorado County. February 11.

Appendix A

Updated Biological Resources Report
Lime Rock Valley Specific Plan

UPDATED BIOLOGICAL RESOURCES REPORT

LIME ROCK VALLEY SPECIFIC PLAN EL DORADO COUNTY, CALIFORNIA

Submitted to:

Lime Rock Valley, LLC.
502 E. Whitmore Avenue
Modesto, California 95358

Prepared by:

LSA
157 Park Place
Pt. Richmond, California 94801
510.236.6810

Project No. 20241881

This page intentionally left blank

TABLE OF CONTENTS

TABLE OF CONTENTS	i
FIGURES AND TABLES	ii
INTRODUCTION	1
REGULATORY CONTEXT	3
Federal Endangered Species Act	3
California Endangered Species Act.....	3
California Environmental Quality Act.....	3
Clean Water Act	3
California Water Quality and Waterbody Regulatory Programs.....	4
Migratory Bird Treaty Act.....	4
California Fish and Game Code	4
Other Statutes, Codes, and Policies	5
El Dorado County General Plan – Conservation and Open Space Element – Conservation of Biological Resources	6
METHODS.....	9
RESULTS	11
Environmental Setting.....	11
Topography and Soils	11
Vegetation and Associated Wildlife	12
Plant Communities	12
Annual Grassland.....	12
Oak Woodland.....	13
White Leaf Manzanita Chaparral.....	13
Valley-Foothill Riparian Woodland.....	14
Ruderal	15
Jurisdictional Features.....	15
Sensitive Natural Communities	15
Special-Status Species	19
Plants.....	19
Animals	29
POTENTIAL IMPACTS AND MITIGATION MEASURES BASED ON UPDATED INFORMATION.....	49
Special-Status Plants	49
Crotch’s Bumble Bee	49
Special-Status Birds	51
General Wildlife Protection Measures.....	51
Wildlife Movement.....	51
Erosion Control.....	51
REFERENCES	53
APPENDICES	
A: PLANT SPECIES OBSERVED AT THE LIME ROCK VALLEY SPECIFIC PLAN SITE	

FIGURES AND TABLES

FIGURES

Figure 1a: Potential Waters of the United States	17
Figure 1b: Potential Waters of the United States	18
Figure 2: Rare Plant Detections	27

TABLES

Table A: Special-Status Plant Species in the Project Vicinity	21
Table B: Special-Status Wildlife Species in the Project Vicinity	31

INTRODUCTION

This report presents updated information on biological resources found on the Lime Rock Valley project site ("project site"). The original study was based on a 2009 Biological Resources Survey Report (Kjeldsen 2009) and site visits performed by LSA in 2012 and 2013. This updated report includes results from surveys conducted in 2020, updated species lists from resource management agencies, a review of the Draft Environmental Impact Report (DEIR) for the Lime Rock Valley Specific Plan (SCH No. 2013022042), and an August 2024 site visit. This updated information is used to confirm the potential impacts of the proposed project on vegetation and wildlife resources with respect to the significance criteria set forth in the DEIR and confirm the continued accuracy of studies relied on in the DEIR. Overall, this report concludes that there are no significant changes in site conditions, and the prior surveys remain reliable for assessing impacts on biological resources. The report includes updates to the special-status species lists based on changes in status for certain species and additional mitigation measures where appropriate.

This page intentionally left blank

REGULATORY CONTEXT

Relevant regulations concerning biological resources are summarized below.

FEDERAL ENDANGERED SPECIES ACT

The federal Endangered Species Act (FESA) protects listed animal species from harm or “take” which is broadly defined as to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, collect, or attempt to engage in any such conduct. Take can also include habitat modification or degradation that results in death or injury to a listed species. An activity can be defined as “take” even if it is unintentional or accidental. Listed plant species are provided less protection than listed wildlife species.

The United State Fish and Wildlife Service (USFWS) has jurisdiction over federally listed threatened and endangered wildlife and plant species under the FESA. The USFWS also maintains a list of species which have been proposed for formal listing. Species on this list are not legally protected under FESA but may become listed in the near future and are included in their review of a project.

CALIFORNIA ENDANGERED SPECIES ACT

The California Endangered Species Act (CESA) prohibits the take of any plant or animal listed or proposed for listing as rare (plants only), threatened, or endangered. In accordance with CESA, the California Department of Fish and Wildlife (CDFW) has jurisdiction over State-listed species (California Fish and Game Code 2070).

California Environmental Quality Act

Section 15380(b) of the California Environmental Quality Act (CEQA) Guidelines provides that a species not listed on federal or State lists of protected species may be considered rare or endangered if the species can be shown to meet certain specified criteria. These criteria have been modeled after the definitions in FESA and CESA and the section of the California Fish and Game Code dealing with rare or endangered plants or animals. This section was included in the guidelines primarily to address situations in which a public agency is reviewing a project that may have a significant effect on a species that has not yet been listed by either the USFWS or CDFW.

CLEAN WATER ACT

Under Section 404 of the Clean Water Act, the United States Army Corps of Engineers (Corps) is responsible for regulating the discharge of fill material into waters of the United States. Waters of the United States and their lateral limits are defined in 33 CFR Part 328.3 (a) and include streams that are tributary to navigable waters and their adjacent wetlands. Wetlands that are not adjacent to waters of the United States are termed isolated wetlands and, depending on the circumstances, may or may not be subject to Corps jurisdiction.

In general, a Corps permit must be obtained before placing fill in jurisdictional wetlands or other waters of the United States. The type of permit depends on the acreage involved and the purpose of

the proposed fill. Minor amounts of fill can be covered by a Nationwide Permit. An Individual Permit is required for projects that result in more than a “minimal” impact on jurisdictional areas.

CALIFORNIA WATER QUALITY AND WATERBODY REGULATORY PROGRAMS

Pursuant to Section 401 of the federal Clean Water Act, projects that are regulated by the Corps must obtain water quality certification from a Regional Water Quality Control Board (RWQCB). This certification ensures that the project will meet State water quality standards. The State has a policy of no-net-loss of wetlands and typically requires the identification of mitigation for all impacts to wetlands before the RWQCB will issue a water quality certification.

When reviewing applications, the RWQCB focuses on ensuring that projects do not adversely affect the “beneficial uses” associated with waters of the State. Generally, beneficial uses are defined to include all resources, services, and qualities of aquatic ecosystems and underground aquifers that benefit the State. For most construction projects, the RWQCB seeks to protect these beneficial uses by requiring the integration of water quality control measures into projects that will result in discharge into waters of the State. Waters of the State may include wetlands and drainages that are not federally jurisdictional.

MIGRATORY BIRD TREATY ACT

The federal Migratory Bird Treaty Act (MBTA) prohibits the taking, hunting, killing, selling, purchasing, etc. of migratory birds, parts of migratory birds, or their eggs and nests. As used in the MBTA, the term “take” is defined as “to pursue, hunt, shoot, capture, collect, kill, or attempt to pursue, hunt, shoot, capture, collect, or kill.” Most bird species native to North America are protected under this Act.

CALIFORNIA FISH AND GAME CODE

CDFW is also responsible for enforcing the California Fish and Game Code, which contains several provisions potentially relevant to construction projects. For example, Section 1600 of the Fish and Game Code governs the issuance of Streambed Alteration Agreements. Streambed Alteration Agreements are required whenever project activities substantially divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream, or lake designated as such by CDFW.

The Fish and Game Code also lists animal species designated as Fully Protected, which may not be taken or possessed at any time. CDFW does not issue licenses or permits for take of these species except for necessary scientific research or live capture and relocation pursuant to a permit for the protection of livestock. Fully Protected species are listed in Sections 3511 (birds), 4700 (mammals), 5050 (reptiles and amphibians), and 5515 (fish) of the Fish and Game Code.

Section 3503 of the Fish and Game Code prohibits the take, possession, or needless destruction of the nest or eggs of any bird. Subsection 3503.5 specifically prohibits the take, possession, or destruction of any birds in the orders Falconiformes (hawks and eagles) or Strigiformes (owls) and their nests. These provisions, along with the federal MBTA, essentially serve to protect nesting

native birds. Non-native species, including European starling, house sparrow, and rock pigeon, are not afforded any protection under the MBTA or California Fish and Game Code.

OTHER STATUTES, CODES, AND POLICIES

CDFW also maintains lists of California Species of Special Concern (SSC). SSC species are broadly defined as wildlife that are of concern to CDFW because of population declines and restricted distributions, association with habitats that are declining in California, and/or continuing threats. SSC species are not afforded legal protection under CESA. Project-related impacts to State threatened or endangered species or SSC species are considered “significant” under CEQA.

Special-status plants in California are assigned to one of five “California Rare Plant Ranks” by a collaborative group of over 300 botanists in government, academia, non-governmental organizations, and the private sector. This effort is jointly managed by the CDFW and the non-profit California Native Plant Society (CNPS). The five California Rare Plant Ranks currently recognized by the CNDDDB include the following:

Rare Plant Rank 1A – presumed extinct in California

Rare Plant Rank 1B – rare, threatened, or endangered in California and elsewhere

Rare Plant Rank 2 – rare, threatened, or endangered in California but more common elsewhere

Rare Plant Rank 3 – a review list of plants about which more information is needed

Rare Plant Rank 4 – a watch list of plants of limited distribution

Substantial impacts to plants ranked 1A, 1B, and 2 are typically considered significant based on Section 15380 of the CEQA Guidelines depending on the policy of the lead agency. Plants ranked 3 and 4 may be evaluated by the lead agency on a case-by-case basis to determine significance thresholds under CEQA. El Dorado County General Plan Policy 7.4.2.8(A) establishes mitigation ratios for special-status plants and defines special-status plants as those with CRPR 1 or CRPR 2.

The CDFW tracks the occurrences of vegetation types that are either known or believed to be of high priority for inventory in the California Natural Diversity Database (CNDDDB). Natural communities are evaluated using NatureServe’s Heritage Methodology (wildlife.ca.gov/Data/VegCAMP/Natural-Communities). Alliances with a NatureServe State ranking code of S1 through S3 are considered to be “Sensitive Natural Communities” and impacts to stands of these vegetation types/natural communities may be considered significant under CEQA. These “rare” vegetation types or “sensitive natural communities” are sometimes addressed by lead or trustee agencies in CEQA documents, but generally are not afforded the same protection as CNPS List 1A, 1B, and 2 plant species. Many rare vegetation types support special-status plants and animals and are addressed under CEQA as habitat for those species.

EL DORADO COUNTY GENERAL PLAN – CONSERVATION AND OPEN SPACE ELEMENT – CONSERVATION OF BIOLOGICAL RESOURCES

This element contains provisions for the conservation and protection of soils, minerals, water, wildlife and fisheries, vegetation, cultural resources, and open space. The biological resources addressed in this section are presented in order to identify, conserve and manage wildlife, wildlife habitat, fisheries, and vegetation resources of significant biological, ecological, and recreational value.

- Objective 7.4.1 (Rare, Threatened, and Endangered Species) states that the County shall protect State and federally recognized rare, threatened, or endangered species and their habitats consistent with federal and State laws. Under this objective, Policy 7.4.1.1, states that the County shall continue to provide for the permanent protection of the eight sensitive plant species known as the Pine Hill endemics and their habitat through the establishment and management of ecological preserves consistent with County Code Chapter 17.71 and the USFWS's *Gabbro Soil Plants for the Central Sierra Nevada Foothills Recovery Plan* (USFWS 2002). County Code Section 130.71.030 defines "Pine Hill Endemics" as "plants found in serpentine or gabbroic soils that are listed as rare, threatened, or endangered on a State or federal list prepared under the Federal or California Endangered Species Acts or identified as species of special concern" and as including the following species: El Dorado bedstraw (*Galium californicum* ssp. *sierrae*); Layne's butterweed (*Packera layneae*); Pine Hill ceanothus (*Ceanothus roderickii*); Pine Hill flannel bush (*Fremontodendron californicum* ssp. *decumbens*); Stebbins morning glory (*Calystegia stebbinsii*); Bisbee Peak rush rose (*Helianthemum suffrutescens*); El Dorado mule ears (*Wyethia reticulata*); and Red Hills soaproot (*Chlorogalum grandiflorum*). Section 130.71.040 identifies Mitigation Areas 0, 1, and 2. Within Mitigation Area 0, mitigation is determined on an individual project basis and on-site mitigation is strongly preferred (Section 130.71.050). Within Mitigation Areas 1 and 2, the options are to: "A. Pay the appropriate fee in lieu of Ecological Preserve Mitigation for the direct or indirect impacts caused by development on rare plants and rare plant habitat or B. Participate in a Rare Plant Off-Site Mitigation Program, upon adoption of such program by the Board." Section 130.71.060 provides that "[p]ayment of a fee in lieu of Ecological Preserve Mitigation is encouraged in Mitigation Areas 1 and 2." As depicted on the El Dorado County Rare Plant Mitigation Areas Map (www.eldoradocounty.ca.gov/files/assets/county/v/1/documents/land-use/long-range-planning/ecological-preserve-fee-update-and-eir/edc-rare-plant-mitigation-area-map.pdf), none of the projects is within Mitigation Area 0 and, consistent with the preferred approach in County Code, the project will pay the appropriate Ecological Preserve Mitigation fees.

The General Plan contains language that provides for the conservation and protection of natural resources to guide the design of new development. Objective 7.4.4 addresses forest and oak woodland resources. This objective states it is the County's objective to protect and conserve forest and woodland resources for their natural resource values. Policy 7.4.4.4 presents the criteria to determine if a project is subject to this policy and, if it is, the tree canopy retention and replacement standards that are required. The Lime Rock Valley project is subject to this policy because it is over one acre in size and the oak woodland canopy cover exceeds the 1 percent threshold. The project site has a total oak woodland canopy cover of 246.6 acres (34 percent of the site).

In 2014, through a series of public workshops, the County determined that a mitigation and conservation approach to biological resource policies would most effectively meet the County's objectives. This approach is reflected in revisions to General Plan Policy 7.4.2.8 and the adopted Oak Resources Management Plan (ORMP). The revised Policy 7.4.2.8 establishes a comprehensive Biological Resources Mitigation Program to govern evaluation, impact assessment, and mitigation for biological resources in the County. Under this policy, development projects in the County that require discretionary approval would be required to submit a biological resources study that meets the requirements of Policy 7.4.2.8, which include identifying impacts on each habitat type, and meeting mitigation and mitigation monitoring requirements.

The ORMP defines mitigation requirements for impacts on oak woodlands, individual native oak trees, and Heritage Oaks and outlines the County's strategy for oak resource management and conservation. The Oak Resources Conservation Ordinance implements the ORMP. Per the requirements of the ORMP, a tree removal permit is required for projects to authorize removal of any trees that are a component of an oak woodland and any individual native oak tree not located within an oak woodland.

Mitigation for impacts on oak resources can be achieved through a combination of onsite retention, replacement planting onsite and offsite, and in-lieu fees that will be used to acquire land and/or conservation easements to conserve oak woodlands, and to plant and maintain native oak trees. Per the requirements of the ORMP, all of a project's oak woodland impacts must be mitigated at a 1:1 ratio where 50 percent or less of onsite oak woodlands are affected, removing up to 75 percent requires a 1.5:1 ratio of mitigation, and removing up to 100 percent requires a 2:1 ratio of mitigation. In addition, the California Public Resources Code (PRC) Section 21083.4 requires that replacement planting not account for more than 50 percent of the total oak woodland mitigation requirement. Therefore, the remaining half of a project's oak woodland impact mitigation requirement would be implemented in the form of an in-lieu fee payment to the County.

General Plan Policy 7.3.3.4 also calls for a minimum setback of 100 feet from all perennial streams, rivers, lakes, and 50 feet from intermittent streams and wetlands unless more detailed information relating to slope, soil stability, vegetation, habitat, or other site- or project-specific conditions supplied as part of the review for a specific project demonstrates that a different setback is necessary or would be sufficient to protect the particular riparian area at issue. Final setbacks from creeks will be determined in consultation with El Dorado County and regulatory agencies during approval of tentative maps and project permitting. Deer Creek and one of its on-site tributaries are perennial streams and there are also several intermittent streams and wetlands on the property which are subject to this policy.

This page intentionally left blank

METHODS

To identify changes to special-status plant and animal species potentially occurring on the Lime Rock Valley project site, LSA updated the original species lists obtained from the CNDDB (CDFW 2024) and the CNPS Inventory of Rare and Endangered Plants (CNPS 2024) using the same United States Geological Survey (USGS) 7.5-minute quadrangles used in previous reports (i.e., the Shingle Springs quadrangle and eight surrounding quadrangles). LSA also obtained a species list from the USFWS Information for Planning and Consultation (IPaC) website (USFWS 2024) and reviewed the DEIR for the project site. LSA wildlife biologists David Muth and Jennifer Roth visited the site on August 12, 2024, to assess whether habitat conditions had changed since the 2014 Biological Resources Report was completed.

This page intentionally left blank

RESULTS

ENVIRONMENTAL SETTING

The project site occupies approximately 740 acres in the Sierra Nevada foothills, approximately 20 miles east of Sacramento near the community of Shingle Springs in El Dorado County, California. The site contains the location of a closed underground limestone mine. Quarry spoil piles and several structures are evidence of this past use. The site also contains two occupied residences.

Vegetation on the site consists of grassland, chaparral, oak woodland, and riparian woodland. Surrounding land uses consist of developed rural residential parcels on the north, east, and south sides of the property, and the El Dorado Irrigation District (EID) Deer Creek Treatment plant to the west.

Drainage features include two perennial streams, numerous intermittent and ephemeral stream channels, and a pond. Many of the drainages are deeply incised, and most contain flowing water for only short periods during and after rains. The site is located in the Deer Creek watershed; Deer Creek is a perennial stream which flows across the site and eventually drains into the Cosumnes River.

TOPOGRAPHY AND SOILS

The topography of the project site consists of a centrally located flat valley bottom with gentle slopes to the east and moderately steep hills to the west. The elevation on the property ranges from approximately 800 feet to 1,200 feet (244 meters to 366 meters) National Geodetic Vertical Datum (NGVD). The Natural Resources Conservation Service (NRCS) Web Soil Survey (USDA 2012) shows five soil-mapping units within the project site. All soil mapping units on the project site are underlain by metamorphic rocks at varying depths.

Serpentine rock land (SaF) occurs on the western side of the project site and underlies approximately 50 percent of the project site land area. Serpentine rock outcrops and loose stones cover from 50 percent to 90 percent of the land surface in areas underlain by this type, and there is a scattered/thin mantle of reddish-brown soil. Serpentine rockland is associated with Delpiedra soils. Vegetation on this soil type consists mainly of annual grasses, forbs, brush, and foothill pine.

Auburn very rocky silt loam (AxD) and Auburn silt loam (AwD) occurs on the eastern side of the project site and makes up approximately 41 percent of the project site land area. Vegetation on these soil types is mainly annual grasses, forbs, and oaks. There are also areas of scattered foothill pine and brush. The surface layer of the Auburn series is brown, slightly acid silt loam about 3 inches thick. The subsoil is reddish-yellow, slightly acid loam. Although AxD and AwD are similar, they differ in amount of exposed bedrock; where AxD has bedrock outcrops of 5 to 25 percent, AwD has less than 5 percent rock outcrops.

Sobrante silt loam (SuC) occurs in the flat valley bottom of the project site and makes up approximately 4 percent of the project site land area. Vegetation is mainly annual grasses, forbs,

and scattered oaks. The surface layer of Sobrante silt loam is yellowish-red, slightly acid silt loam and light clay loam approximately 19 inches thick.

Quarries (Qu) is a soil mapping unit that occurs in the central area of the project site and makes up approximately 2 percent of the project site land area. Vegetation in the quarry area consists of ruderal vegetation with scattered native trees (e.g., oaks, cottonwoods).

VEGETATION AND ASSOCIATED WILDLIFE

The following section describes the existing plant communities and wildlife habitats present within the study area. Plant taxonomy and nomenclature in this report follows Baldwin et al. (2012) and on-line updates from Jepson eFlora (The Jepson Herbarium 2024). Common and scientific names for amphibians and reptiles, birds, and mammals conform to Crother (2017), the American Ornithological Society *Check-list of North American Birds* (Chesser et al. 2024), and Bradley et al. (2014), respectively.

Plant Communities

Vegetation on the site is primarily comprised of five plant communities: annual grassland, oak woodland, white leaf manzanita chaparral, riparian woodland, and ruderal. A list of plant species observed on the site by LSA's botanist is provided in Appendix A.

Annual Grassland

Annual grassland occurs mainly in the eastern half of the project site, in both open grassland areas and as understory to blue oak woodland. Annual grasslands on the site have been disturbed as a result of past and on-going land use activities. As a result, this habitat contains a high percentage of weedy species such as yellow star-thistle (*Centaurea solstitialis*) and Klamath weed (*Hypericum perforatum*). Common species observed in the grassland include wild oat (*Avena* ssp.), ripgut brome (*Bromus diandrus*), soft chess (*Bromus hordeaceus*), wild barley (*Hordeum murinum*), Mediterranean barley (*Hordium marinum* subsp. *gusoneanum*), rattlesnake grass (*Briza maxima*), little quaking grass (*Briza minor*), dogtail grass (*Cynosurus echinatus*), cultivated timothy (*Phleum pratense*), annual hairgrass (*Deschampsia danthonioides*), hood canarygrass (*Phalaris paradoxa*), fescue (*Festuca arundinacea*), medusahead grass (*Elymus caput-medusae*), and rattail fescue (*Festuca myuros*). Common forbs include filaree (*Erodium cicutarium*), smooth cat's ear (*Hypochaeris glabra*), rough cat's ear (*Hypochaeris radicata*), bur clover (*Medicago polymorpha*), California poppy (*Eschscholzia californica*), clover (*Trifolium* ssp.), vetch (*Vicia* ssp.), and plantain (*Plantago lanceolata*).

Wildlife expected to use annual grassland habitat in the area includes several reptile species, such as the western fence lizard (*Sceloporus occidentalis*), southern alligator lizard (*Elgaria multicarinata*), Pacific gopher snake (*Pituophis catenifer*), and Pacific rattlesnake (*Crotalus oreganus*). Birds observed on site include turkey vulture (*Cathartes aura*), red-tailed hawk (*Buteo jamaicensis*), wild turkey (*Meleagris gallopavo*), mourning dove (*Zenaida macroura*), and white-crowned sparrow (*Zonotrichia leucophrys*). Mammals common to grasslands, including Botta's pocket gopher (*Thomomys bottae*), California meadow vole (*Microtus californicus*), and black tailed deer (*Odocoileus hemionus*) were also observed on the site. Carnivorous mammals expected to occur in

this habitat include coyote (*Canis latrans*), gray fox (*Urocyon cinereoargenteus*), mountain lion (*Felis concolor*), and bobcat (*Lynx rufus*).

Oak Woodland

The oak woodland community on the site consists of mixed stands of blue oak and canyon live oak, with scattered valley oaks and black oaks. The total area of oak canopy on the site is 246.6 acres. The majority of the blue oak woodland is located on the slopes of the eastern half of the property. Here, the canopy density of blue oak varies such that it ranges from closed canopy with a mixed species assemblage in the understory to a savanna like setting where oaks are scattered throughout the annual grassland. Trees associated with the closed canopy oak woodland community include madrone (*Arbutus menziesii*), foothill pine (*Pinus sabiniana*), interior live oak (*Quercus wislizeni*), blue oak (*Quercus douglasii*), black oak (*Quercus kelloggii*), and canyon live oak (*Quercus chrysolepis*). The understory is dominated by annual grassland species, but other species frequently occur including common manzanita (*Arctostaphylos manzanita* subsp. *manzanita*), soap plant (*Chlorogalum pomeridianum* var. *pomeridianum*), miner's lettuce (*Claytonia perfoliata*), poison oak (*Toxicodendron diversilobum*), and Pacific sanicle (*Sanicula crassicaulis*). On occasion this community also intergrades with nearby white leaf manzanita chaparral where associated species include chamise (*Adenostoma fasciculatum*), white leaf manzanita (*Arctostaphylos viscida*), buck brush (*Ceanothus cuneatus*), deerbrush (*C. integerrimus*), and wild rose (*Rosa californica*).

The open grassland understory of the oak woodlands supports most, if not all, of the same wildlife species that occur in annual grassland. Fallen logs, bark, and leaf litter provide habitat for additional amphibian and reptile species such as California slender salamander (*Batrachoseps attenuatus*), arboreal salamander (*Ensatina eschscholtzii*), and ring-neck snake (*Diadophis punctatus*). The abundant oak trees, both living and dead, provide nest sites for cavity-nesting bird species such as acorn woodpecker (*Melanerpes formicivorus*), Nuttall's woodpecker (*Picoides nuttallii*), violet-green swallow (*Tachycineta thalassina*), oak titmouse (*Baeolophus inornatus*), white-breasted nuthatch (*Sitta carolinensis*), and western bluebird (*Sialia mexicana*). In addition to the mammal species expected to occur in grasslands, oak woodlands also likely support western gray squirrel (*Sciurus griseus*).

White Leaf Manzanita Chaparral

The chaparral plant association or habitat is often classified into various subsets or series depending on the identity of the dominant species. The chaparral on the project site is best classified as white leaf manzanita chaparral based upon a greater than 30 percent canopy cover of its most common species, white leaf manzanita. Chaparral is generally a structurally homogenous plant community dominated by shrubs with thick, heavily cutinized (waxy) leaves. Shrub height and canopy cover vary with age since the last burn, precipitation regime, species, aspect, and soil type. Chaparral in general is typically a dense, nearly impenetrable thicket with greater than 80 percent canopy cover and up to 4 meters in height. Chaparral plants are usually found in areas with a Mediterranean climate that have shallow-rocky, low-nutrient soils, steep slopes, and a high degree of solar exposure. Chaparral plant communities are adapted to fire, with cycles as frequent as 10 to 40 years between fires. In fact, most species require fire for seed germination and stump sprouting. The dominant plant species that define the chaparral habitat sub-type are dependent on the soil substrate, such as

serpentinite or volcanic geologic formations. Chaparral communities are usually found on south facing slopes or areas where water is not retained in the soil profile.

White leaf manzanita chaparral on the site forms a mosaic across most of the west side of the property. This mosaic is composed of an assemblage, mostly comprised of native species, with characteristic shrubs including chamise, white leaf manzanita, coyote brush (*Baccharis pilularis*), buck brush, deerbrush, golden fleece (*Ericameria arborescens*), yerba santa (*Eriodictyon californicum*), coffeeberry (*Frangula californica*), toyon (*Heteromeles arbutifolia*), chaparral pea (*Pickeringia montana*), scrub oak (*Quercus berberidifolia*), red bud (*Rhamnus crocea*), and poison oak. Although trees are not a major component of the chaparral, they are obvious features of the landscape emerging above the chaparral brush. Canyon live oak occurs frequently throughout this habitat whereas foothill pine only occurs in a few locations. Grasses, forbs, and sub-shrubs are minor components of chaparral habitats and are typically found in openings within the chaparral following fires or formed by road cuts or other disturbances. These other plant species include deerweed (*Acmispon glaber*), woolly Indian paintbrush (*Castilleja foliolosa*), pygmyflower cryptantha (*Cryptantha micromeres*), Bisbee Peak rush rose (*Crocانthemum suffrutescens*, synonym for *Helianthemum suffrutescens*), pitcher sage (*Lepechinia calycina*), and creeping sage (*Salvia sonomensis*). A portion of the chaparral located east of the water treatment plant burned in August 2006.

Chaparral stands support many wildlife species not found in the adjacent grasslands and oak woodlands due to a high percentage of shrub cover that is not found in the other vegetation types. Wildlife species more commonly associated with chaparral communities include western whiptail (*Aspidoscelis tigris*), Blainsville's horned lizard (*Phrynosoma blainsvillei*), California quail (*Callipepla californica*), California thrasher (*Toxostoma redivivum*), wrentit (*Chamaea fasciata*), and spotted towhee (*Pipilo maculatus*).

Valley-Foothill Riparian Woodland

Riparian woodland in the project area occurs along Deer Creek and its perennial tributary and some of the un-named tributaries. Riparian vegetation is characterized by a dense canopy of tree cover with understory shrubs, vines, and ground cover. Within the project area the riparian tree cover is characterized by the presence of broadleaved and deciduous trees such as red and arroyo willow (*Salix laevigata* and *S. lasiolepis*); white alder (*Alnus rhombifolia*); black, canyon, live, and valley oak; black walnut (*Juglans nigra*); Oregon ash (*Fraxinus latifolia*); and Fremont cottonwood (*Populus fremontii*). Common shrubs include poison oak, coyote brush, Himalaya berry (*Rubus armeniacus*), and wild grape (*Vitis californica*). The understory consists of torrent sedge (*Carex nudata*), mule fat (*Baccharis salicifolia*), ninebark (*Physocarpus capitatus*), and California polypody (*Polypodium californicum*). Valley-foothill riparian woodland is identified by El Dorado County as a sensitive habitat type.

Wildlife associated with riparian areas is typically similar to that of the surrounding woodlands, with the addition of aquatic species where water is present and/or those species, such as warbling vireo, that are dependent on riparian trees. Aquatic species that have been observed on site include fish such as sunfish (*Lepomis* sp.) and bass (*Micropterus* sp.), the introduced American bullfrog (*Lithobates catesbeiana*), and northwestern pond turtle (*Actinemys marmorata*).

Ruderal

Ruderal vegetation is composed of mostly non-native plants adapted to colonizing and persisting in disturbed areas. Ruderal vegetation on the site is primarily found in the vicinity of the old mining operation. The species composition is usually a mix of weedy, broadleaved herbs (forbs), non-native annual grasses, and ornamental plants, but, typically, native species are also present. Plant species present on site include tree of heaven (*Ailanthus altissima*), wild oat, ripgut brome, soft chess, yellow star-thistle, dove weed (*Croton setigerus*), wild barley, sweet clover (*Melilotus officinalis*), skunkweed (*Navarretia squarrosa*), Bermuda buttercup (*Oxalis pes-caprae*), English plantain (*Plantago lanceolata*), wild radish (*Raphanus sativus*), milk thistle (*Silybum marianum*), and periwinkle (*Vinca major*).

Most wildlife species found in annual grassland will also be present in ruderal areas. Species most closely associated with this type include mourning dove, barn swallow (*Hirundo rustica*), house finch (*Carpodacus mexicanus*), and house mouse (*Mus musculus*).

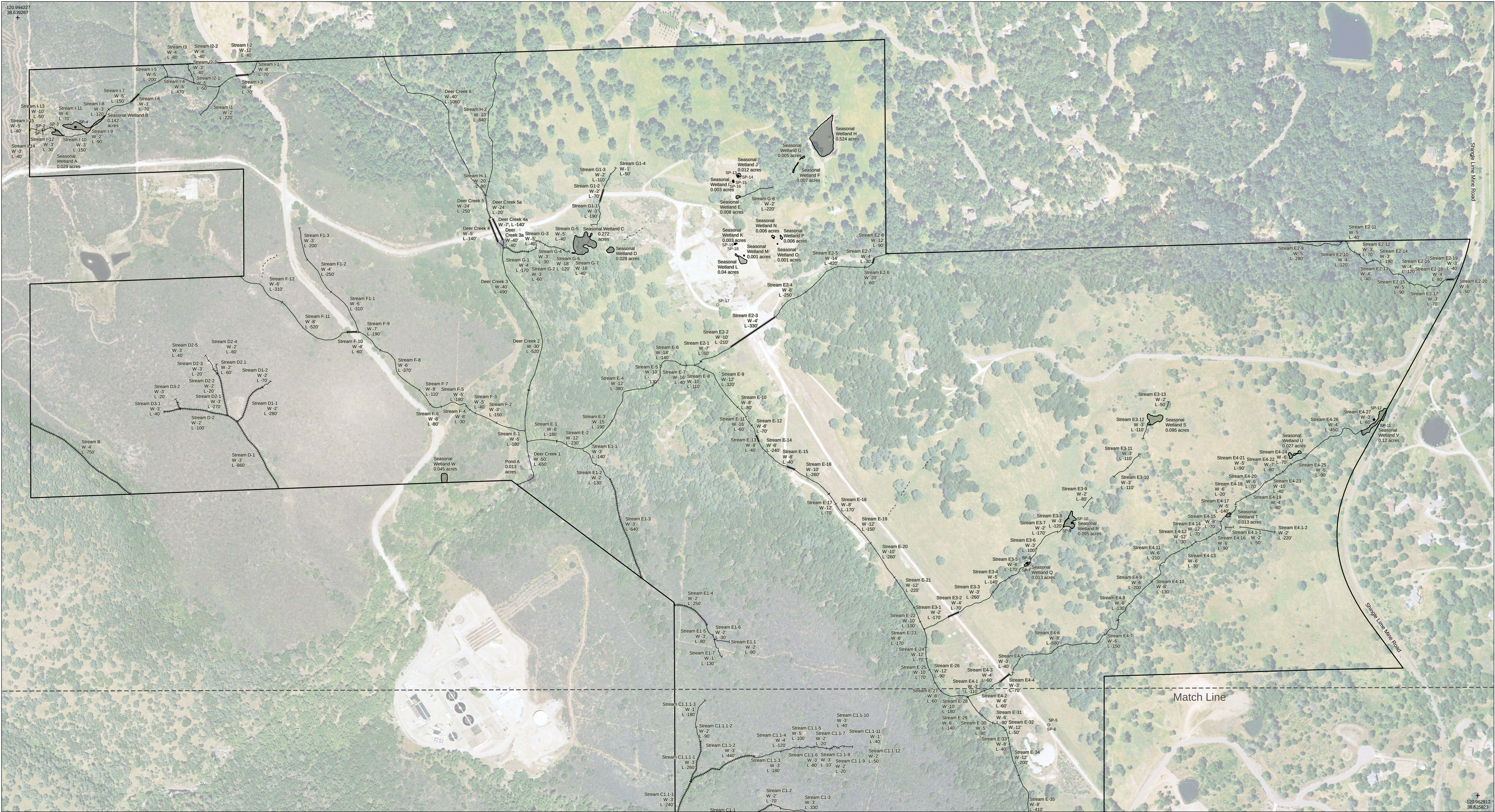
JURISDICTIONAL FEATURES

Deer Creek and its perennial tributary are jurisdictional streams (Figure 1). In addition to these perennial streams, there are other intermittent and ephemeral drainages on the property with definable bed and bank that meet criteria for waters of the U.S. under Corps jurisdiction and waters of the State under RWQCB jurisdiction. Total stream area on site is 6.971 acres. The site also contains 1.080 acres of seasonal wetlands and one 0.013-acre pond that are jurisdictional features.

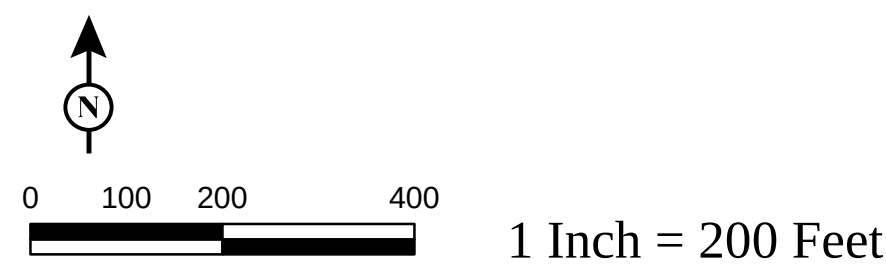
SENSITIVE NATURAL COMMUNITIES

The CNDDB does not identify any sensitive natural communities in the vicinity of the site (Shingle Springs USGS 7.5-minute quadrangle and surrounding eight quadrangles).

This page intentionally left blank



LSA



SOURCE: Aerial Imagery from G3. MAP PREPARER: Pamela van der Leeden.

E:\GGG1202\GIS\Maps\LDelineation\Figure1a_Potential Waters of the US.mxd (1/2/2014)

Other Features

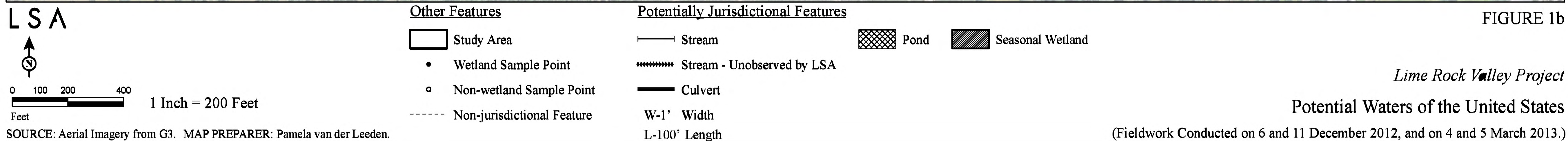
- Study Area
- Wetland Sample Point
- Non-wetland Sample Point
- Non-jurisdictional Feature

Potentially Jurisdictional Features

- Stream
- Culvert
- W-1' Width
- L-100' Length
- Pond
- Seasonal Wetland

FIGURE 1a

Lime Rock Valley Project
Potential Waters of the United States
(Fieldwork Conducted on 6 and 11 December 2012, and on 4 and 5 March 2013.)



SPECIAL-STATUS SPECIES

Special-status species are defined as follows:

- Species that are listed, formally proposed, or designated as candidates for listing as threatened or endangered under FESA;
- Species that are listed, or designated as candidates for listing, as rare, threatened, or endangered under CESA;
- Plant species assigned to California Rare Plant Ranks 1A, 1B, or 2;
- Animal species designated as Species of Special Concern or Fully Protected by the CDFW;
- Species that meet the definition of rare, threatened, or endangered under Section 15380 of the CEQA guidelines; and
- Species considered to be a taxon of special concern by local agencies.

Plants

Rare plant surveys conducted by Kjeldsen Biological Consulting in 2009 did not detect any special-status species. Surveys conducted by LSA in 2012 and 2013 detected two special-status plants on the site: Layne's ragwort (federally threatened, State rare) and Bisbee Peak rush rose (CRPR 3.2). The Layne's ragwort stand (132 plants) was found in an area burned by the 2006 fire (Figure 2).

The 2009 Kjeldsen Biological Consulting report identified peak rush-rose (*Crocانthemum* [*Helianthemum*] *scoparium*) as occasional, occurring in areas of chaparral, rocky ridges, and dry slopes on the site. Rush-rose plants were also observed on the project site by LSA in September of 2012 and March 2013 along ridgelines on the western side of the site where they were associated with areas burned by the 2006 fire and fire road cuts in the chaparral (Figure 2). These plants were tentatively identified as the peak rush-rose using the accepted authority for identifying California flora (The Jepson Manual, Vascular Plants of California, Second Edition [Baldwin et al. 2011]). This authority does not provide a key to distinguish the common peak rush-rose from the rare Bisbee Peak rush-rose. Additional survey work on May 13, 2013 included a comparison between known reference site populations (CNDDDB occurrences 22, 30, and 31) and the plants occurring on the proposed project site. Both comparison populations were analyzed using the keys and descriptions in Munz (1973) and Abrams (1980) to provide a positive identification of the *Crocانthemum* species on the project site as *Crocانthemum suffrutescens*, Bisbee Peak rush-rose. Although this plant does not meet the criteria for evaluation under the CEQA because it has a CRPR of 3.2, it is included here based on it being considered a Pine Hill endemic, consistent with County Policy 7.4.1.1 (protection for Pine Hill endemics).

LSA conducted updated searches of the CNDDDB, CNPS Rare Plant Inventory, and USFWS IPaC website along with additional rare plant surveys in April and June 2020 to confirm continued presence of Layne's ragwort and Bisbee peak rush-rose and to search for new rare plant occurrences. The previously documented Layne's ragwort population had expanded beyond the

mapped areas in 2020 but still fell within an area designated as open space in the proposed project plan. The population is buffered from development by a minimum of 100 feet of habitat, and no impacts to this species are expected. Bisbee Peak rush-rose was found in the same area in 2020 and expected project-related impacts have not changed; approximately 87 percent of the population is expected to be impacted by the development. No additional rare plants were detected in 2020.

No changes to potential habitat for rare plants was noted during the August 2024 site visit. Table A evaluates all species addressed in the DEIR with updates from the CNDDDB, CNPS Rare Plant Inventory, and USFWS IPaC website. Spicate calycadenia (*Calycadenia spicatinta*) was added to the table because it was assigned a California Rare Plant Rank of 1B.3 in 2023. Spicate calycadenia was not observed during any previous botanical surveys; any future occurrences would be documented during a required botanical survey prior to construction (see “Potential Impacts and Mitigation Measures Based on Updated Information” section below). There was a change in listing status for only one species previously considered: Brandegee’s clarkia (*Clarkia biloba* ssp. *brandegeae*) changed from a CRPR of 1B.2 to 4.2.

Table A: Special-Status Plant Species in the Project Vicinity

Species	Status * (F/S/RPR)	General Habitat Description	Suitable Habitat	Rationale	Consistency with DEIR
Jepson's onion <i>Allium jepsonii</i>	--/1B.2	Chaparral, cismontane woodland, lower montane coniferous forest; serpentine or volcanic soils. Elevation: 300-1300 m. Blooms: April-August	Yes	Although this species is known mostly from wooded habitats in Butte County, it may also occur in open, serpentine habitat similar to that present in the project area. No individuals of this species were recorded during botanical surveys conducted by Kjeldsen Biological Consulting or LSA.	Consistent.
Nissenan manzanita <i>Arctostaphylos nissenana</i>	--/1B.2	In openings on ridges of rocky shale in chaparral and closed-cone pine forest. Elevation: 450-1100 m. Blooms: February-March	Yes	This species is unlikely to occur. Shale soils are absent and the elevation range of this species is considerably higher than that of the project site. Botanical surveys by Kjeldsen Biological Consulting and LSA did not detect this species.	Consistent.
Big-scale balsamroot <i>Balsamorhiza macrolepis</i>	--/1B.2	Thin, rocky soil, grassy hillsides, foothill woodland, chaparral; sometimes on serpentine soils. Elevation: 90-1555 m. Blooms March-June	Yes	Habitat for this species is present on the project site. No individuals of this species were recorded during botanical surveys conducted by Kjeldsen Biological Consulting or LSA.	Consistent.
Spicate calycadenia <i>Calycadenia spicatinta</i>	--/1B.3	Dry, gravelly openings, along roadsides and other disturbed areas, rocky sites within cismontane woodland and valley and foothill grassland. Elevation: 39-1400 m. Blooms: May-September	Yes	Habitat for this species is present on the project site. No individuals of this species were recorded during botanical surveys conducted by Kjeldsen Biological Consulting or LSA.	Not included in DEIR because was moved to 1B.3 list in 2023. If species is present, Mitigation Measure BIO-5a would identify any species prior to construction and Mitigation Measure BIO-5c would require compensation for any impacts. The impact would remain less than significant.

Table A: Special-Status Plant Species in the Project Vicinity

Species	Status * (F/S/RPR)	General Habitat Description	Suitable Habitat	Rationale	Consistency with DEIR
Stebbin's morning glory <i>Calystegia stebbinsii</i>	FE/SE/1B.1 Pine Hill Endemics	Chaparral, cismontane woodland; gabbroic or serpentine rocky soils. Elevation: 185-1090 m. Blooms: April-July	Yes	Known from fewer than 20 occurrences on gabbroic soils in western El Dorado County. Botanical surveys conducted by Kjeldsen Biological Consulting and LSA did not detect this species.	Consistent.
Van Zuuk's morning- glory <i>Calystegia</i> <i>vanzuukiae</i>	--/1B.3	Chaparral, mixed or coniferous woodlands, foothills; gabbro or serpentine soils. Elevation: 800-1,200 m. Blooms: March- September	Yes	This species is unlikely to occur. There are fewer than six occurrences of this species from higher elevations within the Tahoe National Forest in El Dorado County. Botanical surveys by Kjeldsen Biological Consulting and LSA did not detect this species.	Consistent.
Sierra arching sedge <i>Carex cyrtostachya</i>	--/1B.2	Wet meadows, marshes, seasonally wet outcrops, seeps, swales, riparian margins, floodplain terraces. Elevation: 600-1,350 m. Blooms: May-August	Yes	Low potential to occur. Suitable habitat on site. El Dorado County records are from higher elevations north of Placerville. Botanical surveys by Kjeldsen Botanical Consulting and LSA did not detect this species.	Consistent.
Chaparral sedge <i>Carex</i> <i>xerophila</i>	--/1B.2	Open forest, scrub, thicket edges, chaparral; dry gabbro or serpentine soils. Elevation: 450-770 m. Blooms: March- June	Yes	The project site contains suitable habitat and is within the elevational range occupied by this species. No individuals of this species were recorded during botanical surveys by Kjeldsen Biological Consulting or LSA.	Consistent.

Table A: Special-Status Plant Species in the Project Vicinity

Species	Status * (F/S/RPR)	General Habitat Description	Suitable Habitat	Rationale	Consistency with DEIR
Pine Hill ceanothus <i>Ceanothus roderickii</i>	FE/SR/1B.2 Pine Hill Endemics	Chaparral, cismontane woodland; gabbroic or serpentine rocky soils. Elevation: 245-630 m. Blooms: April-June	Yes	This species occurs on dry, rocky soils derived from serpentine or gabbro rocks. No individuals of this species were recorded during botanical surveys conducted by Kjeldsen Biological Consulting or LSA.	Consistent.
Red Hills soaproot <i>Chlorogalum grandiflorum</i>	1B.2 Pine Hill Endemics	Chaparral, cismontane woodland; gabbroic, serpentine rocky, and other soils. Elevation: 245-1240 m. Blooms: May-June	Yes	This species is known to occur within serpentine outcrops in open shrubby or wooded hills. No individuals of this species were recorded during botanical surveys conducted by Kjeldsen Biological Consulting or LSA.	Consistent.
Brandege's clarkia <i>Clarkia biloba subsp. brandegeae</i>	--/4.2	Chaparral, cismontane woodland, and lower montane coniferous forest; often on road cuts. Elevation: 75-915 m. Blooms May-July	Yes	This species is distributed throughout the Sierra Nevada foothills and has been downgraded from a CRPR of 1B.2 to 4.2 since the 2012 and 2013 surveys were completed. No individuals of this species were recorded during botanical surveys conducted by Kjeldsen Biological Consulting or LSA.	Consistent, although the species was downgraded to 4.2 and generally would not be evaluated today.
Bisbee Peak rush rose <i>Crocotanthemum suffrutescens</i>	--/3.2 Pine Hill Endemics (locally rare)	Chaparral; often on serpentinite, gabbroic, or lone soil. Elevation: 45-840 m. Blooms: April-June	Yes	This species is distributed throughout the central Sierra Nevada foothills from Pilot Hill to Catheys Valley. A population of this plant occurs on the project site and was mapped during the 2013 survey season. Continued presence was confirmed in 2020.	Consistent.

Table A: Special-Status Plant Species in the Project Vicinity

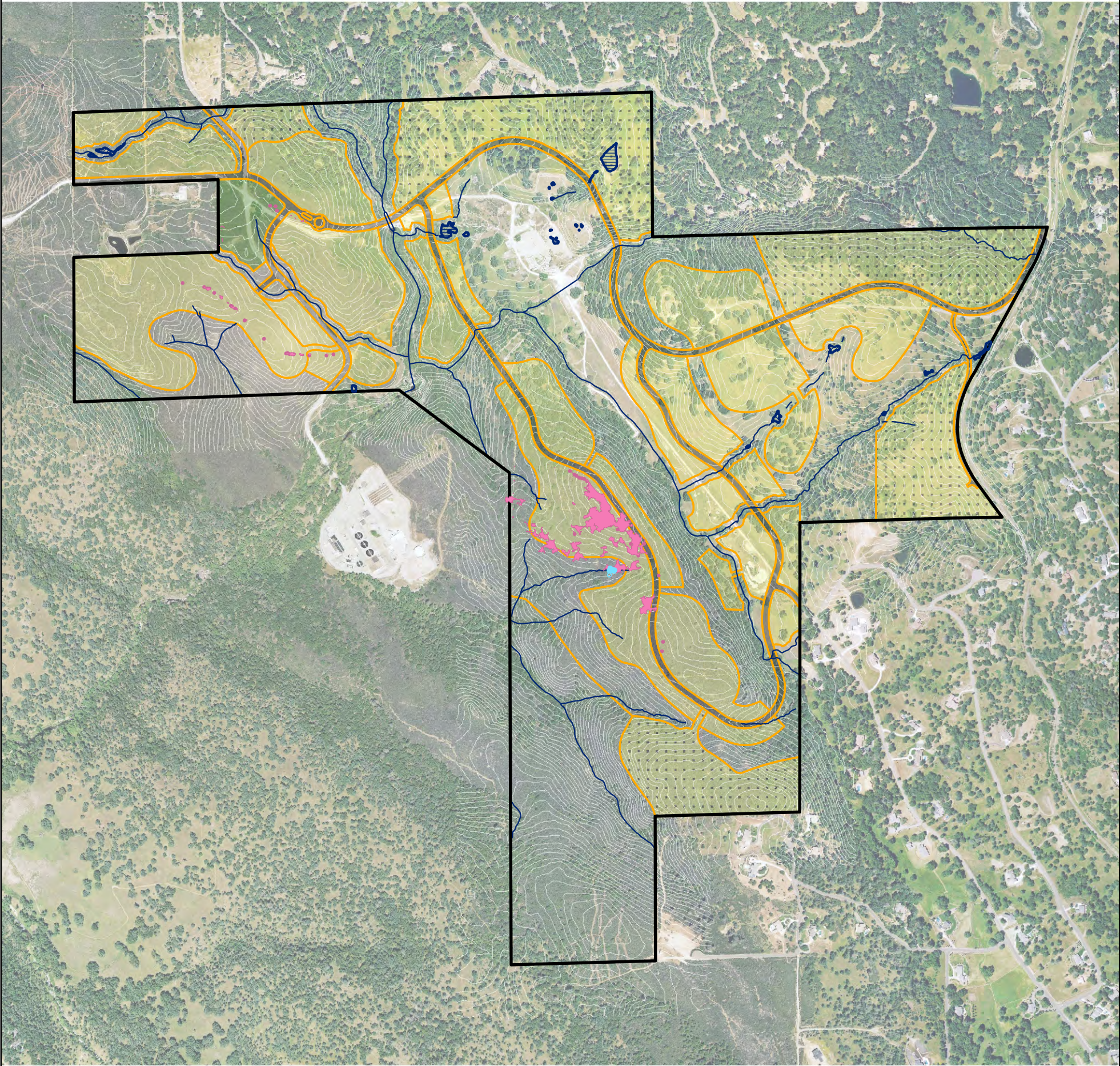
Species	Status * (F/S/RPR)	General Habitat Description	Suitable Habitat	Rationale	Consistency with DEIR
Dwarf downingia <i>Downingia pusilla</i>	--/2B.2	Vernal pools and other similar seasonal wetlands. Elevation: +/- 150 m. Blooms: March-May	No	There are no vernal pools on site, and the site is outside of the species known range, which occurs largely in the Central Valley and San Francisco Bay Area.	While the DEIR conservatively indicated suitable habitat for this species, LSA continues to believe there is no suitable habitat on site and that the site is outside of the species' range. There are no CNDDDB records within the nine-quadrant search area centered on the project site. The only records in El Dorado County occur at its western boundary near Folsom Lake. In the unlikely event the species is present, Mitigation Measure BIO-5a would identify any occurrences and Mitigation Measure BIO-5c would require compensation for any impacts.
Tuolumne button celery <i>Eryngium pinnatisectum</i>	--/1B.2	Cismontane woodland, lower montane coniferous forest, vernal pools. Elevation: 70-915 m. Blooms: May-August	Yes	Species is known to occur in swales and intermittent streams. No individuals of this species were recorded during botanical surveys conducted by Kjeldsen Biological Consulting or LSA.	Consistent.
Pine Hill flannelbush <i>Fremontodendron decumbens</i>	FE/SR/1B.2 Pine Hill Endemics	Chaparral, cismontane woodland; gabbroic or serpentine rocky soils. Elevation: 425-760 m. Blooms: April-July	Yes	Unlikely to occur on site. Known from fewer than 20 occurrences on gabbro outcrops in chaparral/pine woodland in El Dorado and Nevada counties (Pine Hill gabbro formation). The elevational range of this plant is considerably higher than that of the project site. Botanical surveys by Kjeldsen Biological Consulting and LSA did not detect.	Consistent.

Table A: Special-Status Plant Species in the Project Vicinity

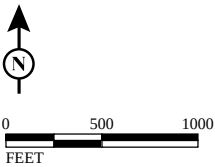
Species	Status * (F/S/RPR)	General Habitat Description	Suitable Habitat	Rationale	Consistency with DEIR
El Dorado bedstraw <i>Galium californicum</i> <i>subsp. sierrae</i>	FE/SR/1B.2 Pine Hill Endemics	Chaparral, cismontane woodland, lower montane coniferous forest; gabbroic soils. Elevation: 100-585 m. Blooms: May-June	No	Known from approximately 10 occurrences on gabbro outcrops in open pine/oak forests and chaparral in western El Dorado County. No gabbro soils on site. Botanical surveys by Kjeldsen Biological Consulting and LSA did not detect this species.	Consistent. DEIR states that oak woodland and chaparral habitats are present on site but acknowledges the absence of gabbro soils.
Parry's horkelia <i>Horkelia parryi</i>	--/1B.2	Chaparral, cismontane woodland; especially lone soils. Elevation: 80-1035 m. Blooms: April-September	Yes	Although this species is known to occur especially in the open chaparral of the lone formation, there are records from similar habitats and from higher elevations where this species occurs outside of lone formation soils. While there are no lone soils on site, there is a low potential for this species to occur based on habitat. No individuals of this species were recorded during botanical surveys conducted by Kjeldsen Biological Consulting or LSA.	While the DEIR indicated that there is no suitable habitat for this species due to the lack of lone soils, LSA continues to believe there is a low potential for this species to occur on site based on CNDDDB records that document occurrences outside of lone formation soils. Not seen during botanical surveys of the site. In the unlikely event the species is present, Mitigation Measure BIO-5a would identify any occurrences and Mitigation Measure BIO-5c would require compensation for any impacts.
Layne's ragwort <i>Packera layneae</i>	FT/SR/1B.2	Chaparral, cismontane woodland; gabbroic or serpentine rocky soils. Elevation: 200-1000 m. Blooms: April-August	Yes	This species is known to occupy openings and disturbed sites in gabbroic soils and may also occur in chaparral, cismontane woodland, and serpentine rocky soils. A population of 132 individuals of this species was observed in one location on the project site in 2013. The population was seen again in 2020 and had expanded slightly.	Consistent.

Table A: Special-Status Plant Species in the Project Vicinity

Species	Status * (F/S/RPR)	General Habitat Description	Suitable Habitat	Rationale	Consistency with DEIR
Sanford's arrowhead <i>Sagittaria sanfordii</i>	--/1B.1	Central Valley freshwater wetlands, wetland-riparian, ponds, ditches. Elevation: 0-650 m. Blooms: May-October	No	Typical habitat for this species is found in larger, slower-moving rivers and ponds in the Central Valley. No individuals of this species were recorded during botanical surveys by Kjeldsen Biological Consulting or LSA.	While the DEIR conservatively indicated suitable habitat for this species, LSA continues to believe there is no suitable habitat on site and that the site is outside of the species' range. There are no large rivers on site. Deer Creek and associated ponds do not provide suitable habitat for this species. In addition, current distributional information shows that this species occurs within the Central Valley and is only present in El Dorado County at its western boundary. In the unlikely event the species is present, Mitigation Measure BIO-5a would identify any occurrences and Mitigation Measure BIO-5c would require compensation for any impacts.
Oval-leaved viburnum <i>Viburnum ellipticum</i>	--/2.3	Chaparral, cismontane woodland, and lower montane coniferous forest. Elevation: 215-1400 m. Blooms May-June	Yes	The project site contains suitable habitat and is within the elevational range occupied by this species. No individuals of this species were recorded during botanical surveys by Kjeldsen Biological Consulting or LSA.	Consistent.
El Dorado mule ears <i>Wyethia reticulata</i>	--/1B.2 Pine Hill Endemics	Chaparral, cismontane woodland, and lower montane coniferous forest; clay or gabbroic soils. Elevation: 185-630 m. Blooms April-August	No	This species is only known from the Pine Hill gabbro formation of western El Dorado County. No individuals of this species were recorded during botanical surveys by Kjeldsen Biological Consulting or LSA.	Consistent. DEIR states that oak woodland and chaparral habitats are present on site but acknowledges the absence of gabbro soils.



LSA



LEGEND

- Project Boundary
- Bisbee Peak rush-rose (*Crocianthemum suffrutescens*)
- Layne's butterweed or ragwort (*Packera layneae*)

Planned Development

- Low Density Residential
- Low Density Residential (5 acre min.)
- Neighborhood Park
- Road

FIGURE 2

Lime Rock Valley Project

Rare Plant Surveys 2013

This page intentionally left blank

Animals

Wildlife surveys were conducted by Kjeldsen Biological Consulting in 2009 and by LSA biologists in June 2012. Northwestern pond turtle was observed on site in both 2009 and 2012. Blainville's horned lizard scat was found in chaparral habitat during the 2012 survey. No other special-status species were observed on-site during the 2009 and 2012 surveys. LSA conducted an additional survey for foothill yellow-legged frog (*Rana boylei*) in Deer Creek and its perennial tributary in 2020; no foothill yellow-legged frogs or California red-legged frogs (*Rana draytonii*) were detected during the survey.

No special-status species were seen during the 2024 site visit, and available habitats on site have not changed significantly since the earlier surveys were conducted. Table B evaluates all species addressed in the DEIR with updates from the CNDDDB, CNPS Rare Plant Inventory, and USFWS IPaC website, including two that have been added as a result of changes to their listing status (western bumble bee [*Bombus occidentalis*] and Crotch's bumble bee [*Bombus crotchii*]). Table B also includes the following species that were added in response to public comments on the DEIR: yellow-billed cuckoo (*Coccyzus americanus*), northern harrier (*Circus hudsonius*), long-eared owl (*Asio otus*), purple martin (*Progne subis*), and yellow-breasted chat (*Icteria virens*).

This page intentionally left blank

Table B: Special-Status Wildlife Species in the Project Vicinity

Species	Status* (F/S)	General Habitat Description	Suitable Habitat Present on Site	Potential for Occurrence	Rational	Consistency with DEIR
Invertebrates						
Vernal pool fairy shrimp <i>Branchinecta lynchi</i>	FT/--	Vernal pools and other similar seasonal wetlands.	No	None	Outside known range. No suitable habitat.	Consistent. The DEIR found potential habitat in offsite areas; Mitigation Measures BIO-21a and BIO-21b addresses any impacts on those offsite areas.
Vernal pool tadpole shrimp <i>Lepidurus packardii</i>	FE/--	Vernal pools and other similar seasonal wetlands.	No	None	Outside known range. No suitable habitat.	Consistent. The DEIR found potential habitat in offsite areas; Mitigation Measures BIO-21a and BIO-21b addresses any impacts on those offsite areas.
Valley elderberry longhorn beetle <i>Desmocercus californicus dimorphus</i>	FT/--	Riparian. Adults feed and lay eggs on blue elderberry (<i>Sambucus nigra</i> ssp. <i>caerulea</i>) shrubs. Prefers to lay eggs in elderberries 2-8 inches in diameter; some preference shown for stressed elderberries.	Yes	None	Elderberries present on site, but site is outside of the current known range for this species. No emergence holes found during 2012 surveys.	Consistent.

Table B: Special-Status Wildlife Species in the Project Vicinity

Species	Status* (F/S)	General Habitat Description	Suitable Habitat Present on Site	Potential for Occurrence	Rational	Consistency with DEIR
Western bumble bee <i>Bombus occidentalis</i>	--/SC	Open grassy areas, urban parks and gardens, chaparral and shrub areas, and mountain meadows. Generalist forager of wild flowering plants in a range of habitats.	Yes	None	Suitable habitat is present at the project site; however, within California, this species is currently only known to occur in high-elevation sites in the Sierra Nevada and in a couple of locations on the northern California coast.	Not included in DEIR Table 3.3-4 because was a new candidate species.
Crotch's bumble bee <i>Bombus crotchii</i>	--/SC	Open grassy areas, urban parks and gardens, chaparral and shrub areas, desert margins. Generalist forager of wild flowering plants in a range of habitats.	Yes	Moderate	Suitable habitat is present on the project site. Site is within the known range of this species.	Not included in DEIR Table 3.3-4 because was a new candidate species. New mitigation measure proposed.
Monarch butterfly (overwintering population) <i>Danaus plexippus</i>	FC/--	Prairies, meadows, grasslands, along roadsides. Closely associated with milkweed plants necessary for egg laying and larval development. In California, winters in large groves of trees along the coast.	Yes	Moderate	Suitable foraging habitat on site. No known milkweed plants on site (none observed during rare plant surveys in 2009, 2012, 2013, or 2020). Outside of wintering range.	Consistent.

Table B: Special-Status Wildlife Species in the Project Vicinity

Species	Status* (F/S)	General Habitat Description	Suitable Habitat Present on Site	Potential for Occurrence	Rational	Consistency with DEIR
Fish						
Delta smelt <i>Hypomesus transpacificus</i>	T/E	Sacramento–San Joaquin Delta.	No	None	Outside of species’ range.	Consistent.
Steelhead – Central Valley DPS <i>Oncorhynchus mykiss irideus</i>	FT/SSC	Clear cool riffles with gravel or cobble substrate for spawning; clear, cool riffles and pools as rearing habitat.	Yes	None	Perennial streams on-site provide typical salmonid habitat, but there are no documented occurrences of salmonids in Deer Creek. Habitat upstream of project site is surrounded by development.	Consistent.
Central Valley Spring-run Chinook salmon <i>Oncorhynchus tshawytscha</i>	FT/ST	Upper Sacramento and Feather rivers. Clear cool riffles with gravel or cobble substrate for spawning; clear, cool riffles and pools as holding and rearing habitat.	Yes	None	Outside of known range of this species.	Consistent.
Amphibians						
California tiger salamander <i>Ambystoma californiense</i>	FT/ST	Grasslands; requires nearby ponds and vernal pools for breeding and small mammal burrows in adjacent uplands.	No	None	No habitat on site. Outside of species known range.	Consistent.

Table B: Special-Status Wildlife Species in the Project Vicinity

Species	Status* (F/S)	General Habitat Description	Suitable Habitat Present on Site	Potential for Occurrence	Rational	Consistency with DEIR
Western spadefoot <i>Spea hammondi</i>	FPT/SSC	Open areas with sandy or gravelly soils within mixed woodland, grassland, coastal sage scrub, chaparral, sandy washes, floodplains, and playas. Rain pools without predators necessary for breeding.	No	None	No typical habitat on site. Outside of species known range in the Central Valley.	Consistent.
Foothill yellow-legged frog – South Sierra DPS <i>Rana boylei</i>	FE/SE	Cobble bottomed streams, creeks, and rivers.	Yes	Low	Suitable habitat present. Predators and competitors occur in suitable habitat and likely preclude presence. No eggs, tadpoles, or adults found during 2020 survey of perennial streams on site.	Consistent.

Table B: Special-Status Wildlife Species in the Project Vicinity

Species	Status* (F/S)	General Habitat Description	Suitable Habitat Present on Site	Potential for Occurrence	Rational	Consistency with DEIR
California red-legged frog <i>Rana draytonii</i>	FT/SSC	Freshwater marshes, streams, ponds, and other semi-permanent water sources. Suitable breeding ponds and pools usually have a minimum depth of 20 inches and must contain water during the entire development period for eggs and tadpoles (typically March through August).	Yes	Low	Species mostly extirpated from area. Predators and competitors occur in suitable habitat and likely preclude presence. No eggs, tadpoles, or adults found during 2020 survey of perennial streams on site.	Consistent.
Reptiles						
Northwestern pond turtle <i>Actinemys marmorata</i>	FPT/SSC	Ponds, lakes, rivers, streams, creeks, marshes, and irrigation ditches with abundant vegetation in woodlands, forests, and grasslands.	Yes	Present	Species observed on site.	Consistent; DEIR concluded high potential.
Blainville's horned lizard <i>Phrynosoma blainvillei</i>	--/SSC	Open grasslands, chaparral, and woodlands with loose or sandy soils.	Yes	Present	Signs of species observed in chaparral habitat on site.	Consistent; DEIR concluded high potential.

Table B: Special-Status Wildlife Species in the Project Vicinity

Species	Status* (F/S)	General Habitat Description	Suitable Habitat Present on Site	Potential for Occurrence	Rational	Consistency with DEIR
Giant garter snake <i>Thamnophis gigas</i>	FT/ST	Prefers freshwater marsh and low gradient streams. Has adapted to drainage canals and slow-flowing irrigation ditches. Primarily within the Sacramento Valley.	No	None	No suitable habitat on the project site and outside of the species' range. Only CNDDB occurrence in the vicinity is from the Cosumnes River.	Consistent.
Birds						
Yellow-billed cuckoo <i>Coccyzus americanus</i>	FT/SE	Extensive, deciduous riparian thickets or forests with dense understory along slow-moving watercourses, backwaters, or seeps. Willows are dominant component of vegetation. May use orchards near watercourses.	No	None	Species is typically found in dense riparian along slow-moving rivers. Site is outside of the current known range. Populations in California are now thought to be restricted to the Sacramento River Valley, South Fork of the Kern River Valley, and the Colorado River Valley.	This species did not appear in the 2014 BRR or in the DEIR because its nesting range is outside of the nine-quadrant search area. This species has a very limited range and is only known to occur in a limited number of intact riparian habitats. It is included here at the request of a commenter, but there is no suitable habitat for this species on site.
California black rail <i>Laterallus jamaicensis coturniculus</i>	--/ST	Typically tidal marshes adjacent to San Francisco Bay and outer coast, but small populations known from freshwater marshes in Sierra Nevada foothills.	No	None	No suitable freshwater marsh habitat on site.	Consistent.

Table B: Special-Status Wildlife Species in the Project Vicinity

Species	Status* (F/S)	General Habitat Description	Suitable Habitat Present on Site	Potential for Occurrence	Rational	Consistency with DEIR
White-tailed kite (nesting) <i>Elanus leucurus</i>	--/FP	Grassland and savanna for foraging. Large trees for roosting and nesting.	Yes	High	Suitable habitat occurs on site. Site is near eastern extent of species range.	Consistent.
Golden eagle <i>Aquila chrysaetos</i>	--/FP	Forests, canyons, shrub lands, grasslands, and oak woodlands. Large trees or cliffs for nesting. Open grasslands for foraging.	Yes	Moderate	Nesting and foraging habitat is present on site. No nests observed during 2012 surveys.	Consistent.
Northern harrier (nesting) <i>Circus hudsonius</i>	--/SSC	Nests on ground in dense grass.	No	None	No nesting habitat on site. Site outside of known nesting range.	This species was evaluated in the 2014 BRR but did not appear in the DEIR, likely because the site does not have suitable nesting habitat and is outside of the known nesting range for this species. It did not appear in the nine-quadrant search area. It was included in a public comment letter, but this species is not expected to be impacted by the proposed project.
Bald eagle <i>Haliaeetus leucocephalus</i>	--/SE	Nests in large trees adjacent to large lakes, reservoirs, or rivers.	No	None	The site is not located near a large water body.	Consistent.

Table B: Special-Status Wildlife Species in the Project Vicinity

Species	Status* (F/S)	General Habitat Description	Suitable Habitat Present on Site	Potential for Occurrence	Rational	Consistency with DEIR
Swainson's hawk (nesting) <i>Buteo swainsonii</i>	--/ST	Nests in trees peripheral to riparian systems or in lone trees in agricultural fields or along roadsides when adjacent to suitable foraging habitat such as grasslands or agricultural fields, particularly alfalfa.	Yes	Low	Outside known nesting range.	Consistent.
Burrowing owl <i>Athene cunicularia</i>	--/SSC	Grasslands, deserts, and scrublands characterized by low-growing vegetation and suitable burrows.	Yes	Low	Marginal habitat on site. Outside known nesting range.	Consistent. DEIR says moderate potential for occurrence. LSA believes that the likelihood of occurrence is low given the lack of extensive grasslands on site and the fact that the site is outside of the species known nesting range. The current range extends only to the western edge of El Dorado County, in Central Valley grasslands. In the unlikely event the species is present, Mitigation Measures BIO-1b, BIO-11a, BIO-11b would identify any burrowing owls or nests and include a 300-foot buffer if a nest site exists.

Table B: Special-Status Wildlife Species in the Project Vicinity

Species	Status* (F/S)	General Habitat Description	Suitable Habitat Present on Site	Potential for Occurrence	Rational	Consistency with DEIR
Long-eared owl (nesting) <i>Asio otus</i>	--/SSC	Roosts in dense vegetation and forages in open grasslands or shrublands or open coniferous or deciduous woodlands. Nests in abandoned stick nests or in cavities in trees and cliffs.	Yes	Low	Suitable habitat present on site and within species range. Rare breeder in the Sierra Nevada foothills.	This species did not appear in the 2014 BRR or the DEIR. It is included here at the request of a commenter. There are no CNDDDB records for the nine-quadrant search area. The nearest record is from the Emerald Bay quadrant at the south end of Lake Tahoe in El Dorado County. It is unlikely to occur on site and was not seen during reconnaissance-level surveys of the site. However, the species range does include the site and there is a small chance it could occur. In the unlikely event the species is present, Mitigation Measures BIO-1b, BIO-11a, BIO-11b would identify any long-eared owls or nests and include a 300-foot buffer if a nest site exists.
Loggerhead shrike <i>Lanius ludovicianus</i>	--/SSC	Nests in shrubs and small trees in grasslands.	Yes	Moderate	Suitable habitat on site or in offsite areas.	Consistent,
Bank swallow (nesting) <i>Riparia riparia</i>	--/ST	Nests in along streams with steep banks and sandy soils for excavating cavities.	No	None	No suitable nesting habitat on site or in offsite areas.	Consistent.

Table B: Special-Status Wildlife Species in the Project Vicinity

Species	Status* (F/S)	General Habitat Description	Suitable Habitat Present on Site	Potential for Occurrence	Rational	Consistency with DEIR
Purple martin (nesting) <i>Progne subis</i>	--/SSC	Nests in cavities in trees, utility poles, buildings, bridges, cliffs. Low canopy cover at or above nest height with room for aerial foraging. Often near water where insect prey is abundant.	Yes	Low	Suitable habitat present on site and within species range. Nests in scattered locations in the Sierra Nevada.	This species did not appear in the 2014 BRR or the DEIR. It is included here at the request of a commenter. There are no CNDDDB records for the nine-quadrant search area. The nearest record is from the Rocklin and Roseville quadrants west of Folsom Lake in Placer County. It is unlikely to occur on site and was not seen during reconnaissance-level surveys of the site. However, the species range does include the site and there is a small chance it could occur. In the unlikely event the species is present, Mitigation Measures BIO-1b, BIO-11a, BIO-11b would identify any purple martins or nests and include a 50-foot buffer if a nest site exists.
Grasshopper sparrow (nesting) <i>Ammodramus</i> <i>savannarum</i>	--/SSC	Dense grasslands.	Yes	Moderate	Marginal nesting habitat present.	Consistent.

Table B: Special-Status Wildlife Species in the Project Vicinity

Species	Status* (F/S)	General Habitat Description	Suitable Habitat Present on Site	Potential for Occurrence	Rational	Consistency with DEIR
Yellow-breasted chat (nesting) <i>Icteria virens</i>	--/SSC	Riparian areas with a dense shrub layer and open canopy.	Yes	Low	Marginally suitable habitat present on site and within species range. Rare breeder in the Sierra Nevada foothills.	This species did not appear in the 2014 BRR or the DEIR. It is included here at the request of a commenter. There are no CNDDDB records for the nine-quadrant search area. The nearest records are from the Grass Valley and Camp Far West quadrants in Nevada County. It is unlikely to occur on site and was not seen during reconnaissance- level surveys of the site. However, the species range does include the site and there is a small chance it could occur. In the unlikely event the species is present, Mitigation Measures BIO-1b, BIO-11a, BIO-11b would identify any yellow-breasted chats or nests and include a 50-foot buffer if a nest site exists.

Table B: Special-Status Wildlife Species in the Project Vicinity

Species	Status* (F/S)	General Habitat Description	Suitable Habitat Present on Site	Potential for Occurrence	Rational	Consistency with DEIR
Tricolored blackbird (nesting colony) <i>Agelaius tricolor</i>	--/ST	Nesting usually occurs in areas of dense cattails and/or tall bulrushes in creeks or ponds, tall mustard (<i>Brassica</i> sp.), grain stalks in fields, or Himalayan blackberry. Fall foraging occurs largely in agricultural cropland with alfalfa and rice, irrigated pasture, lightly grazed grasslands, and livestock operations.	No	Low	Marginal nesting habitat present in small cattail stands and ruderal vegetation.	Consistent.
Mammals						
Pallid bat <i>Antrozous pallidus</i>	--/SSC	Roosts in caves, tunnels, buildings.	Yes	High	Abandoned buildings provide marginal roosting habitat. No evidence of roosts observed in 2012 survey.	Consistent.

Table B: Special-Status Wildlife Species in the Project Vicinity

Species	Status* (F/S)	General Habitat Description	Suitable Habitat Present on Site	Potential for Occurrence	Rational	Consistency with DEIR
Townsend's big-eared bat <i>Corynorhinus townsendii</i>	--/SSC	Typically roosts in open areas of abandoned buildings, caves, and mines. Forages along wooded habitat edges, often gleaning insects from trees or shrubs.	Yes	Low	Abandoned buildings provide marginal roosting habitat. No evidence of roosts observed in 2012 survey.	Consistent.
Western red bat <i>Lasiurus blossevillii</i>	--/SSC	Roosts in foliage of trees or shrubs; day roosts are commonly in edge habitats adjacent to streams or open fields, orchards, and sometimes in urban areas. There may be an association with intact riparian habitat (particularly willows, cottonwoods, and sycamores).	Yes	High	High based on detections during acoustic bat surveys of similar habitats in the Marble Valley Specific Plan area in 2012 (Wyatt 2013) and presence of suitable roosting and foraging habitat present on site.	Consistent.

Table B: Special-Status Wildlife Species in the Project Vicinity

Species	Status* (F/S)	General Habitat Description	Suitable Habitat Present on Site	Potential for Occurrence	Rational	Consistency with DEIR
Hoary bat <i>Lasurus cinerius</i>	—/ WBWG: Moderate priority	Primarily found in forested habitats; also found in riparian areas and in park and garden settings in urban areas; day roosts in foliage of trees.	Yes	High	High based on detections during acoustic bat surveys of similar habitats in the Marble Valley Specific Plan area in 2012 (Wyatt 2013).	Consistent and included here because the species is included in the DEIR, although LSA generally would not identify bats without protected status and only recognized by the WBWG as a priority species.
Fringed myotis <i>Myotis thysanodes</i>	—/ WBWG: High priority	Drier woodlands like pinyon-juniper, ponderosa pine, and oak preferred, but can occur in coastal coniferous forest and riparian areas. Generally at 1219-2134 m. in elevation. Roosts in caves, mines, buildings, or crevices.	Yes	Low	Low based on elevation, lack of suitable roost sites, and lack of detections during acoustic bat surveys of similar habitats in the Marble Valley Specific Plan area in 2012 (Wyatt 2013).	Consistent and included here because the species is included in the DEIR, although LSA generally would not identify bats without protected status and only recognized by the WBWG as a priority species.

Table B: Special-Status Wildlife Species in the Project Vicinity

Species	Status* (F/S)	General Habitat Description	Suitable Habitat Present on Site	Potential for Occurrence	Rational	Consistency with DEIR
Long-eared myotis <i>Myotis evotis</i>	–/– WBWG: Moderate priority	Occurs in semi-arid shrublands, sage, chaparral and agricultural areas from sea level to 2700 m. but is usually associated with coniferous forests. Roosts in caves, buildings, crevices, under bark, and in snags.	No	None	Lack of suitable roosting habitat and no detections during acoustic bat surveys west of the Marble Valley Specific Plan area in 2012 (Wyatt 2013).	Consistent and included here because the species is included in the DEIR, although LSA generally would not identify bats without protected status and only recognized by the WBWG as a priority species.
Silver-haired bat <i>Lasionycteris noctivagans</i>	–/– WBWG: Moderate priority	Typically roosts in tree cavities, crevices and under loose bark; may also use leaf litter, buildings, mines, and caves; breeds in coastal and montane coniferous forests, valley foothill and montane riparian habitats; may occur in any habitat during migration.	Yes	Moderate	Moderate based on potential detections during acoustic bat surveys west of the Marble Valley Specific Plan area in 2012. Species is primarily known from higher elevations, but there is suitable roosting and foraging habitat at the project site (Wyatt 2013).	Consistent and included here because the species is included in the DEIR, although LSA generally would not identify bats without protected status and only recognized by the WBWG as a priority species.

Table B: Special-Status Wildlife Species in the Project Vicinity

Species	Status* (F/S)	General Habitat Description	Suitable Habitat Present on Site	Potential for Occurrence	Rational	Consistency with DEIR
Western small-footed bat <i>Myotis Myotis ciliolabrum</i>	--/ WBWG: High priority	Particularly associated with coniferous forests and rocky xeric habitats; typically roosts in rock crevices in mines, caves and occasionally in buildings, bridges, and other human structures; forages over a wide variety of habitats.	Yes	High	High based on detections during acoustic bat surveys of similar habitats west of the Marble Valley Specific Plan area in 2012 (Wyatt 2013).	Consistent and included here because the species is included in the DEIR, although LSA generally would not identify bats without protected status and only recognized by the WBWG as a priority species.
Ringtail <i>Bassariscus astutus</i>	--/FP	Most often found in riparian corridors in forested, shrubby habitats. Dens in rock outcrops, hollow trees, and snags at low to middle elevations. Its range includes the North and South Coast Ranges, Sierra Nevada, Cascades, and the mountainous areas of the Mojave Desert.	Yes	Moderate	Suitable habitat present on site and within known range of species.	Consistent.

Table B: Special-Status Wildlife Species in the Project Vicinity

Species	Status* (F/S)	General Habitat Description	Suitable Habitat Present on Site	Potential for Occurrence	Rational	Consistency with DEIR
Pacific fisher <i>Pekania pennanti</i>	--/SSC	Mature conifer and mixed hardwood forests with high canopy closure. Hollow trees and downed logs used for dens and resting sites.	No	None	No suitable habitat on project site. Site is outside of current range and is located between two Distinct Population Segments (Northern California/Southern Oregon and Southern Sierra Nevada). Single CNDDDB record in the project vicinity is a 1916 trapping record from near Placerville.	Consistent.
American badger <i>Taxidea taxus</i>	--/SSC	A variety of open, arid habitats, most commonly associated with grasslands, savannas, mountain meadows, and open areas of desert scrub.	Yes	Low	Grassland habitat present on site.	Consistent.

This page intentionally left blank

POTENTIAL IMPACTS AND MITIGATION MEASURES BASED ON UPDATED INFORMATION

This section analyzes the impacts that could result from the adoption of the proposed Lime Rock Valley Specific Plan on biological resources based on the updated information provided herein and consistent with criteria of significance in the DEIR, which established the thresholds for determining whether a project impact is significant. This section assumes implementation of the mitigation measures adopted in the DEIR that will offset potentially significant impacts as described in the DEIR with recommended additions from LSA provided below.

SPECIAL-STATUS PLANTS

One special-status plant, spicate calycadenia, was not included in the DEIR but could potentially occur on the site. Existing Mitigation Measures BIO-1a, BIO-1b, BIO-1c, BIO-5a, and BIO-5b are sufficient for reducing potential impacts to these species to less than significant.

CROTCH'S BUMBLE BEE

On June 12, 2019, the California Fish and Game Commission voted to accept a petition from the Xerces Society (2018) to consider listing four subspecies of bumble bee, including the Crotch's bumble bee, under CESA. While this was legally challenged, and candidacy or related protections were stayed during the litigation, candidacy was reinstated for all four species of bumble bee on September 30, 2022. As a result of this decision, the Crotch's bumble bee is a State candidate endangered species; as such, it is temporarily afforded the same protection as State-listed threatened or endangered species. The range of Crotch's bumble bee historically extended throughout the southern two-thirds of California, from coastal California east to the Sierra-Cascade crest and south into Mexico, but recent data indicates that this species is absent from the center of its historical range due to extensive agricultural intensification and urbanization (Xerces Society 2018).

In California, Crotch's bumble bees inhabit open grassland and scrub habitats. Suitable bumble bee habitat is based on the availability of flowers on which to forage throughout the duration of the colony (spring through fall), colony nest sites, and overwintering sites for the queens (Xerces Society 2018). Bumble bees are generalist foragers (i.e., they do not depend on any one flower type). Documented food plants for Crotch's bumble bees include *Asclepias* sp., *Chaenactis* sp., *Lupinus* sp., *Medicago* sp., *Phacelia* sp., and *Salvia* sp. (Williams et al. 2014). Crotch's bumble bees, like most bumble bee species, nest underground (e.g., in abandoned rodent holes) (Xerces Society 2009). Very little is known about the hibernacula utilized by Crotch's bumble bee queens in the winter (Xerces Society 2018). However, bumble bees generally overwinter in soft disturbed soil, leaf litter, or abandoned small mammal burrows (Williams et al. 2014; Xerces Society 2018). The flight period for Crotch's bumble bee queens is from late February to late October, peaking in early April and again in July. The flight period for workers and males extends from late March to September (Xerces Society 2018).

There are no documented observations of Crotch's bumble bee within the project site, although no focused surveys have been conducted. Because bumble bees change nests sites each year, focused surveys should be done prior to construction. Annual grassland areas could potentially provide floral resources/foraging habitat and potential nest sites for this species.

The following mitigation measure is recommended to mitigate impacts to Crotch's bumble bee to less than significant:

The applicant shall conduct 2 on-site surveys prior to construction of each phase and during the colony active period for Crotch's bumble bee (April-August) when detection probability is the highest and floral resources are in bloom. The surveys shall be spaced 2-4 weeks apart to ensure that they cover a range of dates and account for variability in resource use by the candidate species and floral resource phenology within the site. Survey methods and best practices shall follow CDFW guidelines as outlined in Survey Considerations for California Endangered Species Act (CESA) Candidate Bumble Bee Species (CDFW 2023).

If Crotch's bumble bees are observed within the development area, develop a plan to protect Crotch's bumble bee nests and individuals in consultation with CDFW. The plan must include, but not be limited to, the following measures:

- Specifications for construction timing and sequencing requirements (e.g., avoidance of raking, mowing, tilling, or other ground disturbance until late March to protect overwintering queens);
- A requirement for a preconstruction survey to be conducted prior to the start of ground disturbing activities to identify active nests;
- Establishment of appropriate no-disturbance buffers for nest sites determined by a qualified biologist as adequate to avoid any disturbance to the nest site or an accidental take and construction monitoring by a qualified biologist to ensure compliance;
- Restrictions associated with construction practices, equipment, or materials that may harm bumble bees as determined by a qualified biologist (e.g., avoidance of pesticides/herbicides, best management practices to minimize the spread of invasive plant species);
- Provisions to avoid Crotch's bumble bees if observed away from a nest during project activities (i.e., ceasing of project activities until the animal has left the work area of its own volition); and
- Prescription of an appropriate restoration seed mix identified by a qualified biologist that is targeted for the Crotch's bumble bee and the Sierra Nevada foothills, including native plant species known to be visited by native bumble bee species and containing a mix of flowering plant species with continual floral availability through the entire active season of the Crotch's bumble bee (March to October). The seed mix should be applied to temporarily disturbed areas within annual grasslands and oak savanna in the project area.

SPECIAL-STATUS BIRDS

Special-status birds that were not included in the DEIR but could potentially occur on the site are long-eared owl, purple martin and yellow-breasted chat. These species breed in scattered locations in the Sierra Nevada foothills and none were observed during biological resource surveys. However, large snags or trees with cavities provide potential nesting habitat for purple martins and dense vegetation in riparian areas provides potential nesting habitat for long-eared owls and yellow-breasted chats. Existing Mitigation Measures BIO-1b, BIO-11a, and BIO-11b are sufficient for reducing potential impacts to these species to less than significant.

GENERAL WILDLIFE PROTECTION MEASURES

Wildlife Movement

Road crossings over perennial and intermittent streams could impact wildlife movement along riparian corridors if not designed specifically to maintain the ability of wildlife to move up and downstream through riparian areas. The proposed mitigation measure below would reduce these potential impacts to less than significant:

- Design and install bridges or open bottom arch culverts to clear span perennial stream channels (Deer Creek and its perennial tributary), with 5 feet vertical clearance from the Ordinary High Water Mark (OHWM). Design and install oversized culverts for road crossings over intermittent stream channels with 3 feet vertical clearance from the OHWM.

Erosion Control

Plastic line or mesh used in erosion control material such as straw wattles can entrap wildlife. The use of monofilament plastic is precluded in DEIR Mitigation Measure BIO-7. Since BIO-7 is tailored for California red-legged frog, LSA recommends that the following bullet be added to BIO-3a:

- No monofilament plastic mesh or line shall be used for erosion control.

This page intentionally left blank

REFERENCES

- Abrams, L. 1951 and 1980. *Illustrated Flora of the Pacific States, Washington, Oregon, and California*. Stanford University Press. Volume III, p. 122-123.
- Baldwin, B.G., D.H. Goldman, D.J. Keil, R. Patterson, and T.J. Rosatti, eds., 2012. *The Jepson Manual: Vascular Plants of California*, Second Edition. University of California Press, Berkeley.
- Beedy, E.C. and Hamilton, W.J., III. 1999. Tricolored blackbird (*Agelaius tricolor*), in *The Birds of North America* (A. Poole and F. Gill, ed), no.423. Birds N. Am., Philadelphia, Pennsylvania.
- Bradley, R.D., L.K. Ammerman, R.J. Baker, L.C. Bradley, J.A. Cook, R.C. Dowler, C. Jones, D.J. Schmidly, F.B. Stangl, Jr., R.A. Van Den Bussche, and B. Würsig. 2014. Revised Checklist of North American Mammals North of Mexico, 2014. Museum of Texas Tech University Occasional Papers No. 327.
- California Department of Fish and Wildlife (CDFW). 2023. Survey Considerations for California Endangered Species Act (CESA) Candidate Bumble Bee Species. Sacramento, CA. Website: <https://wildlife.ca.gov/Conservation/Survey-Protocols#377281281-invertebrates>, accessed August 29, 2024.
- _____. 2024. California Natural Diversity Database (CNDDB), Commercial Version dated August 6, 2024. Biogeographic Data Branch, Sacramento.
- California Native Plant Society (CNPS). 2024. Rare Plant Inventory (online edition, v9.5). Website: <https://rareplants.cnps.org>, accessed August 28, 2024.
- Chesser, R.T., S.M. Billerman, K.J. Burns, C. Cicero, J.L. Dunn, B.E. Hernández-Baños, R.A. Jiménez, Oscar Johnson, A.W. Kratter, N.A. Mason, P.C. Rasmussen, and J.V. Remsen, Jr. 2024. Checklist of North American Birds (online). American Ornithological Society. Available online at: <https://checklist.americanornithology.org/taxa/>.
- Crother, B.I., ed., 2017. Scientific and standard English names of amphibians and reptiles of North America north of Mexico, with comments regarding confidence in our understanding. Society for the Study of Amphibians and Reptiles (SSAR) Herpetological Circular No. 43.
- Eriksen, C. and D. Belk. 1999. *Fairy Shrimp of California's Puddles, Pools, and Playas*. Mad River Press, Inc., Eureka, CA. 196 pp.
- Halstead, J. A. and J. A. Oldham. 2000. New Distribution Records for the Valley Elderberry Longhorn Beetle *Desmocercus californicus dimorphus*. *Pan Pacific Entomologist* Vol 76 Number 1, 74-76 pp.
- Hayes, Marc. P and Mark R. Jennings. 1988. Habitat Correlates of Distribution of the California Red-Legged Frog (*Rana aurora draytonii*) and the Foothill Yellow-Legged Frog (*Rana boylei*): Implications for Management. Pages 144-158 In: R. Sarzo, K. E. Severson, and D. R. Patton

- (technical coordinators). Proceedings of the Symposium on the Management of Amphibians, Reptiles, and Small Mammals in North America. U. S. D. A. Forest Service General Technical Report RM-166.
- Holland, R.F., 1986. Preliminary Descriptions of the Terrestrial Natural Communities of California. Unpublished report for the California Department of Fish and Game.
- Jennings, M.R. and M.P. Hayes. 1994. *Amphibian and Reptile Species of Special Concern in California*. The California Dept. of Fish and Game, Inland Fisheries Division, Rancho Cordova, CA. Contract No. 8023. 225 pp.
- Jepson Herbarium. 2024. Jepson eFlora. University of California, Berkeley. Website: <https://ucjeps.berkeley.edu/eflora>, accessed August 29, 2024.
- Kjeldsen Biological Consulting. 2009. Biological Resource Survey, El Dorado Limestone Mine G3 Property, El Dorado County, CA. Prepared for G3 Enterprises, Modesto, CA.
- LSA Associates, Inc. 2013. Jurisdictional Delineation of the Lime Rock Valley Project Site. Prepared for G3 Enterprises, Modesto, CA.
- Munz, P. A., and D. D. Keck. 1959 and 1973. A California Flora and supplement, University of California Press, Berkeley, CA.
- Sawyer, J.O., T. Keeler-Wolf, and J.M. Evens, 2009. A Manual of California Vegetation. Second edition. California Native Plant Society Press, Sacramento.
- Shuford, W. D. and T. G. Gardali (ed). 2008. California Bird Species of Special Concern. Studies of Western Birds 1. Western Field Ornithologists, Camarillo, CA and California Department of Fish and Game, Sacramento.
- United States Department of Agriculture (USDA). 2012. Natural Resources Conservation Service Web Soil Survey. Website: <http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx> [Accessed July 9, 2012].
- United States Fish and Wildlife Service (USFWS). 1984. Valley elderberry longhorn beetle recovery plan. U.S. Fish and Wildlife Service, Portland, Oregon. 62 pp.
- _____. 1999. Conservation Guidelines for the Valley elderberry longhorn beetle. U.S. Fish and Wildlife Service, Portland, Oregon. 13 pp. Dated July 9, 1999.
- _____. 2002. Recovery Plan for Gabbro Soil Plants of the Central Sierra Nevada Foothills. Portland, Oregon. Xiii + 220 pp.
- _____. 2010. Endangered and Threatened Wildlife and Plants; Revised Designation of Critical Habitat for the California Red-legged Frog: Final Rule. Federal Register Vol.75, No. 51, 12816-14959 pp.

-
- _____. 2020. U.S. Fish and Wildlife Service Finds Endangered Species Act Listing for Monarch Butterfly Warranted but Precluded. December 15. Website: <https://www.fws.gov/press-release/2020-12/endangered-species-act-listing-monarch-butterfly-warranted-precluded>.
- _____. 2024. Information for Planning and Consultation. Website: <https://ipac.ecosphere.fws.gov>, accessed August 28, 2024.
- Williams, Paul, Robbin Thorp, Leif Richardson, and Sheila Colla. 2014. Bumble Bees of North America: An Identification Guide (Princeton Field Guides).
- Wyatt, David T. 2013. Bat Study Report for the Village of Marble Valley Specific Plan El Dorado County, California. West Sacramento, CA. Prepared for ECORP Consulting, Inc., Rocklin, California. March.
- Yosef, R. 1996. Loggerhead Shrike (*Lanius ludovicianus*). In A. Poole (ed.), *The Birds of North America*
- Xerces Society. 2009. Yolo Natural Heritage Program (HCP/NCCP) Pollinator Conservation Strategy. Prepared by The Xerces Society for Invertebrate Conservation. November.
- _____. 2018. A Petition to the State of California Fish and Game Commission to List the Crotch bumble bee (*Bombus Crotchii*), Franklin's bumble bee (*Bombus franklini*), Suckley cuckoo bumble bee (*Bombus suckleyi*), and western bumble bee (*Bombus occidentalis occidentalis*) as Endangered under the California Endangered Species Act. Submitted by the Xerces Society for Invertebrate Conservation, Defenders of Wildlife, and Center for Food Safety. October.

This page intentionally left blank

APPENDIX A

PLANT SPECIES OBSERVED AT THE LIME ROCK VALLEY SPECIFIC PLAN SITE IN 2012 (JUNE 21-22, SEPTEMBER 27-28), 2013 (MARCH 4-5, MAY 13), AND 2020 (APRIL 18-19, JUNE 11-12)

FAMILY/Species Name - scientific	FAMILY/ Common Name	Native
FERNS and FERN ALLIES		
POLYPODIACEAE	POLYPODY FAMILY	
<i>Polypodium californicum</i>	California polypody	yes
PTERIDACEAE	BRAKE FAMILY	
<i>Pentagramma triangularis</i>	Gold-back fern	yes
GYMNOSPERMS		
CUPRESSACEAE	CYPRESS FAMILY	
<i>Calocedrus decurrens</i>	Incense cedar	yes
PINACEAE	PINE FAMILY	
<i>Pinus sabiniana</i>	Foothill pine	yes
<i>Pinus attenuata</i>	Knobcone pine	yes
MAGNOLIIDS		
LAURACEAE	LAUREL FAMILY	
<i>Umbellularia californica</i>	California laurel	yes
MAGNOLIACEAE	MAGNOLIA	
<i>Magnolia grandiflora</i>	Southern magnolia	no
EUDICOTS		
ADOXACEAE	MUSKROOT	
<i>Sambucus nigra subs. canadensis</i>	Blue elderberry	yes
ANACARDIACEAE	SUMAC/CASHEW	
<i>Toxicodendron diversilobum</i>	Poison oak	yes
<i>Schinus molle</i>	California pepper tree	no
APIACEAE	CARROT	
<i>Perideridia</i> sp.	Yampa	yes

FAMILY/Species Name - scientific	FAMILY/ Common Name	Native
<i>Scandix pecten-veneris</i>	Shepherd's needle	no
<i>Sanicula bipinnatifida</i>	Purple sanicle	yes
<i>Sanicula crassicaulis</i>	Wood sanicle	yes
<i>Tauschia hartwegii</i>	Tauschia	yes
<i>Torilis arvensis</i>	Torilis	no
APOCYNACEAE	DOGBANE FAMILY	
<i>Vinca major</i>	Periwinkle	no
ASTERACEAE	SUNFLOWER FAMILY	
<i>Achillea millefolium</i>	Yarrow	yes
<i>Agoseris</i> sp.	Dandelion	yes
<i>Artemisia douglasiana</i>	Mugwort	yes
<i>Baccharis pilularis</i>	Coyote brush	yes
<i>Baccharis salicifolia</i>	Mule's fat	yes
<i>Carduus pycnocephalus</i>	Italian thistle	no
<i>Centaurea melitensis</i>	Tocalote	no
<i>Centaurea solstitialis</i>	Yellow star-thistle	no
<i>Centaurea stoebe</i> subsp. <i>micranthos</i>	Spotted knapweed	no
<i>Cichorium intybus</i>	Chicory	no
<i>Cirsium vulgare</i>	Bull thistle	no
<i>Dittrichia graveolens</i>	Stinkwort	no
<i>Ericameria arborescens</i>	Golden fleece	yes
<i>Erigeron canadensis</i>	Horseweed	yes
<i>Grindelia camporum</i> (var. <i>camporum</i>)	Great Valley gumplant	yes
<i>Heterotheca grandiflora</i>	Telegraph weed	yes
<i>Holocarpha virgata</i>	Pitgland traweed	yes
<i>Hypochaeris glabra</i>	Smooth cat's ear	no
<i>Lactuca serriola</i>	Prickly lettuce	no
<i>Leontodon saxatilis</i>	Hawkbit	no
<i>Logfia gallica</i>	Narrow-leaves cottonrose	no
<i>Packera layneae</i>	Layne's ragwort	yes
<i>Pseudognaphalium californicum</i>	California cudweed	yes
<i>Pseudognaphalium canescens</i>	Wright's cudweed	yes
<i>Psilocarphus</i> sp.	Woolyheads	yes
<i>Senecio vulgaris</i>	Common groundsel	no
<i>Silybum marianum</i>	Milk thistle	no
<i>Tragopogon porrifolius</i>	Salsify	no
<i>Wyethia glabra</i>	Shining mule ears	yes
<i>Xanthium strumarium</i>	Smooth cocklebur	yes
BETULACEAE	BIRCH FAMILY	

FAMILY/Species Name - scientific	FAMILY/ Common Name	Native
<i>Alnus rhombifolia</i>	White alder	yes
BORAGINACEAE	BORAGE FAMILY	
<i>Amsinckia menziesii</i>	Menzies' fiddleneck	yes
<i>Eriodictyon californicum</i>	California yerba santa	yes
<i>Nemophila</i> sp.	Nemophila	yes
<i>Plagiobothrys nothofulvus</i>	Rusty popcornflower	yes
<i>Plagiobothrys</i> sp.	Popcornflower	yes
BRASSICACEAE	MUSTARD FAMILY	
<i>Brassica nigra</i>	Black mustard	no
<i>Capsella bursa-pastoris</i>	Shepherd's purse	no
<i>Draba verna</i>	Vernal whitlow grass	
<i>Hirschfeldia incana</i>	Shortpod mustard	no
<i>Nasturtium officinale</i>	Small-leaved watercress	yes
<i>Raphanus sativus</i>	Wild radish	no
CAPRIFOLIACEAE	HONEYSUCKLE FAMILY	
<i>Lonicera hispidula</i>	Honeysuckle	yes
<i>Symphoricarpos albus</i> var. <i>laevigatus</i>	Snowberry	yes
CARYOPHYLLACEAE	PINK FAMILY	
<i>Cerastium arvense</i>	Field chickweed	yes
<i>Cerastium glomeratum</i>	Mouse-eared chickweed	no
CISTACEAE		
<i>Crocanthemum suffrutescens</i> (synonym = <i>Helianthemum suffrutescens</i>)	Bisbee Peak rush-rose	yes
CRASSULACEAE	STONECROP	
<i>Crassula aquatica</i>	Water pygmyweed	yes
<i>Crassula connata</i>	Sand pygmyweed	yes
ERICACEAE	HEATH FAMILY	
<i>Arbutus unedo</i>	Strawberry tree	no
<i>Arctostaphylos manzanita</i> subsp. <i>manzanita</i>		yes
<i>Arctostaphylos patula</i>		yes
<i>Arctostaphylos viscida</i> subsp. <i>viscida</i>		yes
EUPHORBIACEAE	SPURGE FAMILY	
<i>Croton setigerus</i>	Doveweed	yes

FAMILY/Species Name - scientific	FAMILY/ Common Name	Native
<i>Euphorbia</i> sp.	Euphorbia	no
FABACEAE	LEGUME FAMILY	
<i>Acmispon parviflorus</i>	Hill lotus	yes
<i>Acmispon glaber</i>	Deerweed	yes
<i>Lotus corniculatus</i>	Bird's-foot trefoil	no
<i>Lupinus bicolor</i>	Miniature lupine	yes
<i>Medicago arabica</i>	Spotted medic	no
<i>Medicago polymorpha</i>	Bur-clover	no
<i>Robinia pseudoacacia</i>	Black locust	
<i>Trifolium hirtum</i>	Rose clover	no
<i>Vicia sativa</i>	Spring vetch	no
<i>Vicia villosa</i>	Hairy vetch	no
FAGACEAE	OAK FAMILY	
<i>Quercus agrifolia</i>	Coast live oak	yes
<i>Quercus berberidifolia</i>	Scrub oak	yes
<i>Quercus chrysolepis</i>	Canyon live oak	yes
<i>Quercus douglasii</i>	Blue oak	yes
<i>Quercus kelloggii</i>	California black oak	yes
<i>Quercus lobata</i>	Valley oak	yes
<i>Quercus suber</i>	Cork oak	no
GENTIANACEAE		
<i>Zeltnera muehlenbergii</i>	Muehlenberg's centaury	yes
GERANIACEAE	GERANIUM FAMILY	
<i>Erodium botrys</i>	Long beaked filaree	no
<i>Erodium cicutarium</i>	Redstem filaree	no
<i>Erodium moschatum</i>	White-stem filaree	no
<i>Geranium dissectum</i>	Cutleaf geranium	no
<i>Geranium molle</i>	Woodland geranium	no
HYPERICACEAE		
<i>Hypericum concinnum</i>	Goldwire	yes
<i>Hypericum perforatum</i>	Klamath weed	no
LAMIACEAE	MINT FAMILY	
<i>Lamium amplexicaule</i>	Henbit deadnettle	no
<i>Lepechinia calycina</i>	White pitcher sage	yes
<i>Marrubium vulgare</i>	Horehound	no
<i>Mentha pulegium</i>	Pennyroyal	no

FAMILY/Species Name - scientific	FAMILY/ Common Name	Native
<i>Monardella</i> sp.	Coyote mint	yes
<i>Salvia sonomensis</i>	Creeping sage	yes
<i>Scutellaria tuberosa</i>	Skullcap	yes
<i>Trichostema</i> sp.	Bluecurls	yes
LINACEAE	FLAX	
<i>Linum usitatissimum</i>	Common flax	no
LYTHRACEAE	LOOSETRIFE	
<i>Lythrum hyssopifolia</i>	Hyssopp loosertrife	no
MALVACEAE	MALLOW FAMILY	
<i>Malva parviflora</i>	Cheeses	no
<i>Sidalcea</i> sp.	Checkerbloom	yes
MONTIACEAE	PURSLANE FAMILY	
<i>Claytonia perfoliata</i>	Miner's lettuce	yes
MORACEAE		
<i>Ficus carica</i>	Edible fig	no
MYRTACEAE	MYRTLE FAMILY	
<i>Eucalyptus globulus</i>	Blue gum eucalyptus	no
<i>Eucalyptus polyanthemos</i>	Silver dollar gum	no
OLEACEAE	OLIVE FAMILY	
<i>Ligustrum lucidum</i>	Glossy privet	no
<i>Olea europaea</i>	Cultivated olive	no
ONAGRACEAE	EVENING PRIMROSE FAMILY	
<i>Ludwigia</i> sp.	Water primrose	no
OXALIDACEAE	OXALIS FAMILY	
<i>Oxalis pes-caprae</i>	Bermuda buttercup	no
OROBANCHACEAE		
<i>Orobanche bulbosa</i>	Chaparral broomrape	yes
PHRYMACEAE		
<i>Mimulus aurantiacus</i>	Bush monkeyflower	yes
<i>Mimulus guttatus</i>	Monkeyflower	yes
<i>Mimulus viscidus</i>	Viscid monkeyflower	yes

FAMILY/Species Name - scientific	FAMILY/ Common Name	Native
PLANTAGINACEAE	PLANTIAN FAMILY	
<i>Plantago coronopus</i>	Buckhorn plantain	no
<i>Plantago lanceolata</i>	English plantain	no
<i>Veronica persica</i>	Bird's eyes speedwell	no
POLYGALACEAE	MILKWORT FAMILY	
<i>Polygala cornuta</i>	Sierra milkwort	yes
<i>Rumex crispus</i>	Curly dock	no
POLYGONACEAE	BUCKWHEAT FAMILY	
<i>Chorizanthe polygonoides</i>	Knotweed spineflower	yes
<i>Rumex conglomeratus</i>	Green dock	no
<i>Rumex crispus</i>	Curly dock	no
RANUNCULACEAE	BUTTERCUP FAMILY	
<i>Ranunculus muricatus</i>		no
<i>Rhamnus alaternus</i>	Italian buckthorn	no
<i>Thalictrum fendleri</i>	Meadow rue	yes
RHAMNACEAE	BUCKTHORN FAMILY	
<i>Ceanothus cuneatus</i>	Buckbrush	yes
<i>Rhamnus ilicifolia</i>	Hollyleaf redberry	yes
ROSACEAE	ROSE FAMILY	
<i>Adenostoma fasciculatum</i>	Chamise	yes
<i>Aphanes occidentalis</i>	Lady's mantle	yes
<i>Heteromeles arbutiflora</i>	Toyon	yes
<i>Horkelia californica</i>	California horkelia	yes
<i>Prunus cerasifera</i>	Wild plum	no
<i>Pyracantha angustifolia</i>	Firethorn	no
<i>Rubus armeniacus</i>	Himalayan blackberry	no
RUBIACEAE	MADDER FAMILY	
<i>Galium aparine</i>	Goose grass	yes
<i>Galium californicum</i>	California bedstraw	yes
<i>Galium californicum ssp. californicum</i>	California bedstraw	yes
<i>Galium murale</i>	Tiny bedstraw	no
<i>Galium parisiense</i>	Wall bedatraw	no
<i>Galium porrigens</i>	Climbing bedstraw	yes
SAXIFRAGACEAE	SAXIFRAGE FAMILY	

FAMILY/Species Name - scientific	FAMILY/ Common Name	Native
<i>Micranthes californica</i>	Greene's saxifrage	yes
SALICACEAE	WILLOW FAMILY	
<i>Salix exigua</i>	Sandbar willow	yes
<i>Salix laevigata</i>	Red willow	yes
<i>Salix lasiolepis</i>	Arroyo willow	yes
SAPINDACEAE	BUCKEYE FAMILY	
<i>Acer negundo</i>	Boxelder	
<i>Aesculus californica</i>	California buckeye	yes
SCROPHULARIACEAE	FIGWORT FAMILY	
<i>Scrophularia californica</i>	Bee plant	yes
<i>Verbascum blattaria</i>	Moth mullien	no
<i>Verbascum thapsus</i>	Wooly mullien	no
VIOLACEAE		
<i>Viola sp.</i>	Violet	yes
SOLANACEAE		
<i>Nicotiana glauca</i>	Tree tobacco	no
VISCACEAE		
<i>Arceuthobium campylopodum</i>	Golden mistletoe	yes
<i>Phoradendron villosum</i>	Pacific mistletoe	yes
VITACEAE		
<i>Vitis californica</i>	California grape	yes
MONOCOTS		
AGAVACEAE		
<i>Chlorogalum pomeridianum</i>	Soap plant	yes
ALISMATACEAE	WATER PLANTAIN	
<i>Alisma triviale</i>	Western water-plantain	yes
AMARYLLIDACEAE		
<i>Narcissus pseudo-narcissus</i>	Daffodil	no
CYPERACEAE	SEDGE FAMILY	
<i>Eleocharis sp.</i>	Spike rush	yes
<i>Cyperus Eragrostis</i>	Tall flatsedge	yes

FAMILY/Species Name - scientific	FAMILY/ Common Name	Native
HYDROCHARITACEAE	WATERWEED FAMILY	
<i>Najas guadalupensis</i>	Common water nymph	yes
IRIDACEAE	IRIS FAMILY	
<i>Sisyrinchium bellum</i>	Blue-eyed grass	yes
JUNCACEAE	RUSH FAMILY	
<i>Juncus xiphioides</i>	Iris leaf rush	yes
<i>Luzula comosa</i>	Wood rush	yes
LILIACEAE	LILY FAMILY	
<i>Erythronium multiscapoideum</i>	Sierra fawn lily	yes
POACEAE	GRASS FAMILY	
<i>Agoseris sp.</i>	Dandelion	yes
<i>Aira caryophyllea</i>	Silver hairgrass	no
<i>Arundo donax</i>	Giant reed	no invasive species
<i>Avena barbata</i>	Slender wild oat	no
<i>Bromus diandrus</i>	Ripgut brome	no
<i>Bromus hordeaceus</i>	Soft cheatgrass	no
<i>Bromus madritensis</i>	Foxtail cress	no
<i>Cortaderia jubata</i>	Pampass grass	no
<i>Cynodon dactylon</i>	Bermuda Grass	no
<i>Cynosurus echinatus</i>	Dogtail grass	no
<i>Dactylis glomerata</i>	Orchard grass	no
<i>Elymus caput-medusae</i>	Medusa head	no
<i>Elymus glaucus</i>	Blue wildrye	yes
<i>Festuca perennis</i>	Italian ryegrass	no
<i>Gastridium phleoides</i>	Nitgrass	no
<i>Hordeum brachyantherum</i>	Meadow barley	yes
<i>Hordeum marinum</i>	Mediterranean barley	no
<i>Phalaris aquatica</i>	Harding grass	no
<i>Polypogon monspeliensis</i>	Rabbit's-foot grass	no
<i>Stipa miliacea</i>	Smilo grass	no

Appendix B

**Cameron Park CSD and El Dorado Hills CSD Parks
and Recreation Facilities Demand Assessment**

March 10, 2025

Cameron Welch, Senior Planner
EL DORADO COUNTY
PLANNING AND BUILDING DEPARTMENT
2850 Fairlane Court
Placerville, CA 95667

RE: CAMERON PARK COMMUNITY SERVICES DISTRICT AND EL DORADO HILLS COMMUNITY SERVICES DISTRICT PARKS AND RECREATION FACILITIES DEMAND ASSESSMENT

Dear Mr. Welch:

Michael Baker International, Inc. is pleased to submit this technical letter report documenting the results of the Cameron Park Community Services District and El Dorado Hills Community Services District parks and recreation facilities demand assessment.

INTRODUCTION

The County of El Dorado is currently processing applications for two specific plan projects in and around the El Dorado Hills and Cameron Park communities south of US Highway 50: the Village of Marble Valley Specific Plan (VMVSP) and the Lime Rock Valley Specific Plan (LRVSP). The VMVSP is within the boundary of the El Dorado Hills Community Services District (EDHCSD), and the LRVSP is adjacent to the vicinity of the EDHCSD and within the vicinity of the Cameron Park Community Services District (CPCSD). Figure 1 shows the boundaries of the two community service districts (CSDs) and the plan areas' locations relative to those boundaries.

This assessment, which evaluates the potential demand on parks and recreation facilities in the CPCSD and EDHCSD resulting from development of the proposed specific plans, was initiated by and is under the direction of the El Dorado County Planning and Building Department. Information and data provided in this document were compiled from numerous publicly available documents, which are listed in the "References" section, along with discussions with County and CSD staff.

BACKGROUND

The proposed VMVSP is in the El Dorado Hills community, immediately south of US Highway 50, east of the US Highway 50 Bass Lake Road interchange, and southwest of the US Highway 50/Cambridge Road interchange. The proposed LRVSP is south of US Highway 50 in the Cameron Park community, a little over 1 mile south of Durock Road, and is bounded by Cameron Estates on the north, Royal Equestrian Estates on the south, and the proposed VMVSP on the west.

The proposed VMVSP would create a mixed-use community consisting of residential, commercial, retail, agricultural, and open space uses. The plan provides for development of up to 3,236 residential units, 475,000 square feet of commercial uses, 55 acres of agricultural uses, 87 acres of public facilities/recreational uses (including 2 public schools and 47 acres of public parkland), and 61 acres of road areas and future right-of-way. In addition, 1,284 acres would be designated as

open space, which would include 466 acres of natural open space land for passive day-use park or private natural open space. The land use plan is shown in Attachment A-1.

Although the VMVSP project site was approved for development in 1998 (Marble Valley Master Plan), the site was not developed. Consequently, there are no developed parks or recreational facilities within the VMVSP area. The VMVSP site is not directly adjacent to any existing parklands or developed recreational facilities. The unimproved El Dorado Trail passes nearby. As identified in the VMVSP, the proposed Village Park sites would consist of 47 acres of public parkland (10.5 acres of this would include Marble Lake) and would also allow for an additional 12 acres of neighborhood parks in the residential neighborhoods.

The proposed LRVSP would create a new residential community consisting of residential, park, and open space uses. The plan provides for the development of up to 800 residential units and an 8-acre Village Park. It also includes 335 acres of open space that encloses the entire extent of a former underground limestone mine in the plan area and setbacks from the mine to address potential mine collapse hazards. The land use plan is shown in Attachment A-2. There are no developed recreational resources in the LRVSP area, nor is the specific plan area directly adjacent to any existing parklands or developed recreational facilities. The unimproved El Dorado Trail forms a portion of the LRVSP's eastern border.

There are two community service districts that provide park and recreation facilities in the immediate vicinity of the two specific plan areas: the EDHCSD and the CPCSD. Details about facilities in each are provided in "Existing Conditions," below.

As shown in Figure 1, the proposed VMVSP area is within the boundary of the EDHCSD, which would be responsible for the design and maintenance of any park sites dedicated to the EDHCSD by the project. The LRVSP area is not within the boundaries of either the EDHCSD or the CPCSD, but it is adjacent to the EDHCSD. The boundary of the CPCSD is north of the LRVSP area. Details about each district's service area, facilities, population, use (demand), and revenue sources are provided below.

EXISTING CONDITIONS

Cameron Park Community Services District

Service Area and Facilities

The CPCSD is located within the western region of the County of El Dorado and generally encompasses the areas that make up most of the community of Cameron Park, with the majority of the CPCSD boundaries located north of US Highway 50 and a small portion south of US Highway 50. Services and facilities are concentrated around the Cameron Park Drive/Cambridge Road corridor between US Highway 50 and Green Valley Road. The CPCSD is one of many special districts in the area, including the EDHCSD, Cameron Estates CSD, Rescue Fire Protection Department (FPD), and El Dorado County FPD.

As of 2023, the CPCSD's jurisdictional boundary is 4,667 acres or 7.3 square miles. There are two service areas: all services, and all services except fire protection. The area where the CPCSD provides all services is approximately 4,160 acres, or 6.5 square miles, and has a coterminous Sphere of Influence (SOI). The "limited services area" where CPCSD provides all empowered

services except for fire suppression encompasses an additional 232 acres, or 0.4 square miles, and has an SOI that extends to an additional 1,134 acres. The “limited services area” falls within the jurisdiction of one of three other fire service providers (LAFCO 2023: 7).

The CPCSD *Parks and Recreation Master Plan Update*, adopted in May 2014, is the most recent planning document for the district regarding parks and recreation, and guides CPCSD decisions and actions related to the provision of park facilities and recreation programs in the district. The *Parks and Recreation Master Plan Update* presents CPCSD goals and policies related to parks and recreation; the demographic composition of the community, park facilities, and programs; planning standards; community needs; and recommendations on implementation.

The CPCSD *Parks and Recreation Master Plan Update* reported “the vast majority of the residential parcels in the CPCSD have been developed. Only about 554 acres of land zoned for residential use in the CPCSD remains undeveloped. Most of those remaining are scattered individual or small groupings of in-fill parcels zoned for single family homes.” The master plan goes on to note that “the more significant development potential is in the unincorporated areas around the CPCSD, including areas between the CPCSD, El Dorado Hills CSD, and Shingle Springs,” with specific reference to “large planned residential developments, such as Marble Valley and Lime Rock Valley” (CPCSD 2014: 23).

The CPCSD manages a total of approximately 143 acres of parkland, approximately 109 acres of which is developed parkland for recreation use. The 143 acres include five community parks (Cameron Park Community Center, Cameron Park Lake, Christa McAuliffe Park, Rasmussen Park, and Bonanza Park Disc Golf Course); six neighborhood parks (David West Park, Dunbar Park site [undeveloped], Eastwood Park, Gateway Park, Paul J. Ryan Memorial Dog Park [formerly Hacienda Park], and Northview Park); and three natural areas (Knollwood Park Site, Royal Oaks, and Sandpiper Park Site). Only one of the natural areas (Royal Oaks) has improvements; however, as of February 2025, only the walking trail is accessible. The remaining two (Knollwood and Sandpiper sites) are currently used for natural resource preservation. In January 2025, the CPCSD noted that the Dunbar, Gateway, Knollwood, Sandpiper, and Royal Oaks parks/areas are underperforming, and began exploring options to relieve the CPCSD of active responsibility for their maintenance and insurance costs (CPCSD 2025b). As of February 2025, no action has been taken on this issue.

Each category of park in the CPCSD has a designated service ratio (or standard) based on the number of acres required per 1,000 population, as follows: neighborhood (2.0); community (3.0); and open space preserves (5.0). As reported in the 2014 master plan, there is a surplus of community park and open space preserves, but the district is deficient in neighborhood parks by 5.3 acres (CPCSD 2014: 4). By 2023,¹ it would need a total of 43.5 acres of neighborhood parks (i.e., 10.8 acres of additional neighborhood parkland beyond the existing 32.7 acres) to adequately serve its residents (ICF 2024a: 3.13-9). According to the master plan, specific facilities that are needed include more sports courts and fields, a disc golf course (which has since been constructed and is operational), new equipment at existing parks, and master planning for improvements at Dunbar Park site, Sandpiper Park site, and Gateway Park. The master plan goes on to note that as new neighborhood parks are developed in the underserved areas, consideration should be given to including these types of facilities in the new parks (CPCSD 2014:

¹ The master plan assumed a CPCSD population of 21,748 by 2023 (CPCSD 2014: 1).

4). While the master plan noted the need for more sports courts and fields, it did not indicate the deficiency was causing issues at other parks, creating facility maintenance or deterioration issues.

The 2014 master plan identified four locations where the neighborhood parkland deficit could be addressed. One is the Green Valley Road Corridor area (in the vicinity of Gateway Park and Dunbar Park and Sandpiper Park sites), where a new park should be at least 5 acres to allow space for multiple sports fields and courts, children's play area, covered group and individual picnic areas, and walking paths with exercise stations. In the Southwest area (west of Cambridge Drive in the vicinity of the Knollwood Drive area), a neighborhood park could be created by identifying and purchasing suitable acreage or through land dedication during the development review process if a large enough project is proposed. The existing Christa McAuliffe Park is 7.1 acres and could be expanded to the east, which would increase the potential for larger community events and improvements to accommodate an increased level of use. There is also property east and west of David West Park that could provide potential area for expansion (CPCSD 2014: 72-73).

The Cameron Park Community Center has a variety of facilities to accommodate a range of community needs. The facility has a large assembly hall that can hold up to 350 people, a commercial kitchen, a social room for smaller gatherings, a gymnasium with bleacher seating for more than 200 people, a dance room with a full wall mirror, and two classrooms. Facilities are available to rent by any member of the public. There is also an aquatics center featuring rim-flow design and a 10-lane pool. The center also provides several county-wide services, including offering senior nutrition meals and serving as an evacuation center for county residents.

In addition to the park facilities owned and operated by the CPCSD, several other recreational facilities are located in the area for residents' use. The Cameron Park Country Club includes an 18-hole championship golf course, tennis complex, pool, recreation center, and dining room. The campuses for Blue Oak and Green Valley Elementary Schools and Pleasant Grove and Camerado Springs Middle Schools are within the CPCSD. These schools have multiuse rooms, playgrounds, and sports fields that are used outside of school hours for sports leagues, events, and informal play (CPCSD 2014: 28).

Current Parks and Recreation Facilities Use and Funding

Park Use

The CPCSD has not historically tracked the number of visitors to its parks where no fees are charged because there are no attendants at those parks, with the exception of Cameron Park Lake, which charges an entry fee.² Cameron Park Lake offers numerous amenities, including access to the Bonanza Park Disc Golf course, is the largest facility in terms of acreage, and attracts many visitors on an annual basis. The number of visitors to other facilities, such as Rasmussen Park and Christa McAuliffe Park, is both a function of casual use and organized activities (e.g., softball, baseball, and soccer, respectively) for which rental fees are charged. For example, there are over 10 sports

² In early 2024, the staff-attended kiosk where the entry fee was charged became inactive and then was subsequently removed. Installation of an automated gate is in progress, at which time the fee will be collected when it becomes operational.

clubs in the El Dorado Hills and Cameron Park communities that use these sports fields, in addition to club swimming at the Community Center.

In conjunction with the preparation of this assessment, the CPCSD has coordinated with the EDHCSD to develop estimates of park visitors for some of the CPCSD's most-frequented facilities. The estimates for 2024 were generated on a publicly available commercial software artificial intelligence platform (Hornstra 2025). The Placer Labs, Inc. platform (<https://www.placer.ai/>) is proprietary software available via license to the user. The software leverages mobile location data to provide intelligence on a selected location. The tool allows the user to create a unique point of interest, in this case park facilities, in which the software collects and analyzes trip origin and destination data from mobile devices sourced from its partner mobile applications. This mobile location data is aggregated and up-leveled to avoid sharing any individual-level data and ensure privacy. The program generates information such as origin/destination by zip codes and trade area to generate visit data, frequency, and visit trends, among other types of information (Hornstra 2024). Results are summarized in Table 1.

TABLE 1						
CPCSD PARKS AND RECREATION FACILITIES VISITOR ESTIMATES						
Location (Park Type)	Visits (2024)	Visitor Origin (Cameron Park/Shingle Springs)^a	Visitor Origin (Rescue)^a	Visitor Origin (El Dorado Hills)^a	Visitor Origin (Folsom)^a	Visitor Origin (Other Locations)^{a,b}
Cameron Park Lake (Community)	75,000	40.2%	9.8%	6.2%	3.9%	39.9%
Cameron Park Aquatics (Community Center)	20,400	38.6%	6.2%	24.5%	4.8%	25.9%
Christa McAuliffe Park (Community)	47,100	48.6%	3.2%	14.1%	1.8%	32.3%
David West Park (Neighborhood)	7,700	28.2%	8.5%	4.8%	7.0%	51.9%
Rasmussen Park (Community)	45,900	52.5%	9.0%	3.1%	2.3%	33.1%
Source: Compiled from EDHCSD 2025.						
Notes:						
^a number of visits, expressed as percentage, based on zip code of trip origin mobile location data used in the software.						
^b includes the greater Sacramento region, other El Dorado County west slope locations, and other more-distant locations.						

Based on the data generated by the software platform, most of the visits to CPCSD parks included in the analysis, on a percentage basis, originate from the Cameron Park/Rescue area and El Dorado Hills. With respect to the El Dorado Hills component, as shown in Table 1, approximately 25 percent of the visits to Cameron Park Aquatics (Community Center) and 15 percent of the visits to Christa McAuliffe Park are from El Dorado Hills. This is a function of the close proximity of El

Dorado Hills (which is in the EDHCSD), and it also indicates substantial cross-district use. In addition, the data show that non-resident (i.e., trips originating from locations other than Cameron Park/Shingle Springs, including visitors from the greater Sacramento region and beyond), account for a substantial number of visits as well (CPCSD 2025b; EDHCSD 2025).

For example, Cameron Park Lake generates the most visits of all the CPCSD facilities. Historically, approximately 75 percent of the daily visits were from Cameron Park residents (CPCSD 2014: 48). However, as indicated by the data in Table 1, and as noted by the CPCSD, resident use has decreased to approximately 40 percent as of 2024 and non-resident use comprises a greater percentage. Similarly, non-resident visits to the Community Center, Christa McAuliffe Park, and David West Park are greater than resident visits on a percentage basis.

In a letter from the CPCSD to County Planning staff in June 2024, the CPCSD stated that "the CPCSD already serves substantial elements of El Dorado Hills CSD residents for our aquatics, sports programs, and fully developed lake activities. For example, in swim team usage, the CPCSD recently had 250 residents from Cameron Park and 500 from the EDHCSD. We also know that residents from the development between Bass Lake Road and our western border come to Cameron Park for many of our programs." (CPCSD 2024b)

For smaller parks such as dog parks and informal park areas with picnic tables, they represent a smaller percentage of visits, primarily due to size, availability of amenities, and/or location.

The Placer.ai data also provide an indicator of the relationship between the number of visits to a particular site relative to the size of the facility. That is, size may not necessarily be the primary determinant of a park's attractiveness. Unique features or the type of park design are key factors. Fields designed for youth sports have a substantially higher amount of visits, with points of origin from farther distances than other types of parks. Also, youth athletic groups request use at specific parks that best suit their sport and user needs. Examples of this in the CPCSD include Christa McAuliffe Park. While only 7.1 acres, it had the highest number of visits per acre (6,634) in 2024. Rasmussen Park (10.1 acres) had 4,545 visits per acre. By comparison, while Cameron Park Lake is 56.5 acres, it had the lowest number of visits per acre (1,327).

Funding and Revenue

Funding for CPCSD park facilities and recreation programs comes from several sources. As reported in the district's *Parks and Recreation Master Plan Update*, nearly two-thirds of the funding, about 63 percent, typically comes from the General Fund, which includes property taxes. Recreation program fees account for about 17 percent, while facility use fees add another 13 percent. The balance comes from special events (6 percent) and scholarships (1 percent). Property tax revenues are relatively static, pending reassessments of property values and tax rates. Revenues from the other sources, however, can be increased in response to expanded marketing for programs, special events, and facility use (CPCSD 2014: 76). However, as noted in the district's master plan, for developments outside of the CPCSD, there is currently no property tax allocation strategy that provides revenues to the CPCSD for CPCSD park and recreation facilities used by non-CPCSD residents (CPCSD 2014: 23).

Facility Rentals. Five CPCSD park facilities are available for reserved use on a fee basis. These are facilities at the Community Center, Cameron Park Lake, Christa McAuliffe Park, David West Park,

and Rasmussen Park. Fees paid to use these facilities help offset the operational and maintenance costs associated with providing these recreation resources to the community at large. Fee-based reservations are also an indicator of demand for specific types of facilities and may be useful in determining what additional facilities may be needed (CPCSD 2014: 43).

The district's 2014 master plan notes that based on the current CPCSD population and recreation patterns, there is a need for one additional baseball field, four softball fields, three soccer fields, one tennis court, and one basketball court. As indicated in the master plan, these shortfalls may be addressed through a combination of means, the least expensive of which would be to secure joint use agreements with the schools to provide at least some portion of the needed facilities. Limitations on availability of school facilities may require that some additional facilities be developed at CPCSD-owned and -operated parks (CPCSD 2014: 70).

Recreation Programs. The CPCSD provides a wide variety of recreation and life enrichment programs that are an important service to the community. These programs are designed to encourage healthful activities for the fitness of mind and body; to promote positive experiences in the community; and to bring families together to enjoy community and CPCSD resources. By policy of the CPCSD Board of Directors, the operating costs of the recreation programs must generally be self-supporting through fees and charges, except for specialized programs (CPCSD 2014: 28).

All of the recreation programs of the CPCSD, except special events, are offered on a fee basis to the residents of Cameron Park. These same programs are available to non-CPCSD residents for a slight additional fee, generally about 10 percent higher. Historically, as reported in the district's 2014 master plan, about 60 percent of reserved use of the various Community Center spaces was by people who are not CPCSD residents. The district's 2014 master plan notes that this is an indicator that there may be shortage of comparable facilities in the region at the price point provided by the CPCSD (CPCSD 2014: 46).

Other Funding Sources

Landscape and Lighting Assessment Districts (LLADs). CPCSD Policy 3240.20.2 governs LLADs, through which the district recovers maintenance costs for LLADs within the district boundary. The policy establishes that the general benefit must be reviewed by the assessment engineer on a case-by-case basis as new parks are developed, and that the district will not build new parks that are not covered by maintenance LLADs. The CPCSD currently manages 20 active LLADs, comprising 6 neighborhood parks and/or landscaped areas, and 14 with only streetlights (CPCSD 2024c). Three of the LLADs are included on the district's inventory of park facilities (see Attachment B-1).

Planned Improvements

The CPCSD has prioritized several projects to move forward with developing over the next three years, which were approved by the Board of Directors in March 2024. As part of that process, the district identified park impact and/or Quimby fees available for those projects (CPCSD 2024a: Agenda Item #8). The park improvement plan prioritization list identified park projects, community center projects, and small projects. Projects include improvements at Cameron Park Lake and additional amenities at the Community Center pool.

El Dorado Hills Community Services District

Service Area and Facilities

The EDHCSD is located in the western region of El Dorado County, in the Sierra Nevada foothills, 25 miles east of Sacramento, and has an approximate elevation of 1,104 feet above mean sea level. El Dorado Hills is bounded to the north by Folsom Lake and the Folsom Lake State Recreation Area, and to the east by the neighboring community of Cameron Park. The EDHCSD borders the community of Latrobe to the south and the Sacramento County line and the City of Folsom to the west. The area within the current district boundary is approximately 18,079 acres or 28 square miles. There is an identified SOI beyond the district boundaries, which brings the total service area to 21,728 acres, or 33.95 square miles (EDHCSD 2024a: 1).

The EDHCSD is responsible for managing more than 500 acres of public parkland, an amount that has nearly doubled since 2007. With parks ranging from 0.6 acres to 207 acres in size, El Dorado Hills parkland includes parklets; neighborhood, village, and community parks; a regional-reaching park; trails and open spaces; and several special use areas. Within these lands, the district operates and maintains a variety of facilities including sports fields; courts for basketball, tennis, pickleball, and bocce ball; playgrounds; a dog park; a skate park; a gymnasium; a pool and splashpad; and teen and senior centers. While new facilities have come online since 2016 and parkland has been acquired, there are still identified needs across the system that have not yet been satisfied.

School district sites also contribute to the recreation resources available to the El Dorado Hills community, especially school fields and gyms. The EDHCSD has focused on sustaining and expanding joint use agreements to make school assets available for recreation. In addition to public parks and facilities, homeowners associations (HOA) within the EDHCSD own and maintain private parks to serve their residents. Many HOAs also offer recreation facilities such as pools, clubhouses, and sports courts to serve their distinct communities (EDHCSD 2024a: 5).

The EDHCSD's *Parks and Recreation Facilities Master Plan*, developed in 2016 with a five-year update in 2021 and further updates in March 2024, outlines the way EDHCSD parks, facilities, and recreation programs will be managed to respond to anticipated growth and changing recreation trends over a five-year planning period. In January 2025, the EDHCSD initiated activities to further update the plan.

The EDHCSD identifies seven categories of parks within its service area: neighborhood, village, community, open spaces, special use areas, community recreation facilities, and other facilities. Neighborhood parks, located within walking and bicycling distance of most users, range in size from 1 to 3 acres, and are designed primarily for unsupervised, nonorganized recreation. Village parks, 3 to 15 acres in size, are within a half-mile to a mile walking and driving distance of residents. Village parks are intended to provide active and passive recreational opportunities and may have amenities such as trails, bathrooms, play equipment, and facilities for organized sports. Community parks are intended for use by the broader community. They range from 15 to 100 acres in size and feature facilities for organized sports, parking areas, and bathrooms. Community parks may also include passive recreational opportunities and community centers. Open spaces consist of permanent, undeveloped green or open space ranging in size from small to very large and are managed for natural value and recreational use. Open spaces are intended to provide

opportunities for nature-based recreation and the EDHCSD has been identified as one of the organizations that may accept the dedication of public open space lands in the El Dorado Hills area. Special use areas consist of freestanding facilities such as community centers, aquatic centers, sports complexes, teen centers, archery ranges, skate parks, and arts and cultural facilities.

Parks in the EDHCSD service area boundary are a combination of facilities owned and maintained by the EDHCSD, facilities owned and maintained by local HOAs, and joint use of local school grounds. The 726 acres of existing, undeveloped, and planned EDHCSD parkland consist of 14 neighborhood parks, 8 village parks, 2 community parks, 1 regional park, 5 open spaces, and 3 special use areas. Facilities owned and operated by local HOAs comprise approximately 39 acres (as of 2021) privately owned neighborhood parks. Local elementary, middle, and high schools provide 12 additional joint-use recreation facilities in the EDHCSD service area.

Each park category in the EDHCSD has either a designated level of service (LOS) or, in the case of open space, a recommended guideline. There are currently 10.14 acres of developed parkland (regional parks, neighborhood parks, village parks, and community parks) for every 1,000 residents, including HOA parks, which exceeds the LOS standard of 5.0 acres per 1,000 population (EDHCSD 2024a: B-3). The current EDHCSD guideline for open space is 40.5 acres per 1,000 residents. At the time the guideline was established, there were 2,230 acres of private open space in the EDHCSD's boundaries, and it was determined that an additional 1,736 acres of open space were needed. As reported in the EDHCSD's 2024 master plan update, although there is not current data on the inventory of privately held open space in the EDHCSD, the EDHCSD appears to be meeting the 40.5 acres per 1,000 people standard (EDHCSD 2024a: B-5).

Current Parks and Recreation Facilities Use and Funding

Park Use

The EDHCSD has not historically tracked the number of day-use visitors to its parks where no fees are charged for occasional use because there are no attendants at those parks. However, data are available for facilities for which a rental fee is charged (e.g., sports clubs), which is discussed in the "Funding and Revenue" topic, below.

The EDHCSD has compiled data for park use using the Placer.ai software program, as described for the CPCSD, above. Results are summarized in Table 2.

TABLE 2
EL DORADO HILLS CSD PARK VISITOR ESTIMATES

Location (Park Type/Size)	Visits (2024)	Visits per Acre	Visitor Origin (El Dorado Hills)	Visitor Origin (Cameron Park)	Visitor Origin (Folsom)	Visitor Origin More Than Five Miles
Allen Lindsey Park (Special Use/5 acres)	4,600	920	76.1%	2.9%	1.8%	19.2%
Bass Lake Park (Special Use/70 acres)	21,200	303	5.0%	7.5%	4.7%	37.7%
Blackstone Park (Village/13.6 acres)	14,100	6,267	41.8%	17.0%	8.5%	32.6%
El Dorado Hills Community Park (Community/39.5 acres)	247,400	6,263	65.5%	7.0%	5.9%	21.6%
Governors (Neighborhood/1.9 acres)	6,300	3,316	25.4%	6.6%	17.5%	50.6%
Heritage Park (Village/4.65 acres)	32,200	6,925	52.5%	13.0%	6.5%	28.0%
Jeff Mitchell Field (Village/3.67 acres)	17,900	4,877	73.2%	3.6%	3.1%	20.1%
Kalitheia Park (Village/3.8 acres)	65,700	17,289	18.7%	4.6%	12.0%	64.7%
Lake Forest (Village/9.76 acres)	22,400	2,295	49.6%	20.5%	5.8%	24.1%
Promontory Park (Community/18.7 acres)	149,400	7,995	45.6%	5.7%	13.9%	34.8%
Saratoga Park (Village/2.1 acres)	38,600	18,381	26.7%	9.8%	22.5%	40.9%
Village Green (Village/10 acres)	13,200	1,320	21.9%	9.0%	17.4%	51.5%
Wild Oaks (Open Space/10.38 acres)	2,100	202	21.6%	1.3%	6.7%	70.3%
Source: compiled from EDHCSD (2025)						

The data show that park design and amenities are a primary determinant of each park's attractiveness. For example, while Bass Lake is EDHCSD's largest park (70 acres), it had the second lowest visitors per acre (303) in 2024. Conversely, Saratoga Park (2.1 acres) had the highest number of visitors in 2024 (18,381), and the park was only open for eight months beginning in May 2024.

Most of the visits to EDHCSD facilities are from El Dorado Hills, and a substantial number of visits are from Folsom due to its proximity. A substantial number of visits from Cameron Park indicates cross-district use. For the EDHCSD's highest-use parks (Community Park and Promontory Park), 22 percent of the visits to Community Park and 35 percent of the visits to Promontory Park originate more than 5 miles away. These parks are dominated by unique uses and features such as soccer fields, baseball diamonds, and aquatic, suggesting that the appropriate fields and/or amenities used

by organized athletic groups is a greater factor relative to facility use than distance from a resident's home.

Funding and Revenue

The main source of funding for parks and recreation services in the EDHCSD is the General Fund, which comes primarily from taxes levied on property within the district boundary. Other sources of revenue include facility-use charges (e.g., rentals), recreation program user fees, and concessions (earned income). Entry fees for some special events can be charged, where appropriate (EDHCSD 2024a: Appendix D). The cost of facilities and park maintenance that is not covered by the district's recovery fees are paid by the General Fund (Hornstra 2024).

Facility Rentals. For facilities for which rental fees are charged (e.g., sports fields, park picnic areas, pool), Table 3 presents information regarding the number of rentals, whether the renters were resident or non-resident, and associated total revenue. As shown by the data, residents accounted for most of the rentals (and accordingly revenue).

TABLE 3						
EDHCSD RENTALS RESERVATIONS AND REVENUE						
External Reservations		Resident		Non-Resident		2023 Total Revenue
Park Amenities	Total Rentals	Rentals	Percent of Total	Rentals	Percent of Total	
Sports fields	657	510	77.6	147	22.3	\$166,621
Pool	1,347	1,330	98.7	17	1.2	\$96,171
Park picnic areas	196	113	57.6	83	42.3	\$26,939
Other	186	171	91.9	15	8.1	\$9,305
Internal reservations representing recreation activities						
Gym	549					
Pool	401					
Sports fields	268					
Source: Hornstra 2024						

The EDHCSD has observed that there is high demand for the current (and only) pool facility with a swim team that is at capacity and has closed enrollment during summertime, but that HOA pools may be meeting some recreational needs (EDHCSD 2024a: B-11; Hornstra 2024).

The EDHCSD has identified two other areas of primary concern regarding user demand at its recreation facilities: the synthetic athletic field at Promontory Park during soccer and lacrosse seasons and in particular during winter/rainy seasons is fully allocated; and Bermuda grass soccer fields during the summer/fall soccer season are fully allocated, with Rescue Unified School District and Buckeye Unified School District (which are joint use agreement fields) being used as secondary fields. The district is concerned that additional residents in those sports groups during their peak playing seasons will likely have an impact on the respective club's ability to receive their requested field space. The EDHCSD also notes that several of its popular special programs are consistently at maximum capacity (Hornstra 2024).

Recreation Programs. The EDHCSD also operates a variety of recreation programs—for example, activities in the community activities building, teen center, and senior center. Table 4 presents the number of enrollments, whether resident or non-resident, and revenue. The number of enrollments for residents and non-residents has shown a slight increase between 2021 and 2023.

TABLE 4			
EDHCSD RECREATION PROGRAM ENROLLMENTS			
Source and Revenue	2023	2022	2021
Resident	22,658	22,800	20,028
Non-resident	4,173	3,683	3,354
Percentage resident	84.5%	86.1%	85.7%
Revenue	\$1,101,397	\$1,010,109	\$721,646
City	Family Enrollment Count		
El Dorado Hills	5,768		
Folsom	341		
Cameron Park	312		
Shingle Springs	120		
Placerville	101		
Source: Hornstra 2024			

Other Funding Sources

Landscape and Lighting Assessment Districts. The EDHCSD manages 25 active LLADs, with an estimated fund balance of approximately \$2.2 million as of September 2024. Six of the LLADs are parks included in the inventory of district-managed parks (see Attachment B-1). Assessment revenues are used for improvements and maintenance. For parks and facilities that are in an LLAD, the LLAD assessment for special benefit covers part of the cost, and the General Fund covers the rest. If there is revenue associated with the park or facility, that revenue is applied to the cost of maintenance before the special benefit calculation is done (Hornstra 2024).

Planned Improvements

The district has identified several planned and proposed park facilities projects in the 2024 updated master plan. Planned parks include a neighborhood park (Eastridge @ Valley View) and four village parks (Bass Lake Hills Park, Sienna Ridge Sports Park, and two Bell Ranch parks), totaling 23.9 acres. Proposed new parks comprising approximately 260 acres include 3 acres of neighborhood park at Saratoga Estates and 28.1 acres of village parks (Eastridge @ Valley View, Saratoga Estates Lot M, and Valley View North). The 47 acres of proposed parks in the VMVSP are included in the list of proposed parks (village park and joint use). However, these parks would only be developed if the VMVSP is approved and implemented and would depend on the buildout timeline for the VMVSP. There is also a proposed community park (51 acres in the Valley View Specific Plan to the west of the VMVSP) as well as open space in Saratoga Estates (27.4 acres). The total also includes a then-proposed 15 acres in the Central El Dorado Hills Specific Plan (EDHCSD 2024: Appendix E).

FUTURE CONDITIONS

Parks and Recreation Facilities Provided by VMVSP and LRVSP

The VMVSP would provide seven Village Parks totaling 47 acres available for public use. The locations of the parks are shown in Attachment A-1. Village Parks 1 and 2 (approximately 21 acres) include the lake, which would have a pier and boat docks for non-motorized recreational boating. Additional amenities around the lake may include jogging and walking paths, turf areas for gatherings, gazebos, and sports fields (lighted or unlighted). Village Parks 3 and 4 may have sports fields and playgrounds for joint-use activities with proposed adjoining schools. Village Park 5 would be focused on the historical aspects of the quarry operations and would include a walking trail. Village Park 6 would accommodate passive uses. Village Park 7 would have active and passive uses such as walking trails and may have play equipment and informal spaces (Marble Valley Company, LLC 2024: 7-12 to 7-14). The VMVSP provides for future programming of design and specific amenities that could be offered in each active-use park, which would be coordinated with the EDHCSD in advance of their construction. This would allow the EDHCSD to consider, for example, whether sports fields should be natural or artificial turf.

The VMVSP also includes a network of Class I multiuse paths, along with a system of sidewalks and paved and unpaved trails throughout the project area, linking residential neighborhoods to the village parks and open space. A Class I multiuse path would connect the VMVSP to the Class 1 multiuse path in the LRVSP and the El Dorado Trail at the eastern edge of the LRVSP and would link Lime Rock Valley with the proposed elementary schools in the Village of Marble Valley to the west. A central gravel trail loop would be connected to paved paths to the east and west. A hiking and equestrian trail through open space in the south would connect to a similar facility in Lime Rock Valley.

In the LRVSP, an 8-acre Village Park adjacent to Lime Rock Valley Road (see Attachment A-2), which would be available to the public, would provide opportunities for active and passive recreation. Permanent facilities may include restrooms, parking, and picnic tables. In addition to the Village Park, the project allows for development of private neighborhood parks (1–3 acres) for the use and enjoyment of residents in private gated residential neighborhoods (Lime Rock Valley, LLC 2024: 3-5). The LRVSP also includes a network of Class 1 multiuse paths, along with a system of sidewalks and paved and unpaved trails throughout the project area, linking residential neighborhoods to the village park and open space. A Class 1 multiuse path would connect the LRVSP to the El Dorado Trail at the eastern edge of the project area and would link Lime Rock Valley with the proposed elementary schools in the Village of Marble Valley to the west.

Future Demand

Park User Demand

The draft environmental impact reports (DEIR) for each of the proposed VMVSP and LRVSP projects, which were circulated for public review in May 2024, evaluated potential population-based demand on parks/recreation for the two projects at buildout. The VMVSP DEIR estimated that buildout of the VMVSP would introduce up to 9,168 park users into the area south of US Highway 50, which would be within the current EDHCSD boundary. The LRVSP DEIR estimated that buildout of the LRVSP would introduce up to 2,640 park users into the area south of Highway 50.

(ICF 2024a: 3.13-10; ICF 2024b: 3.13-9).³ However, the LRVSP is not within the boundary of either the EDHCSD or the CPCSD, as shown in Figure 1. The two projects combined project the potential to introduce approximately 11,900 park users in the vicinity of the two districts, which currently have a combined district population of approximately 69,000 (approximately 50,000 in the EDHCSD [EPS 2024a: Table A-1] and approximately 19,000 in the CPCSD [LAFCO 2023: 9]). Growth is expected to continue, with the EDHCSD's population growing to nearly 63,000 residents in 2036, based on Sacramento Area Council of Governments (SACOG) growth projections (EDHCSD 2024: 5), while the resident population in the CPCSD could reach approximately 22,600 in 2036.⁴

The number of park users from both projects that would use CPCSD or EDHCSD facilities (in addition to the facilities within the specific plan areas) would be a function of the type of facilities and recreation programs, access (because both projects are south of US Highway 50), and distance/travel time to parks and recreation facilities.

The number of potential future park and facility users from both specific plan areas who would visit existing CPCSD and EDHCSD parks as well as those who might use park facilities provided by each specific plan, at buildout, were estimated using a "gravity model." This is a model that assumes when given multiple park options, a park user will decide where to go based on park amenities and facilities and the travel time to the park. Acreage is the most general park characteristic and is used as a proxy for the amenities and recreation facilities located at a given park. For example, the larger the park, the more likely it is to offer more recreation opportunities for any given park user. On the other hand, while single-use parks (e.g., a dog park) will have a high attraction to someone who wants to exercise their dog, its attraction relative to other parks is small among the entire set of park users. The model also accounts for estimated park user population and number of visits on a weekly basis. Results of the analysis are summarized in Table 5, with details, including the analysis methodology, provided in Attachment B-1.

³ The DEIR analyses included a review of local recreation planning documents, including the County General Plan Parks and Recreation Element, the County *Parks and Trails Master Plan*, the EDHCSD *Parks and Recreation Facilities Master Plan*, and the CPCSD *Parks and Recreation Master Plan Update*. The assessment included an analysis of the County's Quimby Act parkland dedication requirements: 3.3 people per single-family residential unit and 2.1 people per multifamily unit to estimate the population, in accordance with El Dorado County Code Section 120.12.090.A.9.

⁴ Assumes an annual average growth rate of 0.9 percent applied to the estimated existing population provided in the 2023 Municipal Services Review and SOI Update (LAFCO 2023: 9).

TABLE 5						
ESTIMATED DISTRIBUTION OF VMVSP AND LRVSP PARK USER VISITS BY RESIDENTS						
Location of Parks Visited	VMVSP			LRVSP		
	Annual Visits (Buildout)*	Percentage of Annual Visits to Location (Buildout)	Average Park Visitors Per Day (Buildout)	Annual Visits (Buildout)*	Percentage of Annual Visits to Location (Buildout)	Average Park Visitors per Day (Buildout)
Parks in VMVSP	301,100	85%	825	27,500	27%	75
Park in LRVSP	5,900	2%	16	34,000	33%	93
CPCSD	12,800	4%	35	10,900	11%	30
EDHCSD	34,300	9%	93	29,500	29%	80
Total Visits	354,100			101,900		
<i>Source: Detailed calculations provided in Attachment B-1.</i> <i>Notes:</i> <i>*Number of visits projected using the gravity model, and assumes residents from the LRVSP would access CPCSD and EDHCSD parks through the VMVSP. Total of visits for all park facilities combined. Projected visits to each park area are provided in Attachment B-1. The projections are for park use/visits, and do not reflect sports club use of fields.</i>						

As indicated by the data, the park facilities provided by the specific plans are conservatively projected using the gravity model to accommodate most of the new park users, particularly for the VMVSP (85 percent of annual visits).

Approximately one-third of the park users generated by the LRVSP are projected to use the LRVSP park, which is planned to be developed in Phase 1 of that project. Less than 5 percent of the new park user population from the VMVSP is projected to visit CPCSD facilities, and less than 15 percent would originate from the LRVSP, on an annual basis. It is important to note that the total number of annual visits, percentages, and average visitors per day summarized in the table is the aggregated average of all the individual facilities combined. Some parks would experience more visits than others. For example, of the approximately 24,000 visits from the VMVSP and LRVSP combined, roughly one-third of the visits would be to Cameron Park Lake, one-third divided between developed parks with amenities, and the rest to the remaining less-developed parks or natural areas.

However, the gravity model does not account for recent trends in playground design, active recreation such as youth or adult athletics (e.g., sports fields), or special features such as a pool, hard courts, or gymnasium. Another limitation of the model is that acreage may not always be an appropriate measure of potential use. As noted in the discussion for Table 1 and Table 2, above, smaller parks can generate more visits per acre than larger parks. On the other hand, the gravity model more accurately tends to predict visits to facilities such as neighborhood parks used for casual recreational use.

In addition, point-of-origin and destination data for 2024 provided by the CPCSD and EDHCSD (Tables 1 and 2, above) generated by the Placer.ai platform, combined with input from the districts suggest that the gravity model appears to overestimate the buildout projection percentage for parks within the specific plans, and that the demand for existing EDHCSD (and CPCSD) facilities would be greater than shown in Table 5 for certain categories of park facilities

(CPCSD 2025a; EDHCSD 2025). This is particularly the case for facilities used for sports/special use because of the types of amenities provided (e.g., youth sports, sports clubs).

Regardless of the potential limitation of the gravity model to predict future demand with certainty, the total number of park users who would use facilities in the EDHCSD or the CPCSD would not occur immediately because both projects would be developed in phases over approximately 20 years or more, depending on housing market conditions and available infrastructure. The increased visits on an annual (or daily) basis in the initial years of project development would be far less than projected for buildout conditions and would increase incrementally over time. For example, in the initial years of project occupancy, the estimated number of annual visits from the VMVSP might be, on average, approximately 2,000 visitors per year to EDHCSD parks and approximately 1,600 visitors per year to CPCSD parks, based on the gravity model -- in both cases less than 10 visitors per day in each district. Detailed calculations are shown in Attachment B-2, which also provides estimates of how park use might increase over time. It is beyond the scope of this analysis and would be speculative to predict which parks would be more or less likely to experience increased use, on an annual basis.

While there would be increased demand on existing facilities, the CPCSD has also identified four areas within its boundary that could be used to increase the amount of developed parkland in the future—i.e., Southwest (new), Green Valley (new), Christa McAuliffe (expansion), and David West (expansion). The CPCSD's 2014 master plan recommended that once land is acquired, the park planning process should be undertaken to identify the specific improvements, configuration, and costs associated with implementing the expanded park vision. Potential sources of funding would vary by the specific location (CPCSD 2014: 72-73).

In addition, the projections do not account for mitigation measure REC-1 identified for the LRVSP, which requires the project to provide an additional minimum 5.2 acres or provide in-lieu funding (see "Physical Impacts," below).

Another consideration is that while there would be increased demand on CPCSD facilities as a result of new residential development in the specific plans, both the VMVSP and LRVSP would provide new public park and recreational facilities that would be available for use by existing (as well as future) residents in Cameron Park and the El Dorado Hills communities.⁵

An estimate of the number of population-based park users projected from Cameron Park who might use the specific plan parks (at buildout conditions) was forecasted using the gravity model methodology as that for estimating what the new demand on EDHCSD and CPCSD would be.

Detailed results of this analysis are provided in Attachment B-3 and summarized in Table 6.

⁵ As noted in the LRVSP DEIR, the project would aid in minimizing the use of similar existing recreational facilities in both the EDHCSD and CPCSD by LRVSP area residents (ICF 2024a: 3.13-10).

TABLE 6 ESTIMATED VISITS TO VMVSP AND LRVSP PARKS FROM FUTURE POPULATION IN THE CAMERON PARK AREA						
VMVSP park visits to CPCSD (buildout)^a	LRVSP park visits to CPCSD (buildout)^a	Total VMVSP and LRVSP park visits to CPCSD (buildout)	Visits from Cameron Park to VMVSP Parks^b	Visits from Cameron Park to LRVSP Park^b	Total Visits from Cameron Park to VMVSP and LRVSP Parks (buildout)	Net change to CPCSD (VMVSP and LRVSP buildout)
12,800 ^c	10,900 ^c	23,700	19,200	4,900	24,100	(400)
Notes: <i>a Park user visits are based on park use factors (see Notes in Attachment B-1), projected over time (buildout).</i> <i>b Population estimate assumes 0.9% growth annually per El Dorado County General Plan 2021–2029 Housing Element, to correspond with VMVSP and LRVSP buildout. Population estimates for VMVSP and LRVSP total approximately 11,600 per DEIR Sections 3.11 (Population and Housing), while park user population totals approximately 11,800 per DEIR Sections 3.13 (Recreation). The difference is inconsequential for purposes of this population-based visitor use comparison. The projections are for park use/visits, and do not reflect sports club use of fields.</i> <i>c From Table 5 this document.</i>						

The data illustrate that the difference in park use visits as a function of population, at buildout, could be an overall net reduction in park visits to CPCSD because the VMVSP and LRVSP would provide public parks within the projects. These parks would be accessible to the population in the CPCSD. In addition, as noted above, cross-district use would be expected to continue as such so that LRVSP residents would also have direct access to parks in the VMVSP that would be within the EDHCSD. However, this does not mean there would not be increased incremental demand resulting from the VMVSP and LRVSP on existing CPCSD parks and recreation facilities, as explained above.

In summary, based on available information, precise quantification of potential population demand on the CPCSD and the EDHCSD park facilities resulting from the VMVSP and the LRVSP is not possible at this time. The reasons for this are:

1. The planned parks in the specific plans would not be designed until tentative maps are submitted, which would only occur upon project approvals, so the specific amenities that would be provided in the planned parks of the specific plans are currently unknown.
2. While the Placer.ai software can be used to generate visitor data for existing conditions, its usefulness for predicting future visits is constrained because the specific plan areas are not developed. There is no “real-time” trip origin and destination visitor trip data.
3. The data indicate cross-district and non-resident use, including a substantial number of visits to the CPCSD and EDHCSD from locations not within the districts. Thus, the projections using the gravity model must be viewed in conjunction with the Placer.ai datasets.

The results of this assessment suggest that there would be a range of potential demand on the CSDs from the projects. It is recommended that the project applicants and CSDs continue their coordination to potentially develop a more accurate estimate of park and facility demand. This could include engaging local sport user groups to get their input on their willingness to use the planned parks within the specific plans and how that might, in turn, reduce demand in the

CSDs. In addition, as with existing conditions, even with increased demand from the projects, both CSDs would retain the ability to control the number of visitors to their facilities for which fees are charged (e.g., for organized sports/club use, swimming pools).

Funding Summary

El Dorado County General Plan Objective 10.2.5 and Policies 10.2.5.1 and 10.2.5.2 require the County to evaluate the fiscal impacts of new development on municipal services and to avoid using County General Fund revenues to fund services. The analysis is provided in the fiscal impact analysis (FIA) for each project. The FIA estimates whether the project will generate adequate revenues at buildout to meet the costs of providing services to new development funded through the County General Fund, County Road Fund, and service districts such as the EDHCSD.

A draft FIA prepared in September 2024 identifies that, at buildout, the VMVSP would generate \$3,177,000 in annual net revenue for the EDHCSD from three sources, as shown in Table 7. The draft FIA prepared for the LRVSP in September 2024, which assumed annexation into the EDHCSD, estimated an annual net revenue for the EDHCSD of \$721,000.

TABLE 7 EDHCSD FISCAL IMPACT SUMMARY VMVSP AND LRVSP (BUILDOUT)		
	VMVSP	LRVSP
Recreation programs revenue	\$234,000	\$58,000
Property tax revenue	\$2,927,000	\$659,000
Park and facility rentals revenue	\$16,000	\$4,000
<i>Total Revenue</i>	\$3,177,000	\$721,000
<i>Total Expenditures</i>	\$1,671,000	\$523,000
Annual surplus	\$1,506,000	\$198,000
Annual surplus per unit	\$467	\$248
<i>Source: EPS 2024a Table 1, Table B-2; EPS 2024b Table 1, Table B-2</i>		

Park impact fees are used to finance public facilities and equipment to mitigate the impact of new development on parks and recreation services. The fee is collected at the time of building permit acquisition and must be based on the current LOS to ensure that new development does not pay for any existing deficiencies in park development. The fees must be used to finance the facilities and equipment identified in a Fee Nexus Study and Report in accordance with Government Code Section 66000. The fee may not be used for park and recreation facilities maintenance.

The current park impact fees for the EDHCSD are shown in Table 8.

TABLE 8	
EDHCSD PARK IMPACT FEES RESIDENTIAL DEVELOPMENT	
Type	Fee/Dwelling Unit
Single-family	\$13,495
Multifamily	\$8,907
Single/multifamily affordable	\$8,907
Age-restricted	\$7,886
Mobile home	exempt
Accessory dwelling unit	exempt
Source: EDHCSD 2023: 2 Notes: List of impact fees do not include Serrano. Single-family only includes single-family detached homes. Multifamily includes buildings with attached residential units including apartments, townhomes, condominiums, and all other residential units not classified as single-family detached. Age-restricted includes residential development developed, substantially rehabilitated, or substantially renovated for senior citizens that has at least 35 dwelling units, at least 80 percent of the occupied units include at least one resident who is verified to be over the age of 55, or the community follows a policy that demonstrates an intent to provide housing for those aged 55 or older.	

he current park impact fees for the CPCSD are shown in Table 9. Calculated park fees for the 800 single-family units in the LRVSP would be \$5,316,000. It should be noted that the park impact fees for the CPCSD would only be collected if the LRVSP project is annexed into the CPCSD.

TABLE 9	
CPCSD PARK IMPACT FEES RESIDENTIAL DEVELOPMENT	
Type	Fee/Dwelling Unit
Single-family	\$6,645
Multi-family	\$5,435
Mobile home	\$3,402
Source: CPCSD 2019: 3 Notes: Fees as adopted by El Dorado County Board of Supervisors Resolution No. 151-2019.	

County and Project Applicant Outreach Efforts with CSDs

County staff contacted both districts in May 2024 to seek input on potential development agreement (DA) terms with each project applicant as it relates to the provision of parks and recreation facilities. The EDHCSD indicated it would not accept parkland that does not have an identified and agreed-upon funding mechanism by annexing into an appropriate community facilities district (CFD) or creating a development-specific CFD (EDHCSD 2024b). The CPCSD requested that the DA address the LRVSP annexing into the CPCSD; impact fees; and development of a maintenance fee for the VMVSP to address demand for services (CPCSD 2024b).

In addition to County staff outreach efforts regarding the DA, the VMVSP and LRVSP project applicants have met with EDHCSD and CPCSD staff to discuss general topics, issues, and concerns regarding the potential park uses and revenue impacts of the projects on existing parks and recreation facilities, beyond those identified in the FIAs and Public Facilities Financing Plans, and

how they might be addressed. Table 10 summarizes those activities. No decisions regarding specific amounts or mechanisms for revenue streams were reached during those meetings.

TABLE 10 VMVSP AND LRVSP PROJECT APPLICANTS OUTREACH REGARDING PARKS AND RECREATION FACILITIES	
Date	Participants
August 7, 2024	CPCSD and LRVSP project applicant
August 8, 2024	CPCSD and VMVSP project applicant
August 30, 2024	CPCSD, EDHCSD, and VMVSP project applicant
September 4, 2024	CPCSD, EDHCSD, VMVSP and LRVSP project applicants, County staff
September 12, 2024	EDHCSD and VMVSP project applicant
September 18, 2024	CPCSD and VMVSP and LRVSP project applicants (CPCSD monthly Board of Directors meeting, including presentation by applicants)
December 17, 2024	CPCSD, EDHCSD, VMVSP and LRVSP project applicants, County staff
January 23, 2025	CPCSD, EDHCSD, VMVSP and LRVSP project applicants, County staff

The CPCSD has indicated it would prefer “identifying a mechanism that provides one time funding to improve our facilities to meet the expected increased demand if VMVSP and LRVSP are approved, as well as ongoing funding to address the increased demand on their services” (CPCSD 2024b).

Specific mechanisms and associated funding have not been determined as of October 2024, because the level of detail and forecasting would be speculative based on existing information, and would require additional detailed review and analysis by the two districts and coordination with the project applicants.

With regard to the CPCSD's comment regarding annexation, the LRVSP project applicant currently proposes to annex into the EDHCSD. However, the project applicant is also considering annexation into the CPCSD. In addition, the CPCSD has expressed interest in possible annexation of the LRVSP into the service area (CPCSD 2024b; LAFCO 2023: 7).

This potential approach would require expansion of the district's SOI to accommodate the LRVSP, which would require annexation of contiguous property as well because the LRVSP is not contiguous with the current district boundary. Generally, non-contiguous annexations are inconsistent with Local Agency Formation Commission (LAFCO) policy. Annexation would provide for the park use impact fees and the potential to generate revenue through property taxes in the CPCSD as well as an LLAD. However, the Municipal Services Review and Sphere of Influence Study (SOI), adopted by the LAFCO in 2023, stated that “due to the proximity of other special districts in the area ... and CPCSD's current financial status, LAFCO does not recommend an expansion of the district's SOI at this time” (LAFCO 2023: 7). At the time the 2023 Municipal Services Review was prepared, the County was still processing the applications for both specific plans. As of February 2025, the County has not taken any action regarding either project. LAFCO, in carrying out its role under the Cortese–Knox–Hertzberg Local Government Reorganization Act of 2000, has the ultimate decision on an application for annexation and the change in boundary for a service area. Documents prepared under the direction of the County, such as EIRs, which have not yet been certified for either project, this assessment, and other items, will help inform LAFCO's decision making.

An application for annexation cannot be submitted unless and until the County approves the LRVSP and certifies the EIR; thus, annexation, as a potential source of park impact fees and property tax revenue to the CPCSD, cannot be resolved in this study in advance of consideration of the LRVSP by the Planning Commission or Board of Supervisors. If LAFCO ultimately determines that the LRVSP should be annexed to the CPCSD, then the revenues and responsibilities that were projected for the EDHCSD shown in Table 7, above, would be conveyed to the CPCSD upon annexation.

Physical Impacts as Reported in Project DEIRs

The following summary of environmental impacts provided in the DEIRs for both projects is provided for informational purposes. The analyses for each project, in accordance with the California Environmental Quality Act (CEQA), appropriately considered the *physical* impacts on the environment, based on questions included in the CEQA Guidelines Appendix G as to whether a project would: (1) increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated; and/or (2) require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment. CEQA does not require an evaluation of the potential fiscal impacts of a project in the EIR.

The VMVSP DEIR concluded that because the VMVSP project would establish open space and active recreational opportunities that exceed the parkland dedication requirements of the Quimby Act, the County General Plan, and the EDHCSD, and the CPCSD, implementation of the VMVSP would not be expected to cause or accelerate the deterioration of existing park facilities. This would be a less than significant impact, and no environmental mitigation would be required (ICF 2024b: 3.13-11).

The LRVSP includes an 8-acre Village Park that would be available for public use; the LRVSP also allows for private neighborhood parks. The LRVSP DEIR acknowledged that implementation of the LRVSP would increase the use of neighborhood parks in both district service areas, regardless of the district to which the LRVSP project site is annexed, and concluded that the increased use of existing neighborhood parks and associated physical deterioration due to a lack of adequate parkland within the LRVSP area would be a significant impact (ICF 2024a: 3.13-12). The LRVSP DEIR identified Mitigation Measure REC-1 to reduce impacts to less than significant by designating at least 5.2 acres of private neighborhood parkland in the LRVSP or paying Quimby Act in-lieu fees (ICF 2024a: 3.13-11/12).⁶ The LRVSP DEIR also evaluated whether implementing Mitigation Measure REC-1 could result in significant impacts on such resources as aesthetics, air quality, biology, cultural resources, geology, hazards and hazardous materials, water quality, noise, and transportation. As explained in the DEIR, because the location of any such off-site recreation

⁶ Quimby fees are calculated based on a state standard. Section 120.12.090.C of the El Dorado County Code establishes the process for calculating in-lieu fees, which is calculated by multiplying the amount of land required for dedication by the fair market value per acre of the land proposed for subdivision as established by the County Assessor. The fee collected may only be used for land acquisition and construction of recreation facilities. However, revenues generated through the Quimby Act cannot be used for the operation and maintenance of park facilities.

facilities has not been determined, and neither the LRVSP nor the EDHCSD identify actual facilities or locations for future projects, precise environmental impacts associated with them would be speculative to address at this time. The actual impacts of new park facilities would depend on the precise type and location of those facilities and would, therefore, be required to undergo project-specific environmental review (ICF 2024a: 3.13-13). Such review would be initiated when a specific site is identified.

The Final EIRs for both projects, which will include responses to comments on the topic of parks and recreation as well as any necessary revisions to the DEIRs in response to comments on this topic and/or County staff-initiated revisions, may contain additional information as it relates to parks and recreational facilities impacts.

SUMMARY

The VMVSP and LRVSP will increase the residential population in El Dorado Hills and Cameron Park. Each project will include public park facilities that would be available to residents within the specific plans, but the parks would also be available to the population outside the project areas. The VMVSP is within the boundary of the EDHCSD, but the LRVSP is not within the service boundary of either the EDHCSD or the CPCSD.

Existing demand on CPCSD and EDHCSD facilities was estimated by the EDHCSD using Placer Labs, Inc. artificial intelligence software platform. The data show that, as expected, most of the demand within each CSD is from residents in those districts, and there is also cross-district use. However, there is a substantial number of visits from the population outside district boundaries (e.g., Folsom and greater Sacramento region and beyond). It is reasonable to assume such trends will continue and that visitors will travel to parks and facilities that best meet their needs, even if there are parks closer to them.

Based on available information, precise quantification of potential future demand on the CPCSD and the EDHCSD park facilities resulting from the VMVSP and the LRVSP is not possible at this time. The reasons for this are:

1. The planned parks in the specific plans would not be designed until tentative maps are submitted, which would only occur upon project approvals, so the specific amenities that would be provided in the planned parks of the specific plans are currently unknown.
2. While the Placer.ai software can be used to generate visitor data for existing conditions, its usefulness for predicting future visits is constrained because the specific plan areas are not developed. There is no “real-time” trip origin and destination visitor trip data.
3. The data indicate cross-district and non-resident use, including a substantial number of visits to the CPCSD and EDHCSD from locations not within the districts. Thus, the projections using the gravity model must be viewed in conjunction with the Placer.ai datasets.

The results of this assessment suggest that there would be a range of potential demand on the CPCSD and EDHCSD from the projects. It is recommended that the project applicants and the two CSDs continue their coordination to potentially develop a more accurate estimate of park and facility demand. This could include engaging local sport user groups to get their input on their willingness to use the planned parks within the specific plans and how that might, in turn, reduce demand in the CSDs. In addition, as with existing conditions, even with increased demand from the projects, both CSDs would retain the ability to control the number of visitors to their facilities for which fees are charged (e.g., for organized sports/club use, swimming pools).

REFERENCES

- CPCSD (Cameron Park Community Services District). 2014. *Parks and Recreation Master Plan Update. Final*. May 2014.
<https://www.cameronpark.org/files/36b8f112c/Cameron+Park+CSD+Parks+and+Recreation+Master+Plan+Update+Final+2014+05+14.pdf>
- . 2019. *Park Impact Fee Nexus Study, Final Report*. Prepared by SCI Consulting Group.
<https://www.cameronpark.org/files/0f103349d/Cameron-Park-CSD-Park-IFNS-2019-v1.1.pdf>.
- . 2024a. Cameron Park Community Services District Board of Directors, Regular Board Meeting, March 20, 2024, Agenda Packet.
<https://www.cameronpark.org/files/58b803668/z.+3.20.2024+Regular+Board+Meeting+Agenda+Packet.pdf>.
- . 2024b. Letter from Alan Gardner, General Manager, to Robert J. Peters, Deputy Director of Planning, El Dorado County. June 5, 2024.
- . 2024c. "Landscape and Lighting Assessment Districts."
<https://www.cameronpark.org/landscape-and-lighting-assessment-districts-llads>.
- . 2025a. "Cameron Park Community Services District and El Dorado Hills Community Services District Parks and Recreation Facilities Demand Assessment." Letter from Alan Gardner, (former) General Manager to Cameron Welch, Senior Planner, El Dorado County Planning and Building Department. January 10.
- . 2025b. Cameron Park Community Services District Board of Directors, Regular Board Meeting, January 22, 2025. Agenda Packet Item #6A. General Manager Report.
<https://www.cameronpark.org/files/aa3c73478/z.+1.22.2025+Regular+Board+Meeting+Packet.pdf>
- EDHCSD (El Dorado Hills Community Services District). 2023. "Five-Year Park Impact Fee Report." September 14.
<https://cms8.revize.com/revize/eldoradohills/Document%20Center/About/Administration%20&%20Finance/Park%20Impact%20Fee%20Reports/15b.%20Five-Year%20Park%20Impact%20Fee%20Report.pdf>
- . 2024a. *Park and Recreation Facilities Master Plan*. Revised March 2024.
https://cms8.revize.com/revize/eldoradohills/Document%20Center/About/Master%20Plan/Final_EDHCSD%20Parks%20and%20Recreation%20Facilities%20Master%20Plan%20Revised%2003.14.2024.pdf.
- . 2024b. "Villages of Marble Valley and Lime Rock – Development Agreement" Letter from Jeff Kernen, Principal Planner, to Robert Peters, Deputy Director of Planning, El Dorado County. June 7.
- . 2025. "El Dorado Hills Feedback on Michael Baker Int'l Park and Recreation Facilities Demand Assessment." Letter from Mark Hornstra, General Manager, to Cameron Welch, Senior Planner, El Dorado County Planning and Building Department. January 22.

EPS (Economic & Planning Systems, Inc). 2024a. *Lime Rock Valley Fiscal Impact Analysis, Administrative Draft Report*. September. Prepared for Lime Rock Valley, LLC.

———. 2024b. *Village of Marble Valley Fiscal Impact Analysis, Administrative Draft Report*. September. Prepared for El Dorado County.

Hornstra, Mark, General Manager, El Dorado Hills Community Services District. 2024. Email responses to Michael Baker International regarding current park use and revenue information (September 12, 13, 14, 15, 2024).

———. 2025. Placer Labs, Inc. Placer.ai civic dashboard reports for CPCSD and EDHCSD facilities.

ICF. 2024a. *Lime Rock Valley Specific Plan Draft Environmental Impact Report*. May 22, 2024.

Prepared for El Dorado County.

<https://www.eldoradocounty.ca.gov/files/assets/county/v/1/documents/land-use/planning-amp-zoning/environmental-impact-report-documents/lime-rock/lime-rock-deir.pdf>.

———. 2024b. *Village of Marble Valley Specific Plan Draft Environmental Impact Report*. May 1, 2024. Prepared for El Dorado County.

https://www.eldoradocounty.ca.gov/files/assets/county/v/1/documents/land-use/planning/20240501_marble-valley-deir.pdf.

LAFCO (El Dorado Local Agency Formation Commission). 2023. *Municipal Service Review and Sphere of Influence Update: Cameron Park Community Services District, City of Placerville, City of South Lake Tahoe*. Prepared by PlanWest Partners, Inc. https://www.edlafco.us/files/c169e7dad/CPCSD-PV-SLT+MSR-SOI+Update_12-6-23+Adopted.pdf.

Lime Rock Valley LLC. 2024. *The Lime Rock Valley Specific Plan, Public Review Draft*. September.

<https://www.eldoradocounty.ca.gov/files/assets/county/v/1/documents/land-use/planning-amp-zoning/environmental-impact-report-documents/lime-rock/lime-rock-valley-specific-plan-may-2024.pdf>

Marble Valley Company, LLC. 2024. *The Village of Marble Valley Specific Plan, Public Review Draft*. September.

https://www.eldoradocounty.ca.gov/files/assets/county/v/1/documents/land-use/planning-amp-zoning/specific-plans/vmv/vmvsp_may-2023.pdf

ATTACHMENTS

Figure 1: EDHCSD and CPCSD Boundaries

Attachment A-1: VMVSP Land Use Map

Attachment A-2: LRVSP Land Use Map

Attachment B-1: VMVSP and LRSVP Park Visitor Estimates for EDHCSD and CPCSD Parks and Recreation Facilities

Attachment B-2: VMVSP and LRVSP Park Visitor Estimates for EDHCSD and CPCSD By Year

Attachment B-3: Visits from Projected Cameron Park Population to Proposed VMVSP and LRVSP Parks

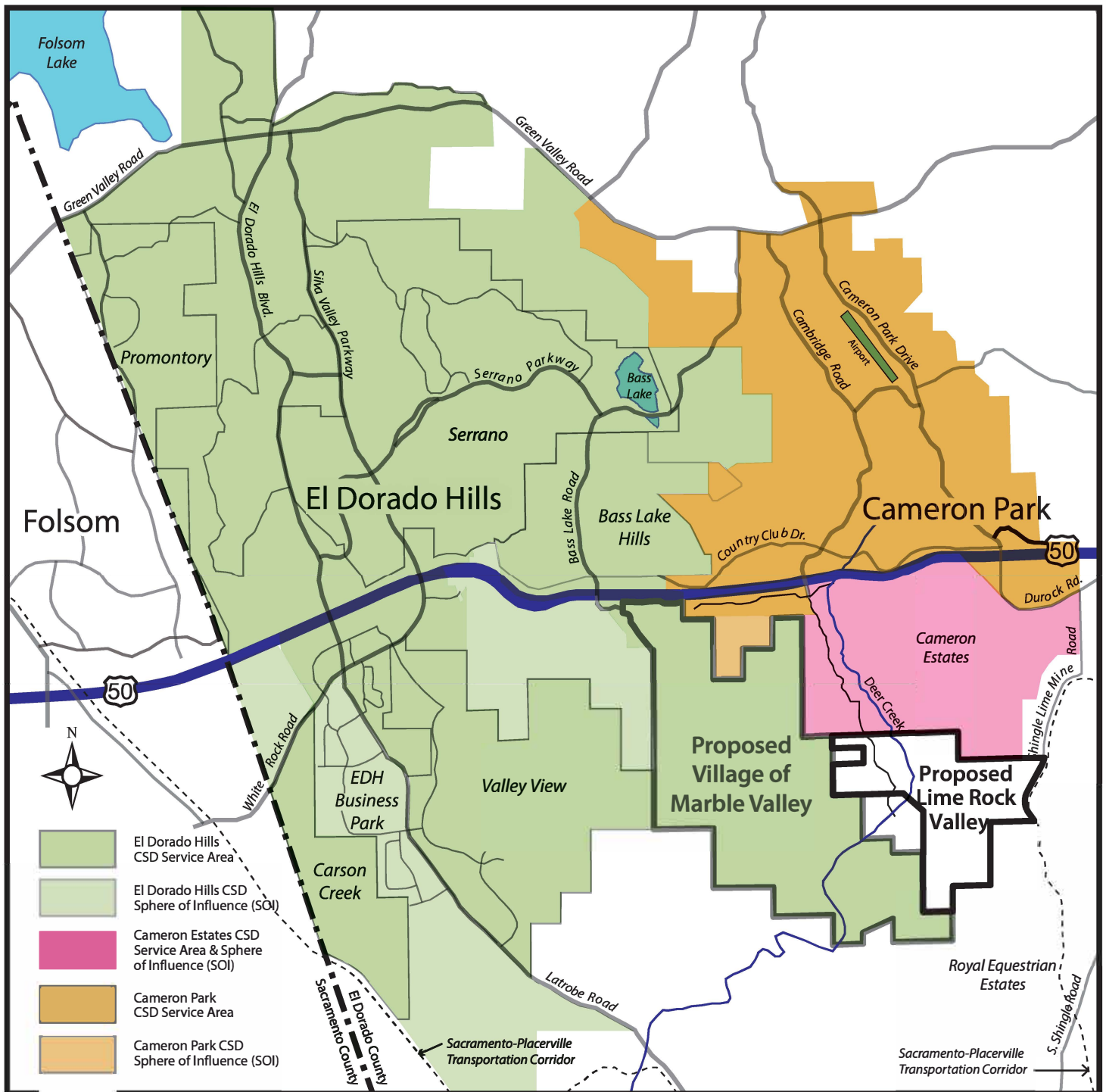
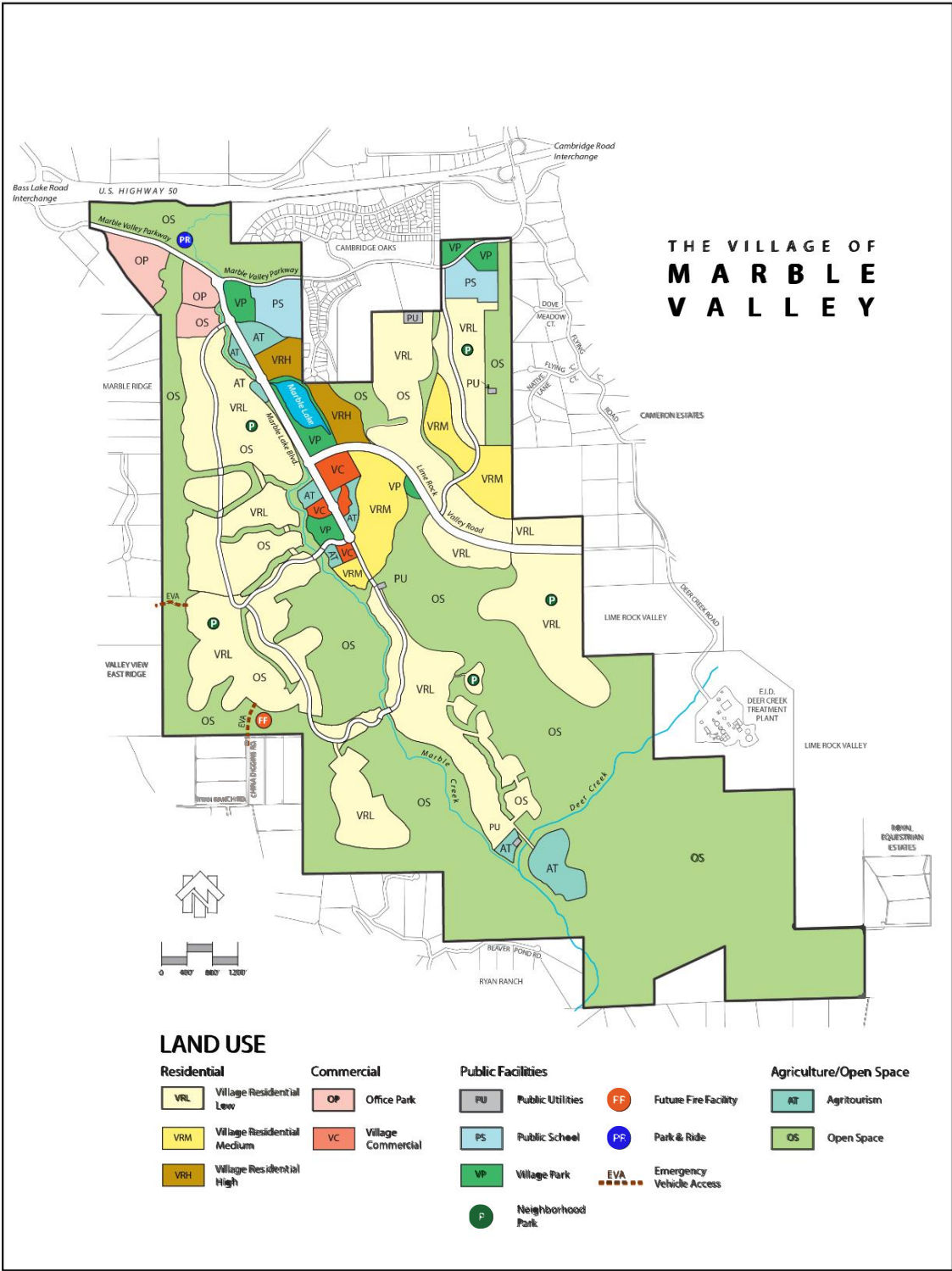
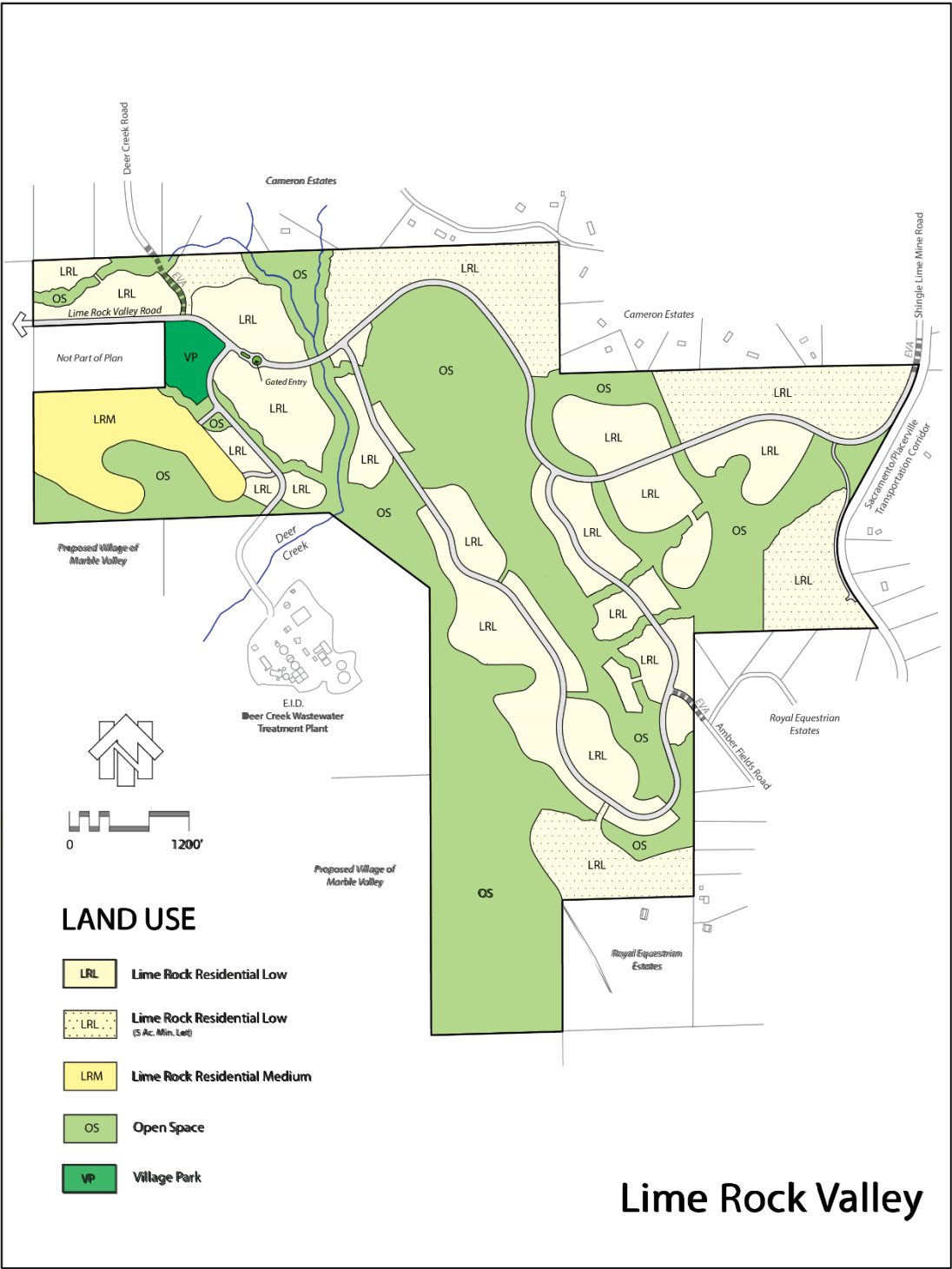


FIGURE 1: EDHCSD AND CPCSD BOUNDARIES





EDHCSD and CPCSD Facilities				VMVSP						LRVSP						Combined Totals				
CPCSD Public Park Facilities ^a	Park/Facility Type	Acres	Address	Travel time from VMV (min.)	Park Attractive Force	Weighted Force Share	Calculated Annual Visits VMV (buildout)	Total Annual Visitors (buildout)	Percentage of VMV residents going to CPCSD (buildout)	Projected Average Park Visitors per Day (buildout)	Travel time from LRV (min.)	Park Attractive Force	Weighted Force Share	Calculated Annual Visits- LRV (buildout)	Total Annual Visitors (buildout)	Percentage of LRV residents going to CPCSD (buildout)	Projected Average Park Visitors per Day (buildout)	Total Annual Visits from VMV and LRV (buildout)	Percentage of Visits per Park	
Cameron Park Lake	Community	56.5	2989 Cambridge Rd.	13	118391.82	0.01123858	3,980			10.904	16	22505.9716	0.036782993	3,751			10.28	7,731	33%	
Bonanza Park Disc Golf	Community	12.6	2989 Cambridge Rd.	13	26402.424	0.0025063	888			2.432	16	5019.03084	0.008202933	836			2.29	1,724	7%	
Christa McAuliffe Park	Community	7.1	2400 Merrychase Dr.	9	31040.828	0.00294661	1,043			2.859	12	5027.88275	0.0082174	838			2.30	1,881	8%	
David West Park*	Neighborhood	6.2	4220 Crazy Horse Road	9	27106.075	0.0025731	911			2.496	12	4390.5455	0.007175758	732			2.00	1,643	7%	
Eastwood Park*	Neighborhood	2.2	Culver /Veld Way/Canofa Ln.	13	4609.9471	0.00043761	155			0.425	16	876.338719	0.001432258	146			0.40	301	1%	
Gateway Park	Neighborhood	13.3	Cambridge Rd/Kato Ct.	12	32707.633	0.00310484	1,100			3.012	15	6027.79408	0.009851621	1,005			2.75	2,104	9%	
Paul J. Ryan	Neighborhood	4.9	Cameron Park Dr/Hacienda Road	10	17352.26	0.0016472	583			1.598	13	2956.64144	0.004832234	493			1.35	1,076	5%	
Northview Park*	Neighborhood	5.2	Auburn Hill Dr/Ashland Dr.	13	10896.239	0.00103435	366			1.004	14	2705.43159	0.004421665	451			1.24	817	3%	
Rasmussen Park	Community	10.1	Mira Loma Dr./Catawba Dr.	13	21163.848	0.00200902	711			1.949	16	4023.19139	0.006575367	671			1.84	1,382	6%	
Royal Oaks Park**	Natural area	10.4	Royal Dr./Country Club Dr.	9	45468.255	0.00431617	1,528			4.188	16	4142.69213	0.006770675	690			1.89	2,219	9%	
Community Center	Community	4.1	2502 Country Club Dr.	9	17924.985	0.00170157	603			1.651	12	2903.42525	0.004745259	484			1.33	1,086	5%	
Dunbar Park (site)	Neighborhood	0.9	Green Valley Rd./Hastings Dr.	12	2213.2985	0.0002101	74			0.204	15	407.89584	0.000666651	68			0.19	142	1%	
Knollwood Park (site)	Natural area	6.5	north of Knollwood Dr./Chelsea Rd.	12	15984.933	0.0015174	537			1.472	15	2945.9144	0.004814702	491			1.35	1,028	4%	
Sandpiper Park (site)	Natural area	3.1	between Bass Lake Road and Sandp	11	9072.6945	0.00086124	305			0.836	14	1612.85345	0.002635993	269			0.74	574	2%	
				12,7853.6%35.029						10,92410.7%29.93						23,709				
EDHCSD Public Park Facilities ^b																				
Allan Lindsey Park	Special use	5.5	2150 Armsmere Circle	8	30432.854	0.0028889	1,023			2.803	10	5608.5678	0.009166452	935			2.561	1,958	3%	
Art Weisberg Park	Neighborhood	4.27	2560 Francisco Drive	14	7714.926	0.00073236	259			0.711	17	1506.67408	0.002462457	251			0.688	510	1%	
Bass Lake Regional Park	Special use (Sellwood)	70	3240 Bass Lake Road	8	387327.23	0.03676782	13,021			35.673	11	58993.2	0.096416477	9,832			26.937	22,852	36%	
Blackstone Park	Village	13.6	1881 Blackstone Parkway	15	21405.055	0.00203192	720			1.971	17	4798.77459	0.007842954	800			2.191	1,519	2%	
Bowmens Archery Range	Special use	45	3321 El Dorado Hills Blvd.	11	131700.4	0.01250193	4,427			12.130	13	27152.8296	0.04437766	4,525			12.398	8,953	14%	
Creekside Greens Park*	Neighborhood	1.71	4721 Concordia Drive	10	6055.5846	0.00057484	204			0.558	12	1210.94078	0.00197912	202			0.553	405	1%	
Peter Bertelsen Park (Mitchell Field)	Village park	10.76	831 Redwood Lane	11	31491.03	0.00298935	1,059			2.900	13	6492.54325	0.010611192	1,082			2.965	2,141	3%	
El Dorado Hills Community Park	Community	39.5	1021 Harvard Way	11	115603.69	0.01097391	3,886			10.647	15	17902.0952	0.029258575	2,984			8.174	6,870	11%	
Fairchild Park	Neighborhood	3.84	3045 Brackenwood place	14	6938.0131	0.0006586	233			0.639	17	1354.94812	0.002214481	226			0.619	459	1%	
Governors Park	Neighborhood	1.9	905 Governor Drive	13	3981.3179	0.00037793	134			0.367	17	670.417038	0.001095707	112			0.306	246	0%	
Governors West Park	Open space (undeveloped)	7.3	2780 El Dorado Hills Blvd.	12	17952.31	0.00170416	603			1.653	16	2907.8512	0.004752493	485			1.328	1,088	2%	
Heritage Park	Village park	4.65	4016 Palmdale Drive	13	9743.7518	0.00092495	328			0.897	16	1852.26138	0.003027273	309			0.846	636	1%	
Kalitheia Park	Village park	3.82	4980 Gillette Drive	13	8004.5445	0.00075985	269			0.737	15	1731.29123	0.002829563	289			0.791	558	1%	
Lake Forest Park*	Village park	9.76	1821 Francisco Drive	19	9574.2018	0.00090885	322			0.882	22	2056.3344	0.003360803	343			0.939	665	1%	
Laurel Oaks Park*	Neighborhood	1.66	5031 Whistlers Bend Way	9	7257.4329	0.00068893	244			0.668	12	1175.53315	0.001921251	196			0.537	440	1%	
Murray Homestead Park	Neighborhood	4	3700 Amer Way	14	7227.097	0.00068605	243			0.666	18	1258.93778	0.002057565	210			0.575	453	1%	
New York Creek Nature Trail	Open space	28	2915 Tam O Shanter Dr	12	68858.174	0.0065365	2,315			6.342	16	11153.4019	0.01822874	1,859			5.093	4,174	7%	
Oak Knoll Park & Clubhouse	Village park	2.6	3371 Alyssum Circle	11	7609.3567	0.00072233	256			0.701	13	1568.83015	0.002564043	261			0.716	517	1%	
Overlook Park	Neighborhood	1.18	3273 Kensington Drive	16	1632.3076	0.00015495	55			0.150	19	333.322085	0.00054477	56			0.152	110	0%	
Parkview Heights Park	Neighborhood	1.18	2925 Ridgeview Drive	12	2901.8802	0.00027547	98			0.267	15	534.796768	0.000874054	89			0.244	187	0%	
Promontory Community Park*	Community	18.72	2700 Alexandra Drive	18	20460.715	0.00194227	688			1.884	20	4772.38133	0.007799817	795			2.179	1,483	2%	
Ridgeview Park	Neighborhood	4.35	3449 Ridgeview Drive	13	9115.1226	0.00086527	306			0.839	15	1971.49656	0.003222147	329			0.900	635	1%	
Ridgeview Unit 7 Park	Neighborhood	0.6	3397 Julie Ann Way	14	1084.0645	0.00010291	36			0.100	16	239.001469	0.000390616	40			0.109	76	0%	
Saratoga Park	Village park	2.1	401 Wilson Way	10	7436.6828	0.00070594	250			0.685	13	1267.13205	0.002070957	211			0.579	461	1%	
Stephen Harris Park	Village park	5.71	2740 Tam O Shanter Drive	13	11964.908	0.00113579	402			1.102	17	2014.77962	0.003292887	336			0.920	738	1%	
Valley View Sports Park*	Village park	5	1661 Blackstone Parkway	14	9033.8712	0.00085756	304			0.832	17	1764.25536	0.002883439	294			0.806	598	1%	
Village Green Park	Village park (Serrano)	10	4655 Serrano Parkway	9	43719.476	0.00415016	1,470			4.027	11	8427.6	0.013773782	1,405			3.848	2,874	5%	
Waterford Park	Neighborhood	1.15	2617 Carnelian Circle	17	1409.1589	0.00013377	47			0.130	20	293.175135	0.000479155	49			0.134	96	0%	
Wild Oaks Park*	Open space	10.38	2510 El Dorado Hills Blvd	13	21750.568	0.00206472	731			2.003	16	4134.72541	0.006757654	689			1.888	1,420	2%	
William C 'Bill' McCabe Park	Neighborhood	4.74	2590 Hoffman Court	14	8564.1099	0.00081297	288			0.789	17	1672.51408	0.0027335	279			0.764	567	1%	
Windsor Point Park	Neighborhood	1.14	4005 Windsor Point Place	17	1396.9053	0.0001326	47			0.129	20	290.625786	0.000474989	48			0.133	95	0%	
				34,2679.7%93.881						29,51828.9%80.871						63,785				
Village of Marble Valley Specific Plan ^c																				
Proposed park sites (see exhibit)		Proposed Acres																		
VP 1 and VP 2 (Marble Lake Park)		21	Marble Lake Blvd.	1	7436682.8	0.70594221	249,994			684.914	5	85658.1264	0.139996724	14,276			39.112			
VP 3		8	Marble Valley Parkway/Marble Lake B	2	708255.5	0.06723259	23,809			65.230	7	16648.8098	0.027210248	2,775			7.602			
VP 4		6	Marble Valley Parkway	5	84990.66	0.00806791	2,857			7.828	5	24473.7504	0.039999064	4,079			11.175			
VP 5		6	Marble Lake Blvd.	2	531191.63	0.05042444	17,857			48.922	6	16995.66	0.027777128	2,833			7.760			
VP 6		1.5	Lime Rock Valley Road	2	132797.91	0.012160														

Annual Park Visits		VMVSP	LRVSP
Projected Park Users ^e		9,168	2,640
Frequency	Park visit per		
	person	Annual Visits	Annual Visits
2 or more times per week	0.167	238,845	68,777
Once per week	0.138	65,790	18,945
Once or twice per month	0.206	33,995	9,789
Several times per year	0.244	13,422	3,865
Once or twice per year	0.151	2,077	598
Total Annual Visits		354,128	101,974
Annual Visits by Resident		38.6265	38.6265

Notes:
* Lighting and Landscape District (LLAD)
** As of 2025, only the walking trail is accessible.

Sources:
a CPCSD 2014; CPCSD "Our Parks" (<https://www.cameronpark.org/our-parks>); * denotes LLAD
b EDHCSD 2024: Appendix E; EDHCSD Park Locator (https://www.eldoradohillscsd.org/programs_and_amp_activities/parks.php) * denotes LLAD
c Marble Valley Company LLC, VMVSP Public Review Draft 2024
d Lime Rock Valley LLC, LRVSP Public Review Draft 2024
e VMVSP and LRVSP Draft EIRs, May 2024, Sections 3.13.

Park Visitor Demand Methodology for VMVSP and LRVSP

Park impacts, in terms of potential park visitors from the Village of Marble Valley Specific Plan (VMVSP) and Lime Rock Village Specific Plan (LRVSP) on the parks operated by the El Dorado Hills Community Services District (EDHCSD) and Cameron Park Community Services District (CPCSD), were estimated using a gravity model that measures the relative attraction between two entities based on the physical characteristics of the entities.

The gravity model is of the form:

$A = M_1 M_2 / d^2$, where:

A is the attraction between the two entities.

M_1 and M_2 are the characteristics of the first and the second entity, respectively.

d is the distance between the entities.

The model states that the attraction between two entities is proportional to the product of the M values of the two entities and inversely proportional to the square of the distance between the two. A gravity model is widely used in estimating the relative attraction of shoppers within a given study area to local shopping centers.¹ The gravity model was used as a reasonable proxy for estimating park visitors because the inputs can be expressed as population, acreage, and travel time.

In the analysis, the value of A is the relative attraction of a given park site to a residential area. The characteristic of the residential area is the number of annual park users, the park characteristic is the park's acreage, and d is the vehicle travel-time in minutes between the residential area and the park.

The model assumes that when given multiple park options, a park user will decide where to go based on park amenities and facilities and the travel time to the park. Acreage is the most general park characteristic and is used as a proxy for the amenities and recreation facilities at a given park. For example, the larger the park, the more likely it is to offer more recreational opportunities for any given park user. While single-use parks will have a high attraction to a specific set of users—e.g., a dog park has a high attraction to someone who wants to exercise their dog—among the entire set of park users, their attraction relative to other parks is small.

The residential characteristic is the number of park visitors that are expected to be generated by the projects' populations. In this analysis, the park users, as a percentage of the total population, were derived from a survey conducted by California State Parks.²

¹ In the gravity model, M_1 can be population, households, or disposal income; M_2 can be retail floor area (or acreage) and expressed as either distance or travel time.

² *Survey on Public Opinions and Attitudes on Outdoor Recreation in California* for the State Comprehensive Outdoor Recreation Plan (2014) <https://www.parks.ca.gov/pages/795/files/2012%20spoa.pdf>

Park Visitor Demand Methodology for VMVSP and LRVSP

The park user percentages in the study were reported as follows:

Frequency of park visit	Percentage of respondents	Annual visits by any given project resident
2 or more times per week	16.7%	$3 \times 52 \times 16.7\% = 26$
Once per week	13.8%	$1 \times 52 \times 13.8\% = 7.2$
Once or twice per month	20.6%	$1.5 \times 12 \times 20.6\% = 3.7$
Several times per year	24.4%	$6 \times 24.4\% = 1.5$
Once or twice per year	15.1%	$1.5 \times 15.1\% = 0.23$
Total park visits by the average project resident		38.63

Travel Time to Parks

Google Maps was used to determine the travel time in minutes for the existing parks in the EDHCSD and the CPCSD, and the proposed parks in VMVSP and in LRVSP. The starting point for each park trip is given as the centroid of the projects' populations determined from the project specific plans. For the VMVSP, this is near the proposed intersection of Marble Lake Boulevard and Lime Rock Valley Road. The LRVSP centroid is the intersection of Lime Rock Valley Road and the proposed main loop road. The park address was entered as the destination on Google Maps and the shortest travel time was recorded.

Proportional Attraction by Individual Park

The total park visitors, park acreage, and travel time to each park are used in the gravity model formula to calculate each park's attractiveness value. The attractiveness factor depends on two variables: travel time and acreage. Each attractiveness value is then divided by the sum of all attractiveness values to find each park's attractiveness relative to all other parks in the study, which is then multiplied by each projects' total park visitors to find the number of visitors annually to that park from the VMVSP and LRVSP.

VMVSP													LRVSP												
Year	Condo (MFR) Units	Apt (MFR) Units	MFR units (total) ^a	SFR units ^a	Population ^b	Units/year (%) ^c	Annual visits to EDHCSD ^d	Cumulative visits to EDHCSD/year	Daily visits to EDHCSD	Annual visits to CPCSD ^e	Cumulative visits to CPCSD/year	Daily visits to CPCSD	Year	SFR units ^a	Population	Units/year (%) ^c	Annual visits to EDHCSD ^d	Daily visits to EDHCSD	Cumulative visits to EDHCSD/year	Annual visits to CPCSD ^e	Cumulative visits to CPCSD/year	Daily visits to CPCSD			
1	0	0	0	0									1	51	168	6%	1,650	5		1,410		4			
2	51		51	110	470	5%	1,760		5	653		5	2	51	168	6%	1,650	5	3,300	1,410	2,819	4			
3	51	63	114	110	602	7%	2,256	4,016	6	837	1,490	6	3	51	168	6%	1,650	5	4,950	1,410	4,229	4			
4	51	63	114	110	602	7%	2,256	6,271	6	837	2,327	6	4	51	168	6%	1,650	5	6,600	1,410	5,639	4			
5	51		51	110	470	5%	1,760	8,031	5	653	2,981	5	5	51	168	6%	1,650	5	8,250	1,410	7,049	4			
6	51		51	110	470	5%	1,760	9,791	5	653	3,634	5	6	51	168	6%	1,650	5	9,900	1,410	8,458	4			
7	51		51	110	470	5%	1,760	11,552	5	653	4,287	5	7	50	165	6%	1,618	4	11,518	1,382	9,840	4			
8	51	76	127	110	630	7%	2,358	13,909	6	875	5,162	6	8	50	165	6%	1,618	4	13,136	1,382	11,222	4			
9	51	76	127	110	630	7%	2,358	16,267	6	875	6,037	6	9	50	165	6%	1,618	4	14,754	1,382	12,605	4			
10	51		51	110	470	5%	1,760	18,027	5	653	6,691	5	10	50	165	6%	1,618	4	16,371	1,382	13,987	4			
11	51	63	114	110	602	7%	2,256	20,283	6	837	7,528	6	11	49	162	6%	1,585	4	17,957	1,354	15,341	4			
12	51	63	114	110	602	7%	2,256	22,538	6	837	8,365	6	12	49	162	6%	1,585	4	19,542	1,354	16,695	4			
13	51	75	126	110	628	7%	2,350	24,888	6	872	9,237	6	13	49	162	6%	1,585	4	21,128	1,354	18,050	4			
14	35	72	107	110	588	6%	2,200	27,089	6	817	10,053	6	14	49	162	6%	1,585	4	22,713	1,354	19,404	4			
15			0	110	363	4%	1,359	28,448	4	504	10,558	4	15	49	162	6%	1,585	4	24,298	1,354	20,759	4			
16			0	110	363	4%	1,359	29,807	4	504	11,062	4	16	49	162	6%	1,585	4	25,884	1,354	22,113	4			
17			0	105	347	4%	1,297	31,104	4	481	11,544	4													
18	42		42	104	431	5%	1,615	32,719	4	599	12,143	4													
19	33		33	104	413	5%	1,544	34,264	4	573	12,717	4													

Notes:

a Units per year assumption per LRV DEIR (ICF 2024a: Appendix C) and VMVSP DEIR (ICF 2024b: Appendix C)

b Calculated as 3.3 people/SFR unit and 2.1 people/MRF unit per LRVSP DEIR and VMVSP DEIR Section 3.13 (Recreation)

c Calculated as follows: number of units per year/total buildout units

d Calculated as follows: population x 38.6 park visits/day per Attachment B-1 x 9.7 % of residents going to EDHCSD per Attachment B-1

e Calculated as follows: population x 38.6 park visits/day per Attachment B-1 x 3.6 % of residents going to CPCSD per Attachment B-1

f Calculated as follows: population x 38.6 park visits/day per Attachment B-1 x 25.4 % of residents going to EDHCSD per Attachment B-1

g Calculated as follows: population x 38.6 park visits/day per Attachment B-1 x 21.7% of residents going to CPCSD per Attachment B-1

**Visits from Projected Cameron Park Population
to Proposed VMVSP and LRVSP Parks**

Attachment B-3

Proposed Park Facilities	Acres	Address	Annual Visits From Projected Cameron Park Population to Parks Proposed in VMVSP and LRVSP (Buildout)
Village of Marble Valley			
VP 1 and VP 2 (Marble Lake Park)	21	Marble Lake Blvd.	
VP 3	8	Marble Valley Parkway/Marble Lake Blvd.	
VP 4	6	Marble Valley Parkway	
VP 5	6	Marble Lake Blvd.	
VP 6	1.5	Lime Rock Valley Road	
VP 7	4.5	Marble Valley Parkway	
Total Parks Acres per VMVSP	47		19,240
Lime Rock Valley			
Village Park 1	8	Lime Rock Valley Road (1332 Deer Creek Rd.)	4,940

Memorandum in Response to Lotusland Case



Memorandum in Response to *Lotusland* Case
March 27, 2025

Introduction and Overview

The Draft Environmental Impact Report (“DEIR”) for the Lime Rock Valley Specific Plan (“project” or “LRVSP”) analyzed the risk of exposure from wildland fires. The DEIR explains that “[s]everal factors contribute to the susceptibility of wildfire danger in the county, [and]. . . . [i]ntroducing construction activities, electrical service structures, and people to this area would expose them and the surrounding community to potential wildfire risk.” (DEIR at p. 3.7-18.) The DEIR explained: “With the additional identified protection and required wildland fire protection features, the project would protect residents from significant wildfire risks and would not increase or create new risks. The proposed project would not expose people or structures to a significant risk of loss, injury, or death, either directly or indirectly, due to a wildland fire as a result of the fuel modifications and defensible space development.” (DEIR at p. 3.7-20.) The DEIR ultimately concluded that Mitigation Measure HAZ-8 and the state, El Dorado County Fire Protection District, and LRVSP requirements and standards would minimize the potential for wildfire and would not result in substantially greater potential to exacerbate existing wildfire hazards in the project area. (DEIR at p. 3.7.-23.)

After circulation of the DEIR, the undersigned and applicant provided memoranda responding to comments regarding wildfire risks for the project, including the September 10, 2024 Wildfire Master Response from Firesafe Planning, Inc. and the September 13, 2024 response from the applicant (collectively, “Applicant Responses to Comments”).

The purpose of this memorandum is to respond to the October 23, 2024 decision in *People of the State of California Ex Rel. Rob Bonta, Attorney General v. County of Lake & Lotusland Investment Holdings, Inc.* (2024) 105 Cal.App.5th 1222 (“*Lotusland*”). In *Lotusland*, the appellate court faulted the EIR for not explaining the extent to which bringing new residents to the largely undeveloped project site would increase the “risk of human-caused wildfire over the existing baseline risk.” (*Id.* at p. 1233.) The court also explained that if quantifying the risk is not possible, the “EIR itself must explain why, in a manner reasonably calculated to inform the public of the scope of what is and is not yet known about the Project’s impacts.” (*Id.* at fn. 8.)

While the DEIR for the LRVSP explained that most wildfires are caused by people and increasing people in the area would expose those new residents and the surrounding community to potential wildfire risk, the DEIR did not, as in *Lotusland*, attempt to quantify the increased risk of human-caused wildfires as a result of the increased population from development of the project.

28506 Airoso Street
Rancho Mission Viejo, CA 92694
(949) 240-5911

Lotusland Response – Lime Rock Valley Specific Plan

The following analysis therefore strives to assess the risk from adding the new project population to the undeveloped project site and concludes that, while the project increases the general potential for human-ignited wildfires as disclosed in the DEIR, there is not a direct or linear correlation between increased population and wildfire that can be precisely calculated. Studies have determined that, at a certain point, increased density in terms of units per acre and population combined with development under current standards begins to actually minimize the risks of wildfires even though the population has increased. Moreover, studies have also shown that construction under current standards reduces the threat of wildfire and communities built after 2008 face less wildfire risk. The *Lime Rock Wildland Fire Evacuation Risk Report Fire Behavior* prepared by Firesafe Planning, Inc. dated November 01, 2023 in Appendix M of the DEIR also explains how the mandatory risk reduction measures for the Project, including built-in fire protection features (e.g., defensible space, fuel modification, hardening of the structures, and required maintenance), result in the Project actually decreasing the risk of wildfire for the surrounding communities. Therefore, while there is an increased risk of fires caused by humans when new populations are brought to an undeveloped area that otherwise does not have people, historical data, regulatory compliance, and project design and mitigation measures, demonstrate that the risk from the addition of people to the proposed project will remain less than significant.

Analysis

It is important to first strive to quantify the increased risk that may be caused by development in areas which have not been previously developed. This needs to be done by describing the “additional wildfire risk factors as compared to existing conditions” that the project would “introduce” to the area. Specific studies for the project site region on this subject are not readily available, however, more regional, national and international findings are available on the general subject.

The introduction of new residents to the largely undeveloped project site increases the risk of human-caused wildfire over the existing baseline risk due to the lack of people at the project site. As the DEIR explains, “the majority of wildland fires that have occurred in the Western El Dorado County area are human caused.” (DEIR at p. 3.7-11.) Humans cause nearly 90% of wildfires in the United States according to the latest report from the Congressional Research Service in its report on Wildfire Statistic data June 1, 2023. These fires are primarily from discarded cigarettes, unattended campfires, burning debris, or through equipment malfunctions. By bringing people to an undeveloped area, these risks of human-caused fires would increase.

Increased human habitation in a wildlife-urban interface increases the fire risk from human activities such as arson, children playing with fire, debris-burning, increased vehicular traffic, increased fire risk from sparks, catalytic converters, and smoking/discarded smoking materials and accidental fires. The development itself introduces residences within the site creating a wildland-urban interface that increases the general potential for human-ignited wildfires. All of these factors could expose project occupants to pollutant concentrations from wildfire or the uncontrolled spread of wildfire near or into the development footprint.

However, as noted in the publication, *Conservation Threats Due to Human-Caused Increases in Fire Frequency in Mediterranean-Climate Ecosystems*, by Alexandra D. Syphard, et. Al (May

2009), while “human ignitions increase with population density, . . . there appears to be a threshold above which fire occurrence declines, possibly due to less open space and fuel fragmentation caused by urban development or other land-use change”:

The association of people with the spatial distribution of fire occurrence is likely due to the fact that humans now cause the majority of ignitions in all five Mediterranean-climate regions (Bond & van Wilgen 1996), and human ignitions are likely to occur close to roads and human infrastructure (e.g., Yang et al. 2007; Syphard et al. 2008). Nevertheless, our results also showed that fire occurrence consistently peaked where population densities were intermediate, which suggests that fire patterns in Mediterranean-climate regions are related to the spatial arrangement between people, urban development, and fuel. When population density is lowest, human ignitions are also low but increase with population density. Nevertheless, there appears to be a threshold above which fire occurrence declines, possibly due to less open space and fuel fragmentation caused by urban development or other land-use change. Fire-suppression resources also tend to be concentrated near urban areas (Calkin et al. 2005), and intermediate-density housing when located within wildland vegetation is classified as the wildland–urban interface (WUI) in the United States and given special fire-management considerations (Radeloff et al. 2005).

Conservation Threats Due to Human-Caused Increases in Fire Frequency in Mediterranean-Climate Ecosystems, Alexandra D. Syphard, Volker C. Radeloff, Todd J. Hawbaker, Susan I. Stewart, First published: 15 May 2009, <https://doi.org/10.1111/j.1523-1739.2009.01223>

Therefore, while the increased probability of human-caused ignitions cannot be ignored, the reality is that while more opportunities for fires will exist, factors associated with the changes in the wildland fuels and topography will have an offsetting effect:

Studies in California show that area burned and number of fires are highest when population and housing densities are intermediate (Keeley 2005; Syphard et al. 2007). Fires initially increase with population and housing density and then decline where a threshold density is reached. There are several interrelated reasons for this. Ninety-five percent of California’s fires are human caused; therefore, anthropogenic ignitions are lower in areas with low population density. As population and housing densities increase, fuels are still abundant and contiguous enough to carry fire, and the number and frequency of fires increase (Syphard et al. 2007). As population density increases further and an area is developed, wildland fuel is reduced and fragmented and fire-suppression resources are concentrated, resulting in lower fire frequencies at high population densities. Finally, even if fire frequency remains stable, fires may cluster in certain areas (e.g., human settlements) or land-cover types (Nunes et al. 2005; Forsyth & van Wilgen 2008), resulting in high fire frequency in localized areas. Syphard, A. D., Radeloff, V. C., Hawbaker, T. J., & Stewart, S. I. (2009). Conservation threats due to human-caused increases in fire frequency in Mediterranean-climate ecosystems. Conservation Biology, 23(3), 758–769.

As the above studies highlight, increased density can reduce the severity of wildfires for numerous reasons. One avenue that increased density reduces wildfire severity is the increase in density of the units per acre because increased density in units per acre reduces vegetation between residences

Lotusland Response – Lime Rock Valley Specific Plan

and provides shorter distances between structures. Chapter 49 of the Fire Code does not allow tree canopies to be within 10 feet of a structure or shrub groups within 30 feet of a structure, thus as the structures are placed closer together, the vegetation limits and noncombustible areas of each structure begin to merge and thereby preclude the use of trees and shrubs between the structures. For example, at approximately 6 dwelling units per acre, it is unlikely trees could be planted between the structures and, at approximately 8 dwelling units per acre, it is unlikely trees could be planted between the structures or in the backyards of the structures. In contrast, when densities are lower (approximately 2.0 du/ac or less depending on layout) the distance between the structures is generally greater than the prescribed defensible space (100 feet in California) around the structure. While these structures will be subject to the same limitations under current standards regarding trees and vegetation, the limitations around each structure are unlikely to overlap and thus trees and vegetation are likely to occur between the structures.

The benefits of increased density are not limited to units per acre, however, and are also seen through increased population density in communities designed and built to current standards. For example, even when dwelling units per acre are lower, the severity of fires is decreased due to numerous benefits that an increase in population density brings to formerly undeveloped land with wildland fuels. These benefits included the addition of new roads, firebreaks, and fire resources to a currently undeveloped and potentially inaccessible area and development of the homes under current standards with mandatory hardening of structures, fire sprinklers, and vegetation management.

Therefore, the benefits of increased density in minimizing the risks of wildfires are not limited to considering the units per acre, but extend to the addition of development under current standards with improved firefighting resources and infrastructure in a previously undeveloped area. All of these factors will reduce the risks of wildfire severity and spread independent of the dwelling units per acre. A community design approach with long-term enforcement through an HOA, as with LRVSP, further reduces the severity of wildfires. In assessing the benefits of density, one consideration thus cannot be examined in isolation of the others to quantify an ideal dwelling units per acre because all of the factors work together to create a system's approach that reduces both wildfire risk and severity. What can be said at a broader level, however, is that the increased density in terms of both units per acre and population can reduce the wildfire severity when, as with the LRVSP, the entire community is designed to anticipate wildfire risks and implements the most current wildland interface code and regulations.

A study out of Texas (*Effects of changing development patterns and ignition locations within Central Texas*, Mobley, W, (Feb. 2019)) also indicated the ignition gradient along lateral development could lower ignition probabilities when the new development areas were nearest to the previous urban development, while outlying development patterns in the wildland had higher probabilities.

This builds on the concept that, at a point of development density in terms of units per acre and population, wildland fuels are reduced/eliminated or fragmented to a point where fire suppression effort is more effective. This higher level of development also has a greater concentration of emergency services resources to aid the protective actions needed to bring the incident to a close.

Lotusland Response – Lime Rock Valley Specific Plan

According to the Western Fire Chiefs Association (WFCA), wildland fires are primarily from discarded cigarettes, unattended campfires, burning debris, or through equipment malfunctions. Using data from El Dorado County Fire Agencies, 88 fires over 10 years (2012-2022) provided the following breakdown for those fires where the cause was known (61 fires):

14	23.0%	Equipment Use
13	21.3%	Miscellaneous
9	14.8%	Debris/Trash burning
7	11.5%	Arson
6	9.8%	Lightning
6	9.8%	Vehicle
3	4.9%	Powerline
2	3.3%	Smoking
1	1.6%	Campfire
61		

Restricting smoking in open space areas coupled with roadside protection zones is greatly beneficial to reducing the impacts of smoking materials within any project site. Campfires will not be allowed within the project site nor will solid-fuel appliances or open flame devices which do not have spark arrestors in accordance with the Fire Code and local ordinance requirements. Burning of debris will not be allowed within the project site and will be enforced by the project site HOA in addition to the local law enforcement and fire agencies. While it is impossible to stop all of the equipment malfunctions, the wildfire safety plan for the proposed project will be required to comply with the most current regulations and standards regarding the type and nature of equipment used in or near the wildland interface. Internal combustion engines are required to have spark arrestors under the current fire code. The common areas of the project site will be under the jurisdiction of the HOA and as such, it can and will hold those doing work in the interface, especially the fuel modification zones, accountable for wildland fire safety practices in accordance with CalFire/Local Fire agency and NFPA (National Fire Protection Association) standards as also implemented through the wildfire safety plan required under HAZ-8.

A study out of Canada summed the relationship of population to increased wildland fire ignitions up very well:

The prevalence of human-caused wildfires near population centers and in interface areas is not just a Canadian phenomenon, but has been observed all over the world. However, the relationship between human population density and wildland fire is complex and has been shown to be non-linear in many regions across the world because population centers can offer both sources of ignition and enhanced protection from wildland fire spread owing to increased suppression activity (Bistinas et al. 2013; Price and Bradstock 2014).

In such cases, the incidence of wild land fire ignitions increases with population density up to a local threshold, then decreases. In their research, they found that population centers of all sizes were associated with individual clusters, which

further supports the notion that the relationships between human-caused wildfires and population density are non-linear and involve other factors.

Human- and lightning-caused wildland fire ignition clusters in British Columbia, Canada

Sean C. P. Coogan A *, Olivia Aftergood A and Mike D. Flannigan B., International Journal of Wildland

Fire 1043-1055 <https://doi.org/10.1071/WF21177> Published: 11 October 2022

For the project site, proposed density levels will create conditions which are favorable to reduced impacts from wildland fires and include fuel modification zones which are placed in a “system’s approach” rather than lot by lot, roadside clearance to reduce ignitions from discarded smoking materials and vehicle accidents, increased access to wildland areas from road network with multiple points of access and interties to existing circulation roadways which do not currently connect and earlier detection of incipient fires. All of these will have a positive impact on any wildland fire ignitions. These protections, already in place in newer adjacent developments, are likely the reason for limited increases in wildland fires in the general area when the population has increased significantly, as discussed more below.

Overall, while data regarding the causes of fires is important in mitigating the risks of human-caused fires, the data does not indicate that the population increase from the LRVSP will increase the number or acres of wildland fires in a linear manner that is tied to the population increase. Examination of wildland fires illustrates this at both a statewide and local level.

Statewide Data

The total number of structures in or near the WUI (Wildland Urban Interface) has increased significantly over the past few decades. If the probability of ignition was increased in a linear manner by the increase in population, it could be assumed that the number of wildland fires would have increased over the same period as well. The opposite has occurred. According the CalFire database (<https://www.frontlinewildfire.com/wildfire-news-and-resources/california-wildfires-history-statistics/>), the number of wildland fires is trending down over the past 37 years (Figure 1).

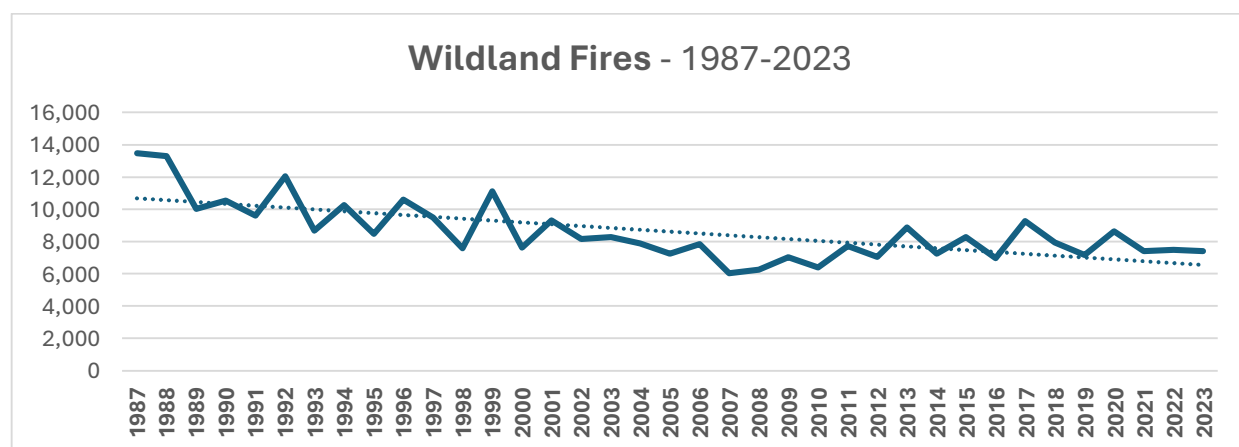


Figure 1 – California Wildland Fires 1987 to 2023

In the same time period (1987-2023) the population of California increased from 27,777,160 to 38,965,193 (40% increase). While not all of this increase was in the WUI, a large portion of the new development areas within California are in the WUI. While the number of fires has decreased, the acreage burned has increased, in some years dramatically. This is illustrated in Figure 2, below.

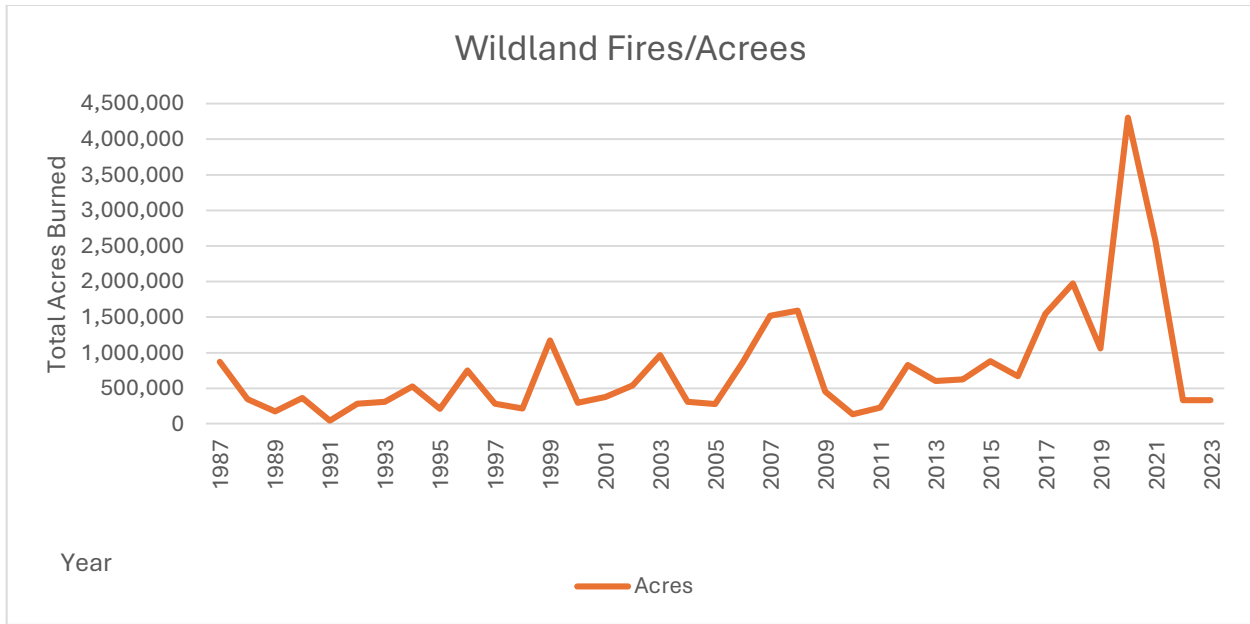


Figure 2 - California Wildland Acreage 1987 to 2023

Figure 3, below, provides the two charts on the same graphic.

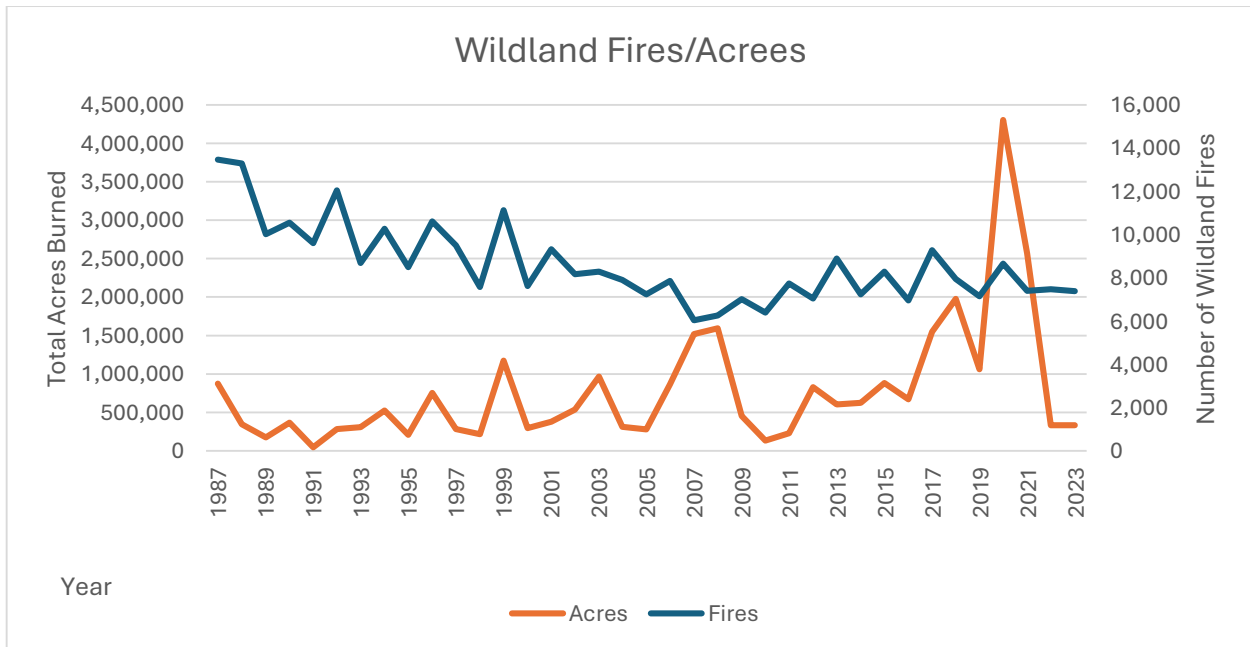


Figure 3 – California Wildland Fires vs Acreage 1987 to 2023

Research done on wildland fire in the Sierra Nevada's from 1984 to 2017 indicates that "human activities" and land use alter the wildfire regime. This occurs through ignitions (deliberate or accidental), suppression of the fires, and altering of the wildland fuels, including vegetation treatments, prescribed fire, forest clearing, and cultivation. Fuel continuity is also affected which leads to a fragmentation of the landscape. (Chin, B 2021)

Lotusland Response – Lime Rock Valley Specific Plan

The 2021 research article indicates that “populations living in the wildland-urban interface increases road and trail density and traffic (Radeloff et al., 2018) and Syphard et al. (2007) found a highly significant relationship between fire frequency and indices of human settlement such as population density and distance to WUI at the county level in California. It concluded that the structure of human development in the WUI and the interaction with vegetation are important risk factors for fire. (Chin, B 2021)

An important point made in the 2021 study is that “Areas of interface WUI, where development is adjacent to wildland vegetation, have a lower fire probability than areas of intermix WUI, where development is intermingled with wildland vegetation.” (Haight et al., 2004; Syphard et al., 2007).

Another salient point made by the study indicates that “Increases in electrical infrastructure and transmission lines with WUI expansion create further ignition risk, especially under extreme weather conditions.” (Calkin et al., 2014; San-Miguel-Ayanz et al., 2013). When new development undergrounds its utilities, as planned for the proposed project, this aspect of the increased risk is mitigated to a point where it is no longer an issue.

While it is impossible to isolate the WUI factors within the myriad of issues which drive the number of wildland fires in a year, it is possible to say that the inclusion of a large amount of new residential population into the WUI over this period has not produced a significant increase in the number of wildland fires. Correlation is not causation, and this is not presented as proof, but the correlation is one factor to consider.

Within the CalFire Fire and Resource Assessment Program (FRAP) database is a repository of all of the known fire perimeters which have been collected over the years. FRAP annually maintains and distributes a historical fire perimeter data set from across public and private lands in California. The GIS data is jointly developed with the cooperation of the United States Forest Service Region 5, the Bureau of Land Management, the National Park Service and the Fish and Wildlife Service and is released in April of each year. The database represents the most complete digital record of fire perimeters in California, but it is still incomplete, and one should be so advised when drawing conclusions based on the data.

The fire perimeters database has a total of 241 fire perimeters from 1950 to 2023 for El Dorado County. A total of 182 of those fires have occurred since 1970 and 121 of them since the year 2000 (Figure 4). When grouped by decade, the data shows that, while the 2000's had more fire starts, the number of acres burned was significantly less than the decade before (1990's) in spite of over twice the number of fires (61 vs 28). The current decade has a single fire (Caldor) which accounts for 74% of the total acres burned for the decade (221,786 acres /300,516 acres). The 2020 decade has only 4 years of data and is not directly comparable. Since 1970, the population of El Dorado County has increased from 43,833 to a current population of 192,215 according to Census data (Current Population Reports, Series P25-1106). This is an increase of 439% or 4.39 times the number of residents in 1970 vs today. If there was a direct correlation between the number of residents and the number of wildland fires in 2019, by the end of the 2010 decade the number of fires should have been 79 (18 times 4.39) but it is not.

Lotusland Response – Lime Rock Valley Specific Plan

Decade	Fires	Avg/Yr	Acres	Population (Avg/Decade)	Percent Increase	per capita	per 1,000	ac per cap
1950	30	3	58,429.9	16,207		0.00185	1.85	3.61
1960	29	2.9	81,444.8	29,390		0.00099	0.99	2.77
1970	18	1.8	42,854.0	58,893		0.00031	0.31	0.73
1980	15	1.5	8,059.0	99,632	169%	0.00015	0.15	0.08
1990	28	2.8	35,154.9	142,614	242%	0.00020	0.20	0.25
2000	61	6.1	26,297.7	168,836	287%	0.00036	0.36	0.16
2010	45	4.5	115,579.0	183,102	311%	0.00025	0.25	0.63
2020	15	1.5	300,516.0	192,439	327%	0.00008	0.08	1.56
	182		528,460.6					

Figure 4 – FRAP Database Summary

Regional Data

In El Dorado County, the population has increased from approximately 44,000 in 1970 to a current population of 192,000 (2023 Intercensal Estimates of the Resident Population of States and Counties), which is an increase of 436% with most of that increase in the western part of the county.

An assessment of all fire calls identified as wildland fires in the California Fire Incident Reporting System (CFIRS) from 2000 to 2023 indicated that 5,877 fires are coded with the wildland fire designation (CIFRS Code 141, 142 and 143). 5,611 of the fires in the database occurred within the El Dorado County limits. For the purposes of this analysis, mutual aid resources provided to adjacent fire agencies have been removed. This data was analyzed for comparison to the FRAP data. The CFIRS data shows that, on average, there are 234 wildland responses in a given year when averaged over the 24 years of data. It is then possible to make some observations about the frequency of wildland fires in El Dorado County. Looking at each year as a deviation from the average, there is a period of increased call loading in the 2004 to 2008 period where call frequency increased to 134% at its peak. There are three years where call volume was significantly less than the average (2010 at 63%; 2019 at 80% and 2022 at 72%).

The population of El Dorado County increased from 157,162 in 2000 to a current population of 192,215 (2023). This represents a 22% increase over the base year (2000). In 2000, the wildland calls per thousand population was 1.27 (Figure 5). Averaged over the 24 years, the rate is 1.30. Using this metric, the 2004 to 2008 period is still the upper limit with a smaller impact in the 2020-2021 period. It is important to note that 12 of the 24 years in this block of data (2000-2023) have total accumulations of wildland fire acres in El Dorado County (not including the federal forests) of under 500 acres. Five years have over 1,000 acres but less than 2,500 acres, a single year is at 8,786 and two years have over 100,000 acres (2014 and 2021). Within the FRAP database, the 1960's had 81,444 acres, but there are no fires over 50,000 acres in the FRAP database for El Dorado County, other than the King (2014) and Caldor (2021) fires which were 97,685 and 221,786 acres, respectively. It should be noted that the King Fire occurred in a year that had only 98% of the 24-year average in terms of the number of fires and without the 97,685 acres, the other 228 fires for 2014 only consumed 4,650 acres combined. Without the King and Caldor fires, the yearly average of acres over the past 24 years is 1,125 acres per year. It is important to repeat that this data does not have the federal fires in it and that other large fires have occurred in and around

Lotusland Response – Lime Rock Valley Specific Plan

El Dorado County. This analysis is directed at the relationship of development to the number and impact of wildland fires due to the changes created by the development and increased populations associated with that development. The 24-year average for wildland fires per 1,000 population at the county level is 1.30 fire/1000 residents.

Year	Fires	Diff from Avg	% of Avg	Cum Acres	Population	Increase (over 2000)	Fires/1000 pop	% of Avg
2000	200	(33.8)	85.5%	1,183	157,162		1.27	98%
2001	211	(22.8)	90.3%	464	161,101	103%	1.31	101%
2002	212	(21.8)	90.7%	1,218	165,195	105%	1.28	99%
2003	249	15.2	106.5%	560	168,331	107%	1.48	114%
2004	283	49.2	121.0%	426	171,653	109%	1.65	127%
2005	219	(14.8)	93.7%	333	175,003	111%	1.25	96%
2006	297	63.2	127.0%	1,004	176,773	112%	1.68	129%
2007	301	67.2	128.7%	763	177,694	113%	1.69	130%
2008	312	78.2	133.5%	1,248	179,150	114%	1.74	134%
2009	197	(36.8)	84.3%	134	180,455	115%	1.09	84%
2010	148	(85.8)	63.3%	306	181,113	115%	0.82	63%
2011	219	(14.8)	93.7%	258	180,727	115%	1.21	93%
2012	229	(4.8)	98.0%	331	180,188	115%	1.27	98%
2013	268	34.2	114.6%	671	180,915	115%	1.48	114%
2014	229	(4.8)	98.0%	102,113	182,354	116%	1.26	96%
2015	254	20.2	108.6%	319	183,635	117%	1.38	106%
2016	236	2.2	100.9%	422	184,846	118%	1.28	98%
2017	213	(20.8)	91.1%	477	187,423	119%	1.14	87%
2018	221	(12.8)	94.5%	8,786	189,366	120%	1.17	90%
2019	187	(46.8)	80.0%	790	191,309	122%	0.98	75%
2020	291	57.2	124.5%	2,332	191,245	122%	1.52	117%
2021	267	33.2	114.2%	222,087	193,704	123%	1.38	106%
2022	168	(65.8)	71.9%	108	192,787	123%	0.87	67%
2023	200	(33.8)	85.5%	138	192,215	122%	1.04	80%
Sum	5,611			346,471				
Average	233.8			14,436			1.30	Average

Figure 5 – CalFire El Dorado County Database Summary

Project Area Data

The area around the project site has been developing for a number of years. To the north and east of the project site, residential development has occurred. The blue shading is the developed area in the graphics on the next page (Figure 6 and Figure 7). The majority of the areas between the previous development area has been developed with some dedicated “open space” remaining that will not be developed in the future similar to the LRVSP. Similar developments have and are being completed to the west of the proposed Village Marble Valley Specific Plan that is directly west of the project site as well.

In order to examine the project site area specifically, it was necessary to find a way to measure the number of wildland fires and the populations within the adjacent area. It was determined that zip code areas would be one way since the call data from CalFire has this field. Of the 5,876 records provided by CalFire for wildland fire responses in El Dorado County, 5,611 occurred within the county or adjacent communities. Mutual Aid responses to fires outside of the immediate area were removed. Over 1,500 records did not have zip codes and had to be manually updated (46 records could not be updated out of the 5,611).

Using the three zip codes which cover or are adjacent to the project site (Figure 8), it was possible to track the population changes over time and the call volumes for each area. Combined, the population of this area increased from 50,545 in the year 2000 to 82,287 in 2020 (a 63% increase). The number of wildland fire calls for service fluctuated but remained relatively constant during this timeframe (Figure 9).

Lotusland Response – Lime Rock Valley Specific Plan

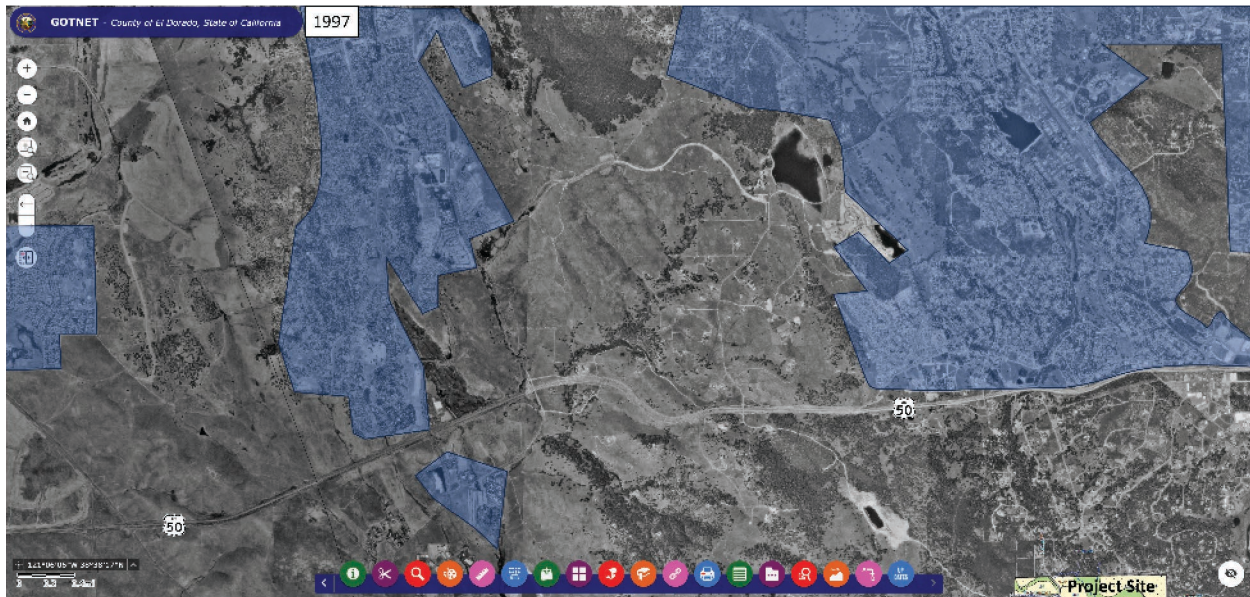


Figure 6 – Development Area 1997

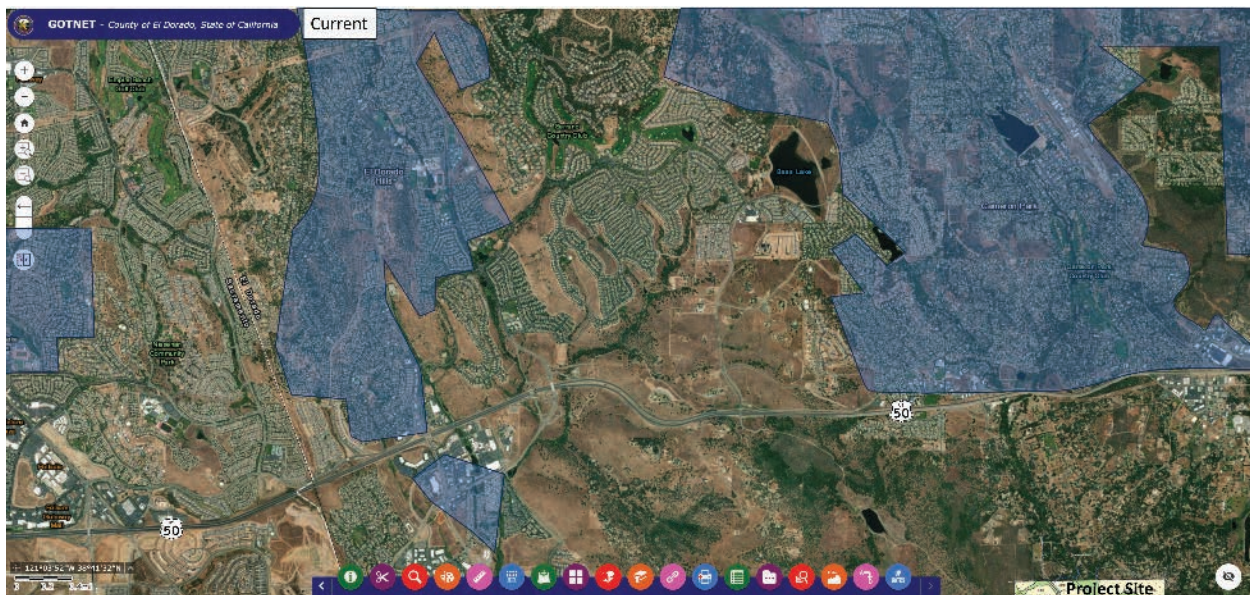


Figure 7 – Development Area 2023

Using the 24-year average (65 calls) it is possible to examine the deviation that has occurred in the call volume. Four years had increases above the average by over 20% (2001, 2006, 2016 and 2017) and two years (2012 and 2022) have decreases 45% or greater. Using 2000 as a base, projecting the call increases by the population increase would have resulted in a call volume of 91 for 2010 and a call volume of 103 for 2020. No single year exceeds 87 calls or a 30% increase and that occurred in 2006, not 2020 or later. In fact, the last three years (2021-2023) have had call volume of less than 100% of the 24- year average. An average population calculated with an average number of wildland calls over the 24 years produces a per capita rate of 0.94 per 1,000 residents. This represents a 23% reduction over the county wide 24-year average per capita rate.

Lotusland Response – Lime Rock Valley Specific Plan

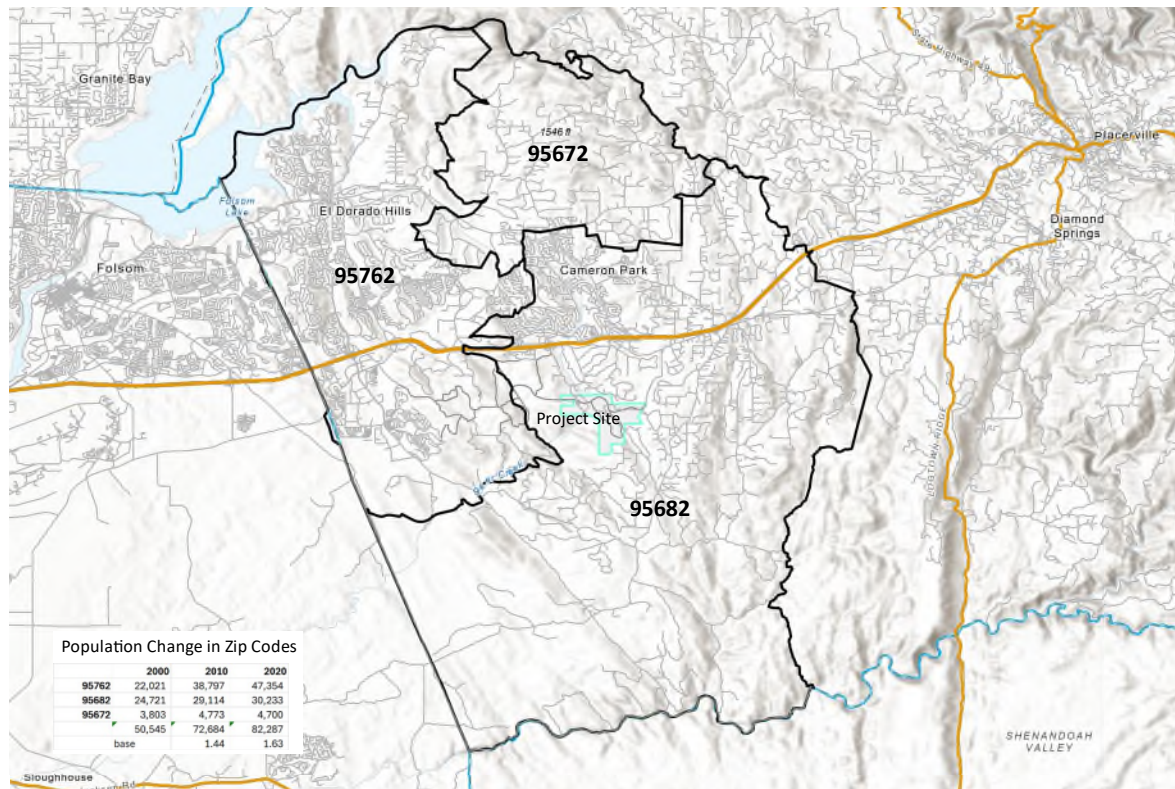


Figure 8 – Project Area Data (Zip Code Areas)

Year	Fires	% of Avg	Population Increase	Projected Call Volume	Population			Sum	Fires/1000pop
					Zip Code 95762	Zip Code 95682	Zip Code 95672		
2000	63	97%			22,021	24,721	3,803	50,545	1.25
2001	82	127%							
2002	61	94%							
2003	64	99%							
2004	77	119%							
2005	60	93%							
2006	84	130%							
2007	60	93%							
2008	74	114%							
2009	46	71%							
2010	49	76%	1.44	91	38,797	29,114	4,773	72,684	0.67
2011	53	82%							
2012	34	53%							
2013	64	99%							
2014	79	122%							
2015	81	125%							
2016	87	134%							
2017	84	130%							
2018	72	111%							
2019	66	102%							
2020	70	108%	1.63	103	47,354	30,233	4,700	82,287	0.85
2021	61	94%							
2022	32	49%							
2023	50	77%							
Sum	1,553							Avg Pop	Avg/1000 pop
Avg	65							68,505	0.94

Figure 9 – Call Data for Zip Code 95762, 95682 and 95672 from 2000 to 2023

Lotusland Response – Lime Rock Valley Specific Plan

Population does not appear to be a significant driving force to wildland fires and per capita rates suggest that population density may reduce the ignition rate per capita, even if it increases the total number of fires overall. Increased population has a strong correlation to call types like medical aids, car accidents and structure fires but the correlation to wildland fires is less obvious and not supported by the findings of these databases.

Wildland Fire Impacts/Mitigations

The impacts to the community from large wildland fires (50 acres or more) are sustained in many ways. First and foremost is the direct threat of the flames and smoke damaging or destroying structures, property and putting lives at risk. Secondary to that are air and water pollution during and after the fire event. Also potential for flooding and earth movement from the loss of vegetation and other stabilizing aspects of the environment. Each of these impacts has multiple precautions or mitigations that can and do lessen the impact or in many cases eliminate the impacts entirely.

According to the U.S. Fire Administration (FEMA), wildland fires move from the naïve fuels to the structures in one of four ways:

1. Direct Flame Impingement
2. Radiant Heat
3. Convected Heat
4. Ember/Brand Intrusion

Knowing how wildland fires move from the native fuels to the structures provides for a litany of options that can be employed to reduce the hazard to an acceptable risk or eliminate the risk altogether. As stated in the Appendix M, Vulnerability must be examined at multiple levels (Regional, Landscape, Community, and Parcel). At the end of the day, it all comes down to time, distance, and shielding. The amount of time that the fire will impact the area, the distance between the fire and the structures/residents, and the ability of the Project Site to shield its structures/residents from the harmful effects of the fire.

Time – reducing the amount of time that the fire can impact a structure

Distance – placing distance between the fire and the structure

Shielding – placing physical obstacles between the fire/fire products and the structure or the combustible portions of the structure.

The amount of time a structure is exposed to a fire is a critical component of whether or not the structure will be ignited. Time is a function of distance to the fuel, configuration of the interface and fuel loading of the fuels that are burning. An exposure of 12.5 kW/m² can ignite unprotected wood in as little as 20 minutes (*Cohen, J. D. (1995). Structure Ignition Assessment Model (SIAM) Biswell Symposium: Fire Issues and Solutions in Urban Interface and Wildland Ecosystems, Walnut Creek, California*). Raising the value to 20 kW/m² reduces the time to 5 ½ minutes. Keeping the burnable fuels away from the structure not only reduces the chances of direct flame impingement, but it also reduces the time the structure will be subjected to the radiant and convected heat from that fire. Fuel reductions through fuel modification zones, fuel breaks, fire

Lotusland Response – Lime Rock Valley Specific Plan

breaks, use of noncombustible surfaces such as roads, driveways, paths or pool decks can provide the protections necessary to reduce the amount of time the structure is impacted.

The orientation of the structure to the fire is very important as well. Fuels which are downslope from the structure are inherently more hazardous than fuels upslope. The nature of fire is to burn upslope due to the buoyancy/natural convection of the fire and heat moving up the slope which preheats the adjacent fuels and increases the impact on the fuels from the fire in the direction. The inverse is true downslope when the fire is above the structure and tends to be a slower backing fire unless it is driven by winds that overcome the slope effect. Keeping open out of the tops of canyons, draws, topographic chimneys, saddles or other features that channel heat and smoke reduce the amount of time that the structure will be impacted.

Btu/s/ft ²	kW/m ²	Time to Ignition	
Rate	Rate	seconds	minutes
17.3	60	10	0.17
14.4	50	16	0.27
11.6	40	28	0.47
10.7	37		
9.0	31	60	1.00
8.7	30	66	1.10
6.4	22	210	3.50
5.8	20	337	5.50
5.2	18		
4.6	16		
3.6	12.5	1,200	20.00
2.9	10		
2.0	7		
1.8	6.4		
1.4	5.0		
1.2	4.3	18,000	300.00
1.2	4.0		
0.7	2.3		
0.6	2.1		
0.5	1.7		
0.3	1.0		

Damage to process equipment and collapse of mechanical structures

Piloted wood ignition after 5.5 minutes
Death in 50% of victims after 30 seconds
Blistering of exposed skin after 5 seconds
20 minutes to ignition/2nd degree burn in 8 seconds

Pain on exposed skin after 3 sec/ death in 1% of victims after 40 seconds
Max exposure in PPE for 90 sec
Pain on exposed skin after 8 sec
2nd degree burns on exposed skin in 40 seconds
5 hours to ignition
First degree burns after 20 seconds
Pain on exposed skin after 2 minutes
Minimum to cause pain after 60 second
Minimum to cause pain
Equal to the maximum radiant heat transfer on a clear sunny day

Figure 10 -Radiant Heat Values

Distance is a major factor in the impact of direct flame contact, radiant and convected heat impacts and to a less degree, the number of embers that will impact a structure. Defensible space is based on the idea of distance and the modification of fuels within the established zones. Time and distance are interrelated, and it is not possible to impact one without the other having changes as well. This work both proactively and in the negative context.

As stated in the Appendix M, “*The Lime Rock Valley project has been designed in a manner that provides efficient protection from wildfires. Perimeter structures must be protected from radiant heat, direct flame contact, and convected heat to a higher degree than the structures which are in the interior of the development envelope. This protection is achieved through distance, shielding and limiting the amount of fuel near the structures. This shielding of interior structures equates to decreased risk potential.*” Most of the “protections” available to structure in the WUI

Lotusland Response – Lime Rock Valley Specific Plan

are in the Shielding category. Vents, covers, tempered glass, screens, noncombustible surfaces, and thicker materials are all methods of shielding the structure from the products of combustion as required by the California Building Code Chapter 7A and/or California Residential code Section R337. The term “Harden” as applied to WUI structure, speaks to these methods. Compliance with standards ensures that a structure is “hardened”.

IBHS writes, *“If all components of a home in a community are hardened against embers, the odds of a house becoming engulfed in tall, thick flames and radiating substantial heat to its surroundings are reduced. This allows the first responders to address spot fires early and prevent the spot fire from growing into a suburban conflagration.”*

As detailed in the DEIR, Appendix M of the EIR, and the Applicant Responses to Comments, measures that will be implemented for the project site include:

- a) All dwelling units and most large commercial buildings will be protected with automatic fire sprinklers. (Fire department plan check and inspections ensure compliance)
- b) The Project Site has increasing housing density and used a consolidated design to reduce or eliminate, where possible, wildland fuels within the interior of the Project Site and keep the edge of the Project Site as an identifiable interface with appropriate fuel breaks, fire breaks and fuel modification/defensible space zones. (Implementation of Fire Safe Plan; Fire department plan check and inspections ensure compliance)
- c) The LRVSP has been designed to avoid and minimize low-density urban development patterns or leapfrog-type developments (i.e., those with undeveloped wildland between developed areas).
- d) The LRVSP has been designed to decrease the extent and amount of “edge,” or interface area, where development is adjacent to undeveloped wildlands.
- e) The Project Site has/will create buffer zones and defensible space within and adjacent to the development, with particular attention to ensuring that vegetation will not touch structures or overhang roofs. The Project will establish the legal obligations within the CC&R’s to ensure that defensible space measures are retained over time. (Implementation of Fire Safe Plan, Fire department plan check and inspections ensure compliance)
- f) Undergrounding of power lines will be accomplished in the entire Project Site. (Fire department plan check and inspections ensure compliance)
- g) The Project Site design attempts to limit development along steep slopes and amidst rugged terrain, so as to decrease exposure to rapid fire spread and increase accessibility for firefighting. Sites which have wildland fuels below (lower than the project structures) will have additional protections provided with radiant heat walls,

Lotusland Response – Lime Rock Valley Specific Plan

increased built-in fire protection features and/or placement of the structure so that the impacts of “underslung fuels” are reduced. (Implementation of Fire Safe Plan, Fire department plan check and inspections ensure compliance)

- h) Fire hardening structures and homes in accordance with Chapter 7A of the Building Code, Section R337 of the Residential Code and the specific requirements of the fire department during the development review process for the site-specific locations. (Implementation of Fire Safe Plan, Fire department plan check and inspections ensure compliance)
- i) Siting structures and features to maximize the role of low-flammability landscape features and roadways that may buffer the development from fire spread as required by 14 CCR § 1276.03(Fuel Breaks). (Implementation of Fire Safe Plan, Fire department plan check and inspections ensure compliance)
- j) The project will expand existing fire resources funding in the region (new revenue generated by the development). (Developer Agreement with Fire Department, participation in fire district)
- k) Placement of development within the existing or planned ingress/egress and potential evacuation routes to efficiently evacuate the project population and the existing community population, consistent with evacuation plans, while simultaneously allowing emergency access. (Implementation of Fire Safe Plan, Fire department plan check and inspections ensure compliance)

Intrinsic Safety is a method for ensuring safety by removing or lowering the causes of danger to a level where the risk is significantly reduced; whereas Functional Safety is reducing risks to an acceptable level to ensure safety by changing the form and function of the hazard interface. Both are necessary to achieve the required protection against wildland fires.

The benefits of density of units by overlapping restrictions around the structures are likely to occur by design in the Lime Rock Residential–Medium (5.0-8.0 du/acre). For the Lime Rock Residential–Low (0.2-5.0 du/acre) with an average density of 1.7 du/acre, these restrictions will likely overlap for many units. For development at all ranges of density, the system’s based approach, current standards described above, and the addition of new roads and firefighting capacity in the undeveloped area will also minimize wildfire risks and be enforced through the wildfire safety plans.

As implemented through HAZ-8, the wildfire safety plan approved at each small lot tentative subdivision map will include measures to reduce the risks of wildfire from humans based on the most current standards at the time of the tentative map. This will ensure that the most current standards, which are expected to become more stringent over time, are adopted and the wildfire safety plan is able to address the layout of each tentative map. The wildfire safety plan will be required to reduce human causes. While the wildfire safety plan would address all of the human-causes addressed herein and apply the most current stringent standards, to provide further assurances at this programmatic stage, it is recommended that HAZ-8 be amended to include

Lotusland Response – Lime Rock Valley Specific Plan

minimums that would expressly address wildfires caused by humans. Including revisions proposed in the September 6, 2024 applicant response, it is therefore recommended that HAZ-8 be amended to provide:

Prior to ~~approval of a~~ ~~the submittal of the first~~ small lot tentative subdivision map, the County will require a ~~the preparation of a~~ wildfire safety plan reviewed and approved by CAL FIRE and the local fire protection district that is appropriate to the high and very high fire classifications of the plan area on the CAL FIRE Hazard Severity Zone Map for El Dorado County. The wildfire safety plan will include, but not be limited to, the following.

- Site and project description
- Applicable codes and regulations
- Fire department response capabilities
- Site fire risk assessment (weather, fuels, topography, fire and ignition history, and potential fire behavior)
- Fire safety requirements (vegetation management, structural hardening site access, water availability, alternative materials and methods)
- Response strategies for emergency evacuations related to wildfire (number of people using routes; accessibility of routes; any disruptions to routes from natural hazards; and location and capacity of emergency shelters)
- Frequency of fuel management
- Prohibition of smoking in public open space areas
- Ban of solid fuel outdoor fires within the community without spark arrestor and only in approved devices
- No Open Burning in the fuel modification zones, open space or within 50 feet of the wildland interface.
- Adoption/application of most current regulations and standards regarding the type and nature of equipment utilized in open space areas
- Sites with wildland fuels below (lower than the project structures) must have additional protections provided that is equal to or greater than the risk associated with the configuration, as approved by the fire authority having jurisdiction. This may include radiant heat walls, increased built-in fire protection features and/or placement of the structure so that the impacts of “underslung fuels” are addressed.
- Structures and features shall be sited to maximize the role of low-flammability landscape features and roadways that may buffer the development from fire spread as required by 14 CCR § 1276.03(Fuel Breaks)
- Funding source

Conclusion

The California Governor’s Wildland Strike Force (2014) said it succinctly:

California has made progress in developing and adopting stringent wildland building codes. Since 2008, new construction in California’s wildlands must use ember-resistant building materials. For homes built before the 2008 standards, CAL FIRE is working to develop a list of low-cost retrofit steps homeowners can take. In addition, the Office of the State Fire Marshal (OSFM) maintains an advisory committee of fire and building officials that continuously considers

Lotusland Response – Lime Rock Valley Specific Plan

building code updates to improve fire safety. Most recently, OSFM advanced building code changes including sealing of garage door gaps, sealing skylights and safety improvements to outbuildings.

Developing new housing in Very High Fire Hazard Severity Zones presents challenges. Since 2015, CAL FIRE has assisted local governments in land use planning. CAL FIRE is working to identify subdivisions at significant fire risk without secondary evacuation routes and to make recommendations to improve access.

Homeowners are encouraged to actively maintain defensible space, which is defined as a minimum 100-foot area around a home. Maintenance is an ongoing task. California inspected more than 217,600 homes for defensible space compliance in 2017-2018 alone.

It is critical that roads and other infrastructure be more fire defensible and evacuation ready for the populations in the WUI. All levels of government must establish clear contingency plans with local communities to identify and create temporary refuge areas and shelter-in-place procedures to help fire evacuees survive when unable to escape a wildfire.

Wildfires and Climate Change: California's Energy Future., A report from Governor Newsom's Strike Force April 12, 2019

All of the issues addressed above are or will be included in the new development areas by the approved design, ordinance, statute or regulation, as detailed above, in the DEIR, Appendix M, and the Applicant Responses to Comments.

In a paper entitled, “Mandated vs. Voluntary Adaptation to Natural Disasters: The Case of U.S. Wildfires”, Patrick W. Baylis and Judson Boomhower produced a Working Paper (#29621 <http://www.nber.org/papers/w29621> NATIONAL BUREAU OF ECONOMIC RESEARCH 1050 Massachusetts Avenue Cambridge, MA 02138 December 2021) that stated:

“...The complex nature of building regulation in California creates a patchwork of wild re standards across localities. We also observe res in other states that do not have wild rebuilding codes. In all of these places, we observe homes built before and after changes in Californias codes. This identifying variation yields credible counterfactual predictions for how homes would have performed in the absence of Californias standards. Our preferred statistical model is a fixed effects regression that compares the likelihood of survival for homes of different vintages on the same residential street during the same wild re event. These street fixed effects allow us to compare groups of homes that experience essentially identical wild re exposures.

We find remarkable vintage effects for California homes subject to the states wildfire standards. A 2008 or newer home is about 16 percentage points (40%) less likely to be destroyed than a 1990 home experiencing an identical wild re exposure. There is strong evidence that these effects are due to state and local building code changes- first after the deadly 1991 Oakland Firestorm, and again

Lotusland Response – Lime Rock Valley Specific Plan

with the strengthening of wild re codes in 2008. The observed vintage effects are highly nonlinear, appearing immediately for homes built after building code changes. There are no similar effects in areas of California not subject to these codes or in other states that lack wild re codes.

*We also find that code-induced mitigation benefits neighboring homes, consistent with reduced structure-to-structure spread. These neighbor effects are in keeping with anecdotal reports of home-to-home spread as a factor in urban conflagrations (Cohen 2000; Cohen and Stratton 2008; Cohen 2010).⁵ Our results imply that, all else equal, code-induced mitigation by a neighbor located less than 10 meters away (within the distance re experts refer to as the home ignition zone) **reduces a home's likelihood of destruction during a wild re by about 2.5 percentage points (6%).** This benefit is even larger when homes have multiple close neighbors.”*

These observations are likely the reason why newer tract homes (built to current standards and codes) which are in an interface condition (one interface for multiple homes in a tract) rather than an intermix (wildland fuels between homes) tend to not have significant losses due to the fire at the edge of the community. These newer homes are hardened, have defensible space, have fuel modification zones, have a water supply that meets the current requirement and have ingress and egress which meets the current codes and regulations. Projects, such as the project site, have more fire protection features, at a community level, than any of the existing single-lot developments or even planned communities of the past.

Therefore, while most fires are caused by humans, the risk of wildfire from increased population does not have a linear correlation and data shows that development of the proposed project under the most current standards at the time of development with mandatory mitigation measures and LRVSP policies suggest that wildfire risks are not significantly increased with increased population of development under current standards. Studies, such as those cited herein, have indicated that as development reaches a higher density of units per acre and population, the wildland fire issue is impact in a positive manner, likely due to the disruption of the wildland fuels but also due to increase suppression activities and early detection. As further explained in Appendix M, even with the additional population increase, development of the project will provide an overall benefit to the existing communities related to wildfires. As such, the increased wildfire risk from human-ignited wildfire will remain less than significant with mitigation as stated in the DEIR.

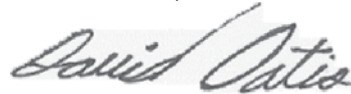
Firesafe submits this response to comments regarding the Draft Environmental Impact Report for the Lime Rock Valley Specific Plan as it relates to *People of the State of California Ex Rel. Rob Bonta, Attorney General v. County of Lake & Lotusland Investment Holdings, Inc.* (2024) 105 Cal.App.5th 1222 (“*Lotusland*”).

Respectfully;



Gene F. Begnell

Concurrence;



David Oatis

Lotusland Response – Lime Rock Valley Specific Plan

Fire Protection Analyst
Firesafe Planning Inc.

Principal
Firesafe Planning Inc.

Reports, Articles, And Sources in Support of *Lotusland* Response

1. *Lime Rock Wildland Fire Evacuation Risk Report - Fire Behavior* - prepared by Firesafe Planning, Inc. dated November 1, 2023, in Appendix M of the DEIR
2. *Conservation Threats Due to Human-Caused Increases in Fire Frequency in Mediterranean-Climate Ecosystems*, Alexandra D. Syphard, Volker C. Radeloff, Todd J. Hawbaker, Susan I. Stewart, First published: 15 May 2009, <https://doi.org/10.1111/j.1523-1739.2009.01223>
3. *Effects of changing development patterns and ignition locations within Central Texas*, Mobley, W, (Feb. 2019) <https://pubmed.ncbi.nlm.nih.gov/30730903/>
4. Western Fire Chiefs Association (WFCA), What Causes Wildfires? <https://wfca.com/wildfire-articles/what-causes-wildfires/>
5. *Human- and lightning-caused wildland fire ignition clusters in British Columbia, Canada*, Sean C. P. Coogan A *, Olivia Aftergood A and Mike D. Flannigan B., International Journal of Wildland Fire 1043-1055 <https://doi.org/10.1071/WF21177> Published: 11 October 2022
6. CalFire database (<https://www.frontlinewildfire.com/wildfire-news-and-resources/california-wildfires-history-statistics/>)
7. Chen, B 2021 - JGR Biogeosciences - *Climate Fuel and Land Use Shaped the Spatial Pattern of Wildfire in California's Sierra Nevada* <https://agupubs.onlinelibrary.wiley.com/doi/epdf/10.1029/2020JG005786>.
8. Cohen, J. D. (1995). *Structure Ignition Assessment Model (SIAM) Biswell Symposium: Fire Issues and Solutions in Urban Interface and Wildland Ecosystems*, Walnut Creek, California) [gtr-158-body](#)
9. FEMA publication Protecting structures from wildfire embers and fire exposures Sept. 17, 2024 [https://www.usfa.fema.gov/blog/protecting-structures-from-wildfire-embers-and-fire-exposures/#:~:text=Landing%20on%20the%20structure.,sheds%2C%20woodpiles%2C%20etc.\)](https://www.usfa.fema.gov/blog/protecting-structures-from-wildfire-embers-and-fire-exposures/#:~:text=Landing%20on%20the%20structure.,sheds%2C%20woodpiles%2C%20etc.))
10. *Home-Mitigations-that-Matter-* IBHS <https://ibhs1.wpenginepowered.com/wp-content/uploads/Home-Mitigations-that-Matter-FINAL.pdf>
11. *Wildfires and Climate Change: California's Energy Future.*, A report from Governor Newsom's Strike Force April 12, 2019 <https://www.gov.ca.gov/wp-content/uploads/2019/04/Wildfires-and-Climate-Change-California%E2%80%99s-Energy-Future.pdf>
12. *Mandated vs. Voluntary Adaptation to Natural Disasters: The Case of U.S. Wildfires*", Patrick W. Baylis and Judson Boomhower produced a Working Paper (#29621 <http://www.nber.org/papers/w29621> NATIONAL BUREAU OF ECONOMIC RESEARCH 1050 Massachusetts Avenue Cambridge, MA 02138 December 2021) <https://www.nber.org/papers/w29621>

Appendix D

**Biological Resources Offsite Reconnaissance
Survey Results Shingle Lime Mine Road,
El Dorado County, California**



CARLSBAD
CLOVIS
IRVINE
LOS ANGELES
PALM SPRINGS
POINT RICHMOND
RIVERSIDE
ROSEVILLE
SAN LUIS OBISPO

February 5, 2025

Amy Wolfe
Lime Rock Valley, LLC
502 E. Whitmore Avenue
Modesto, California 95358

Subject: Biological Resources Offsite Reconnaissance Survey Results
Shingle Lime Mine Road, El Dorado County, California

Dear Amy:

LSA conducted a biological resources reconnaissance survey of a portion of Shingle Lime Mine Road in El Dorado County, California. This report was prepared to address the potential presence of sensitive biological resources that could be impacted by future widening of the road as part of the Lime Rock Valley Specific Plan Project. Specifically, the purpose of the survey was to determine whether sensitive biological communities and/or wetlands or special-status plant and/or animal species are present adjacent to the existing road alignment. This report provides a discussion of the potential offsite impacts on biological resources from the potential road widening and provides recommendations for mitigation measures to reduce impacts on sensitive resources.

PROJECT DESCRIPTION

The proposed Lime Rock Valley Specific Plan Project consists of the development of up to 800 residential units and an 8-acre neighborhood park with recreational amenities (County of El Dorado 2024). About 335 acres would be designated as public and private open space. The proposed project would also include a network of pedestrian trails and pathways that would connect and enhance existing and proposed trails in the area, including the El Dorado Trail.

Potential impacts from the Lime Rock Valley Specific Plan Project were addressed in the Draft Environmental Impact Report (DEIR) for the project (ICF 2024). This memorandum addresses potential offsite biological impacts in the event that Shingle Lime Mine Road needs to be widened to serve as an Emergency Vehicle Access (EVA) Road for the Lime Rock Valley Specific Plan Project. Approximately 1.5 miles of Shingle Lime Mine Road would serve as an EVA. The current width of the road varies from approximately 15 feet wide in some locations to approximately 20 feet wide in other locations. The Fire Department will ultimately determine whether widening the road in locations where it is less than 20 feet will be required to provide adequate emergency access. To capture the full potential impacts that may occur, the analysis herein assumes the road would be widened to approximately 20 feet at all locations between the Lime Rock Valley project site and Durock Road (Figure 1).

METHODS

Lists of special-status plant and animal species that could occur in the project vicinity were recently updated as part of the responses to public comments on the DEIR and were referenced prior to the reconnaissance survey of Shingle Lime Mine Road (LSA 2024a; Tables A and B). The updated lists were based on records in the California Natural Diversity Database (CNDDDB) (CDFW 2024); the California Native Plant Society (CNPS) Inventory of Rare and Endangered Plants of California for the Shingle Springs quadrangle and eight surrounding quadrangles (CNPS 2024); the United States Fish and Wildlife Service (USFWS) Information for Planning and Consultation (IPaC) database (USFWS 2024); and the DEIR. Shingle Lime Mine Road falls within the Shingle Springs quadrangle that the CNPS search was centered on.

LSA Senior Biologist David Muth conducted the reconnaissance-level survey for biological resources along Shingle Lime Mine Road on November 6, 2024, from the entrance of the Lime Rock Valley project at the south end to its intersection with Dividend Drive near the north end. On November 29, 2024, Mr. Muth surveyed the area between Dividend Drive and Durock Road. During the site visits, he searched for any biological resources, or evidence of their potential presence, that could be impacted by future road widening. Mr. Muth mapped any features or habitats of concern and compiled a list of all plants and animals observed during the site visits.

RESULTS AND SURVEY AREA

The reconnaissance survey area included approximately 1.5 miles of Shingle Lime Mine Road between the Lime Rock Valley Project property and Durock Road (Figure 2). Shingle Lime Mine Road is a paved road used to access the Lime Rock Valley property and several residences and/or ranch properties. Most of the road runs adjacent to the abutment of an abandoned railroad right-of-way owned by the Sacramento-Placerville Transportation Corridor Joint Powers Authority (SPTC-JPA) that is used as a pedestrian walking or biking trail. The study area included an area approximately 20 feet on each side of the existing pavement along most of the road alignment. In some locations where the road parallels the railroad berm, the survey area was wider than 20 feet to cover the entire area between the road and the top of the berm. By considering a minimum of 20 feet on each side of the existing pavement, this report covers potential widening on one or both sides of the road, depending on final requirements and design.

Vegetation

Natural habitats along the roadway primarily consist of non-native annual grassland and oak savanna/oak woodland depending on the amount of tree cover present.

The grasslands and understory in oak woodland areas are dominated by non-native, introduced grasses and ruderal species such as bromes (*Bromus diandrus* and *B. hordeaceus*), wild oats (*Avena* sp.), rose clover (*Trifolium hirtum*), stinkwort (*Dittrichia graveolens*), English plantain (*Plantago lanceolata*), and Klamath weed (*Hypericum perforatum*). The grasslands supported an occasional scattering of native species, including tarweeds (*Madia* sp. and *Holocarpha virgata*), narrowleaf milkweed (*Asclepias fascicularis*), and willowherb (*Epilobium brachycarpum*). Oak trees present in oak savanna and oak woodland areas included blue oak (*Quercus douglasii*), valley oak (*Q. lobata*), and live oaks (*Q. chrysolepis* and *Q. wislizeni*).

One roadside area approximately 0.5 mile from the Lime Rock Valley property was dominated by shrubs with grassy openings (Figure 3). Shrubs present in this area included coffeeberry (*Frangula californica*), scrubby live oaks, ceanothus (*Ceanothus* sp.), and manzanita (*Arctostaphylos* sp.). A significant number of native forb species was also present in this area, including unidentifiable species of *Gallium* and *Wyethia*.

Other trees present in the survey area included non-native blue gum eucalyptus trees (*Eucalyptus globulus*) along the north-south section of the road and Fremont cottonwoods (*Populus fremontii*) along a riparian drainage near Durock Road at the north end of the survey area.

A list of plants seen during the surveys of Shingle Lime Mine Road is provided as an attachment to this report (Table C).

Potential Jurisdictional Features

The reconnaissance survey did not include a formal jurisdictional delineation for wetlands and other waters, but all culverts in the surveyed section of Shingle Lime Mine Road were mapped (Figure 3). Four of these culverts had potentially jurisdictional drainages conveying water under the road. The remaining culverts appeared to direct sheet flow from upland areas under the road for drainage purposes. There were also two drainage ditches running parallel to Shingle Lime Mine Road just south of its intersection with Durock Road. The ditches were on the east and west sides of the road and were on private property just outside of the survey area.

Sensitive Natural Communities

The CNDDDB does not identify any sensitive natural communities in the vicinity of the surveyed section of Shingle Lime Mine Road (Shingle Springs USGS 7.5-minute quadrangle and surrounding eight quadrangles).

Special-Status Species

Special-status species are defined as follows:

- Species that are listed, formally proposed, or designated as candidates for listing as threatened or endangered under the Federal Endangered Species Act (FESA);
- Species that are listed, or designated as candidates for listing, as rare, threatened, or endangered under California Endangered Species Act (CESA);
- Plant species assigned to California Rare Plant Ranks 1A, 1B, or 2;
- Animal species designated as Species of Special Concern or Fully Protected by the CDFW;
- Species that meet the definition of rare, threatened, or endangered under Section 15380 of the CEQA guidelines; and
- Species considered to be a taxon of special concern by local agencies.

Plants

The reconnaissance survey did not include rare plant surveys and was conducted after the blooming periods for special-status plants in the area. However, based on background research, surveys at the Lime Rock Valley property, and knowledge of the area, the following species have the potential to occur in the Shingle Lime Mine Road survey area: Jepson's onion (*Allium jepsonii*), big-scale balsamroot (*Balsamorhiza macrolepis*), spicate calycadenia (*Calycadenia spicaticola*), Stebbin's morning glory (*Calystegia stebbinsii*), Van Zuuik's morning glory (*Calystegia vanzuukiae*), chaparral sedge (*Carex xerophila*), Pine Hill ceanothus (*Ceanothus roderickii*), Red Hills soaproot (*Chlorogalum grandiflorum*), Brandegee's clarkia (*Clarkia biloba subsp. brandegeae*), Tuolumne button celery (*Eryngium pinnatisectum*), Pine Hill flannelbush (*Fremontodendron decumbens*), El Dorado bedstraw (*Galium californicum ssp. sierrae*), Parry's horkelia (*Horkelia parryi*), Layne's ragwort (*Packera layneae*), oval-leaved viburnum (*Viburnum ellipticum*), and El Dorado mule ears (*Wyethia reticulata*) (Table A).

Animals

Based on background research, surveys at the Lime Rock Valley property, and knowledge of the area, the following special-status animal species have the potential to occur in the Shingle Lime Mine Road survey area: Crotch's bumble bee (*Bombus crotchii*), California red-legged frog (*Rana draytonii*), northwestern pond turtle (*Actinemys marmorata*), Blainville's horned lizard (*Phrynosoma blainvillei*), white-tailed kite (*Elanus leucurus*), golden eagle (*Aquila chrysaetos*), Swainson's hawk (*Buteo swainsonii*), burrowing owl (*Athene cunicularia*), long-eared owl (*Asio otus*), loggerhead shrike (*Lanius ludovicianus*), purple martin (*Progne subis*), grasshopper sparrow (*Ammodramus savannarum*), pallid bat (*Antrozous pallidus*), western red bat (*Lasiurus blossevillei*), hoary bat (*Lasiurus cinereus*), fringed myotis (*Myotis thysanodes*), long-eared myotis (*Myotis evotis*), silver-haired bat (*Lasiorycteris noctivagans*), western small-footed bat (*Myotis ciliolabrum*), ringtail (*Bassariscus astutus*), and American badger (*Taxidea taxus*) (Table B).

POTENTIAL IMPACTS TO BIOLOGICAL RESOURCES

Based on background research and biological resources observed at the Shingle Lime Mine Road survey area, road improvements that may be required to utilize Shingle Lime Mine Road as an EVA have the potential to (1) impact oak trees within the potential road widening area, (2) impact special-status plants that may occur in the survey area, (3) disturb nesting birds if conducted during the nesting season (February 1 to August 31), (4) disturb roosting bats if roost trees are directly impacted, and (5) directly impact jurisdictional wetlands or waters if it is determined that culverts need to be extended or replaced.

CONCLUSIONS AND RECOMMENDATIONS

The results of the reconnaissance survey of the Shingle Lime Mine Road alignment indicate that a subset of species and habitats that were considered in the Lime Rock Valley Specific Plan DEIR could potentially be impacted by widening the road for emergency vehicle access. Measures currently provided in the DEIR could be applied to Shingle Lime Mine Road to ensure that any impacts from future road widening would be less than significant. Relevant measures from the DEIR are noted below. The DEIR mitigation measures are not restated in their entirety; the full text is available in

the Mitigation and Monitoring Reporting Program (MMRP) and Appendix D of the Lime Rock Valley Specific Plan (El Dorado County 2024).

Impacts to Jurisdictional Waters

Extension or replacement of culverts could result in fill of seasonal wetlands or other waters of the U.S. or State. A jurisdictional delineation should be completed at any potential culvert replacement sites along the road. While the DEIR identifies a large pond east of Shingle Lime Mine Road that could support habitat for California red-legged frog, that pond is well outside of the footprint of any road improvements for the EVA and would not be directly or indirectly impacted by roadway improvements for the EVA. If seasonal wetlands or other waters are present, Mitigation Measures BIO-1a, BIO-1b, BIO-1c, BIO-1d, BIO-3a, BIO-3b, and BIO-4 would ensure that these impacts are less than significant.

Mitigation Measure BIO-1a: Install construction barriers around the construction area to protect sensitive biological resources to be avoided.

Mitigation Measure BIO-1b: Conduct environmental awareness training for construction employees.

Mitigation Measure BIO-1c: Conduct periodic site visits during construction.

Mitigation Measure BIO-3a: Avoid and minimize disturbance of waters of the United States, including wetlands.

Mitigation Measure BIO-3b: Compensate for loss of jurisdictional wetlands.

Mitigation Measure BIO-4: Compensate for loss of other waters of the United States.

Impacts to Special-Status Plants

Special-status plants could occur in grassland and shrub communities along the road alignment. Mitigation Measures BIO-1a, BIO-1b, BIO-1c, BIO-20a, and BIO-20b would ensure that any potential impacts to special-status plant species are less than significant.

Mitigation Measure BIO-20a: Conduct floristic surveys in the offsite improvement areas for special-status plants during appropriate identification periods.

Mitigation Measure BIO-20b: Avoid or compensate for substantial effects on special-status plants in the offsite improvement areas.

Impacts to California Red-Legged Frog

California red-legged frogs could disperse overland or along drainages into roadside areas from nearby ponds. Mitigation Measures BIO-1a, BIO-1b, BIO-1c, BIO-3a, and BIO-7 would ensure that any potential impacts to California red-legged frog are less than significant.

Mitigation Measure BIO-7: Conduct preconstruction survey and implement California red-legged frog avoidance and minimization measures.

Impacts to Northwestern Pond Turtle

Northwestern pond turtle is likely to occur in ponds west and north of Shingle Lime Mine Road and could move into roadside areas. Mitigation Measures BIO-1a, BIO-1b, BIO-1c, and BIO-9 would ensure that any potential impacts to northwestern pond turtle are less than significant.

Mitigation Measure BIO-9: Conduct preconstruction surveys for northwestern pond turtle and exclude turtles from the work area.

Impacts to Blainville's Horned Lizard

There is only a narrow band of marginal, isolated habitat within the survey area. Nonetheless, there is a possibility that Blainville's horned lizard could occur. Mitigation Measures BIO-1a, BIO-1b, BIO-1c, and BIO-10a would ensure that any potential impacts to Blainville's horned lizard are less than significant.

Mitigation Measure BIO-10a: Avoid and minimize impacts on Blainville's horned lizard.

Impacts to Nesting Birds

Vegetation removal, if it occurs between February 1 and August 31 could result in indirect or direct impacts to nesting birds, violating the federal Migratory Bird Treaty Act and State Fish and Game Code. Measures BIO-1a, BIO-1b, BIO-1c, BIO-11a, and BIO-11b would ensure that these potential impacts are less than significant.

Mitigation Measure BIO-11a: Conduct vegetation removal activities outside the breeding season for birds and raptors.

Mitigation Measure BIO-11b: Conduct preconstruction nesting surveys for special-status birds and non-special-status birds and implement protective measures if present during construction.

Impacts to Burrowing Owl

Burrowing owls could occur in grasslands adjacent to Shingle Lime Mine Road. This species was a California Species of Special Concern at the time the Lime Rock Valley Specific Plan DEIR was written. It was later accepted as a candidate for potential listing under the California Endangered Species Act during an October 9-10, 2024, meeting of the California Fish and Game Commission and is temporarily afforded the same protections as State threatened and endangered species. Burrowing owls are unlikely to occur in the survey area, but, out of an abundance of caution, LSA proposed that the following mitigation measure be added to the DEIR to ensure that any potential impacts are less than significant (LSA 2024b), and the same mitigation measure is recommended for the potential offsite improvements along Shingle Lime Mine Road:

Mitigation Measure BIO-11c: Conduct preconstruction surveys for burrowing owls within the project area and offsite improvement areas and compensate for the loss of burrowing owl habitat if nesting owls are found on site.

Impacts to Roosting Bats

Road widening could impact roosting bats if occupied roost trees are removed as part of road construction. Mitigation measures BIO-1a, BIO-1b, BIO-1c, BIO-11a, and BIO-12 would ensure that these potential impacts are less than significant.

Mitigation Measure BIO-12: Identify suitable roosting sites for bats and implement avoidance and minimization measures.

Impacts to American Badger

American badgers are unlikely to occur within the survey area but could be impacted by the potential road widening if there were dens near the road. Mitigation Measures BIO-1a, BIO-1b, BIO-1c, and BIO-13 would ensure that any potential impacts are less than significant.

Mitigation Measure BIO-13: Implement measures to avoid and minimize potential impacts on American badger.

Impacts to Ringtail

There is only marginal habitat in and adjacent to Shingle Lime Mine Road, which lacks rock outcrops and large areas of densely vegetated habitat, but this species could move through the project area. Mitigation Measures BIO-1a, BIO-1b, BIO-1c, BIO-11a, and BIO-14 would ensure that any potential impacts are less than significant.

Mitigation Measure BIO-14: Identify suitable shelter and denning habitat for ringtail and implement avoidance and protective measures.

Impacts to Sensitive Natural Communities within the Offsite Improvement Areas

Construction of offsite improvements could affect sensitive natural communities such as riparian and oak woodlands. Mitigation Measures BIO-1a, BIO-1b, BIO-1c, BIO-1d, BIO-2, BIO-18a, and BIO-18b would ensure that any potential impacts are less than significant.

Mitigation Measure BIO-1d: Avoid and minimize potential disturbance of oak woodland habitat.

Mitigation Measure BIO-2: Compensate for permanent loss of riparian woodland.

Mitigation Measure BIO-18a: Map sensitive natural communities adjacent to the proposed Shingle Lime Mine Road construction area.

Mitigation Measure BIO-18b: Compensate for loss of oak woodland in offsite improvement areas.

Impacts to Crotch's Bumble Bee

Crotch's Bumble Bee could occur in grassland and shrub communities along the road alignment, and the same mitigation measure recommended in the Updated Biological Resources Report for the Lime Rock Valley Specific Plan Project (LSA 2024a) to ensure that potential impacts to Crotch's bumble bee are less than significant is recommended for offsite improvements along Shingle Lime Mine Road.

Please feel free to contact me by phone at (510) 236-6810 or e-mail at malcolm.sproul@lsa.net with any questions or concerns.

Sincerely,

LSA Associates, Inc.



Malcolm J. Sproul
Principal

Attachments: Figures 1-3
Tables A- C

REFERENCES

California Department of Fish and Game (CDFG). 2012. Staff Report on Burrowing Owl Mitigation. State of California, Natural Resources Agency, Department of Fish and Game, Sacramento, California. March 7, 2012.

California Department of Fish and Wildlife (CDFW). 2023. Survey Considerations for California Endangered Species Act (CESA) Candidate Bumble Bee Species. Sacramento, CA. Website: <https://wildlife.ca.gov/Conservation/Survey-Protocols#377281281-invertebrates>, accessed August 29, 2024.

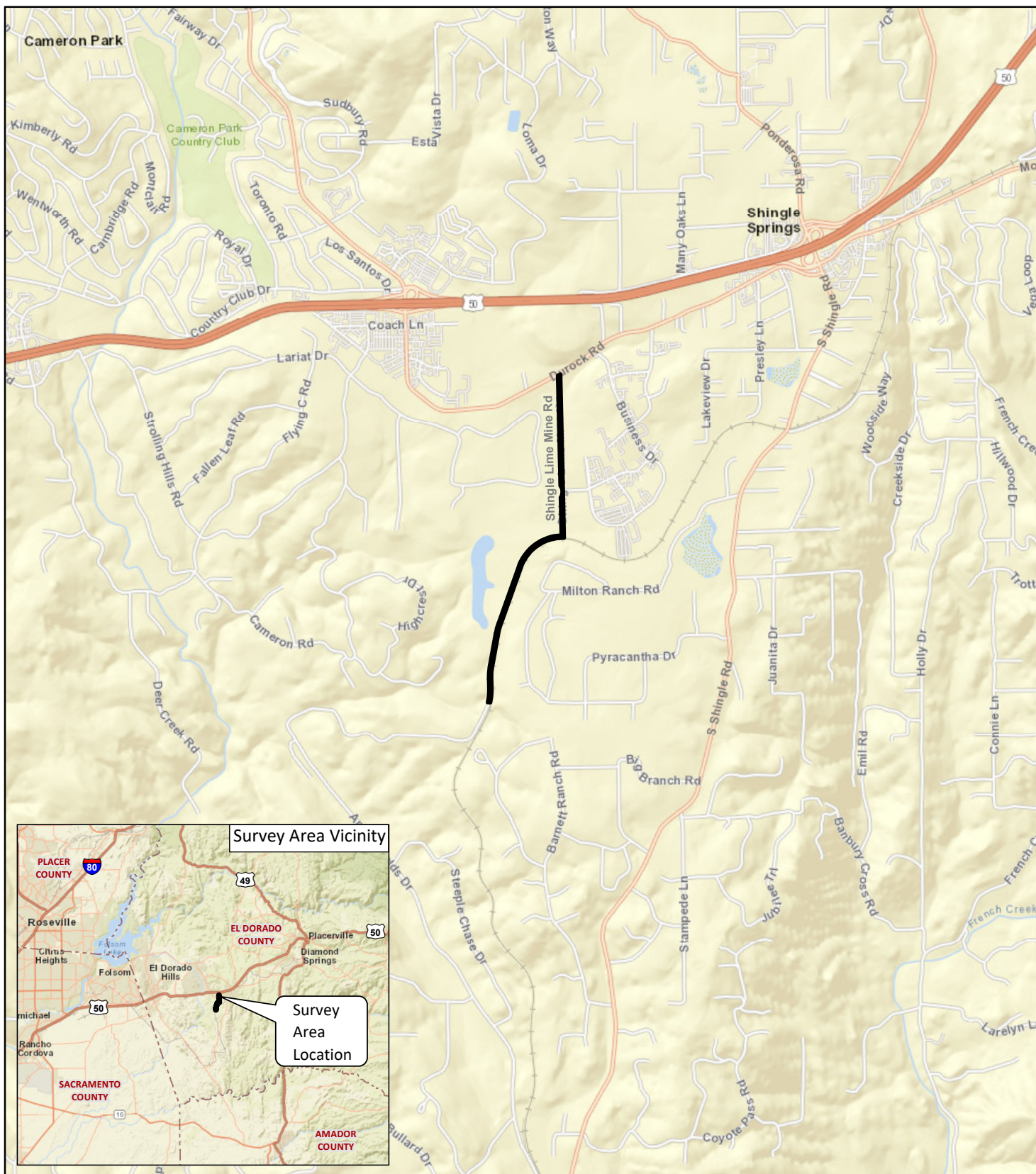
California Department of Fish and Wildlife (CDFW). 2024. California Natural Diversity Database (CNDDB), Commercial Version dated August 6, 2024. Biogeographic Data Branch, Sacramento, California.

California Native Plant Society (CNPS). 2024. Rare Plant Inventory (online edition, v9.5). Website: <https://rareplants.cnps.org>, accessed August 28, 2024.

County of El Dorado. 2024. Lime Rock Valley Specific Plan. Prepared by County of El Dorado Community Development Agency, Placerville, California.

ICF. 2024. Lime Rock Valley Specific Plan Draft Environmental Impact Report. Prepared by ICF, Sacramento, California.

- LSA. 2024a. Updated Biological Resources Report, Lime Rock Valley Specific Plan, El Dorado County, California. Prepared for Lime Rock Valley, LLC, Modesto, CA in February 2014, Updated September 2024.
- LSA. 2024b. Change in Legal Status of Western Burrowing Owl and Related Mitigation Measure for the Lime Rock Valley Specific Plan Project. November 7.
- United States Fish and Wildlife Service (USFWS). 2024. Information for Planning and Consultation. Website: <https://ipac.ecosphere.fws.gov>, accessed August 28, 2024.
- Wyatt, David T. 2013. Bat Study Report for the Village of Marble Valley Specific Plan El Dorado County, California. West Sacramento, CA. Prepared for ECORP Consulting, Inc., Rocklin, California. March.



LSA

LEGEND

— Survey Area Location



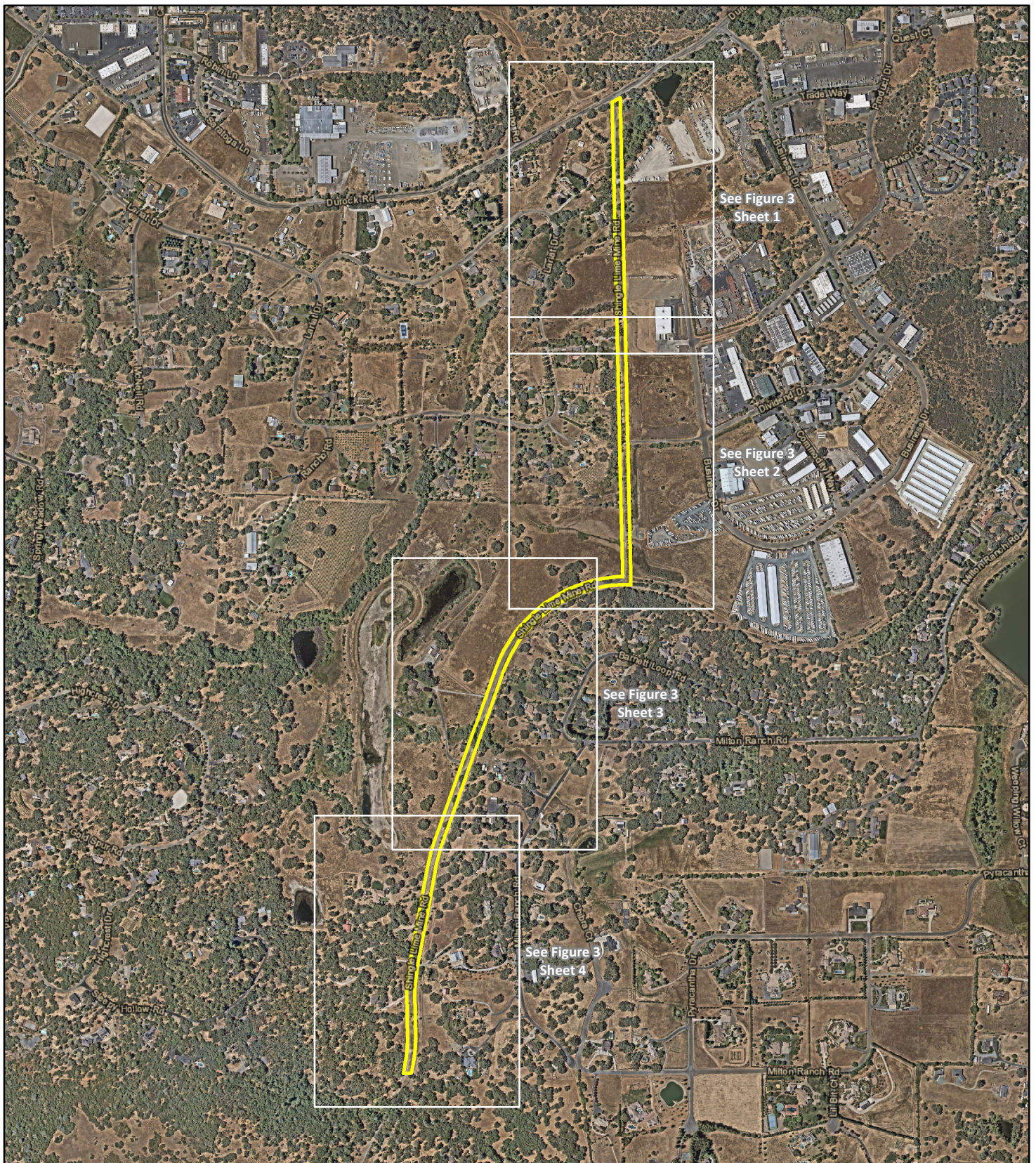
0 1500 3000
FEET

SOURCE: Esri World Street Map (2024).

I:\2024\20241881\GIS\MXD\Road\Figure 1_Regional Location.mxd (12/10/2024)

FIGURE 1

Shingle Lime Mine Road
Shingle Springs, El Dorado County, California
Regional Location



LSA

LEGEND

— Survey Area



0 500 1000
FEET

SOURCE: Nearmap (06/2024).

I:\2024\20241881\GIS\MXD\Road\Figure 2_Project Location.mxd (12/10/2024)

FIGURE 2

Shingle Lime Mine Road
Shingle Springs, El Dorado County, California
Survey Area









FIGURE 3
Sheet 4 of 4

LSA

Survey Area (Right of Way)

Culvert

Valley Oak (*Quercus lobata*)

Blue Oak (*Quercus douglasii*)

Canyon or Interior Live Oak

075150

FEET

Shingle Lime Mine Road
Shingle Springs, El Dorado County, California
Biological Resources

Table A: Special-Status Plants in the Vicinity of the Shingle Lime Mine Road Survey Area

Species	Status * (F/S/RPR)	General Habitat Description	Suitable Habitat	Rationale
Jepson's onion <i>Allium jepsonii</i>	--/1B.2	Chaparral, cismontane woodland, lower montane coniferous forest; serpentine or volcanic soils. Elevation: 300-1300 m. Blooms: April-August	Yes	Although this species is known mostly from wooded habitats in Butte County, it may also occur in scrub habitat similar to that present in the survey area.
Nissenan manzanita <i>Arctostaphylos nissenana</i>	--/1B.2	In openings on ridges of rocky shale in chaparral and closed-cone pine forest. Elevation: 450-1100 m. Blooms: February-March	No	This species is unlikely to occur. Shale soils are absent, and the elevation range of this species is considerably higher than that of the survey area.
Big-scale balsamroot <i>Balsamorhiza macrolepis</i>	--/1B .2	Thin, rocky soil, grassy hillsides, foothill woodland, chaparral; sometimes on serpentine soils. Elevation: 90-1555 m. Blooms March-June	Yes	Potential habitat for this species is present in the survey area.
Spicate calycadenia <i>Calycadenia spicatinta</i>	--/1B.3	Dry, gravelly openings, along roadsides and other disturbed areas, rocky sites within cismontane woodland and valley and foothill grassland. Elevation: 39-1400 m. Blooms: May-September	Yes	Potential habitat for this species is present in the survey area.
Stebbin's morning-glory <i>Calystegia stebbinsii</i>	FE/SE/1B.1 Pine Hill Endemics	Chaparral, cismontane woodland; gabbroic or serpentine rocky soils. Elevation: 185-1090 m. Blooms: April-July	Yes	Potential habitat for this species is present in the survey area. Unlikely to occur. Known from fewer than 20 occurrences on gabbroic soils in western El Dorado County.
Van Zuuk's morning-glory <i>Calystegia vanzuukiae</i>	--/1B.3	Chaparral, mixed or coniferous woodlands, foothills; gabbro or serpentine soils. Elevation: 800-1,200 m. Blooms: March-September	Yes	Potential habitat for this species is present in the survey area. Unlikely to occur. There are fewer than six occurrences of this species from higher elevations within the Tahoe National Forest in El Dorado County.
Sierra arching sedge <i>Carex cyrtostachya</i>	--/1B.2	Wet meadows, marshes, seasonally wet outcrops, seeps, swales, riparian margins, floodplain terraces. Elevation: 600-1,350 m. Blooms: May-August	No	No suitable habitat in the survey area.
Chaparral sedge <i>Carex xerophila</i>	--/1B.2	Open forest, scrub, thicket edges, chaparral; dry gabbro or serpentine soils. Elevation: 450-770 m. Blooms: March-June	Yes	Potential habitat is present in the survey area, and the survey area is within the elevational range occupied by this species.

Table A: Special-Status Plants in the Vicinity of the Shingle Lime Mine Road Survey Area

Species	Status * (F/S/RPR)	General Habitat Description	Suitable Habitat	Rationale
Pine Hill ceanothus <i>Ceanothus roderickii</i>	FE/SR/1B.2 Pine Hill Endemics	Chaparral, cismontane woodland; gabbroic or serpentine rocky soils. Elevation: 245-630 m. Blooms: April-June	Yes	Potential habitat for this species is present in the survey area. This species occurs on dry, rocky soils derived from serpentine or gabbro rocks.
Red Hills soaproot <i>Chlorogalum grandiflorum</i>	1B.2 Pine Hill Endemics	Chaparral, cismontane woodland; gabbroic, serpentine rocky, and other soils. Elevation: 245-1240 m. Blooms: May-June	Yes	Potential habitat for this species is present in the survey area. This species is known to occur within serpentine outcrops in open shrubby or wooded hills.
Brandegee's clarkia <i>Clarkia biloba subsp. brandegeae</i>	--/4.2	Chaparral, cismontane woodland, and lower montane coniferous forest; often on road cuts. Elevation: 75-915 m. Blooms May-July	Yes	Potential habitat for this species is present in the survey area. This species is distributed throughout the Sierra Nevada foothills and has been downgraded from a CRPR of 1B.2 to 4.2 since the DEIR was completed.
Bisbee Peak rush rose <i>Crocanthemum suffrutescens</i>	--/3.2 Pine Hill Endemics (locally rare)	Chaparral; often on serpentinite, gabbroic, or lone soil. Elevation: 45-840 m. Blooms: April-June	No	No suitable habitat in the survey area.
Dwarf downingia <i>Downingia pusilla</i>	--/2B.2	Vernal pools and other similar seasonal wetlands. Elevation: +/- 150 m. Blooms: March-May	No	No suitable habitat in the survey area. There are no vernal pools, and the survey area is outside of the species' known range, which occurs largely in the Central Valley and San Francisco Bay Area.
Tuolumne button celery <i>Eryngium pinnatisectum</i>	--/1B.2	Cismontane woodland, lower montane coniferous forest, vernal pools. Elevation: 70-915 m. Blooms: May-August	Yes	Potential habitat for this species is present in the survey area. Species is known to occur in swales and intermittent streams.
Pine Hill flannelbush <i>Fremontodendron decumbens</i>	FE/SR/1B.2 Pine Hill Endemics	Chaparral, cismontane woodland; gabbroic or serpentine rocky soils. Elevation: 425-760 m. Blooms: April-July	Yes	Potential habitat for this species is present in the survey area. Unlikely to occur. Known from fewer than 20 occurrences on gabbro outcrops in chaparral/pine woodland in El Dorado and Nevada counties (Pine Hill gabbro formation). The elevational range of this plant is considerably higher than that of the survey area. This species would have been identifiable at the time of the survey but was not observed.

Table A: Special-Status Plants in the Vicinity of the Shingle Lime Mine Road Survey Area

Species	Status * (F/S/RPR)	General Habitat Description	Suitable Habitat	Rationale
El Dorado bedstraw <i>Galium californicum</i> <i>subsp. sierrae</i>	FE/SR/1B.2 Pine Hill Endemics	Chaparral, cismontane woodland, lower montane coniferous forest; gabbroic soils. Elevation: 100-585 m. Blooms: May-June	Yes	Potential habitat for this species is present within the survey area. Unlikely to occur. Known from approximately 10 occurrences on gabbro outcrops in open pine/oak forests and chaparral in western El Dorado County.
Parry's horkelia <i>Horkelia parryi</i>	--/1B.2	Chaparral, cismontane woodland; especially lone soils. Elevation: 80-1035 m. Blooms: April-September	Yes	Although this species is known to occur especially in the open chaparral of the lone formation, there are records from similar habitats and from higher elevations where this species occurs outside of lone formation soils. There is a low potential for this species to occur based on habitat.
Layne's ragwort <i>Packera layneae</i>	FT/SR/1B.2	Chaparral, cismontane woodland; gabbroic or serpentine rocky soils. Elevation: 200-1000 m. Blooms: April-August	Yes	Potential habitat for this species is present within the survey area. This species is known to occupy openings and disturbed sites in gabbroic soils and may also occur in chaparral, cismontane woodland, and serpentine rocky soils.
Sanford's arrowhead <i>Sagittaria sanfordii</i>	--/1B.1	Central Valley freshwater wetlands, wetland-riparian, ponds, ditches. Elevation: 0-650 m. Blooms: May-October	No	No suitable habitat in the survey area. Typical habitat for this species is found in larger, slower-moving rivers and ponds in the Central Valley.
Oval-leaved viburnum <i>Viburnum ellipticum</i>	--/2.3	Chaparral, cismontane woodland, and lower montane coniferous forest. Elevation: 215-1400 m. Blooms May-June	Yes	The survey area contains suitable habitat for this species and is within the elevational range occupied by this species. This species would have been identifiable at the time of the survey but was not observed.
El Dorado mule ears <i>Wyethia reticulata</i>	--/1B.2 Pine Hill Endemics	Chaparral, cismontane woodland, and lower montane coniferous forest; clay or gabbroic soils. Elevation: 185-630 m. Blooms April-August	Yes	Potential habitat for this species is present within the survey area. This species is only known from the Pine Hill gabbro formation of western El Dorado County.

Table B: Special-Status Animals in the Vicinity of the Shingle Lime Mine Road Survey Area

Species	Status* (F/S)	General Habitat Description	Suitable Habitat Present in Shingle Lime Mine Road Survey Area	Potential for Occurrence	Rational
Invertebrates					
Vernal pool fairy shrimp <i>Branchinecta lynchi</i>	FT/--	Vernal pools and other similar seasonal wetlands.	No	None	DEIR states that there is potential habitat west of Shingle Lime Mine Road and low potential for occurrence. However, no potential habitat was found in the survey area, and it is outside of the known range of this species.
Vernal pool tadpole shrimp <i>Lepidurus packardii</i>	FE/--	Vernal pools and other similar seasonal wetlands.	No	None	DEIR states that there is potential habitat west of Shingle Lime Mine Road and low potential for occurrence. However, no potential habitat was found in the survey area, and it is outside of the known range of this species.
Valley elderberry longhorn beetle <i>Desmocercus californicus dimorphus</i>	FT/--	Riparian. Adults feed and lay eggs on blue elderberry (<i>Sambucus nigra ssp. caerulea</i>) shrubs. Prefers to lay eggs in elderberries 2-8 inches in diameter; some preference shown for stressed elderberries.	No	None	Outside known range. No elderberries present in roadside areas. Consistent with the DEIR.
Western bumble bee <i>Bombus occidentalis</i>	--/SC	Open grassy areas, urban parks and gardens, chaparral and shrub areas, and mountain meadows. Generalist forager of wild flowering plants in a range of habitats.	Yes	None	Suitable habitat is present in the survey area; however, within California, this species is currently only known to occur in high-elevation sites in the Sierra Nevada and in a couple of locations on the northern California coast.

Table B: Special-Status Animals in the Vicinity of the Shingle Lime Mine Road Survey Area

Species	Status* (F/S)	General Habitat Description	Suitable Habitat Present in Shingle Lime Mine Road Survey Area	Potential for Occurrence	Rational
Crotch's bumble bee <i>Bombus crotchii</i>	--/SC	Open grassy areas, urban parks and gardens, chaparral and shrub areas, desert margins. Generalist forager of wild flowering plants in a range of habitats.	Yes	Moderate	Suitable habitat is present in the survey area. Survey area is within the known range of this species. Not included in the DEIR because it is a new candidate species.
Monarch butterfly (overwintering population) <i>Danaus plexippus</i>	FC/--	Prairies, meadows, grasslands, along roadsides. Closely associated with milkweed plants necessary for egg laying and larval development. In California, winters in large groves of trees along the coast.	Yes	Moderate	Suitable foraging and egg laying habitat in survey area. Narrow-leaved milkweed observed during reconnaissance survey. Outside of wintering range. Consistent with the DEIR.
Fish					
Delta smelt <i>Hypomesus transpacificus</i>	T/E	Sacramento–San Joaquin Delta.	No	None	Outside of species' range. Consistent with the DEIR.
Steelhead – Central Valley DPS <i>Oncorhynchus mykiss irideus</i>	FT/SSC	Clear cool riffles with gravel or cobble substrate for spawning; clear, cool riffles and pools as rearing habitat.	No	None	No habitat for this species within roadside areas. Consistent with the DEIR.
Central Valley Spring-run Chinook salmon <i>Oncorhynchus tshawytscha</i>	FT/ST	Upper Sacramento and Feather rivers. Clear cool riffles with gravel or cobble substrate for spawning; clear, cool riffles and pools as holding and rearing habitat.	No	None	Outside of known range of this species. Consistent with the DEIR.
Amphibians					
California tiger salamander <i>Ambystoma californiense</i>	FT/ST	Grasslands; requires nearby ponds and vernal pools for breeding and small mammal burrows in adjacent uplands.	No	None	No habitat in the survey area. Outside of species' known range. Consistent with the DEIR.

Table B: Special-Status Animals in the Vicinity of the Shingle Lime Mine Road Survey Area

Species	Status* (F/S)	General Habitat Description	Suitable Habitat Present in Shingle Lime Mine Road Survey Area	Potential for Occurrence	Rational
Western spadefoot <i>Spea hammondi</i>	FPT/SSC	Open areas with sandy or gravelly soils within mixed woodland, grassland, coastal sage scrub, chaparral, sandy washes, floodplains, and playas. Rain pools without predators necessary for breeding.	No	None	No typical habitat in the survey area. Outside of species' known range in the Central Valley. Consistent with the DEIR.
Foothill yellow-legged frog – South Sierra DPS <i>Rana boylei</i>	FE/SE	Cobble bottomed streams, creeks, and rivers.	No	None	The DEIR states that suitable habitat may be present in the offsite improvement area east of the LRVSP Project Site and there is low potential for occurrence. However, no suitable habitat was found within the survey area. Seasonal drainages flowing under Shingle Lime Mine Road do not provide the perennial creek habitat that this species occupies.
California red-legged frog <i>Rana draytonii</i>	FT/SSC	Freshwater marshes, streams, ponds, and other semi-permanent water sources. Suitable breeding ponds and pools usually have a minimum depth of 20 inches and must contain water during the entire development period for eggs and tadpoles (typically March through August).	No	Low	This species is not expected in the area. Nonetheless, ponds to the east and west of Shingle Lime Mine Road and nearby streams provide potential habitat for this species. Individuals could disperse overland or through drainages and enter the survey area along the road. There is no suitable breeding habitat in roadside areas. Consistent with the DEIR.

Table B: Special-Status Animals in the Vicinity of the Shingle Lime Mine Road Survey Area

Species	Status* (F/S)	General Habitat Description	Suitable Habitat Present in Shingle Lime Mine Road Survey Area	Potential for Occurrence	Rational
Reptiles					
Northwestern pond turtle <i>Actinemys marmorata</i>	FPT/SSC	Ponds, lakes, rivers, streams, creeks, marshes, and irrigation ditches with abundant vegetation in woodlands, forests, and grasslands.	No	High	Ponds to the east and west of Shingle Lime Mine Road provide suitable habitat for this species. Adjacent uplands provide potential nesting habitat. Individuals could disperse into the survey area. Consistent with the DEIR.
Blainville's horned lizard <i>Phrynosoma blainvillei</i>	--/SSC	Open grasslands, chaparral, and woodlands with loose or sandy soils.	No	Low	The DEIR says there is a high potential for occurrence in off-site improvement areas. LSA believes the potential for occurrence for this species is low within the survey area; there is a narrow band of marginal habitat along the road that is isolated from larger habitat patches by grazing land and development.
Giant garter snake <i>Thamnophis gigas</i>	FT/ST	Prefers freshwater marsh and low gradient streams. Has adapted to drainage canals and slow-flowing irrigation ditches. Primarily within the Sacramento Valley.	No	None	No suitable habitat in the survey area and outside of the species' range. Only CNDDB occurrence in the vicinity is from the Cosumnes River. Consistent with the DEIR.
Birds					
Yellow-billed cuckoo <i>Coccyzus americanus</i>	FT/SE	Extensive, deciduous riparian thickets or forests with dense understory along slow-moving watercourses, backwaters, or seeps. Willows are dominant component of vegetation. May use orchards near watercourses.	No	None	No suitable habitat in roadside areas. Species is typically found in dense riparian forest along slow-moving rivers. Survey area is outside of the current known range. Populations in California are now thought to be restricted to the Sacramento River Valley, South Fork of the Kern River Valley, and the Colorado River Valley.

Table B: Special-Status Animals in the Vicinity of the Shingle Lime Mine Road Survey Area

Species	Status* (F/S)	General Habitat Description	Suitable Habitat Present in Shingle Lime Mine Road Survey Area	Potential for Occurrence	Rational
California black rail <i>Laterallus jamaicensis coturniculus</i>	--/ST	Typically tidal marshes adjacent to San Francisco Bay and outer coast, but small populations known from freshwater marshes in Sierra Nevada foothills.	No	None	No suitable freshwater marsh habitat in roadside areas. Consistent with the DEIR.
White-tailed kite (nesting) <i>Elanus leucurus</i>	--/FP	Grassland and savanna for foraging. Large trees for roosting and nesting.	Yes	High	Suitable habitat occurs adjacent to the road. Survey area is near eastern extent of species' range. Consistent with the DEIR.
Golden eagle <i>Aquila chrysaetos</i>	--/FP	Forests, canyons, shrub lands, grasslands, and oak woodlands. Large trees or cliffs for nesting. Open grasslands for foraging.	Yes	Moderate	Nesting and foraging habitat occurs adjacent to the road. Consistent with the DEIR.
Northern harrier (nesting) <i>Circus hudsonius</i>	--/SSC	Nests on ground in dense grass.	No	None	No nesting habitat in survey area. Survey area is outside of known nesting range. This species was not evaluated in the DEIR, likely because the LRVSP Project Site and offsite improvement areas do not have suitable nesting habitat and are outside of the known nesting range for this species. It did not appear in the nine-quadrangle search area. It was included in a public comment letter on the DEIR, but this species is not expected to be impacted by the potential offsite road improvements.
Bald eagle <i>Haliaeetus leucocephalus</i>	--/SE	Nests in large trees adjacent to large lakes, reservoirs, or rivers.	No	None	The survey area is not located near a large water body. Consistent with the DEIR.

Table B: Special-Status Animals in the Vicinity of the Shingle Lime Mine Road Survey Area

Species	Status* (F/S)	General Habitat Description	Suitable Habitat Present in Shingle Lime Mine Road Survey Area	Potential for Occurrence	Rational
Swainson's hawk (nesting) <i>Buteo swainsonii</i>	--/ST	Nests in trees peripheral to riparian systems or in lone trees in agricultural fields or along roadsides when adjacent to suitable foraging habitat such as grasslands or agricultural fields, particularly alfalfa.	Yes	Low	Outside known nesting range. Consistent with the DEIR.
Burrowing owl <i>Athene cunicularia</i>	--/SSC	Grasslands, deserts, and scrublands characterized by low-growing vegetation and suitable burrows.	Yes	Low	The DEIR says moderate potential for occurrence. LSA believes that the likelihood of occurrence is low given the lack of extensive grasslands in and around the survey area and the fact that the survey area is outside of the species' known nesting range. The current range extends only to the western edge of El Dorado County, in Central Valley grasslands.

Table B: Special-Status Animals in the Vicinity of the Shingle Lime Mine Road Survey Area

Species	Status* (F/S)	General Habitat Description	Suitable Habitat Present in Shingle Lime Mine Road Survey Area	Potential for Occurrence	Rational
Long-eared owl (nesting) <i>Asio otus</i>	--/SSC	Roosts in dense vegetation and forages in open grasslands or shrublands or open coniferous or deciduous woodlands. Nests in abandoned stick nests or in cavities in trees and cliffs.	Yes	Low	Suitable foraging habitat present in the survey area and within species' range. Rare breeder in the Sierra Nevada foothills. This species was not evaluated the DEIR. It was included in an updated Biological Resources Report for the Shingle Lime Mine Road Specific Plan at the request of a commenter. There are no CNDDDB records for the nine-quadrangle search area. The nearest record is from the Emerald Bay quadrangle at the south end of Lake Tahoe in El Dorado County. It is unlikely to occur in the survey area. However, the species' range does include the survey area and there is a small chance it could occur.
Loggerhead shrike <i>Lanius ludovicianus</i>	--/SSC	Nests in shrubs and small trees in grasslands.	Yes	Moderate	Suitable habitat adjacent to the road. Consistent with the DEIR.
Bank swallow (nesting) <i>Riparia riparia</i>	--/ST	Nests in cavities excavated into cliffs or steep banks along streams. May also use sand and gravel quarries and road cuts.	No	None	No suitable nesting habitat within or adjacent to the survey area. Consistent with the DEIR.

Table B: Special-Status Animals in the Vicinity of the Shingle Lime Mine Road Survey Area

Species	Status* (F/S)	General Habitat Description	Suitable Habitat Present in Shingle Lime Mine Road Survey Area	Potential for Occurrence	Rational
Purple martin (nesting) <i>Progne subis</i>	--/SSC	Nests in cavities in trees, utility poles, buildings, bridges, cliffs. Low canopy cover at or above nest height with room for aerial foraging. Often near water where insect prey is abundant.	Yes	Low	Suitable habitat present adjacent to the road and within species' range. Nests in scattered locations in the Sierra Nevada. This species was not evaluated in the DEIR. It was included in an updated Biological Resources Report for the Shingle Lime Mine Road project at the request of a commenter. There are no CNDDDB records for the nine-quadrangle search area. The nearest record is from the Rocklin and Roseville quadrangles west of Folsom Lake in Placer County. It is unlikely to occur in the survey area. However, the species' range does include the survey area and there is a small chance it could occur.
Grasshopper sparrow (nesting) <i>Ammodramus savannarum</i>	--/SSC	Dense grasslands.	Yes	Moderate	Marginal nesting habitat present adjacent to the road. Consistent with the DEIR.

Table B: Special-Status Animals in the Vicinity of the Shingle Lime Mine Road Survey Area

Species	Status* (F/S)	General Habitat Description	Suitable Habitat Present in Shingle Lime Mine Road Survey Area	Potential for Occurrence	Rational
Yellow-breasted chat (nesting) <i>Icteria virens</i>	--/SSC	Riparian areas with a dense shrub layer and open canopy.	No	None	No suitable habitat adjacent to the road. Rare breeder in the Sierra Nevada foothills. This species was not evaluated in the DEIR. It was included in an updated Biological Resources Report for the Shingle Lime Mine Road project at the request of a commenter. There are no CNDDDB records for the nine-quadrangle search area. The nearest records are from the Grass Valley and Camp Far West quadrangles in Nevada County. It is unlikely to occur in the survey area. However, the species' range does include the survey area and there is a small chance it could occur.
Tricolored blackbird (nesting colony) <i>Agelaius tricolor</i>	--/ST	Nesting usually occurs in areas of dense cattails and/or tall bulrushes in creeks or ponds, tall mustard (<i>Brassica</i> sp.), grain stalks in fields, or Himalayan blackberry. Fall foraging occurs largely in agricultural cropland with alfalfa and rice, irrigated pasture, lightly grazed grasslands, and livestock operations.	No	Low	No suitable nesting habitat adjacent to the road. Open grasslands in the area could provide foraging habitat. Consistent with the DEIR.

Table B: Special-Status Animals in the Vicinity of the Shingle Lime Mine Road Survey Area

Species	Status* (F/S)	General Habitat Description	Suitable Habitat Present in Shingle Lime Mine Road Survey Area	Potential for Occurrence	Rational
Mammals					
Pallid bat <i>Antrozous pallidus</i>	--/SSC	Roosts in caves, tunnels, buildings, and cavities in trees.	No	Low	The DEIR states that suitable habitat could be present in offsite improvement areas east of the LRVSP Project Site with a high potential for occurrence. LSA believes the potential for this species to occur in the survey area is low, though large cavities in trees could provide suitable habitat, if present.
Townsend's big-eared bat <i>Corynorhinus townsendii</i>	--/SSC	Typically roosts in open areas of abandoned buildings, caves, and mines. Forages along wooded habitat edges, often gleaning insects from trees or shrubs.	No	None	The DEIR states that suitable habitat is present in offsite improvement areas with low potential for occurrence, but no suitable roosting habitat for this species was observed in the survey area.
Western red bat <i>Lasiurus blossevillei</i>	--/SSC	Roosts in foliage of trees or shrubs; day roosts are commonly in edge habitats adjacent to streams or open fields, orchards, and sometimes in urban areas. There may be an association with intact riparian habitat (particularly willows, cottonwoods, and sycamores).	Yes	High	High based on detections during acoustic bat surveys of similar habitats in the Marble Valley Specific Plan area in 2012 (Wyatt 2013) and presence of suitable roosting and foraging habitat adjacent to the road. Consistent with the DEIR.
Hoary bat <i>Lasurus cinerius</i>	--/ WBWG: Moderate priority	Primarily found in forested habitats; also found in riparian areas and in park and garden settings in urban areas; day roosts in foliage of trees.	Yes	High	High based on detections during acoustic bat surveys of similar habitats in the Marble Valley Specific Plan area in 2012 (Wyatt 2013). Consistent with the DEIR.

Table B: Special-Status Animals in the Vicinity of the Shingle Lime Mine Road Survey Area

Species	Status* (F/S)	General Habitat Description	Suitable Habitat Present in Shingle Lime Mine Road Survey Area	Potential for Occurrence	Rational
Fringed myotis <i>Myotis thysanodes</i>	–/– WBWG: High priority	Drier woodlands like pinyon-juniper, ponderosa pine, and oak preferred, but can occur in coastal coniferous forest and riparian areas. Generally at 1219-2134 m. in elevation. Primarily roosts in caves, mines, buildings, or crevices, but has been observed roosting in tree snags.	No	Low	The DEIR states that preferred roosting areas do not appear to be in the offsite improvement area and there is low potential for occurrence. No potential roosting sites were observed during the survey, but there is a low potential for roosting in trees in the survey area.
Long-eared myotis <i>Myotis evotis</i>	–/– WBWG: Moderate priority	Occurs in semi-arid shrublands, sage, chaparral and agricultural areas from sea level to 2700 m. but is usually associated with coniferous forests. Roosts in caves, buildings, crevices, under bark, and in snags.	No	Low	The DEIR states that preferred roosting areas do not appear to be in the offsite improvement area and there is low potential for occurrence. No potential roosting sites were observed during the survey, but there is a low potential for roosting in trees in the survey area. No detections during acoustic bat surveys west of the Marble Valley Specific Plan area in 2012 (Wyatt 2013).
Silver-haired bat <i>Lasionycteris noctivagans</i>	–/– WBWG: Moderate priority	Typically roosts in tree cavities, crevices and under loose bark; may also use leaf litter, buildings, mines, and caves; breeds in coastal and montane coniferous forests, valley foothill and montane riparian habitats; may occur in any habitat during migration.	Yes	Moderate	Moderate based on potential detections during acoustic bat surveys west of the Marble Valley Specific Plan area in 2012 (Wyatt 2013). Species is primarily known from higher elevations, but there is suitable roosting and foraging habitat at the survey area. Consistent with the DEIR.

Table B: Special-Status Animals in the Vicinity of the Shingle Lime Mine Road Survey Area

Species	Status* (F/S)	General Habitat Description	Suitable Habitat Present in Shingle Lime Mine Road Survey Area	Potential for Occurrence	Rational
Western small-footed bat <i>Myotis ciliolabrum</i>	--/ WBWG: High priority	Particularly associated with coniferous forests and rocky xeric habitats; typically roosts in rock crevices in mines, caves and occasionally in buildings, bridges, and other human structures; forages over a wide variety of habitats.	Yes	High	High based on detections during acoustic bat surveys of similar habitats west of the Marble Valley Specific Plan area in 2012 (Wyatt 2013). Consistent with the DEIR.
Ringtail <i>Bassariscus astutus</i>	--/FP	Most often found in riparian corridors in forested, shrubby habitats. Dens in rock outcrops, hollow trees, and snags at low to middle elevations. Its range includes the North and South Coast Ranges, Sierra Nevada, Cascades, and the mountainous areas of the Mojave Desert.	No	Moderate	Survey area lacks rock outcrops and large areas of densely vegetated habitat, but this species could move through the survey area. Consistent with the DEIR.
Pacific fisher <i>Pekania pennanti</i>	--/SSC	Mature conifer and mixed hardwood forests with high canopy closure. Hollow trees and downed logs used for dens and resting sites.	No	None	No suitable habitat in the survey area. Survey area is outside of current range and is located between two Distinct Population Segments (Northern California/Southern Oregon and Southern Sierra Nevada). Single CNDDDB record in the vicinity of the survey area is a 1916 trapping record from near Placerville. Consistent with the DEIR.
American badger <i>Taxidea taxus</i>	--/SSC	A variety of open, arid habitats, most commonly associated with grasslands, savannas, mountain meadows, and open areas of desert scrub.	Yes	Low	Grassland habitat present in the survey area, but burrows are unlikely immediately adjacent to the road. Consistent with the DEIR.

**Table C. List of Plants Observed in the Shingle Lime Mine Road Survey Area,
November 2024**

FAMILY/Species Name - scientific	FAMILY/ Common Name	Native
GYMNOSPERMS		
CUPRESSACEAE	CYPRESS FAMILY	
<i>Calocedrus decurrens</i>	Incense cedar	Yes landscape plant
PINACEAE	PINE FAMILY	
<i>Pinus sabiniana</i>	Foothill pine	yes
EUDICOTS		
ADOXACEAE	MUSKROOT FAMILY	
<i>Sambucus mexicana</i>	Blue elderberry	yes
ANACARDIACEAE	SUMAC/CASHEW FAMILY	
<i>Pistacia chinensis</i>	Chinese pistache	no
<i>Toxicodendron diversilobum</i>	Poison oak	yes
APIACEAE	CARROT FAMILY	
<i>Dacus carrota</i>	Queen Anne's lace	no
<i>Torilis arvensis</i>	Torilis	no
AESCULIPACEAE	MILKWEED FAMILY	
<i>Asclepias fascicularis</i>	Narrow-leaved milkweed	yes
ASTERACEAE	SUNFLOWER FAMILY	
<i>Achillea millefolium</i>	Yarrow	yes
<i>Baccharis pilularis</i>	Coyote brush	yes
<i>Carduus pycnocephalus</i>	Italian thistle	no
<i>Centaurea solstitialis</i>	Yellow star-thistle	no
<i>Cichorium intybus</i>	Chicory	no
<i>Cirsium vulgare</i>	Bull thistle	no
<i>Dittrichia graveolens</i>	Stinkwort	no
<i>Grindelia camporum</i>	Great Valley gumplant	yes
<i>Holocarpha virgata</i>	Pitgland tarweed	yes
<i>Madia sp.</i>	Tarplant	yes
<i>Pseudognaphalium californicum</i>	California cudweed	yes
<i>Silybum marianum</i>	Milk thistle	no
<i>Tragopogon porrifolius</i>	Salsify	no
<i>Wyethia sp.</i>	Mule ears	yes
BORAGINACEAE	BORAGE FAMILY	

**Table C. List of Plants Observed in the Shingle Lime Mine Road Survey Area,
November 2024**

FAMILY/Species Name - scientific	FAMILY/ Common Name	Native
<i>Phacelia sp.</i>	Phacelia	yes
BRASSICACEAE	MUSTARD FAMILY	
<i>Hirschfeldia incana</i>	Shortpod mustard	no
ERICACEAE	HEATH FAMILY	
<i>Arctostaphylos sp.</i>	Manzanita	yes
EUPHORBIACEAE	SPURGE FAMILY	
<i>Croton setiger</i>	Doveweed	yes
FABACEAE	LEGUME FAMILY	
<i>Trifolium hirtum</i>	Rose clover	no
<i>Vicia sativa</i>	Spring vetch	no
FAGACEAE	OAK FAMILY	
<i>Quercus agrifolia</i>	Coast live oak	yes
<i>Quercus berberidifolia</i>	Scrub oak	yes
<i>Quercus chrysolepis</i>	Canyon live oak	yes
<i>Quercus douglasii</i>	Blue oak	yes
<i>Quercus kelloggii</i>	California black oak	yes
<i>Quercus lobata</i>	Valley oak	yes
GENTIANACEAE	GENTIAN FAMILY	
<i>Zeltnera sp.</i>	Centaury	yes
GERANIACEAE	GERANIUM FAMILY	
<i>Erodium botrys</i>	Long beaked filaree	no
HYPERICACEAE		
<i>Hypericum perforatum</i>	Klamath weed	no
JUGLANDACEAE	WALNUT FAMILY	
<i>Juglans californica</i>	California black walnut	yes
MYRTACEAE	MYRTLE FAMILY	
<i>Eucalyptus globulus</i>	Blue gum eucalyptus	no
ONAGRACEAE	SUNCUP FAMILY	
<i>Epilobium brachycarpum</i>	Willow herb	yes

**Table C. List of Plants Observed in the Shingle Lime Mine Road Survey Area,
November 2024**

FAMILY/Species Name - scientific	FAMILY/ Common Name	Native
PLANTAGINACEAE	PLANTIAN FAMILY	
<i>Plantago lanceolata</i>	English plantain	no
POLYGONACEAE	BUCKWHEAT FAMILY	
<i>Rumex crispus</i>	Curly dock	no
RHAMNACEAE	BUCKTHORN FAMILY	
<i>Ceanothus sp.</i>	Buckbrush	yes
<i>Frangula californica</i>	Coffeeberry	yes
<i>Rhamnus ilicifolia</i>	Hollyleaf redberry	yes
ROSACEAE	ROSE FAMILY	
<i>Heteromeles arbutifolia</i>	Toyon	yes
<i>Horkelia sp</i>	Horkelia	yes
<i>Pyracantha angustifolia</i>	Firethorn	no
<i>Rubus armeniacus</i>	Himalayan blackberry	no
RUBIACEAE	MADDER FAMILY	
<i>Galium sp.</i>	Bedstraw	yes
SALICACEAE	WILLOW FAMILY	
<i>Populus fremontii</i>	Fremont's cottonwood	yes
<i>Salix sp.</i>	Willow	yes
SCROPHULARIACEAE	FIGWORT FAMILY	
<i>Kickxia elatine</i>	Fluellen	no
<i>Verbascum thapsus</i>	Wooly mullien	no
VISCACEAE	MISLETOE FAMILY	
<i>Phoradendron villosum</i>	Pacific mistletoe	yes
MONOCOTS		
AGAVACEAE	AGAVE FAMILY	
<i>Chlorogalum pomeridianum</i>	Soap plant	yes
ARECACEAE	PALM FAMILY	
<i>Washingtonia robusta</i>	Mexican fan palm	no
CYPERACEAE	SEDGE FAMILY	
<i>Carex sp.</i>	Sedge	no

**Table C. List of Plants Observed in the Shingle Lime Mine Road Survey Area,
November 2024**

FAMILY/Species Name - scientific	FAMILY/ Common Name	Native
POACEAE	GRASS FAMILY	
<i>Arundo donax</i>	Giant reed	no invasive species
<i>Avena barbata</i>	Slender wild oat	no
<i>Bromus diandrus</i>	Ripgut brome	no
<i>Bromus hordeaceus</i>	Soft cheatgrass	no
<i>Cortaderia jubata</i>	Pampas grass	no
<i>Cynosurus echinatus</i>	Dogtail grass	no
<i>Elymus caput-medusae</i>	Medusa head	no
<i>Elymus glaucus</i>	Blue wildrye	yes
<i>Festuca bromoides</i>	Brome fescue	no
<i>Festuca californica</i>	California fescue	yes
<i>Festuca perennis</i>	Italian ryegrass	no
<i>Melica californica</i>	California melicgrass	yes
<i>Hordeum marinum ssp. gussoneanum</i>	Mediterranean barley	no
<i>Phalaris aquatica</i>	Harding grass	no
<i>Stipa cernua</i>	Nodding needle grass	yes
TYPHACEAE	CATTAIL FAMILY	
<i>Typha sp.</i>	cattail	yes