3 Environmental Analysis

This chapter of the Environmental Impact Report (EIR) describes the environmental setting (baseline) and the cumulative setting and other information to assist readers in understanding the manner in which the impact analyses have been conducted in this EIR.

Environmental Baseline/Existing Conditions

An EIR must include a description of the existing physical environmental conditions in the vicinity of the project to provide the "baseline physical conditions" against which project-related changes can be compared. The existing conditions are described in each of the technical sections. Normally, the baseline condition is the physical conditions that exist when the Notice of Preparation (NOP) is published (CEQA Guidelines Section 15125(a)). Therefore, the baseline conditions for this EIR, unless noted otherwise, are based on conditions that existed in November 2020, when the NOP was published. The CEQA Guidelines recognize that the data for establishing an environmental baseline cannot be rigid. Because physical environmental conditions may vary over a range of time, the use of environmental baselines that differ from the date of the NOP is reasonable and appropriate in certain circumstances when doing so results in a more accurate or conservative environmental analysis and is supported by substantial evidence.

Technical studies previously prepared for the Creekside Village Specific Plan (proposed project or CVSP) before the project went on hold in 2021 have been updated to reflect the updated project description and new laws and requirements and are included in the appendices to this EIR.

Impact Analysis

The proposed project includes two development options, as described in more detail in Chapter 2, Project Description. The first option would be to convert the 1.8-acres of neighborhood commercial to park uses if neighborhood commercial is not adopted as part of the CVSP. The second option proposes construction of up to 768 age-restricted units and 150 conventional homes. The impact analysis included in the technical sections listed below identifies if either of the options would result in the same impacts as the proposed project or if there would be a potential new impact. The area of disturbance or "project footprint" would not change if neighborhood commercial uses or age-restricted units were developed because the areas designated for new residential and park uses would be graded. Generally, the primary difference between the proposed project and the Active Adult option would be in the number of new residents, number of vehicle trips, and demand for utilities and public services.

Impacts are evaluated in terms of changes due to the project as compared to existing conditions. For each environmental topic or resource area, the conditions anticipated as the result of project implementation are compared to baseline (conditions as of November 2020 or thereabouts) conditions, to characterize the anticipated change. It should be noted that existing conditions do not constitute a significant impact for the purposes of CEQA. "[T]he purpose of an EIR is to identify the significant effects of a project on the environment, not the significant effects of the environment on the project" (*Ballona Wetlands Land Trust v. City of Los Angeles* (2011) 201 Cal.App.4th 455, 473 *and California Building Industry Association v. Bay area Air Quality Management District* (2015) Cal.App 4th.).

This chapter addresses the environmental setting, environmental impacts, and mitigation measures associated with the project with respect to the following technical sections:

- Section 3.1, Aesthetics
- Section 3.2, Air Quality
- Section 3.3, Biological Resources
- Section 3.4, Cultural Resources
- Section 3.5, Energy
- Section 3.6, Geology, Soils and Paleontology
- Section 3.7, Greenhouse Gas Emissions
- Section 3.8, Hydrology and Water Quality
- Section 3.9, Land Use/Population and Housing
- Section 3.10, Noise
- Section 3.11, Public Services and Recreation
- Section 3.12 Transportation
- Section 3.13, Tribal Cultural Resources
- Section 3.14, Public Utilities
- Section 3.15, Wildfire

Sections 3.1 through 3.15 of this Draft EIR, which present a technical analysis for each of the 15 environmental topics evaluated in detail, include the following components.

Environmental Setting: This subsection describes existing environmental conditions on the project site, and in the surrounding areas as appropriate. Generally, this is when the NOP is released for public review, which was November 2020, in accordance with CEQA Guidelines Section 15125. The discussions of the environmental setting focus on information relevant to the issue under evaluation. The extent of the geographic area considered may differ between environmental topics, depending on the locations of potentially affected resources.

Regulatory Setting: This subsection presents information on the current federal, state and local, laws, regulations, plans, and policies that govern or pertain to the environmental topic being discussed.

Thresholds of Significance: El Dorado County (County) uses checklist questions from Appendix G of the CEQA Guidelines as the thresholds of significance, which are identified in the technical section. In some instances, the thresholds are from agencies that have developed specific numeric thresholds to assess a project's impact (e.g., El Dorado County Air Quality Management District). Note that thresholds may be quantitative or qualitative, as appropriate for the environmental topic.

Impact Analysis: Each technical section includes an overview of the analytical methodology (methods of analysis) used to evaluate project impacts, including technical studies upon which the analyses rely, followed by a detailed discussion of the potentially significant effects or impacts of the proposed project on the existing environment, in accordance with CEQA Guidelines Section 15126.2. Project impacts and mitigation measures are numbered sequentially in each subsection (Impact 3.2-1, Impact 3.2-2, Impact 3.2-3, etc.). An impact statement precedes a detailed impact analysis for each significance threshold. The impact analysis includes the substantial evidence upon which significance determinations are based.

Where an existing law, regulation, or permit requires mandatory and prescriptive actions that provide environmental protections, with little or no discretion required for their implementation and with the effect of avoiding an impact or maintaining an impact at a less-than-significant level, the environmental protections afforded by the regulations are considered prior to determining impact significance and will not be identified as mitigation. In contrast, where existing laws or regulations specify a mandatory permit process for future projects, performance standards without prescriptive actions to accomplish them, or other requirements that afford substantial discretion in their implementation, the impact significance is determined prior to consideration of the environmental protections

afforded by the regulatory requirements. In such circumstances, impacts may be potentially significant or significant, and those regulatory requirements may then be included as mitigation measures.

In accordance with CEQA, specifically Public Resources Code (PRC) Section 21068, a "significant effect on the environment" means a substantial or potentially substantial adverse change in the environment. Impacts of the environment on a project or plan (as opposed to impacts of a project or plan on the environment) are beyond the scope of required CEQA review, as noted above.

For each impact determination, a less-than-significant impact indicates that the proposed project would not result in a substantial adverse change in the physical environment. A potentially significant or significant impact indicates a substantial adverse change in the physical environment and requires the identification of feasible mitigation measures that would avoid, minimize, or reduce those impacts, in accordance with CEQA Guidelines Section 15126.4.

This subsection also describes whether mitigation measures would reduce project impacts to less-than-significant levels. Significant and unavoidable impacts are identified where applicable, if there are no feasible mitigation measures available to reduce the significance of the impact, in accordance with CEQA Guidelines Section 15126.2(b).

An example of an impact statement is shown below.

Impact 3.1-1. The proposed project would not substantially degrade the existing visual character or quality of public views of the site and its surroundings.

A discussion of potential impacts of the proposed project is presented in paragraph form. The direct and indirect project-specific impacts associated with construction and operation of the project are evaluated and compared to the threshold of significance for the particular impact. The analysis discusses the applicable local, state, and federal laws and regulations that would reduce impacts, and assumes that the project would comply with applicable laws, ordinances, and regulations, and that the project applicant would obtain all necessary permits and comply with all required conditions of those permits. In many instances, the actions that are necessary to reduce a project impact are already required by existing laws or requirements. As noted above, the impact analysis would also identify if either of the options would result in the same impacts as the proposed project or if there would be a potential new impact.

The impact analysis concludes with a determination of the impact's significance (prior to implementation of mitigation) in **bold type** (e.g., **significant impact/ potentially significant impact/less-than-significant impact/results in no impact)**.

Mitigation Measures

Following the impact analysis is a discussion of applicable mitigation measures identified to reduce the significance of an impact, if required. This section includes a statement indicating whether the mitigation measure would reduce the impact to a less-than-significant level. A discussion of how the mitigation would reduce the significance of the impact is also provided. If the mitigation measure cannot reduce the significance of the impact, the impact would be identified as significant and unavoidable.

Mitigation measures, if applicable, are numbered and presented in the following format.

AES-1: Statement of feasible mitigation measure.

Note that CEQA Guidelines, Section 15370, defines mitigation as:

- Avoiding the impact altogether by not taking a certain action or parts of an action;
- Minimizing impacts by limiting the degree of magnitude of the action and its implementation;
- Rectifying the impact by repairing, rehabilitating, or restoring the affected environment;
- Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action; and
- Compensating for the impact by replacing or providing substitute resources or environments.

References: This section lists the sources cited during preparation of the EIR.

Cumulative Impacts

CEQA requires that in addition to project-specific impacts, an EIR must discuss cumulative impacts. As defined in CEQA Guidelines Section 15355, cumulative impacts refer to two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts. The cumulative impact from several projects is the change in the environment, which results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable probable future projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time (CEQA Guidelines Section 15355). An introductory statement that defines the cumulative analysis methodology and the cumulative context being analyzed for the respective issue area or topic (e.g., buildout of the County's General Plan, development within the Mountain Counties Air Basin) is included under the "Cumulative Analysis" discussion.

The CEQA Guidelines clarify a number of issues with respect to cumulative impacts, as follows.

- An EIR should not discuss cumulative impacts to which the project would not contribute.
- If the combined cumulative impact (impacts from other projects combined with the impact from the proposed project) is not significant, then the EIR should briefly indicate why the impact is not significant, and no further evaluation is necessary.
- If the combined cumulative impact is significant, the EIR discussion must reflect the severity of the project's contribution to the underlying cumulative impact and the likelihood of its occurrence.
- If the combined cumulative impact is significant, the EIR also must indicate whether the project's contribution to that significant cumulative impact will or will not be cumulatively considerable.
- An EIR may determine that the project's contribution is rendered less than cumulatively considerable if the project is required to implement or fund its fair share of a mitigation measure or measures designed to alleviate the cumulative impact (CEQA Guidelines Section 15130[a]).

The CEQA Guidelines provide additional guidance with respect to how an adequate cumulative impact analysis might be completed and note that this may be based on:

- A list of past, present, and probable future projects producing related or cumulative impacts, or

- A summary of projections contained in an adopted general plan or related planning document, or in a prior environmental document which has been adopted or certified, which described or evaluated regional or area-wide conditions contributing to the cumulative impact (CEQA Guidelines Section 15130[b]).

In addition, provided there is a "reasonable plan for mitigation" and contributions are "sufficiently tied to the actual mitigation" of the project's impacts, a commitment to contribute a fair share to such a program discharges an agency's mitigation duty under CEQA (*Save Our Peninsula Com. v. Monterey County Bd. of Supervisors,* (2001) 87 Cal.App.4th 99, 141); see also CEQA Guidelines, Section 15130, subd. (a)(3) ([recognizing that a project's contribution to a cumulative impact may be less than cumulatively considerable where "the project is required to implement or fund its fair share of a mitigation measure or measures designed to alleviate the cumulative impact"]). See also *Anderson First Coalition v. City of Anderson,* (2005) 130 Cal.App.4th 1173).

This EIR uses a "hybrid" approach in which potential cumulative impacts of the project are assessed in combination with buildout projections included in the County's 2004 General Plan, as modified by a list of projects that have been approved for development since the adoption of the General Plan or have submitted a formal application with environmental review underway. With pending projects currently under environmental review, enough information is available about the project through the application processing already completed and draft environmental documents to be considered for purposes of a cumulative analysis, but the project would still need to go through the County's review process and may or may not be approved.

El Dorado County General Plan Updated Planning Horizon

The County's General Plan, adopted in 2004, presents the County's comprehensive, long-term vision for physical development and resource conservation within the County. The General Plan analyzed two scenarios, a 20-year planning horizon (estimated to be 2025 at the time of preparation of the 2004 County's General Plan) and a maximum theoretical density buildout. The maximum theoretical density permitted under buildout of the County's General Plan would result in the development of up to 78,692 new housing units beyond the 44,708 units existing in 1999, for a total of 123,400 dwelling units resulting in an estimated 317,692 people within the unincorporated western portion of the county (El Dorado County 2003). Practical constraints, such as terrain, waterways, biological resources, and availability of roadways and infrastructure, make it unlikely that the maximum theoretical density buildout could be achieved and certainly not within the 2025 planning horizon of the County's General Plan. The County's forecasts for growth through 2025 under the 2004 General Plan assumes that an additional 32,491 new housing units would be constructed beyond the 44,708 units that existed in 1999, for a total of 77,199 units. Approximately 15,000 new housing units have been built since 1999, leaving approximately 17,500 remaining housing units to be built in the planning horizon.

In 2013, the County updated the housing and employment growth projections to assist in the preparation of the updated County Travel Demand Model, which was used to model the project's traffic analysis. These updated projections cover the western portion of the county (excluding Placerville) and examine growth from 2010 to a planning horizon through 2035.[1] Growth allocations based on the distribution of new development in the County between 2000 and 2011 and development applications from 2006 through 2023 were used to extrapolate future growth. In 2010, there were 59,668 existing housing units. For 2035, it was projected that there would be 77,077 housing units. The 2013 study projected that by 2015, 62,803 housing units would exist, leaving approximately 14,300 housing units to be built under the 2035 planning horizon. The 2035 planning horizon forecast differs only

[1] Details on the methodology for the forecasts is presented in the memorandum prepared by Bay Area Economics (BAE) is available on the County's website at https://www.edcgov.us/government/planning/documents/BAE%20Report.pdf.

slightly from the 2025 planning horizon largely as a result of the economic recession in the late 2000s, and the resulting drastic reduction in the rate of growth in the county.

Among the specific projects included in the 2025 planning horizon for the County's General Plan are those considered to be existing commitments—projects for which a tentative map or development agreement existed before approval of the 2004 County's General Plan but were not built out at the time the General Plan was adopted in 2004. As shown in Table 3-1, these projects have the potential to contribute approximately 4,000 new dwelling units within the county. These projects include the Bass Lake Hills Specific Plan, Carson Creek Specific Plan, El Dorado Hills Specific Plan, Promontory Specific Plan, and Valley View Specific Plan. The Marble Valley Master Plan was approved but never developed and the tentative map expired so it has been removed as an Approved Project.[2]

Table 3-2 includes those projects that have been approved, or complete project applications have been substantially processed and environmental review is underway since adoption of the General Plan.

Table 3-1. El Dorado County Approved Projects – 2004 County General Plan

Project	Approved Units	Constructed	Remaining	Commercial/ Industrial (acres)	Parks/OS (acres)
Bass Lake Hills Specific Plan	1,458	162	1,296	0	182
Carson Creek Specific Plan	1,925	1,544	381	101	237
El Dorado Hills Specific Plan	6,192	4,929	1,263	301	868
Promontory Specific Plan	1,100	752	348	7	136
Valley View Specific Plan	2,840	2,139	701	40	703
Total	**13,515**	**9,526**	**3,989**	**449**	**2,126**

Source: El Dorado County 2024.

Table 3-2. El Dorado County – Projects since Adoption of the 2004 General Plan

Project	Approved Units	Constructed (approved)	Remaining	Acres (approximate)	Commercial/ Industrial (acres)	Parks/OS (acres)
El Dorado Hills Town Center Apartments	214	214	0	5	0	0
Lime Rock Valley Specific Plan[1]	800	0	800	358	0	341
Saratoga Estates	317	186	131	71	0	42
Village of Marble Valley Specific Plan[1]	3,236	0	3,236	797	57	1,371
Montano de El Dorado	—	0	0	—	3	—
Generations at Green Valley[1]	379	0	379	281	0	58

[2] The Marble Valley Master Plan was superseded by the Village of Marble Valley Specific Plan included in Table 3-2.

Table 3-2. El Dorado County – Projects since Adoption of the 2004 General Plan

Project	Approved Units	Constructed (approved)	Remaining	Acres (approximate)	Commercial/ Industrial (acres)	Parks/OS (acres)
Cameron Meadows[1]	161	0	161	104	0	63
Total	**5,107**	**—**	**4,707**	**1,616**	**60**	**1,875**

Note:
[1] These projects have not yet been approved by the County.
Source: El Dorado County 2024.

El Dorado Hills Town Center Apartments Project

The Town Center Apartments project is a 214-unit apartment complex located at the northwest corner of Town Center Boulevard and Vine Street within the Town Center East Planned Development in the El Dorado Hills Specific Plan and was originally planned as a hotel, and as such is included in the County General Plan planning horizon. The County approved the project in 2018. It is now fully built and occupied.

Lime Rock Valley Specific Plan

The proposed Lime Rock Valley Specific Plan would allow development of up to 800 residential units on approximately 740 acres, as well as an 8-acre neighborhood park with recreational amenities, and about 333 acres of public and private open space. The project site is south of U.S. 50, southwest of the Cambridge Road interchange, along Flying C Road. A portion of the site adjoins the proposed Village of Marble Valley Specific Plan. It is adjacent to the existing Cameron Estates subdivision on the north and the Royal Equestrian subdivision on the south. The project has not yet been approved by the County, but a draft EIR has been prepared.

Saratoga Estates (Rancho Dorado) Residential Development

The approved Saratoga Estates (formerly Rancho Dorado) residential project, currently under construction, would include development of 317 residential units, 5.42 acres of public parkland, 37.04 acres of open space, and 8.4 acres of public roads in the El Dorado Hills area. The site is north of U.S. 50 and 0.5 mile west of the intersection of U.S. 50 and El Dorado Hills Boulevard.

Village of Marble Valley Specific Plan

The proposed Village of Marble Valley Specific Plan would replace the existing development agreement for the Marble Valley site and would allow development of up to 3,236 residential units, 475,000 square feet of nonresidential uses, 55 acres of agricultural use, 87 acres of public facilities/recreational use (including 47 acres of public parkland), 1,284 acres of open space, and 61 acres of roads and future right-of-way. The project has not yet been approved by the County, but a draft EIR has been prepared.

Montano De El Dorado Phase I and II Master Plan

The proposed Montano De El Dorado Phase I and II Master Plan (project), approximately 16.8 acres, would expand the existing Montano de El Dorado retail center (Phase I) to include additional retail space, an office building, hotel,

and a small amphitheater. Phase II would consist of a total of 10 buildings for a total floor area of approximately 75,400 square feet and 143,900 square feet of commercial and office uses.

Generations at Green Valley

The proposed Generations at Green Valley project would allow up to 379 residential lots, and a clubhouse lot, a park site, 13 landscape lots, and nine (9) open space lots totaling approximately 58 acres. Of the proposed lots, 214 would be age-restricted for residents 55 years or older. The project has not yet been approved by the County, but a draft EIR has been prepared.

Cameron Meadows

The proposed Cameron Meadows project would allow up to 161 residential lots and 16 affordable deed-restricted attached accessory residential dwelling units. In addition, project features of landscaped areas, open space, and public trails would total 62.9 acres. The project has not yet been approved by the County, nor has a draft environmental impact report been prepared.

Folsom Plan Area Specific Plan

The Folsom Area Specific Plan although not within the county is located just to the west, south of U.S. 50 and is within the geographic area of some resources; therefore, it is also considered as a cumulative project.

The City of Folsom approved a 3,520-acre specific plan bounded by Highway 50, White Rock Road, Prairie City Road and the El Dorado County line. At buildout the specific plan includes 11,000 residences, 1,130 acres in parks and open space, and new schools. As of March 2023, approximately 3,201 (including 300+ apartments) have been constructed.

Terminology Used in the EIR

This Draft EIR uses the following terminology to describe environmental effects of the proposed project:

- **Standards of Significance:** A set of criteria used by the lead agency to determine at what level or "threshold" an impact would be considered significant. Standards of significance used in this EIR include those set forth in CEQA Guidelines Section 15065 (Mandatory Findings of Significance) and those derived from questions set forth in Appendix G to the CEQA Guidelines; criteria based on regulatory standards of local, state, and federal agencies; and criteria based on goals and policies identified in the County General Plan. In fashioning criteria based on these sources, County staff have also relied on their own professional judgment and experience in some instances. In determining the level of significance, the analysis assumes that the proposed project would comply with relevant federal, state, and local regulations and ordinances.
- **Less-than-Significant Impact:** A project impact is considered less than significant when it does not reach the standard of significance, indicating that there would be no substantial change in the environment. No mitigation is required for less-than-significant impacts.
- **Potentially Significant Impact:** A potentially significant impact is an environmental effect that could cause a substantial adverse change in the environment; however, additional information is needed regarding the extent of the impact to make the determination of significance. For CEQA purposes, a potentially significant impact is treated as if it were a significant impact.

- **Significant Impact:** A project impact is considered significant if it results in a substantial adverse change in the physical conditions of the environment. Significant impacts are identified by the evaluation of project effects in the context of specified significance criteria. When available, potentially feasible mitigation measures and/or project alternatives are identified to reduce these effects to the environment.
- **Significant and Unavoidable Impact:** A project impact is considered significant and unavoidable if it results in a substantial adverse change in the physical conditions of the environment and there are no potentially feasible mitigation measures and/or project alternatives available to reduce these effects to less than significant.
- **Cumulative Impacts:** According to CEQA, "cumulative impacts refer to two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts" (CEQA Guidelines Section 15355). CEQA requires that cumulative impacts be discussed when the "project's incremental effect is cumulatively considerable" (CEQA Guidelines Section 15130 (a)).

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3.1 Aesthetics

The following analysis identifies potential impacts related to a change in aesthetics due to implementation of the proposed Creekside Village Specific Plan (proposed project or CVSP). This section describes the aesthetic conditions on and around the CVSP project site; discusses the relevant state and local regulatory considerations; and evaluates how implementation of the CVSP may affect the aesthetics of the project site and public views.

Public comments received in response to the November 6, 2020, Notice of Preparation (NOP) include concerns related to the visual impacts of potential noise barriers and the overall visual character of the development compared to the existing undeveloped nature of the project site. No additional comments were received at the second scoping meeting held on September 26, 2023. A copy of the NOP and comments received is included in Appendix A.

Main sources referenced to prepare this section include a review of Google Earth aerial and street imagery (Google Earth 2019), the El Dorado County General Plan Land Use Element and Conservation and Open Space Element (El Dorado County 2019; 2017) and its Environmental Impact Report (EIR) (El Dorado County 2003), Caltrans list of Eligible and Officially Designated State Scenic Highways (Caltrans 2017), and a site visit.

3.1.1 Environmental Setting

Regional Setting

The proposed project site is located within an unincorporated area of El Dorado County (County) in the community of El Dorado Hills located in the western foothills, approximately 25 miles east of downtown Sacramento and 18 miles west of the City of Placerville (see Figure 2-1 in Chapter 2, Project Description). West of the county, the Sacramento region is traversed by two major rivers and is characterized by flat urbanized areas including the cities of Folsom, Rancho Cordova, and Sacramento with areas of undeveloped grasslands and pockets of oak woodlands along with agricultural areas in Sacramento County. The eastern portion of the county contains mountainous terrain, with high desert farther east in Nevada. Urbanized areas such as Placerville, Cameron Park, and El Dorado Hills are located in the western portion of the county along with large areas of agricultural and forest lands. The County has a broad range of landscapes that change with the gradual increase in elevation. Rolling hills dotted with mature oaks and oak woodlands, agricultural land, apple orchards and vineyards, evergreen forests and snow-capped mountains, scenic rivers, alpine lakes, and historic structures all contribute to the visual character found in the County. Elevations range from 200 feet above mean sea level (AMSL) in the western rolling foothills, adjacent to Sacramento County, to more than 10,000 feet AMSL along the Sierra Nevada crest on the edge of the Lake Tahoe Basin. U.S. Highway 50 (Highway 50) extends east from the Sacramento Valley through the Sierra Nevada foothills and beyond to Lake Tahoe. Bordering the west shore of Lake Tahoe, State Route (SR) 89 continues south to the Alpine/El Dorado County line. SR 49 runs north-south from the Placer/El Dorado County line to the Amador/El Dorado County line (El Dorado County 2019).

Project Site

The project site is located on the west side of Latrobe Road, south of Investment Boulevard, and directly adjacent to the southern boundary of the El Dorado Hills Business Park, as shown on Figure 2-1, Project Location in Chapter 2, Project Description. The site is designated Research and Development (R&D) per the El Dorado County General Plan and is zoned Research & Development with a Design Review overlay (R&D-DC combining zone). The County's

Zoning Code includes various combining zones with the general purpose of combining zones to implement provisions of the General Plan, to regulate certain uses, provide for innovative design solutions, and to protect the public health and safety from natural and man-made hazards. The -DC combining zone ensures compatibility with community design criteria. Under current zoning, the Research and Development Zone Design Standards would apply, which were adopted per Resolution 201-2015 and address architectural design, landscaping, and screening of loading, trash collection area, rooftop equipment, and storage areas. Access to Highway 50 is approximately 3 miles to the northwest from Latrobe Road.

Visual Character and Quality

The project site consists of undeveloped rolling annual grasslands typical of the topography of the western foothills. The site has historically been used for grazing. According to a review of historical aerial imagery conducted as part of a Phase I Environmental Site Assessment (ENGEO 2016), historical grazing on the project site likely ceased in the mid to late 1950s. Due to the rolling topography, the elevation of the site ranges from 470 feet AMSL along the western boundary to a high of 640 feet AMSL in the southeast corner. There are no trees on the site except for a small grove of seven blue oak trees located in the southeast corner situated on a small hilltop. There are three seasonal drainages that cross the project site and merge at the western boundary to form one intermittent drainage that drains offsite. Seasonal wetlands and a small vernal pool are also present on the site.

Latrobe Road runs adjacent to the project site for approximately 0.75 miles along the entire northeast to southeast boundary of the site. Wetsel-Oviatt Road cuts through the southeastern corner of the project site to Latrobe Road until there is a secured entrance to the El Dorado Hills Storage and West Coast Water and Trucking sites. To the northeast of the project site is the existing El Dorado Hills Business Park.

The El Dorado Hills Business Park contains about 692 acres of land west of Latrobe Road, beginning from the intersection with White Rock Road and ending at the project site's northernmost point. The project site was previously part of the El Dorado Hills Business Park, and in 2018 the site was approved to be de-annexed from the business park. There are dirt firebreaks that mostly run along the project site's parcel boundaries as well as an east-west dirt firebreak that runs through the middle of the project site from Latrobe Road to the western site boundary.

Seasonal drainages and wetlands are scattered across the site. In addition, there are four small vernal pools located in the central and western portion of the project site. Numerous outcrops of shallow bedrock protruding from the ground are visible on the northeastern side of the project site, as shown on Figure 3.1-1. The northwest area of the site contains rolling hillsides that visually separate the project site from the El Dorado Hills Business Park to the north, as shown on Figure 3.1-2. The project site is covered by grasslands that appear bright green in the late spring turning to shades of brown through the summer, fall and winter months. The grasslands cover gently rolling hills interspersed with broad valleys. The three seasonal drainages that cross the project site merge at the western boundary to form one intermittent drainage that drains offsite. Topography of the project site generally slopes to the west, with an approximate 175 feet difference in elevation between the highest location in the southeast corner of the site and the lowest elevation along the western boundary of the site. Overhead electrical utility poles are located on the eastern boundary of the project site, along both shoulders of Latrobe Road. Existing single-family residences are visible in the distance across Latrobe Road looking east, and a small grove of blue oak trees are visible in the southeast corner of the site. Figures 3.1-3 and 3.1-4 include site photos showing these general visual characteristics of the site, including its rolling hills, grasslands, trees, and waterways.

FIGURE 3.1-1

Scattered Rocks and Water Bodies

Creekside Village Specific Plan EIR

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FIGURE 3.1-2

Topography Around El Dorado Hills Business Park

Creekside Village Specific Plan EIR

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FIGURE 3.1-3

General Landscape (1)

Creekside Village Specific Plan EIR

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FIGURE 3.1-4

General Landscape (2)

Creekside Village Specific Plan EIR

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Scenic Resources, Views and Vistas

Visual resources can include scenic views/vistas and scenic resources. Scenic resources are described in Appendix G of the CEQA Guidelines in the Environmental Checklist as specific features of a viewing area (or viewshed) such as trees, rock outcroppings, and historic buildings. These are specific features that act as the focal point of a viewshed and are usually foreground elements. Scenic views or vistas include elements of the broader viewshed such as mountain ranges, valleys, and ridgelines. Scenic vistas can provide views of natural features or significant structures and buildings. Figure 3.1-5 shows the scenic viewpoints and highways within the county, as described in the County's General Plan EIR (El Dorado County 2003). Many of these viewpoints are areas along highways where viewers can see large water bodies (e.g., Lake Tahoe and Folsom Reservoir), river canyons, rolling hills, forests or distant views of the Sierra Nevada mountains. Other viewpoints are the locations of historic structures or districts that are reminiscent of the County's heritage. As shown on Figure 3.5-1, Point 18 is listed as a scenic viewpoint along Latrobe Road with a viewing area that spans from White Rock Road to the southern county line. The project site is located adjacent to this viewing area, which provides views in all directions towards rolling hills with occasional vistas of the Sacramento Valley (El Dorado County 2003). There is another listed scenic viewpoint (Point 1a) along Highway 50 looking south towards Marble Valley approximately 2.83 miles northeast of the project site; however, the project site is not visible from this viewpoint due to intervening topography.

Sensitive Receptors

Sensitive receptors are those public viewers who would be most sensitive to changes in the character of a project site. Individuals may have high sensitivity to visual changes if they have frequent or lengthy exposure to the view from a public viewpoint, are familiar with the existing condition of the site from a public viewpoint or have a unique view of the site from a public viewpoint. Sensitive receptors can include people viewing the site from public roads or from public lands. While residents of adjacent parcels often have views of a project site, these private views are not considered when evaluating the aesthetic impacts of a project for the purposes of CEQA.

The project site is visible from Latrobe Road, Wetsel-Oviatt Road, and the El Dorado Hills Business Park from viewers traveling on these public roads and/or visiting other commercial businesses near the project site. While the site is also visible for people residing in the existing neighborhood located across the northern portion of the project site along Latrobe Road, these are private views. The general public, including viewers traveling on nearby public roads, would likely be less sensitive to these changes than residents living near the project site or those employed at the business park because views of the site would be more short-term, limited to driving by. There is also a public pedestrian and bicycle path along Latrobe Road that begins at Royals Oaks Drive and continues southeast towards White Rock Road at substantially the same elevation as Latrobe Road. A publicly accessible sidewalk is present along Royal Oaks Drive that would provide views of the project site for approximately 1,000 feet; however, as Royal Oaks Drive and the associated sidewalk continues in the northwest direction, any view of the project site or surrounding area is completely obstructed by existing homes that are at a higher elevation than the sidewalk. A 0.75-mile pedestrian trail known as the Fox Trail also begins at Royal Oaks Drive and continues northwest towards White Rock Road and provides views of the rolling hills and Sacramento Valley; given the elevation of the trail, these views would not be obstructed by the project.

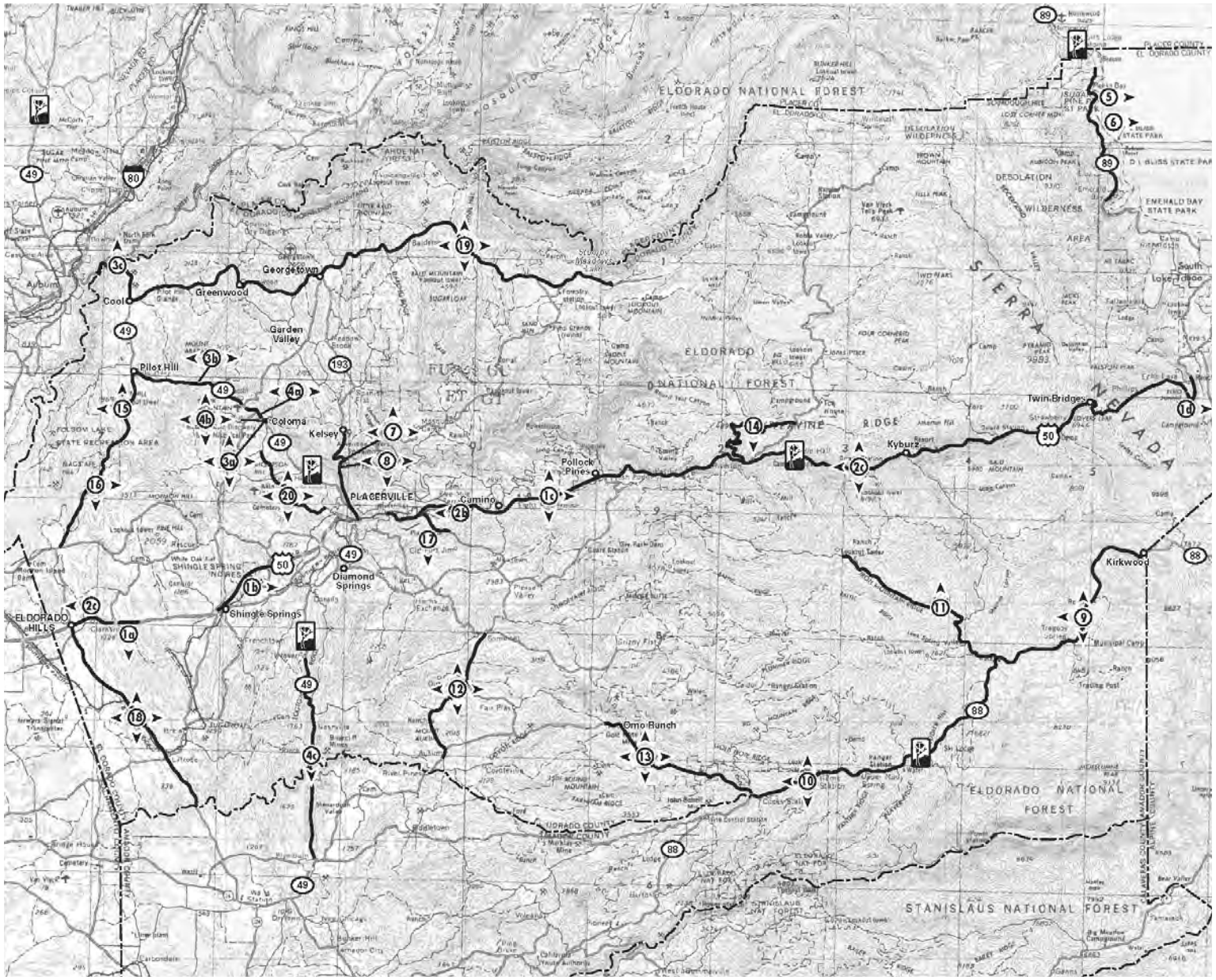
Views from the Project Site

Long-range views from the project site are possible where topography does not interfere. Looking eastward from some areas within the project site, this can include outlines on the horizon of the tree-covered foothills. Short- to mid-range views from the project site include homes facing Latrobe Road, east of the project site. These homes are

set back approximately 200 feet from Latrobe Road. From the project site, views of these homes are partially blocked by immature trees located along Latrobe Road, farthest from the project site. A paved walking path followed by a small rock retaining wall and a grass-covered slope can be seen directly behind the trees, in front of the houses facing Latrobe Road. Past the northwestern edge of the project site are existing buildings and businesses that are part of the El Dorado Hills Business Park. However, due to the hills surrounding the project site, a partial natural visual barrier is created blocking views of these buildings. Views of the El Dorado Hills Business Park from the project site consist of large, low-profile buildings, surrounded by tall trees. Views to the south and southwest include a large hill that is approximately 690 AMSL at its highest point and the West Coast Water and Trucking and El Dorado Storage sites along Wetsel-Oviatt Road. Industrial buildings and facilities owned by West Coast Water and Trucking and El Dorado Storage sites are visible from the southwest corner of the project site. Views of West Coast Trucking and El Dorado Storage from the project site include grey industrial buildings, surrounded by what appears to be a gravel and dirt parking where several recreational vehicles and passenger vehicles are stored. Views to the southeast consist primarily of undeveloped grassland with rolling hills with bands of blue oak woodlands, similar to the visual character of the existing project site.

Views of the Project Site

Given the natural topography of the project site and surrounding land uses, public views of the surrounding foothills and the project site are primarily from Latrobe Road, which runs along the eastern boundary of the site. Houses within the Blackstone neighborhood, located east of Latrobe Road, and particularly those along Candlewood Court and Loganberry Court, are located at a higher elevation which allows for private views that span southwest across the project site and beyond. To the south is Wetsel-Oviatt road, which is not often accessed by the general public because it only provides access to a storage facility and a trucking company behind a secured gate. Additionally, there are public views of the site from the El Dorado Hills Business Park, but these views are primarily available to workers in buildings or parking lots closest to the project site.



SOURCE: EDAW

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FIGURE 3.1-5

El Dorado County Scenic Viewpoints

Creekside Village Specific Plan EIR

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Public viewpoints of the project site are shown in Figure 3.1-6, Key Public Viewpoints, which contains a map of the areas in proximity to the project site that would allow for public views. Looking south along Latrobe Road near the northernmost point of the project site, there is a broad view of the project site which consists of undeveloped grassland dotted with rock outcrops and patches of green vegetation made up of small shrubs and grasses, with more distant views of the grove of blue oak trees atop a hill in the southeastern portion of the site, as shown in Figure 3.1-7. As shown on Figures 3.1-8 and 3.1-9, traveling southeast along Latrobe Road and looking west and southwest, viewers pass by various drainages and shrubs on the project site and generally have a similar view of the site until they approach the southeastern part of the project site where there is a clearer view of the hill and blue oak trees (see Figure 3.1-10). One of the more noticeable drainages is located approximately a quarter of the way down the eastern side of the project boundary, directly off Latrobe Road. This drainage contributes to a corridor of green and yellow vegetation that appears to wind across the northern portion of the project site. All views along Latrobe Road are framed by the large hill to the south of the site that blocks views of the storage and trucking businesses. Near the intersection of Latrobe Road and Wetsel-Oviatt road looking northwest, there is a view of a flatter portion of the project site to the west of Latrobe Road. As shown on Figure 3.1-11, the view farther east is blocked by a sloping hill that follows Wetsel-Oviatt Road. Motorists are able to travel west on Wetsel-Oviatt Road along the southern boundary of the project site until the road reaches a secured private entrance to the storage and trucking businesses. At this point, viewers are at a higher elevation slightly above the project site and have a broad view of the entire site. Looking northeast, there are views of the grass-covered rolling hills within the southeastern portion of the project site, a wide dirt road that runs along the southern boundary of the site, along with views of a generally flat valley covered in grasses within the center of the project site that is framed by existing homes along the east side of Latrobe Road, as shown on Figure 3.1-12. Looking northwest from Wetsel-Oviatt Road, there is a view of the project site and the hills that visually separate the site from the El Dorado Hills Business Park, as shown on Figure 3.1-13. At the southeast area of the business park facing farther southeast, there is a clear view of the rolling grassy hills that characterize the project site as well as stockpiles from development of the El Dorado Hills Business Park, as shown on Figure 3.1-14.

Light and Glare

Nighttime lighting is necessary to provide and maintain a safe and secure environment. Light that falls beyond the intended area of illumination is referred to as “light trespass.” Types of light trespass include spillover light and glare. Spillover light, which is light that illuminates surfaces beyond the intended area, is typically caused by artificial lighting sources, such as from building security lighting, signs, parking lot lights, roadway lights, and stadium lights on playing fields. Spillover light can adversely affect light-sensitive uses (i.e., adjacent residences), by creating unwanted illumination.

Glare can result from sunlight or from artificial light reflecting off building exteriors, such as glass windows, metal roofs or other highly reflective surface materials. Squinting or turning away from a light source is an indication of glare. As the project site is undeveloped, it does not contain existing light or glare sources.

Nighttime light illumination and associated glare can be divided into stationery and mobile sources. Stationary sources of nighttime light include building lights, decorative landscape lighting, and streetlights.

The developed areas in the county have typical urban light conditions contributed by overhead roadway lighting, commercial and residential building lights, and headlights from motor vehicles along adjacent roadways. These conditions contrast with the very low ambient nighttime illumination associated with undeveloped grasslands and hills surrounding and within the County, including the proposed project site and some of its surrounding area. While the project site has been anticipated to develop since approval of the El Dorado Hills Business Park in the 1980s,

it is currently undeveloped and has no source of light. In the immediate vicinity the primary source of nighttime light is headlights of motor vehicles traveling along Latrobe Road, streetlights, and lights from the existing single-family residences located along Avanti Road and in the Blackstone Community to the north and east. Light sources are also present in the El Dorado Business Park which may include ambient lighting associated with typical business uses and with building and parking security. During nighttime hours, ambient light can be accentuated during periods of low cloudiness or fog, which reflects and intensifies the amount of light. However, the El Dorado Business Park is visually separated from the project site by existing hills that reduce the spread of ambient light onto the site.

3.1.2 Regulatory Setting

Federal Regulations

Federal Regulation Title

There are no federal regulations regarding aesthetics applicable to the proposed project.

State Regulations

California Scenic Highway Program

California's Scenic Highway Program was created by the Legislature in 1963 to preserve and protect scenic highway corridors from change which would diminish the aesthetic value of lands adjacent to highways. The state laws governing the Scenic Highway Program are found in the Streets and Highways Code, Section 260 et seq. The State Scenic Highway System includes a list of highways that are either eligible for designation as scenic highways or have been so designated. County roads can also become part of the Scenic Highway System. To receive official designation, the County must follow the same process required for official designation of State Scenic Highways. Several highways in El Dorado County have been designated by the California Department of Transportation (Caltrans) as scenic highways or are eligible for such designation. These include Highway 50 from the eastern limits of the Government Center interchange (Placerville Drive/Forni Road) in Placerville to South Lake Tahoe, all of SR 89 within the County, and those portions of SR 88 along the southern border of the county.

There are no state-eligible or state or local-designated scenic highways within the viewshed of the proposed project. The project site is located approximately 3 miles south of Highway 50, which has not been designated or found eligible for Scenic Highway status. The closest designated scenic highway is a segment of Highway 50 beginning near the City of Placerville, more than 15 miles east.

Nighttime Sky – Title 24 Outdoor Lighting Standards

The California legislature passed a bill in 2001 requiring the California Energy Commission (CEC) to adopt energy efficiency standards for outdoor lighting for both the public and private sector. The most recent 2022 update to Title 24, Parts 1 and 6, includes requirements for outdoor lighting for residential and nonresidential development to help to reduce the impacts of light pollution, light trespass, and glare. The standards regulate lighting characteristics such as maximum power and brightness, shielding, and sensor controls to turn lighting on and off (CEC 2022).

SOURCE: ESRI Imagery 2024; Open Street Map 2019

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0 500 1,000 Feet

FIGURE 3.1-6

Key Public Viewpoints

Creekside Village Specific Plan EIR

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FIGURE 3.1-7

View Looking South from Latrobe Road

Creekside Village Specific Plan EIR

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FIGURE 3.1-8

View Looking Southwest from Latrobe Road (1)

Creekside Village Specific Plan EIR

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FIGURE 3.1-9

View Looking Southwest from Latrobe Road (2)

Creekside Village Specific Plan EIR

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FIGURE 3.1-10

View Looking West from Latrobe Road

Creekside Village Specific Plan EIR

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FIGURE 3.1-11

View Looking Northwest from Latrobe and Wetsel-Oviatt Road

Creekside Village Specific Plan EIR

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FIGURE 3.1-12

View Looking Northeast from Wetsel-Oviatt Road

Creekside Village Specific Plan EIR

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FIGURE 3.1-13

View Looking Northwest from Wetsel-Oviatt Road

Creekside Village Specific Plan EIR

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FIGURE 3.1-14

View Looking Southeast from El Dorado Hills Business Park

Creekside Village Specific Plan EIR

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Local Regulations

El Dorado County Ordinance Code

The County has several standards and ordinances that address issues relating to visual resources. Many of these can be found in the County Zoning Ordinance (Title 130 of the County Code). The Zoning Ordinance consists of descriptions of the zoning districts, including identification of uses allowed by right or requiring a special use permit and specific development standards that apply in particular districts based on parcel size and land use density. These development standards often involve limits on the allowable size of structures, required setbacks, and design guidelines. Included are requirements for building setbacks and allowable exceptions, the location of public utility distribution and transmission lines, height limitations on structures and fences, and wireless communication facilities. For example, under the current R&D zoning, Section 130.23.030 requires a 20-foot setback from the front property line and a maximum building height of 50 feet. The Zoning Ordinance also has development standards that apply in all zones. For instance, Section 130.34.020 of the Zoning Ordinance establishes outdoor lighting standards, and requires that all outdoor lighting shall be located, adequately shielded, and directed such that no direct light falls outside the property line, or into the public right-of-way. However, it should be noted that development standards under an approved specific or development plan could supersede standards outlined in the County Code.

Community Design Standards

The County Board of Supervisors adopted new and/or updated community design standards in 2015 to augment those found in the Zoning Ordinance. Applicable to the project are the Outdoor Lighting Standards (El Dorado County 2015a) and the Landscaping and Irrigation Standards (El Dorado County 2015b). The Outdoor Lighting Standards include maximum height limits for light fixtures (20 feet for pole-mounted fixtures, 25 feet for top-mounted luminaires to illuminate parapet signs), requirements for outdoor luminaires to be full-cutoff if rated greater than 1,000 initial lumens, among other outdoor lighting guidelines. The Landscaping and Irrigation Standards include standards such as a minimum of six trees and 24 shrubs provided per each 100 linear feet of required landscape buffer along property boundaries, all shrubbery and at least 50% of required trees to be evergreen, and a minimum of 50% drought-tolerant plant species to be used in all landscape plans. The Outdoor Lighting Standards were adopted as part of the Targeted General Plan Amendment and Zoning Ordinance Update Final Program EIR to help decrease the overall impacts of light and glare coming from development projects by aiding in reducing ambient light glow, light spillover, and light pollution when seen in vista views, from scenic highways, and from regular vantage points.

El Dorado County Design and Improvement Standards Manual

The El Dorado County Design and Improvement Standards Manual (1990) provides guidelines and regulations for development, construction, and infrastructure within the County. It covers various aspects related to land use, roadways, and community planning and ensures that development projects adhere to consistent and high-quality standards. The Manual outlines standards for design, construction, and improvement of public infrastructure, including roads, drainage, utilities, and landscaping. Also presented within the Design and Improvement Standards Manual are specifications for grading requirements and hillside land use development standards. However, development standards under an approved specific or development plan could supersede the County Design and Improvement Standards Manual.

El Dorado County General Plan

The County General Plan was adopted in July 2004; the last amendment to the General Plan was December 10, 2019 (El Dorado County 2019). The General Plan Land Use Element and Conservation and Open Space Element contains several goals and policies related to aesthetics. The following goals, objectives and policies are applicable to the proposed project:

Land Use Element

Goal 2.5: Community Identity. Carefully planned communities incorporating visual elements which enhance and maintain the rural character and promote a sense of community.

Objective 2.5.1: Physical and Visual Separation. Provision for the visual and physical separation of communities from new development.

Policy 2.5.1.1: Low intensity land uses shall be incorporated into new development projects to provide for the physical and visual separation of communities. Low intensity land uses may include any one or a combination of the following: parks and natural open space areas, special setbacks, parkways, landscaped roadway buffers, natural landscape features, and transitional development densities.

Goal 2.6: Corridor Viewsheds. Protection and improvement of scenic values along designated scenic road corridors.

Objective 2.6.1: Scenic Corridor Identification. Identification of scenic and historical roads and corridors.

Policy 2.6.1.3: Discretionary projects reviewed prior to the adoption of the Scenic Corridor Ordinance that would be visible from any of the important public scenic viewpoints identified in Table 5.3-1 and Exhibit 5.3-1 of the El Dorado County General Plan Draft Environmental Impact Report, shall be subject to design review, and Policies 2.6.1.4, 2.6.1.5, and 2.6.1.6 shall be applicable to such projects until scenic corridors have been established.[1]

Policy 2.6.1.5: All development on ridgelines shall be reviewed by the County for potential impacts on visual resources. Visual impacts will be assessed and may require methods such as setbacks, screening, low-glare or directed lighting, automatic light shutoffs, and external color schemes that blend with the surroundings in order to avoid visual breaks to the skyline.

Goal 2.8: Lighting. Elimination of high intensity lighting and glare consistent with prudent safety practices.

Objective 2.8.1: Lighting Standards. Provide standards, consistent with prudent safety practices, for the elimination of high intensity lighting and glare.

[1] Policy 2.6.1.4 addresses commercial designations on U.S. Highway 50 interchanges and is therefore not applicable to the project. Policy 2.6.1.6 is "intentionally blank." In the General Plan.

Policy 2.8.1.1: Development shall limit excess nighttime light and glare from parking area lighting, signage, and buildings. Consideration will be given to design features, namely directional shielding for street lighting, parking lot lighting, sport field lighting, and other significant light sources, that could reduce effects from nighttime lighting. In addition, consideration will be given to the use of automatic shutoffs or motion sensors for lighting features in rural areas to further reduce excess nighttime light.

Conservation and Open Space Element

Goal 7.3: Water Quality and Quantity. Conserve, enhance, and manage water resources and protect their quality from degradation.

Objective 7.3.4: Drainage. Protection and utilization of natural drainage patterns.

Policy 7.3.4.1: Natural watercourses shall be integrated into new development in such a way that they enhance the aesthetic and natural character of the site without disturbance.

Creekside Village Specific Plan

Should the CVSP be adopted, the layout and design of project development would be guided by the development standards included within Appendix A of the CVSP. The CVSP development standards supersede County standards outlined in the County Code and the County Design and Improvement Standards Manual. Where conflicts exist between the CVSP and the County Code, for example, the CVSP standards shall govern. Where the CVSP is silent, the County Code and Design Standards Manual shall take precedence.

Appendix A of the CVSP specifies development standards that would be adopted upon approval of the CVSP. Tables A.4 and A.5 in the CVSP specify the minimum lot area, maximum building coverage, minimum yard setbacks, maximum building heights, and parking requirements for each proposed housing type. These standards may differ from those included in the County Code and Design Standards Manual; for example, the maximum building height specified for a Single-unit Residential zone is 40 feet in the County Code, while the height limit for a detached single-unit residential lot type is 35 feet in the CVSP. The CVSP includes development standards for commercial uses that are generally consistent with the Community Commercial development standards in the County Zoning Code.

The CVSP also requires the formation of a Homeowners Association (HOA) for the project and adoption of recorded Covenants, Conditions, & Restrictions (CC&Rs) that will include architectural standards and building materials requirements and restrictions within the CVSP to integrate the CVSP within the existing communities and scenic corridor. Therefore, in addition to the County's site plan review for conformity with development standards, including landscaping and lighting, residential development within the CVSP will be subject to non-governmental review of design, including architectural standards and building materials. The CVSP requires that the CC&Rs are consistent with the County's Community Design Guide adopted April 24, 2018, by Resolution 071-2018 (El Dorado County 2018) as may be amended from time to time, and the CC&Rs architectural and building materials design standards will apply to all residential development within the CVSP. Additionally, the CVSP includes a Planning Development (-PD) overlay on the Single-Family Medium Density, which would provide for Planned Development review and approval by the County for all single-family detached with alternative lot types (cluster front loaded and small lot alley loaded) and all attached single family and multi-unit (tri-plex, condominium). Because the commercial component would not be subject to the HOA CC&Rs, a Design Review permit will be required to ensure consistency with the County's Community Design Guide (adopted April 24, 2018, by Resolution 071-2018), as may be amended

from time to time. Under County Code Section 130.52.030, a Design Review permit is a ministerial staff-level review if design standards are adopted, which would be the adopted Community Design Guide.

3.1.3 Thresholds of Significance

Thresholds of significance are used to determine the significance of a project's environmental effects. Per Section 15064.7 of the CEQA Guidelines, a threshold is an identifiable quantitative, qualitative or performance level of particular environmental effect, non-compliance with which means the effect will normally be determined to be significant and compliance with normally means the effect will be determined to be less than significant. A significant impact would occur if development of the proposed project would do any of the following:

- Cause a substantial adverse effect on a scenic vista.
- Substantially damage scenic resources, including but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway.
- In nonurbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings. In urbanized areas, conflict with applicable zoning and other regulations governing scenic quality.
- Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area.

Significance Threshold Criteria Not Applicable to the Proposed Project

State Scenic Highways

The proposed project does not include and is not located adjacent to any locally designated scenic highways or scenic roadways identified in the County General Plan. The project site is located approximately 3 miles south of Highway 50, which has not been designated or found eligible for Scenic Highway status. The closest designated scenic highway is a segment of Highway 50 beginning near the City of Placerville, more than 15 miles to the east. The proposed project would not affect or damage any scenic resources with a state scenic highway such as trees, rock outcropping, or historic buildings. Thus, there would be no impact to any scenic resources within a state scenic highway.

3.1.4 Impacts and Mitigation Measures

Methodology

The value attached to changes in visual character is largely subjective. The overall visual sensitivity is first established based on existing visual quality, viewer exposure, and viewer concern. These factors are then considered together with the level of expected visual change or contrast and significance. Visual change is an overall measure of the alteration or change in basic visual attributes such as form, line, color, and texture as a result of project implementation. Thus, a substantial adverse effect can occur when a project results in a high level of visual change or quality of public views from publicly accessible areas.

Following professionally accepted practice in analyzing visual changes, visual impacts that cross a threshold of "substantial adverse effect" are defined as a consequence of three primary factors: (1) the existing scenic quality and character of an area (landscape attributes), (2) the level of viewer exposure and concern with visual change (viewer sensitivity), and (3) the level of actual change to existing visual character and quality caused by the project

as seen by a given viewer group (FHWA 2015). The overall visual sensitivity of each key viewpoint, reflecting the anticipated level of viewer concern and visual exposure, is first established. This rating is then considered with the level of expected visual change experienced by key (existing) viewer groups and caused by the project to arrive at an assessment of potential impacts and their significance.

Views of a project by a limited number of individuals do not constitute public views and are typically not evaluated under CEQA (See *Mira Mar Mobile Community v. City of Oceanside* (2004) 119 Cal.App.4th 477), holding that if agency policy does not protect private views, then impacts to such private views are not significant impacts under CEQA. The most recent update to the CEQA Guidelines also clarifies that public views "are those that are experienced from a publicly accessible vantage point." (CEQA Guidelines Appendix G).

As described in Chapter 2, Project Description, the project includes two development options. The first option would be to convert the 1,8-acres of neighborhood commercial to park uses if neighborhood commercial is not adopted as part of the CVSP. The second option proposes construction of up to 768 age-restricted units and 150 conventional homes. The impact analysis below includes both options unless a difference is identified, which would be further analyzed.

Sources referenced to prepare this section include photographs of the project site, aerial imagery, the County General Plan, the CVSP, and information from the County. This analysis assumes that the proposed project would be developed consistent with the County's General Plan goals and policies, as well as all applicable design guidelines and development standards in the County Code discussed in the regulatory setting above; therefore, such policies and standards would not specifically be identified as mitigation but are discussed in the impact analysis.

Project Impacts

Impact 3.1-1. The proposed project would cause a substantial adverse effect on a scenic vista.

A scenic vista is generally defined as a viewpoint that provides expansive views of a highly valued landscape for the benefit of the general public. Scenic views are typically middle ground or background elements of a viewshed that can be seen from a range of viewpoints, often along a roadway or other corridor. Figure 3.1-5 shows the scenic viewpoints and highways within the County, as described in the County's General Plan EIR (El Dorado County 2003). The project site is located adjacent to the viewing area of Point 18, which spans Latrobe Road from White Rock Road south to the county line and provides views in all directions of rolling hills in the middle ground and occasional vistas of the Sacramento Valley in the background. Travelers along this viewing area witness a transition from suburban development to expansive, undeveloped grassland and rolling hills at the base of the Sierra Nevada mountains. Because the project site is visible from this scenic viewpoint, there is the potential that development of the site would adversely affect a scenic vista.

The proposed project would develop approximately 208 acres of land with a mix of residential, parks and open space land uses. Figure 2-3 in Chapter 2, Project Description, illustrates the project's land use plan. The project would support standard detached single-family homes within the Single-Family Low Density (CV-SFL) designation and a mix of detached zero-lot-line lots, small lots, cluster lots, townhouses, and multi-unit residential structures (e.g., duplexes and triplexes) within the Single-Family Medium Density (CV-SFM) density. Also proposed is 1.8 acres of neighborhood commercial, although there is an option to convert this land to park uses if not adopted as part of the CVSP. As part of the mitigation measures required to address noise impacts, the project would also require 6- and 9-foot-tall solid noise barriers at the backyards of the CV-SFL lots adjacent to Latrobe Road and at lots adjacent to the proposed parks (see Figures 3.10-3, 3.10-5, and 3.10-6 in Section 3.10, Noise).

The CVSP intends to minimize changes to site topography and to blend new development into natural landforms to the extent feasible by maintaining the property profile that generally slopes away from Latrobe Road. The site reduces elevation more than 100 feet to the west away from the Latrobe Road viewing area proposed to slope 590 feet to 480 feet. The development minimizes visual intrusion on the natural landforms through site sensitive design. The project includes the preservation of the highpoint of the site, a hillside at 650 feet in the southeast corner of the site. The preservation of the highpoint of the site would also incorporate a public trail and access and thereby provide access to a public viewpoint of the surrounding area that is not available today. The CVSP would preserve and protect some valuable natural features of the site including oak trees, hillsides, and ephemeral drainages, which would provide a level of visual continuity for viewers traveling along Latrobe Road. As shown in Figure 2-3 (see Chapter 2, Project Description), the CVSP proposes open space buffers (separating CV-SFL and SV-SFM lots from the road), a 2-acre neighborhood park, and a 7-acre village park (which could be expanded to 8.8 acres if the 1.8-acre neighborhood commercial component is not adopted) along the area immediately adjacent to Latrobe Road.

Throughout the entire site, the project would include 35.7 acres of open space buffer, particularly along the proposed road that traverses east to west across the project site as well as along the project site's boundaries. Open space buffer would be visible from Latrobe Road. The project also includes 9.1 acres of open space preserve in order to protect the site's intermittent drainages, seasonal wetlands, vernal pools, and ponds, which add to the natural visual character of the site. The open space preserve would surround these natural water features generally located along the northern and northwestern boundary of the site. The open space preserve may be visible from the portion of Latrobe Road that borders the project's proposed 7-acre village park, which opens up to the beginning of the open space preserve. The CVSP also notes that open-view fencing would be incorporated along the open space boundaries that require fencing in order to maintain the visual open character of these areas. The inclusion of these open space land uses, buffers, and parks would be consistent with General Plan Policy 2.5.1.1 which promotes inclusion of low-intensity land uses into new development projects to maintain the rural character of the community. The project would also be subject to site plan review by the County to ensure conformance with development standards, including setbacks, landscaping, and lighting standards, and enforcement of the County Community Design Guidelines through the CC&Rs for residential uses and a Design Review permit for commercial uses consistent with Policy 2.6.1.3.

Although the CVSP incorporates the project components described above, buildout of the proposed project would nonetheless replace existing views of the broad foothills along Latrobe Road with foreground views of new housing, potential commercial buildings, and other structures such as solid noise barriers. Given the topography of the site, however, many of these features would be at a lower elevation than Latrobe Road and building rooflines generally would not affect views of the hill on-site. Depending on the vantage point, some buildings and structures could act as a barrier to views of the hillsides available both on-site and farther in the distance. While this would replace views of the unique natural landscape with foreground views typical of a modern-day suburban residential development, the project site has been anticipated to develop since the early 1980s and the project site could be developed with taller and larger buildings. The General Plan EIR identified the scenic views and vistas at the project site along Latrobe Road and found that the aesthetic impacts to those scenic views and vistas would be significant with anticipated buildout under the General Plan. (GP EIR pp. 5.3-23 to 5.3-25.) When compared to the existing undeveloped property, the project would permanently impact the aesthetic value of a portion of the existing scenic vista as seen from this segment of Latrobe Road. Therefore, development of the proposed project would result in a **potentially significant impact** to scenic vistas.

Active Adult Option

The Active Adult option would allow substantially the same residential type of development and have the same project footprint as the proposed project, but most homes would likely have a reduced building height because age-restricted homes would be limited to single story. Given the topography of the site: however, even two-story homes included under the proposed project would be located at a lower elevation than Latrobe Road, as discussed under Impact 3.1-2 below. Reducing the height of the rooflines with single story homes is unlikely to significantly affect project impacts of the existing scenic views and vistas. The maximum height for the private community center or private clubhouse facilities in the Specific Plan under the active adult option is the same (2 stories and 35 feet) as under the proposed project.

Therefore, while the reduced home heights could slightly reduce impacts to scenic views and vistas for travelers along Latrobe Road, it would not be expected to reduce impacts to less than significant. Impacts to scenic vistas would remain the same as the proposed project, potentially significant.

Mitigation Measures

There are no feasible mitigation measures that would reduce this impact to less-than-significant levels because any development of buildings and structures within this site would interfere with the view of an existing scenic vista as seen from Latrobe Road. Therefore, this impact is **significant and unavoidable.**

Impact 3.1-2. The proposed project would not substantially degrade the existing visual character or quality of public views of the site and its surroundings.

Public Resources Code Section 21071 defines an “urbanized area” as “an incorporated city that meets either of the following criteria: (1) Has a population of at least 100,000 persons, or (2) Has a population of less than 100,000 persons if the population of that city and not more than two contiguous incorporated cities combined equals at least 100,000 persons.” The project site is located in unincorporated El Dorado County, not in an incorporated city. According to this definition, the project site would not be considered an urbanized area.

CEQA Guidelines Section 15387 also defines “urbanized area” as "a central city or a group of contiguous cities with a population of 50,000 or more, together with adjacent densely populated areas having a population density of at least 1,000 persons per square mile”. The nearest incorporated city in the County is the City of Placerville, located approximately 15 miles northeast of the project site. The City of Folsom, in neighboring Sacramento County is located approximately 6 miles to the west. Additionally, the project site is located in Census Tract 307.11 which had a population of 6,724 people based on the most recent Census data from the 2022 American Community Survey 5-year estimates, and a land area of 8.9 square miles, which is a population density of approximately 757 people per square mile (Census Reporter 2024). According to this definition the project site would not be considered an urbanized area.

The project site is located in the lower foothills of a Community Region of the unincorporated County, and the visual character of the site is primarily defined by expansive grassland and gently rolling hills. Implementation of the proposed project would allow for different land uses than the uses that would have been allowed when the area was first designated for development in the 1980s. Under current zoning the land uses have shifted from industrial (R&D) to residential uses. The change in allowable development would result in the development of land uses that are similar to other residential development projects in the area, including the Valley View Specific Plan (Blackstone) and Carson Creek Specific Plan (Heritage Park). The Valley View Specific Plan is located immediately east of the

project site across Latrobe Road and the Carson Creek Specific Plan borders the proposed project site to the west. The proposed project would result in the development of approximately 208 acres of land with a mix of residential, parks, and open space land uses, with a small neighborhood commercial component that could be converted to use to park uses if not adopted as part of the CVSP. Residential development would make up 136.6 acres of the project site (which would be the same as under the Active Adult option) and would include 668 CV-SFL lots throughout the site and 250 CV-SFM lots in the western-central portion of the site. The potential neighborhood commercial use would be 1.8 acres in size, adjacent to Latrobe Road and the 7-acre village park. One 2.2-acre neighborhood park would be located in the southwestern corner of the site and the other 4.4-acre neighborhood park would be located in the south-central portion of the site, surrounded by residential development. Approximately 44 acres would be dedicated to open space preserves and buffers while approximately 11 acres would be dedicated to the project's internal roadway system.

As shown in Figures 3.1-7 through 3.1-14, public views of the site show undeveloped grassland dotted with rock outcrops, shrubs, seasonal drainages, and a small grove of blue oak trees atop a hill. Upon buildout of the proposed project (or Active Adult option), these existing public views would change dramatically. New views from Latrobe Road facing south (Figure 3.1-7) would consist of a 9-foot-tall solid noise barrier at the backyard of new CV-SFL homes, however; given the topography of the site, the noise barrier would be at an elevation 10 feet below the existing roadway based on the preliminary grading plan. As specified in mitigation measure NOI-4 (see Section 3.10, Noise) this noise barrier may be a masonry wall, earthen berm, or a combination of the two, although other materials (e.g. wood or wood composite fence with overlapping slat construction) may be acceptable if approved by a qualified acoustical consultant. Rooflines and/or second stores of the CV-SFL homes would be visible above the proposed solid noise barrier. Homes under the Active Adult option would be single-story and not visible above the barrier if developed adjacent to Latrobe Road; however, changes to the visual character of the site under this option would essentially be the same as the proposed project. From Latrobe Road facing southwest (Figure 3.1-8) there would be views of the new 7-acre village park. Beyond these components of the village park, there would be views of the CV-SFM homes which could consist of a mix of detached zero-lot-line lots, small lots, cluster lots, townhouses, and multi-unit residential structures (e.g., duplexes and triplexes). Near the intersection of Latrobe Road and Royal Oaks Drive (Figure 3.1-9) views of the site would consist of a small neighborhood commercial center. Potential development could include convenience stores, professional offices, and coffee shops (see CVSP Appendix A). However, if the 1.8-acre neighborhood commercial use is not adopted, this land would become part of the village park and views would be similar to those described above. Continuing southwest on Latrobe Road (Figure 3.1-10) views would consist of a 6-foot-tall solid noise barrier at the backyard of new CV-SFL homes. This noise barrier would be slightly lower than the one proposed northwest along Latrobe Road; therefore, rooflines or second stories of new homes would be more visible above the barrier. Near the intersection of Latrobe Road and Wetsel-Oviatt Road looking northwest, views would consist of CV-SFL homes with open space buffer at the forefront. This view would be partially obscured by the existing hill with blue oak trees at the southwestern corner of the site. From Wetsel-Oviatt Road facing northeast (Figure 3.1-12) and northwest (3.1-13) there would be a broad view of new development throughout the entire site, because these viewpoints are at a higher elevation relative to the project site. Lastly, from the El Dorado Hills Business Park looking southwest (Figure 3.1-14), existing foreground views would be similar to current conditions because the proposed open space buffer and open space preserve would retain the natural features within this portion of the site. However, new CV-SFL homes would be visible in the background beyond the open space, although the extent of visibility would be reduced with the existing topography.

As proposed, the project would be in compliance with County General Plan Policy 2.5.1.1, which requires low intensity land uses to be incorporated into new development projects to provide for the physical and visual separation of communities. This can include any one or the combination of parks and natural open spaces, special

setbacks, parkways, landscaped roadway buffers, natural landscape features, and transitional development intensities. The proposed project as well as the Active Adult option would alter the existing visual character of the site, but the inclusion of open space features would slightly reduce the overall visual effect of new development. Likewise, in accordance with General Plan Policy 7.3.3.5, the project integrates the natural drainages into the development plan as open space areas that would enhance the aesthetic and natural character of the site while also minimizing disturbance to the resource. The project would also be subject to site plan review by the County to ensure conformance with development standards, including setbacks, landscaping, and lighting standards. The Specific Plan also requires that to ensure consistency with Policy 2.6.1.3, the County Community Design Guidelines will be enforced through CC&Rs for residential uses and a Design Review permit for commercial uses. The project has also preserved the aesthetic qualities of the natural creek and drainage patterns consistent with General Plan Policies 5.4.1.2 and 7.3.4.1 and preserved existing trees consistent with Policies 7.4.4.2 and 7.4.4.3.

Although the project would adhere to all relevant plans and policies regarding visual resources and site design, including the General Plan policies mentioned above, the proposed project would nonetheless alter the existing undisturbed and undeveloped visual character and quality of public views of the project site. The magnitude of this change would be partially ameliorated through the design measures described above, but changes to the project site would be permanent, and views of the project site would no longer be of undeveloped land. As currently zoned, however, the project site is part of the Community Region and was not anticipated or intended to remain open space. As discussed above, it has been presumed to develop with more intense uses since the 1980s with approval of the El Dorado Hills Business Park. However, this change would constitute a substantial degradation to the current visual character and quality of public views of the site. This is a **potentially significant impact**.

Mitigation Measures

There are no feasible mitigation measures that would reduce this impact to a less-than-significant level because any development of buildings and structures within this site would change the nature of the site from undeveloped grassland to a suburban residential development. Therefore, this impact is **significant and unavoidable**.

Impact 3.1-3. The proposed project would not create a new source of substantial light or glare that would adversely affect day or nighttime views in the area.

The project site is undeveloped so there is no existing source of light or glare. Daytime sources of light and glare adjacent to the site are sparse and concentrated at the northern, eastern, and western borders, consisting of limited reflections from building windows or surfaces of cars traveling along Latrobe Road and windows on residences to the east and commercial or industrial buildings to the northwest. Nighttime light sources in the vicinity of the site generally include streetlights within the El Dorado Hills Business Park to the north, Heritage Park to the west, and the Blackstone residential neighborhood across Latrobe Road to the northeast.

The proposed project would introduce new sources of light and glare to the site, including interior and exterior building lights, vehicle headlights, and reflective surfaces such as windows or metal surfaces. According to the CVSP, streetlights would be provided at key local public street intersections within the project site. Residences may have exterior lighting, which is typically low-level or recessed, of low intensity. Security lighting may be placed along pathways and other pedestrian use areas, as well as in building and site design to enhance public safety and deter criminal activity. These lights could potentially produce spillover light and glare which would adversely affect nighttime views in the area, but spillover beyond the property line would not be allowed under existing County standards.

The project would be required to comply with Chapter 130.34 of the County's Zoning Ordinance which includes criteria for lighting practices and systems and standards for the elimination of excess nighttime light and glare. This includes requirements for shielding light to avoid impacts on adjoining areas. Also applicable are the Outdoor Lighting Standards (El Dorado County 2015a) adopted in 2015 to augment the standards found in the Zoning Ordinance. These standards include maximum height limits for light fixtures, and requirements for outdoor luminaires to be full cutoff if rated greater than 1,000 initial lumens, among other outdoor lighting guidelines. In addition, General Plan Policy 2.8.1.1 requires that consideration be given to design features, namely directional shielding for street lighting, parking lot lighting, and other significant light sources, that could reduce effects from nighttime lighting. The Policy also states that automatic shutoffs or motion sensors for lighting features in rural areas to further reduce excess nighttime light should be considered. The California Green Building Code further establishes limits for the quantities of lighting that can be emitted based upon building components. Project development would be required to comply with all applicable County requirements and the state's California Green Building Code.

Increased daytime glare resulting from the addition of residential windows, car windows, and building materials into the project area could result from project development. However, these elements of glare would be typical of those normally found in residential developments and are not expected to significantly impact day or nighttime views of the area. The project does not propose the use of building materials that are highly reflective. For these reasons, the project would not significantly increase glare in or around the project site. The Active Adult option would also adhere to the same Specific Plan objective of limiting lighting to locations where required for safety and would comply with the County's lighting standards, the same as the project.

In summary, all proposed lighting would be installed in accordance with the standards and specifications set forth by the County. All exterior lighting associated with development would be reviewed for compliance with the County Code by County planning staff. Compliance with General Plan policies, the County's Zoning Ordinance, the Outdoor Lighting Standards, and the California Green Building Code would ensure that outdoor lighting would be located, adequately shielded, and directed such that no direct light falls outside the property line, or into the public right-of-way. The project also does not include any components that would cause a substantial new source of glare. Therefore, project impacts related to the creation of a new source of substantial light or glare which would adversely affect day or nighttime views in the area would be **less than significant**.

Mitigation Measures

No mitigation measures are required.

Cumulative Impacts

The geographic context for the evaluation of cumulative impacts to visual resources is confined to the area that comprises the public viewshed in which the project site is visible. The cumulative context consists of any buildout associated with the General Plan or additional cumulative projects since adoption of the General Plan that would be in the public viewshed with the proposed project (see Chapter 3). The General Plan has presumed buildout of the project site with R&D uses since the 1980s. Of the projects described in the cumulative setting in Chapter 3, Environmental Analysis, only two projects are visible from the same public viewpoints: the Carson Creek Specific Plan (Heritage Park), which borders the proposed project site to the west and the Valley View Specific Plan (Blackstone), located east of the project site across Latrobe Road. Both of these projects were included in the 2025 planning horizon for the County's General Plan and are considered to be existing commitments—projects for which a tentative map or development agreement existed before approval of the 2004 County's General Plan but that were not built out at the time the General Plan was adopted in 2004. The Valley View Specific Plan includes 2,840

approved residential units and is partially built out with 701 remaining units to be built. The Carson Creek Specific Plan includes 1,925 approved residential units with 381 remaining units to be built. Both projects also include commercial and parks/open space components which have not yet been fully built out.

The cumulative context for light would be other development in the surrounding area that could affect the same area as that affected by project-generated light at the same time the proposed project is in operation.

Impact 3.1-4. The proposed project would contribute to a significant cumulative impact related to scenic vistas.

As stated above, the cumulative context for aesthetics includes the area that comprises the viewshed in which the project site is visible. For impacts to scenic vistas specifically, this includes projects visible along Latrobe Road between White Rock Road south to the County line, as this portion of Latrobe Road is identified as an important scenic viewpoint in the General Plan EIR. As described in the County General Plan EIR, the county is anticipated to experience growth in association with new and infill development, which may degrade the quality of scenic vistas. The EIR determined that implementation of mitigation measures 5.3-1(a) through 5.3-1(d), which restate General Plan policies related to scenic corridors, would reduce impacts to scenic vistas to a less-than-significant level. These policies include Policy 2.6.1.1 which states that a Scenic Corridor Ordinance shall be prepared and adopted for the purpose of establishing standards for the protection of scenic local roads and state highways, Policy 2.6.1.6 which states that a Scenic Corridor Combining Zone District shall be applied to all lands within an identified scenic corridor, and Policy 2.6.1.3 which states that prior to adoption of the Scenic Corridor Ordinance, discretionary projects visible from any scenic viewpoints identified in the General Plan EIR shall be subject to design review.

A Scenic Corridor Ordinance (Policy 2.6.1.1) and Scenic Corridor Combining Zone District (2.6.1.6) have not yet been adopted by the County. Given that the General Plan EIR partially relies on these policies to reduce impacts, it is conservatively presumed that there is an existing significant cumulative impact caused by future development within this scenic viewpoint visible along Latrobe Road (including the Valley View Specific Plan and Carson Creek Specific Plan) that the proposed project would contribute to.

As discussed in Impact 3.1-1, the proposed project (including the Active Adult option) would replace existing views of the rolling terrain and broad foothills along Latrobe Road with foreground views of new housing, potential commercial buildings, and other structures such as solid noise barriers. Although the project would be subject to site plan review by the County to ensure consistency with development standards and design standards consistent with the County Community Design Guidelines, the development and design standards, at a minimum, would be enforced through the CVSP HOA for residential uses and through the County of El Dorado via a Design Review permit for commercial uses consistent with Policy 2.6.1.3, as any development of buildings and structures within this area along Latrobe Road would interfere with the view of an existing scenic vista. The General Plan EIR also recognized that buildout under the General Plan, including anticipated building of the project site with R&D uses, would impact the existing visual character or quality of the area. Considering the size and location of the project within the viewing area of an important scenic viewpoint, it is presumed that the proposed project would result in a **significant contribution** to the cumulative impact.

Mitigation Measures

There are no feasible mitigation measures that would reduce the project's contribution to less than cumulatively considerable levels because any development of buildings and structures within this site would significantly interfere with the existing view of a scenic vista from Latrobe Road. Therefore, this impact is **significant and unavoidable**.

Impact 3.1-5. The proposed project would contribute to a significant cumulative impact related to visual character and quality of public views.

As undeveloped areas transition from a rural to an urban character, existing viewsheds within the county would be affected, existing views of rural uses and undeveloped land would be changed to urban uses, and long-range views of the foothills may be altered or obstructed. Important visual resources such as mature trees, rock outcroppings, and open grasslands would be lost to new development. The General Plan EIR determined that there would be a significant and unavoidable impact related to the loss of rural character which could not be eliminated or mitigated to a less-than-significant level and the project site could be developed with R&D uses. Thus, even without the proposed project, there would be an existing significant cumulative impact related to visual character and quality of public views.

New development as part of the proposed project would alter the visual character of the area by developing approximately 208 acres of currently undeveloped land. This would constitute a substantial degradation to the existing visual character of the site as views of this undeveloped landscape would no longer be available. This would also combine with the impacts from development of the Valley View and Carson Creek Specific Plans and El Dorado Hills Business Park, which are visible from many of the same public viewpoints as the proposed project. Although the proposed project would be subject to site plan review by the County to ensure consistency with development standards and design standards consistent with the County Community Design Guidelines, the development and design standards, at a minimum, would be enforced through the HOA for residential uses and through the County of El Dorado via a Design Review permit for commercial uses consistent with Policy 2.6.1.3, development of the project would nonetheless contribute to the permanent cumulative loss of views of bucolic, undeveloped landscapes and there is no feasible mitigation to reduce the project's contribution to less than considerable. It is presumed that the proposed project's contribution would be cumulatively considerable resulting in a **significant contribution** to the cumulative impact associated with visual character and quality of public views.

Mitigation Measures

There are no feasible mitigation measures that would reduce the project's contribution to less than cumulatively considerable levels. However, development of buildings and structures within this site has been anticipated since the 1980s and presumed under the General Plan. Still, any development would reduce the undeveloped land and associated rural character within the viewshed. Therefore, this impact is **significant and unavoidable**.

Impact 3.1-6. The proposed project would not contribute to a significant cumulative impact related to light and glare.

As undeveloped areas transition from rural to urban character, the amount of light and glare would increase due to new buildings, structures, streetlights, and vehicle lights. The cumulative context for light and glare would be other development in the surrounding area that could contribute to an increase in light and glare. The County's General Plan EIR concluded that implementation of mitigation measures 5.3-3(a) and 5.3-3(b), which restate General Plan policies (including Policy 2.8.1.1 related to design features to reduce effects of nighttime lighting), would reduce light and glare impacts to a less-than-significant level. Therefore, because it presumed that all new projects (including the proposed project in addition to the Active Adult option) would be required to comply with General Plan policies related to light and glare, there is **no existing cumulative impact** to which the project could contribute.

Mitigation Measures

No mitigation measures are required.

3.1.5 References

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3.2 Air Quality

The following analysis identifies potential impacts related to air quality due to implementation of the proposed Creekside Village Specific Plan (proposed project or CVSP). This section describes the existing air quality conditions within the air basin that includes El Dorado County (County), identifies associated regulatory requirements, evaluates potential impacts, and identifies mitigation measures related to implementation of the proposed project.

Public comments received in response to the November 6, 2020, Notice of Preparation (NOP) included concerns related to potential adverse effect on the existing air quality conditions including increasing carbon monoxide (CO) levels along local roadways affecting sensitive receptors, exceedance of federal and state air quality standards, and the potential to be inconsistent with the goals identified in the County's regional air quality plan. No additional comments were received at the second scoping meeting held on September 26, 2023. All of these concerns are addressed in this section. A copy of the NOP and comments received are included in Appendix A.

The primary sources referenced to prepare this section include the Air Quality and Greenhouse Gas Impact Analysis prepared by Raney Planning & Management (Appendix B); the El Dorado County Air Quality Management District's (EDCAQMD) Determining Significance of Air Quality Impacts Under the California Environmental Quality Act (Guide to Air Quality Assessment) (EDCAQMD 2002), and the Office of Environmental Health Hazards Assessment's (OEHHA) 2015 Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments (OEHHA 2015).

3.2.1 Environmental Setting

The project is located within the Mountain Counties Air Basin (MCAB or basin) portion of El Dorado County (County). As summarized in the EDAQMD Guide to Air Quality Assessment (EDCAQMD 2002), the MCAB comprises the mountainous area of the central and northern Sierra Nevada Mountains, from Plumas County to Mariposa County. Elevations within the basin range from several hundred feet above mean sea level (AMSL) in the foothills to over 10,000 feet AMSL along the Sierra Crest. The general climate of the basin varies considerably with elevation and proximity to the Sierra ridge. The pattern of mountains and hills causes a wide variation in rainfall, temperature, and localized winds throughout the MCAB. Temperature variations have an important influence on basin wind flow, dispersion along mountain ridges, vertical mixing, and photochemistry. The Sierra Nevada Mountains receive large amounts of precipitation from storms moving in from the Pacific in the winter, with lighter amounts from intermittent "Monsoonal" moisture flows from the south and cumulus buildup in the summer. Precipitation levels are high in the highest mountain elevations but decline rapidly toward the western portion of the basin. Winter temperatures in the mountains can be below freezing for weeks at a time, and substantial depths of snow can accumulate, but in the western foothills, winter temperatures usually dip below freezing only at night and precipitation is mixed as rain or light snow. In the summer, temperatures in the mountains are mild, with daytime peaks in the 70s to low 80s degrees Fahrenheit, but the western end of the county can routinely exceed 100 degrees Fahrenheit (EDCAQMD 2002).

From an air quality perspective, the topography and meteorology of the MCAB combine such that local conditions predominate in determining the effect of emissions in the basin. Regional airflows are affected by the mountains and foothills, which direct surface air flows, cause shallow vertical mixing, and create areas of high pollutant concentrations by hindering dispersion. Inversion layers, where warm air overlays cooler air, frequently occur and trap pollutants close to the ground. In the winter, these conditions can lead to carbon monoxide (CO) "hotspots" along heavily traveled roads and at busy intersections. During summer's longer daylight hours, stagnant air, high

temperatures, and plentiful sunshine provide the conditions and energy for the photochemical reaction between reactive organic gases (ROG) and oxides of nitrogen (NO_x) that results in the formation of ozone (O_3). Because of its long formation time, O_3 is a regional pollutant rather than a local hotspot problem. In the summer, the strong upwind valley air flowing into the basin from the Central Valley to the west is an effective transport medium for O_3 precursors and ozone generated in the Bay Area and the Sacramento and San Joaquin valleys. These transported pollutants predominate as the cause of O_3 in the basin and are largely responsible for the exceedances of the state and federal O_3 ambient air quality standards (AAQS). The California Air Resources Board (CARB) has officially designated the MCAB as O_3 impacted by transport from those areas (EDCAQMD 2002).

Pollutants and Effects

Criteria Air Pollutants

Criteria air pollutants are defined as pollutants for which the federal and state governments have established ambient air quality standards, or criteria, for outdoor concentrations to protect public health. The national and California standards have been set, with an adequate margin of safety, at levels above which concentrations could be harmful to human health and welfare. These standards are designed to protect the most sensitive persons from illness or discomfort. Pollutants of concern include O_3, nitrogen dioxide (NO_2), CO, sulfur dioxide (SO_2), coarse particulate matter (PM_{10}), fine particulate matter ($PM_{2.5}$), and lead. In California, sulfates, vinyl chloride, hydrogen sulfide, and visibility-reducing particles are also regulated as criteria air pollutants. These pollutants, as well as toxic air contaminants (TACs), are discussed in the following paragraphs.[1]

Ozone

O_3 is a strong-smelling, reactive, toxic chemical gas consisting of three oxygen atoms. It is a secondary pollutant formed in the atmosphere by a photochemical process involving the sun's energy and O_3 precursors. These precursors are mainly NO_x and ROG. Meteorology and terrain play major roles in O_3 formation, and ideal conditions occur during summer and early autumn on days with low wind speeds or stagnant air, warm temperatures, and cloudless skies. The O_3 that the U.S. Environmental Protection Agency (EPA) and CARB regulate as a criteria air pollutant is produced close to the ground level, where people live, exercise, and breathe. Ground-level O_3 is a harmful air pollutant that causes numerous adverse health effects and is thus considered "bad" O_3. Stratospheric, or "good," O_3 occurs naturally in the upper atmosphere, where it reduces the amount of ultraviolet light (i.e., solar radiation) entering the Earth's atmosphere. Without the protection of the beneficial stratospheric O_3 layer, plant and animal life would be seriously harmed.

Inhalation of O_3 causes inflammation and irritation of the tissues lining human airways, causing, and worsening a variety of symptoms. Exposure to O_3 can reduce the volume of air that the lungs breathe in and cause shortness of breath. Research shows adults and children who spend more time outdoors participating in vigorous physical activities are at greater risk from the harmful health effects of O_3 exposure. While there are relatively few studies of O_3's effects on children, the available studies show that children are no more or less likely to suffer harmful effects than adults. However, there are a number of reasons why children may be more susceptible to O_3 and other pollutants. Children and teens spend nearly twice as much time outdoors and engaged in vigorous activities as adults. Children breathe more rapidly than adults and inhale more pollution per pound of their body weight than adults. Also, children are less likely than adults to notice their own symptoms and avoid harmful exposures (CARB 2019b).

[1] The descriptions of the criteria air pollutants and associated health effects are based on the EPA's Criteria Air Pollutants (EPA 2022), CARB's Glossary of Air Pollutant Terms (CARB 2019a), and CARB's "Fact Sheet: Air Pollution Sources, Effects and Control" (CARB 2009).

Nitrogen Dioxide and Oxides of Nitrogen

NO_2 is a brownish, highly reactive gas that is present in all urban atmospheres. The major mechanism for the formation of NO_2 in the atmosphere is the oxidation of the primary air pollutant nitric oxide, which is a colorless, odorless gas. NO_x, which includes NO_2 and nitric oxide, plays a major role, together with ROG, in the atmospheric reactions that produce O_3. NO_x is formed from fuel combustion under high temperature or pressure. The two major emissions sources of NO_x are transportation and stationary fuel combustion sources (such as electric utility and industrial boilers).

A large body of health science literature indicates that exposure to NO_2 can induce adverse health effects. Infants and children are particularly at risk because they have disproportionately higher exposure to NO_2 than adults due to their greater breathing rate for their body weight and their typically greater outdoor exposure duration. Several studies have shown that long-term NO_2 exposure during childhood, the period of rapid lung growth, can lead to smaller lungs at maturity in children with higher levels of exposure compared to children with lower exposure levels. In addition, children with asthma have a greater degree of airway responsiveness compared with adult asthmatics. In adults, the greatest risk is to people who have chronic respiratory diseases, such as asthma and chronic obstructive pulmonary disease (CARB 2019c).

Carbon Monoxide

CO is a colorless, odorless gas formed by the incomplete combustion of hydrocarbon, or fossil fuels. In urban areas, automobile exhaust accounts for the majority of CO emissions. CO is a nonreactive air pollutant that dissipates relatively quickly; therefore, ambient CO concentrations generally follow the spatial and temporal distributions of vehicular traffic. CO concentrations are influenced by local meteorological conditions—primarily wind speed, topography, and atmospheric stability. CO from motor vehicle exhaust can become locally concentrated when surface-based temperature inversions are combined with calm atmospheric conditions, which is a typical situation at dusk in urban areas from November to February. The highest levels of CO typically occur during the colder months of the year, when inversion conditions are more frequent. Notably, because of continued improvement in vehicular emissions at a rate faster than the rate of vehicle growth and/or congestion, the potential for CO hotspots is steadily decreasing.

The most common effects of CO exposure are fatigue, headaches, confusion and reduced mental alertness, light-headedness, and dizziness due to inadequate oxygen delivery to the brain. Unborn babies, infants, elderly people, and people with anemia or with a history of heart or respiratory disease are most likely to experience health effects with exposure to elevated levels of CO (CARB 2019d).

Sulfur Dioxide

SO_2 is a colorless, pungent gas formed primarily from incomplete combustion of sulfur-containing fossil fuels. The main sources of SO_2 are coal and oil used in power plants and industries; as such, the highest levels of SO_2 are generally found near large industrial complexes. In recent years, SO_2 concentrations have been reduced by the increasingly stringent controls placed on stationary source emissions of SO_2 and limits on the sulfur content of fuels. Due to the project location, it is unlikely that residents, guests, and employees would be exposed to substantial SO_2 concentrations.

Particulate Matter

Particulate matter pollution consists of very small liquid and solid particles floating in the air, which can include smoke, soot, dust, salts, acids, and metals. Particulate matter can form when gases emitted from industries and motor vehicles undergo chemical reactions in the atmosphere. $PM_{2.5}$ and PM_{10} represent fractions of particulate matter. Coarse particulate matter (PM_{10}) is about 1/7 the thickness of a human hair. Major sources of PM_{10} include crushing or grinding operations; dust stirred up by vehicles traveling on roads; wood-burning stoves and fireplaces; dust from construction, landfills, and agriculture; wildfires and brush/waste burning; industrial sources; windblown dust from open lands; and atmospheric chemical and photochemical reactions. Fine particulate matter ($PM_{2.5}$) is roughly 1/28 the diameter of a human hair. $PM_{2.5}$ results from fuel combustion (e.g., from motor vehicles and power generation and industrial facilities), residential fireplaces, and woodstoves. In addition, $PM_{2.5}$ can be formed in the atmosphere from gases such as sulfur oxides, NO_x, and ROG.

$PM_{2.5}$ and PM_{10} pose a greater health risk than larger-size particles. When inhaled, these tiny particles can penetrate the human respiratory system's natural defenses and damage the respiratory tract. PM_{10} tends to collect in the upper portion of the respiratory system, whereas $PM_{2.5}$ is small enough to penetrate deeper into the lungs and damage lung tissue.

A number of adverse health effects have been associated with exposure to both $PM_{2.5}$ and PM_{10}. For $PM_{2.5}$, short-term exposures (up to 24-hour duration) have been associated with premature mortality, increased hospital admissions for heart or lung causes, acute and chronic bronchitis, asthma attacks, emergency room visits, respiratory symptoms, and restricted activity days.[2] These adverse health effects have been reported primarily in infants, children, and older adults with preexisting heart or lung diseases. In addition, of all the common air pollutants, $PM_{2.5}$ is associated with the greatest proportion of adverse health effects related to air pollution, both in the United States and worldwide. Short-term exposures to PM_{10} have been associated primarily with worsening of respiratory diseases, including asthma and chronic obstructive pulmonary disease, leading to hospitalization and emergency department visits (CARB 2017). The effects of long-term exposure to PM_{10} are less clear, although several studies suggest a link between long-term PM_{10} exposure and respiratory mortality.

Lead

Lead in the atmosphere occurs as particulate matter. Sources of lead include leaded gasoline; the manufacturing of batteries, paints, ink, ceramics, and ammunition; and secondary lead smelters. Prior to 1978, mobile emissions were the primary source of atmospheric lead. Between 1978 and 1987, the phase out of leaded gasoline reduced the overall inventory of airborne lead by nearly 95%. With the phase-out of leaded gasoline, secondary lead smelters, battery recycling, and manufacturing facilities are becoming lead-emissions sources of greater concern. Due to the project location, it is unlikely that residents, guests, and employees would be exposed to substantial lead concentrations.

Sulfates

Sulfates are the fully oxidized form of sulfur, which typically occur in combination with metals or hydrogen ions. Sulfates are produced from reactions of SO_2 in the atmosphere and can result in respiratory impairment, as well as reduced visibility.

[2] "Restricted activity days" are days that an individual adjusts behavior based on health reasons, such as a work-loss or school-loss day.

Vinyl Chloride

Vinyl chloride is a colorless gas with a mild, sweet odor, which has been detected near landfills, sewage plants, and hazardous waste sites, due to the microbial breakdown of chlorinated solvents. Short-term exposure to high levels of vinyl chloride in air can cause nervous system effects, such as dizziness, drowsiness, and headaches. Long-term exposure through inhalation can cause liver damage, including liver cancer. Due to the project location, it is unlikely that residents, guests, and employees would be exposed to substantial vinyl chloride concentrations.

Hydrogen Sulfide

Hydrogen sulfide is a colorless and flammable gas that has a characteristic odor of rotten eggs. Sources of hydrogen sulfide include geothermal power plants, petroleum refineries, sewers, and sewage treatment plants. Exposure to hydrogen sulfide can result in nuisance odors, as well as headaches and breathing difficulties at higher concentrations. Due to the project location, it is unlikely that residents, guests, and employees would be exposed to substantial hydrogen sulfide concentrations.

Visibility-Reducing Particles

Visibility-reducing particles are any particles in the air that obstruct the range of visibility. Effects of reduced visibility can include obscuring the viewshed of natural scenery, reducing airport safety, and discouraging tourism. Sources of visibility-reducing particles are the same as for $PM_{2.5}$ described above.

Reactive Organic Gases

Hydrocarbons are organic gases that are formed from hydrogen and carbon and sometimes other elements. Hydrocarbons that contribute to formation of O_3 are referred to and regulated as ROGs [also referred to as volatile organic compounds (VOCs)]. Combustion engine exhaust, oil refineries, and fossil-fueled power plants are the sources of hydrocarbons. Other sources of hydrocarbons include evaporation from petroleum fuels, solvents, dry cleaning solutions, and paint.

The primary health effects of ROGs result from the formation of O_3 and its related health effects. High levels of ROGs in the atmosphere can interfere with oxygen intake by reducing the amount of available oxygen through displacement. Carcinogenic forms of hydrocarbons, such as benzene, are considered TACs. There are no separate health standards for ROGs as a group.

Non-Criteria Air Pollutants

Toxic Air Contaminants

A substance is considered toxic if it has the potential to cause adverse health effects in humans, including increasing the risk of cancer upon exposure, or acute and/or chronic non-cancer health effects. A toxic substance released into the air is considered a TAC. TACs are identified by federal and state agencies based on a review of available scientific evidence. In the State of California, TACs are identified through a two-step process that was established in 1983 under the Toxic Air Contaminant Identification and Control Act. This two-step process of risk identification and risk management and reduction was designed to protect residents from the health effects of toxic substances in the air. In addition, the California Air Toxics “Hot Spots” Information and Assessment Act, Assembly Bill (AB) 2588, was enacted in 1987 to address public concern over the release of TACs into the atmosphere. The law requires facilities emitting toxic substances to provide local air pollution control districts with information that

will allow an assessment of the air toxics problem, identification of air toxics emissions sources, location of resulting hotspots, notification of the public exposed to significant risk, and development of effective strategies to reduce potential risks to the public over 5 years.

Examples of TACs include certain aromatic and chlorinated hydrocarbons, certain metals, and asbestos. TACs are generated by a number of sources, including stationary sources, such as dry cleaners, gas stations, combustion sources, and laboratories; mobile sources, such as automobiles; and area sources, such as landfills. Adverse health effects associated with exposure to TACs may include carcinogenic (i.e., cancer-causing) and noncarcinogenic effects. Noncarcinogenic effects typically affect one or more target organ systems and may be experienced with either short-term (acute) or long-term (chronic) exposure to a given TAC.

Diesel Particulate Matter

Diesel particulate matter (DPM) is part of a complex mixture that makes up diesel exhaust. More than 90% of DPM is less than 1 micrometer in diameter (about 1/70th the diameter of a human hair), and thus is a subset of $PM_{2.5}$ (CARB 2019f). DPM is typically composed of carbon particles ("soot," also called black carbon) and numerous organic compounds, including over 40 known carcinogenic organic substances. CARB classified "particulate emissions from diesel-fueled engines" (i.e., DPM) (17 CCR Section 93000) as a TAC in August 1998. DPM is emitted from a broad range of diesel engines: on-road diesel engines of trucks, buses, and cars; and off-road diesel engines including locomotives, marine vessels, and heavy-duty construction equipment, among others. Approximately 70% of all airborne cancer risk in California is associated with DPM (CARB 2000). To reduce the cancer risk associated with DPM, CARB adopted a diesel risk reduction plan in 2000 (CARB 2000). Because it is part of $PM_{2.5}$, DPM also contributes to the same non-cancer health effects as $PM_{2.5}$ exposure. These effects include premature death; hospitalizations and emergency department visits for exacerbated chronic heart and lung disease, including asthma; increased respiratory symptoms; and decreased lung function in children. Those most vulnerable to non-cancer health effects are children, whose lungs are still developing, and the elderly, who often have chronic health problems.

Naturally Occurring Asbestos

In the county, naturally occurring asbestos is another TAC of concern. Asbestos is the common name for a group of naturally occurring fibrous silicate minerals that can separate into thin but strong and durable fibers, with principal forms including chrysotile, crocidolite, amosite, tremolite, actinolite, and anthophyllite (OEHHA 2000). Naturally occurring asbestos is found most commonly where ultramafic rock or serpentinite rock is present. The project site is not within an Asbestos Review Area within the county and is not expected to contain naturally occurring asbestos.

Odorous Compounds

Odors are generally regarded as an annoyance rather than a health hazard. Manifestations of a person's reaction to odors can range from psychological (e.g., irritation, anger, or anxiety) to physiological (e.g., circulatory and respiratory effects, nausea, vomiting, and headache). An odor that is offensive to one person may be perfectly acceptable to another (e.g., coffee roaster). An unfamiliar odor is more easily detected and is more likely to cause complaints than a familiar one.

Sensitive Receptors

Some land uses are considered more sensitive to changes in air quality than others, depending on the population groups and the activities involved. People most likely to be affected by air pollution include children, the elderly,

athletes, and people with cardiovascular and chronic respiratory diseases. Facilities and places where these air pollution-sensitive people live or spend considerable amounts of time are known as sensitive receptors. Land uses where air pollution-sensitive individuals are most likely to spend time include schools and schoolyards, parks and playgrounds, daycare centers, nursing homes, hospitals, and residential communities (sensitive sites or sensitive land uses) (CARB 2005).

The closest off-site sensitive receptors to the proposed project consist of residential uses to the east and northeast of the project site across Latrobe Road, a public charter school located northwest (John Adams Academy), and a church located approximately 2,000 feet northwest of the project site (Live 58 Church). An active adult (55 and older) residential development is also under construction to the west of the project site and would be a continuation of the active adult Heritage community located to the northwest of the project site.

3.2.2 Regulatory Setting

Please see Appendix B for a more detailed description of plans, requirements, regulations and ordinances that are applicable to the project. The following provides a summary of regulations applicable to the proposed project.

Federal

Criteria Air Pollutants

The federal Clean Air Act, passed in 1970 and last amended in 1990, forms the basis for the national air pollution control effort. The EPA is responsible for implementing most aspects of the Clean Air Act, including the setting of National Ambient Air Quality Standards (NAAQS) for major air pollutants, hazardous air pollution (HAP) standards, approval of state attainment plans, motor vehicle emission standards, stationary source emissions standards and permits, acid rain control measures, stratospheric O_3 protection, and enforcement provisions. Federal standards are established for criteria pollutants under the Clean Air Act, which are O_3, CO, NO_2, SO_2, PM_{10}, $PM_{2.5}$, and lead.

The federal Clean Air Act delegates the regulation of air pollution control and the enforcement of the federal standards to the states. In California, the task of air quality management and regulation has been legislatively granted to CARB, with subsidiary responsibilities assigned to air quality management districts and air pollution control districts at the regional and county levels.

Hazardous Air Pollutants

The 1977 federal Clean Air Act amendments required the EPA to identify National Emission Standards for HAPs to protect public health and welfare. HAPs include certain volatile organic chemicals, pesticides, herbicides, and radionuclides that present a tangible hazard, based on scientific studies of exposure to humans and other mammals. Under the 1990 federal Clean Air Act Amendments, which expanded the control program for HAPs, 189 substances and chemical families were identified as HAPs.

State

Criteria Air Pollutants

The federal Clean Air Act delegates the regulation of air pollution control and the enforcement of the NAAQS to the states. In California, the task of air quality management and regulation has been legislatively granted to CARB, with

subsidiary responsibilities assigned to air quality management districts and air pollution control districts at the regional and county levels. CARB, which became part of the California Environmental Protection Agency (CalEPA) in 1991, is responsible for ensuring implementation of the California Clean Air Act of 1988, responding to the federal Clean Air Act, and regulating emissions from motor vehicles and consumer products.

CARB has established CAAQS, which are generally more restrictive than the NAAQS. As stated previously, an ambient air quality standard defines the maximum amount of a pollutant averaged over a specified period of time that can be present in outdoor air without harm to the public's health. For each pollutant, concentrations must be below these relevant CAAQS before a basin can attain the corresponding CAAQS. Air quality is considered "in attainment" if pollutant levels are continuously below the CAAQS and violate the standards no more than once each year. The CAAQS for O_3, CO, SO_2 (1-hour and 24-hour), NO_2, PM_{10}, and $PM_{2.5}$ and visibility-reducing particles are values that are not to be exceeded. All others are not to be equaled or exceeded.

California air districts have based their thresholds of significance for California Environmental Quality Act (CEQA) purposes on the levels that scientific and factual data demonstrate that the air basin can accommodate without affecting the attainment date for the NAAQS or CAAQS.

The NAAQS and CAAQS are presented in Table 3.2-1, Ambient Air Quality Standards.

Table 3.2-1. Ambient Air Quality Standards

Pollutant	Average Time	California Standards[a]	Federal Standards[b]	
		Concentration[c]	Primary[c,d]	Secondary[c,e]
O_3	1 hour	0.09 ppm (180 µg/m³)	—	Same as primary standard
	8 hours	0.070 ppm (137 µg/m³)	0.070ppm (137 µg/m³)[f]	
NO_2[g]	1 hour	0.18 ppm (339 µg/m³)	0.100 ppm (188 µg/m³)	Same as primary standard
	Annual arithmetic mean	0.030 ppm (57 µg/m³)	0.053 ppm (100 µg/m³)	
CO	1 hour	20 ppm (23 mg/m³)	35 ppm (40 mg/m³)	None
	8 hours	9.0 ppm (10 mg/m³)	9 ppm (10 mg/m³)	
SO_2[h]	1 hour	0.25 ppm (655 µg/m³)	0.075 ppm (196 µg/m³)	—
	3 hours	—	—	0.5 ppm (1,300 µg/m³)
	24 hours	0.04 ppm (105 µg/m³)	0.14 ppm (for certain areas)[g]	—
	Annual	—	0.030 ppm (for certain areas)[g]	—
PM_{10}[i]	24 hours	50 µg/m³	150 µg/m³	Same as primary standard
	Annual arithmetic mean	20 µg/m³	—	
$PM_{2.5}$[i]	24 hours	No separate state standard	35 µg/m³	Same as primary standard
	Annual arithmetic mean	12 µg/m³	12.0 µg/m³	15.0 µg/m³
Pb[j,k]	30-day average	1.5 µg/m³	—	—
	Calendar quarter	—	1.5 µg/m³ (for certain areas)[j]	Same as primary standard
	Rolling 3-month average	—	0.15 µg/m³	

Table 3.2-1. Ambient Air Quality Standards

Pollutant	Average Time	California Standards[a]	Federal Standards[b]	
		Concentration[c]	Primary[c,d]	Secondary[c,e]
H_2S	1-hour	0.03 ppm (42 µg/m³)	—	—
Vinyl chloride[i]	24-hour	0.01 ppm (26 µg/m³)	—	—
SO_4	24-hour	25 µg/m³	—	—
Visibility-reducing particles	8-hour (10:00 a.m. to 6:00 p.m. PST)	Insufficient amount to produce an extinction coefficient of 0.23 per kilometer due to particles when the relative humidity is less than 70%	—	—

Source: CARB 2016.

Notes: O_3 = ozone; ppm= parts per million by volume; µg/m³ = micrograms per cubic meter; NO_2 = nitrogen dioxide; CO = carbon monoxide; mg/m³ = milligrams per cubic meter; SO_2 = sulfur dioxide; PM_{10} = coarse particulate matter; $PM_{2.5}$ = fine particulate matter; Pb = lead; H_2S = hydrogen sulfide; SO_4 = sulfates; PST = Pacific standard time.

a State standards for O_3, CO, SO_2 (1-hour and 24-hour), NO_2, and suspended particulate matter—PM_{10}, $PM_{2.5}$, and visibility-reducing particles—are values that are not to be exceeded. All others are not to be equaled or exceeded. The CAAQS are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.

b National standards (other than O_3, NO_2, SO_2, particulate matter, and those based on annual averages or annual arithmetic mean) are not to be exceeded more than once a year. The O_3 standard is attained when the fourth highest 8-hour concentration measured at each site in a year, averaged over 3 years, is equal to or less than the standard. For PM_{10}, the 24-hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 µg/m³ is equal to or less than 1. For $PM_{2.5}$, the 24-hour standard is attained when 98% of the daily concentrations, averaged over 3 years, are equal to or less than the standard.

c Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of 25° Celsius (C) and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.

d National Primary Standards: The levels of air quality necessary, with an adequate margin of safety, to protect the public health.

e National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.

f On October 1, 2015, the national 8-hour ozone primary and secondary standards were lowered from 0.075 to 0.070 ppm.

g To attain the 1-hour national standard, the 3-year average of the annual 98th percentile of the 1-hour daily maximum concentrations at each site must not exceed 100 parts per billion (ppb). Note that the national 1-hour standard is in units of ppb, whereas California standards are in units of ppm. To directly compare the national 1-hour standard to the California standards the units can be converted from ppb to ppm. In this case, the national standard of 100 ppb is identical to 0.100 ppm.

h In 2010, a new 1-hour SO_2 standard was established and the existing 24-hour and annual primary standards were revoked. To attain the 1-hour national standard, the 3-year average of the annual 99th percentile of the 1-hour daily maximum concentrations at each site must not exceed 75 ppb. The 1971 SO_2 national standards (24-hour and annual) remain in effect until 1 year after an area is designated for the 2010 standard, except that in areas designated nonattainment of the 1971 standards, the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standards are approved.

i On December 14, 2012, the national annual $PM_{2.5}$ primary standard was lowered from 15 µg/m³ to 12.0 µg/m³. The existing national 24-hour $PM_{2.5}$ standards (primary and secondary) were retained at 35 µg/m³, as was the annual secondary standard of 15 µg/m³. The existing 24-hour PM_{10} standards (primary and secondary) of 150 µg/m³ also were retained. The form of the annual primary and secondary standards is the annual mean, averaged over 3 years.

j CARB has identified Pb and vinyl chloride as TACs with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.

j The national standard for Pb was revised on October 15, 2008, to a rolling 3-month average. The 1978 Pb standard (1.5 µg/m³ as a quarterly average) remains in effect until 1 year after an area is designated for the 2008 standard, except that in areas designated nonattainment for the 1978 standard, the 1978 standard remains in effect until implementation plans to attain or maintain the 2008 standard are approved.

k The national standard for lead was revised on October 15, 2008, to a rolling 3-month average. The 1978 lead standard (1.5 µg/m³ as a quarterly average) remains in effect until one year after an area is designated for the 2008 standard, except that in areas designated nonattainment for the 1978 standard, the 1978 standard remains in effect until implementation plans to attain or maintain the 2008 standard are approved.

Toxic Air Contaminants

The state Air Toxics Program was established in 1983 under AB 1807 (Tanner). The California TAC list identifies more than 700 pollutants, of which carcinogenic and noncarcinogenic toxicity criteria have been established for a subset of these pollutants pursuant to the California Health and Safety Code. The Air Toxics "Hot Spots" Information and Assessment Act of 1987 (AB 2588) seeks to identify and evaluate risk from air toxics sources; however, AB 2588 does not regulate air toxics emissions.

In 2000, the CARB approved a comprehensive Diesel Risk Reduction Plan to reduce diesel emissions from both new and existing diesel-fueled vehicles and engines (CARB 2000). The regulation is anticipated to result in an 80% decrease in statewide diesel health risk in 2020 compared with the diesel risk in 2000. Additional regulations apply to new trucks and diesel fuel, including the On-Road Heavy Duty Diesel Vehicle (In-Use) Regulation, the On-Road Heavy Duty (New) Vehicle Program, the In-Use Off-Road Diesel Vehicle Regulation, and the New Off-Road Compression-Ignition (Diesel) Engines and Equipment Program.

California Code of Regulations

The California Code of Regulations (CCR) is the official compilation and publication of regulations adopted, amended or repealed by state agencies pursuant to the Administrative Procedure Act. The CCR includes regulations that pertain to air quality emissions. Specifically, Section 2485 in Title 13 of the CCR states that the idling of all diesel-fueled commercial vehicles (weighing over 10,000 pounds) during construction shall be limited to five minutes at any location. In addition, Section 93115 in Title 17 of the CCR states that operations of any stationary, diesel-fueled, compression-ignition engines shall meet specified fuel and fuel additive requirements and emissions standards.

California Health and Safety Code Section 41700

Section 41700 of the Health and Safety Code states that a person shall not discharge from any source whatsoever quantities of air contaminants or other material that cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public; or that endanger the comfort, repose, health, or safety of any of those persons or the public; or that cause, or have a natural tendency to cause, injury or damage to business or property. This section also applies to sources of objectionable odors.

Local

El Dorado County Air Quality Management District

The EDCAQMD is the regional agency responsible for the regulation and enforcement of federal, state, and local air pollution control regulations in the MCAB, where the project is located. The MCAB portion of the county lies within the area designated by the EPA as the Sacramento Federal Ozone Nonattainment Area (SFONA), comprised of Sacramento and Yolo counties, and parts of El Dorado, Solano, Placer, and Sutter counties.

The clean air strategy of the EDCAQMD includes the preparation of plans for the attainment of ambient air quality standards, adoption and enforcement of rules and regulations concerning sources of air pollution, issuance of permits for stationary sources of air pollution, inspection of stationary sources of air pollution and response to citizen complaints, monitoring of ambient air quality and meteorological conditions, and implementation of programs and regulations required by the federal and state Clean Air Act.

The Sacramento region is classified as a severe nonattainment area for the 2008 NAAQS. The EDCAQMD along with the other air districts which comprise the SFONA, developed the *Sacramento Regional 2008 NAAQS 8-Hour Ozone Attainment and Reasonable Further Progress Plan* (Ozone Attainment Plan) to demonstrate attainment of the 2008 8-hour NAAQS by an attainment year of 2024 (EDCAQMD *et al.* 2017). This plan was approved by EDCAQMD and the other air districts that comprise the SFONA on August 24, 2017. The Ozone Attainment Plan was adopted by CARB on November 16, 2017, which was then forwarded to EPA.

Air districts within the Sacramento Federal Nonattainment Area for $PM_{2.5}$ (SFNA-$PM_{2.5}$) prepared the *$PM_{2.5}$ Implementation/Maintenance Plan and Redesignation Request for Sacramento $PM_{2.5}$ Nonattainment Area* ($PM_{2.5}$ Maintenance Plan) to address how the region attained and would continue to attain the 24-hour $PM_{2.5}$ standard (EDCAQMD *et al.* 2013). Further, on May 10, 2017, EPA found that the SFNA-$PM_{2.5}$ attained the 2006 24-hour $PM_{2.5}$ NAAQS by the attainment date of December 31, 2015. The $PM_{2.5}$ Maintenance Plan will be updated and submitted in the future based on the clean data finding made by the EPA.

The EDCAQMD has adopted rules and regulations as a means of implementing the air quality plans for the County and has also prepared the Guide to Air Quality Assessment, which provides quantitative emission thresholds and established protocols for the analysis of air quality impacts from projects and plans. The Guide to Air Quality Assessment outlines quantitative and qualitative significance criteria, methodologies for the estimation of construction and operational emissions and mitigation measures to reduce significant impacts (EDCAQMD 2002).

The EDCAQMD rules applicable to the project include the following:

- **Rule 205 – Nuisance.** This rule prohibits the discharge from any source such as quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons, or to the public, or which endanger the comfort, repose, health or safety of any such persons, or the public, or which cause to have a natural tendency to cause injury or damage to business or property.
- **Rule 215 – Architectural Coatings.** This rule requires manufacturers, distributors, and users of architectural and industrial maintenance coatings to reduce VOC emissions from the use of use of these coatings by placing limits on the VOC content of various coating categories.
- **Rule 223 – Fugitive Dust.** This rule governs the amount of particulate matter entrained in the ambient air as a result of anthropogenic (man-made) fugitive dust sources by requiring actions to prevent, reduce, or mitigate fugitive dust emissions. It applies to any construction or construction related activities including but not limited to, land clearing, grubbing, scraping, travel on site, and travel on access roads.
- **Rule 223-1 – Fugitive Dust – Construction.** This rule requires a Fugitive Dust Control Plan be submitted to the Air Pollution Control Officer prior to the start of any construction activity for which a grading permit was issued by El Dorado County.
- **Rule 223-2 – Fugitive Dust – Asbestos Hazard Mitigation.** This rule reduces the amount of asbestos particulate matter that may be released as a result from construction related activities through the use of required actions or mitigation.
- **Rule 224 – Cutback and Emulsified Asphalt Paving Materials.** This rule governs the use of asphalt and limits the VOC content in asphalt.

El Dorado County Attainment Designation

Pursuant to the 1990 federal Clean Air Act amendments, the EPA classifies air basins (or portions thereof) as "attainment" or "nonattainment" for each criteria air pollutant, based on whether the NAAQS have been achieved.

Generally, if the recorded concentrations of a pollutant are lower than the standard, the area is classified as attainment for that pollutant. If an area exceeds the standard, the area is classified as nonattainment for that pollutant. If there is not enough data available to determine whether the standard is exceeded in an area, the area is designated as "unclassified" or "unclassifiable." The designation of "unclassifiable/attainment" means that the area meets the standard or is expected to meet the standard despite a lack of monitoring data. Areas that achieve the standards after a nonattainment designation are redesignated as maintenance areas and must have approved maintenance plans to ensure continued attainment of the standards. Similar to the federal Clean Air Act, the California Clean Air Act designated areas as attainment or nonattainment but based on California Ambient Air Quality Standards (CAAQS) rather than the NAAQS.

Table 3.2-2 identifies the current attainment status of the MCAB, including the project area, with respect to the NAAQS and CAAQS, and the attainment classifications for the criteria pollutants. In summary, the western El Dorado County portion of the MCAB is designated as a nonattainment area for both federal and state O_3 standards, the state PM_{10} standard, and the federal $PM_{2.5}$ standard. The County is designated "unclassified" or "attainment" for all other criteria air pollutants (EPA 2023; CARB 2022).

Table 3.2-2. Mountain Counties Air Basin Attainment Status (Western El Dorado County)

Pollutant	Averaging Time	Designation/Classification
National Standards		
O_3	8 hours	Nonattainment/Serious (2015 NAAQS) Nonattainment/Severe (2008 NAAQS)
NO_2	1 hour, annual arithmetic mean	Unclassifiable/Attainment
CO	1 hour; 8 hours	Unclassifiable/Attainment
SO_2	24 hours; annual arithmetic mean	Unclassifiable/Attainment
PM_{10}	24 hours	Unclassifiable/Attainment
$PM_{2.5}$	24 hours; annual arithmetic mean	Nonattainment/Moderate
Lead	Quarter; 3-month average	Unclassifiable/Attainment
California Standards		
O_3	1 hour; 8 hours	Nonattainment
NO_2	1 hour; annual arithmetic mean	Attainment
CO	1 hour; 8 hours	Unclassified
SO_2	1 hour; 24 hours	Attainment
PM_{10}	24 hours; annual arithmetic mean	Nonattainment
$PM_{2.5}$	Annual arithmetic mean	Unclassified
Lead	30-day average	Attainment
SO_4	24 hours	Attainment
H_2S	1 hour	Unclassified
Vinyl chloride	24 hours	No designation
Visibility-reducing particles	8 hours (10:00 a.m.–6:00 p.m.)	Unclassified

Sources: CARB 2022 (California); EPA 2023 (national).
Notes: O_3 = ozone; NO_2 = nitrogen dioxide; CO = carbon monoxide; SO_2 = sulfur dioxide; PM_{10} = coarse particulate matter; $PM_{2.5}$ = fine particulate matter; SO_4 = sulfates; H_2S = hydrogen sulfide.

Local Ambient Air Quality

The County's local ambient air quality is monitored by CARB. CARB, air districts, and other agencies monitor ambient air quality at approximately 250 air quality monitoring stations across the state. Air quality monitoring stations usually measure pollutant concentrations 10 feet above ground level; therefore, air quality is often referred to in terms of ground-level concentrations. The Placerville monitoring station, located at 3111 Gold Nugget Way, Placerville, California, is the nearest air quality monitoring station to the project site. Data for this site was only available for 8-hour O_3 and 1-hour O_3 concentrations. The nearest station that monitors PM_{10} is located at 151 N Sunrise Avenue, Roseville, California and the nearest station that monitors $PM_{2.5}$ is located at 50 Natoma Street, Folsom, California. The data collected at these stations are considered representative of the air quality experienced in the project vicinity. Air quality data from 2019 through 2021 are provided in Table 3.2-3. The number of days exceeding the ambient air quality standards is also shown in Table 3.2-3.

Table 3.2-3. Local Ambient Air Quality Data

Averaging Time	Ambient Air Quality Standard	Measured Concentration and Exceedances by Year		
		2019	2020	2021
Ozone (O_3) – Placerville Monitoring Station				
Maximum 1-hour concentration (ppm)	0.09 ppm (state)	0.081	0.127	0.090
Number of days exceeding state standard (days)		*0*	*4*	*0*
Maximum 8-hour concentration (ppm)	0.070 ppm (state)	0.076	0.101	0.080
	0.070 ppm (federal)	0.075	0.101	0.080
Number of days exceeding state standard (days)		*4*	*20*	*10*
Number of days exceeding federal standard (days)		*4*	*20*	*10*
Coarse Particulate Matter (PM_{10}) – Roseville Monitoring Station				
Maximum 24-hour concentration (µg/m³)	50 µg/m³ (state)	63.1	244.3	150.7
	150 µg/m³ (federal)	61.3	251.8	155.7
Number of days exceeding state standard[a]		*2.0 (2)*	*38.0 (36)*	*11.0 (10)*
Number of days exceeding federal standard[a]		*0.0 (0)*	*5.3 (5)*	*1.1 (1)*
Annual concentration (state method) (µg/m³)	20 µg/m³ (state)	15.4	27.7	21.1
Fine Particulate Matter ($PM_{2.5}$) – Folsom Monitoring Station				
Maximum 24-hour concentration (µg/m³)	35 µg/m³ (federal)	25.4	19.6	265.7
Number of days exceeding federal standard[a]		*ND (0)*	*ND (0)*	*10.0 (10)*
Annual concentration (µg/m³)	12 µg/m³ (state)	ND	ND	9.3
	12.0 µg/m³ (federal)	ND	ND	10.3

Sources: CARB 2023.
Notes: ppm = parts per million; µg/m³ = micrograms per cubic meter; ND = insufficient data available to determine the value.
Data taken from CARB iADAM (http://www.arb.ca.gov/adam) and EPA AirData (http://www.epa.gov/airdata/) represent the highest concentrations experienced over a given year.

Exceedances of national and California standards are only shown for O_3 and particulate matter. Daily exceedances for particulate matter are estimated days because PM_{10} and $PM_{2.5}$ are not monitored daily. All other criteria pollutants did not exceed national or California standards during the years shown. There is no national standard for 1-hour ozone, annual PM_{10}, or 24-hour SO_2, nor is there a state 24-hour standard for $PM_{2.5}$.
Placerville Monitoring Station is located at 561 Canal Street, Placerville CA 95667.
Roseville Monitoring Station is located at 151 N Sunrise Ave, Roseville CA 95661.
Folsom Monitoring Station is located at 50 Natoma St, Folsom CA 95630.

[a] Measurements of PM_{10} and $PM_{2.5}$ are usually collected every 6 days and every 1 to 3 days, respectively. Number of days exceeding the standards is a mathematical estimate of the number of days concentrations would have been greater than the level of the standard had each day been monitored. The numbers in parentheses are the measured number of samples that exceeded the standard. Notably, the California $PM_{2.5}$ standard is based on annual concentrations and does not have daily exceedance information.

El Dorado County General Plan

The following goals, objectives, and policies related to air quality from the County General Plan (last amended 2019) are included in the Transportation and Circulation, and the Public Health, Safety, and Noise Elements of the General Plan (El Dorado County 2019) and are applicable to the project.

Transportation and Circulation Element

Goal TC-4: To provide a safe, continuous, and easily accessible non-motorized transportation system that facilitates the use of the viable alternative transportation modes.

Policy TC-4c: The County shall give priority to bikeways that will serve population centers and destinations of greatest demand and to bikeways that close gaps in the existing bikeway system.

Policy TC-4e: The County shall require that rights-of-way or easements be provided for bikeways or trails designated in adopted master plans, as a condition of land development when necessary to mitigate project impacts.

Policy TC-4g: The County shall support development of facilities that help link bicycling with other modes of transportation.

Policy TC-4i: Within Community Regions and Rural Centers, all development shall include pedestrian/bike paths connecting to adjacent development and to schools, parks, commercial areas and other facilities where feasible. In Rural Regions, pedestrian/bike paths shall be considered as appropriate.

Goal TC-5: To provide safe, continuous, and accessible sidewalks and pedestrian facilities as a viable alternative transportation mode.

Policy TC-5a: Sidewalks and curbs shall be required throughout residential subdivisions, including land divisions created through the parcel map process, where any residential lot or parcel size is 10,000 square feet or less.

Public Health, Safety, and Noise Element

Goal 6.7: Strive to achieve and maintain ambient air quality standards established by the EPA and CARB and minimize exposure to TACs or HAPs and air pollutants that create unpleasant odors.

Objective 6.7.1: Adopt and enforce Air Quality standards to reduce the health impacts caused by harmful emissions.

Policy 6.7.1.1: Improve air quality through land use planning decisions.

Policy 6.7.1.2: Support local and regional air quality improvement efforts.

Objective 6.7.2: Reduce motor vehicle air pollution by developing programs aimed at minimizing congestion and reducing the number of vehicle trips made in the County and encouraging the use of clean fuels.

Policy 6.7.2.2: Encourage, both through County policy and discretionary project review, the use of staggered work schedules, flexible work hours, compressed work weeks, teleconferencing, telecommuting, and car pool/van pool matching as ways to reduce peak-hour vehicle trips.

Policy 6.7.2.5: Upon reviewing projects, the County shall support and encourage the use of, and facilities for, alternative-fuel vehicles to the extent feasible. The County shall develop language to be included in County contract procedures to give preference to contractors that utilize low-emission heavy-duty vehicles.

Objective 6.7.4: Encourage project design that protects air quality and minimizes direct and indirect emissions of air contaminants.

Policy 6.7.4.1: Promote the development of new residential uses within walking or bicycling distance to the County's larger employment centers.

Policy 6.7.4.4: All discretionary development applications shall be reviewed to determine the need for pedestrian/bike paths connecting to adjacent development and to common service facilities (e.g., clustered mailboxes, bus stops, etc.).

Policy 6.7.4.5: Specific plans submitted to the County shall provide for the implementation of all policies contained under Objective 6.7.4 herein.

Policy 6.7.4.6: The County shall regulate wood-burning fireplaces and stoves in all new development. EPA approved stoves and fireplaces burning natural gas or propane are allowed. The County shall discourage the use of non-certified wood heaters and fireplaces during periods of unhealthy air quality.

Objective 6.7.6: Separate air pollution sensitive land uses from significant sources of air pollution.

Policy 6.7.6.2: New facilities in which sensitive receptors are located (e.g. residential subdivisions, schools, childcare centers, playgrounds, retirement homes, and hospitals) shall be sited away from significant sources of air pollution.

Objective 6.7.7: Reduce construction related, short-term emissions by adopting regulations which minimize their adverse effects.

Policy 6.7.7.1: The County shall consider air quality when planning the land uses and transportation systems to accommodate expected growth, and shall use the recommendations in the most recent version of the EDCAQMD Guide to Air Quality Assessment: Determining Significance of Air Quality Impacts Under the CEQA, to analyze potential air quality impacts (e.g., short-term construction, long-term operations, toxic and odor-related emissions) and to require feasible mitigation requirements for such impacts. The County shall also consider any new information or technology that becomes available prior to periodic updates of the Guide. The County shall encourage actions (e.g., use of light-colored roofs and retention of trees) to help mitigate heat island effects on air quality.

3.2.3 Thresholds of Significance

Thresholds of Significance

Thresholds of significance are used to determine the significance of a project's environmental effects. Per Section 15064.7 of the CEQA Guidelines, a threshold is an identifiable quantitative, qualitative or performance level of particular environmental effect, non-compliance with which means the effect will normally be determined to be significant and compliance with normally means the effect will be determined to be less than significant. A significant impact would occur if development of the proposed project would do any of the following:

- Conflict with or obstruct implementation of the applicable air quality plan.
- Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard.
- Expose sensitive receptors to substantial pollutant concentrations.
- Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.

3.2.4 Impacts and Mitigation Measures

Methodology

Appendix G of the CEQA Guidelines indicates that, where available, the significance criteria established by the applicable air quality management district or pollution control district may be relied upon to determine whether a proposed project would have a significant impact on air quality. The EDCAQMD Guide to Air Quality Assessment (EDCAQMD 2002) provides quantitative emission thresholds and established protocols for the analysis of air quality impacts from projects and plans. Project related air quality impacts estimated in this environmental analysis would be considered significant if any of the applicable significance thresholds presented in Table 3.2-4 are exceeded.

A project would result in a substantial contribution to an existing air quality violation of the NAAQS or CAAQS for O_3 (see Table 3.2-1), which is a nonattainment pollutant, if the project's construction or operational emissions would exceed the EDCAQMD ROG or NO_x thresholds shown in Table 3.2-4. These emission-based thresholds for O_3 precursors are intended to serve as a surrogate for an "O_3 significance threshold" (i.e., the potential for adverse O_3 impacts to occur) because O_3 itself is not emitted directly (see the previous discussion of O_3 and its sources), and the effects of an individual project's emissions of O_3 precursors (ROG and NO_x) on O_3 levels in ambient air cannot be reliably and meaningfully determined through air quality models or other quantitative methods. According to the EDCAQMD CEQA Guide, if ROG and NO_x are less than significant during construction, then exhaust CO and PM_{10}

would also be less than significant. During operation, if ROG and NO_x are less than significant, then exhaust CO, NO_2, SO_2, and PM_{10} would also be less than significant.

Table 3.2-4. EDCAQMD Air Quality Significance Thresholds

Pollutant	Construction	Operation
Criteria Pollutants Mass Daily Thresholds		
ROG	82 lbs/day	82 lbs/day
NO_x	82 lbs/day	82 lbs/day

Source: EDCAQMD 2002.
Notes: EDCAQMD = El Dorado County Air Quality Management District; lb/day = pounds per day; ROG = Reactive Organic Gases; NO_x = nitrogen oxides

Regarding dust particulates, the EDCAQMD Guide to Air Quality Assessment includes a screening method to determine it fugitive dust PM_{10} is less than significant based on implementation of mitigation measures "that will prevent visible dust beyond the project property lines, in compliance with Rule 403 of the South Coast AQMD" (EDCAQMD 2002). As $PM_{2.5}$ is a subset of PM_{10} emissions, if PM_{10} emissions are controlled to a less-than-significant level, then $PM_{2.5}$ levels would also be anticipated to be less than significant.

For TACs, the following two alternative significance criteria from the EDCAQMD are used. Exceeding either of these criteria will lead to a conclusion that a project has a significant impact with respect to TACs:

1. Cancer Risk: The lifetime probability of contracting cancer of greater than 10 in 1 million; or
2. Non-Cancer Risk: Hazard Index of 1 or more for acute (short-term) and chronic (long-term) effects.[3]

For context, the National Cancer Institute estimates that approximately 39.5% of people will be diagnosed with cancer during their lifetimes (National Cancer Institute 2020). A cancer risk of 10 in a million indicates that a person has an additional risk of 10 chances in a million (0.001%) of developing cancer during their lifetime as a result of the air pollution scenario being evaluated, which is minimal and defined as the "No Significant Risk Level" for carcinogens in Proposition 65.

Construction

The impact analysis is based on the Air Quality and Greenhouse Gas Impact Analysis report prepared by Raney Planning and Management, Inc. in April 2024 and an updated memorandum prepared in December 2024 to evaluate the Active Adult option (Appendix B). Emissions from the construction phase of the project were estimated using the most current version of the California Emissions Estimator Model (CalEEMod) 2022.1.1.21. Construction scenario assumptions, including phasing, equipment mix, and vehicle trips, were based on information provided by the project applicant and CalEEMod default values when project specifics were not known.

[3] Non-cancer adverse health risks are measured against a hazard index, which is defined as the ratio of the predicted incremental exposure concentrations of the various noncarcinogens from the Project to published reference exposure levels that can cause adverse health effects.

For purposes of estimating project emissions and based on information provided by the project applicant, it was assumed that construction would commence in June 2025[4] and would last until August 2028.

In addition, California has recently amended the In-Use Off-Road Diesel-Fueled Fleets Regulation, which requires the use of renewable diesel fuel in all off-road equipment greater than 25 horsepower. CalEEMod does not include renewable diesel as a fuel type for off-road equipment. As such, off-model calculations were conducted to determine the emissions reduction associated with renewable diesel-powered off-road equipment anticipated to be used during project construction.

The construction equipment mix and vehicle trips used for estimating the project-generated construction emissions are shown in Table 3.2-5.

Table 3.2-5. Construction Scenario Assumptions

Construction Phase	One-Way Vehicle Trips			Equipment		
	Average Daily Worker Trips	Average Daily Vendor Truck Trips	Average Daily Haul Truck Trips	Equipment Type	Quantity	Usage Hours
Grading	20	0	0	Graders	1	8
				Excavators	2	8
				Tractors/Loaders/ a/Backhoes	2	8
				Scrapers	2	8
				Rubber Tired Dozers	1	8
Building Construction	333	99	0	Forklifts	2	8
				Generator Sets	1	8
				Cranes	1	7
				Welders	1	8
				Tractors/Loaders/ a/Backhoes	3	7
Paving	15	0	0	Pavers	2	8
				Paving Equipment	2	8
				Rollers	2	8
Architectural Coating	67	0	0	Air Compressors	1	6

Notes: See Appendix B for details.

Construction of project components would be subject to EDCAQMD Rule 223-1 – Fugitive Dust Control. This rule requires that project construction follows steps to restrict visible emissions of fugitive dust beyond the property line. Compliance with Rule 223-1 would limit fugitive dust (PM_{10} and $PM_{2.5}$) that may be generated during grading and

[4] The analysis assumes a construction start date of June 2025, which represents the earliest date construction would initiate. Assuming the earliest start date for construction represents the worst-case scenario for criteria air pollutant and GHG emissions because equipment and vehicle emission factors for later years would be slightly less due to more stringent standards for in-use off-road equipment and heavy-duty trucks, as well as fleet turnover replacing older equipment and vehicles in later years.

construction activities. To reflect compliance with Rule 223-1, it was assumed exposed areas on the project site would be watered two times per day (55% reduction in PM_{10} and $PM_{2.5}$).

Operation

Emissions from the operational phase of the proposed project were estimated using CalEEMod Version 2022.1.1.21. Operational year 2028 was assumed consistent with completion of project construction.

Area Sources

CalEEMod was used to estimate operational emissions from area sources, including emissions from consumer product use, architectural coatings, and landscape maintenance equipment. Emissions associated with natural gas usage in space heating and water heating are calculated in the building energy use module of CalEEMod, as described in the following text.

CalEEMod estimates direct emissions from hearths (fireplaces) and woodstoves and includes default values for residential land uses and estimates natural gas fireplace emissions based on emission factors from AP-42. Notably, the project is not permitted to provide wood burning devices, therefore it was assumed that all hearths would be natural gas.

Consumer products are chemically formulated products used by household and institutional consumers, including detergents; cleaning compounds; polishes; floor finishes; cosmetics; personal care products; home, lawn, and garden products; disinfectants; sanitizers; aerosol paints; and automotive specialty products. Other paint products, furniture coatings, or architectural coatings are not considered consumer products (CAPCOA 2022). Consumer product VOC emissions are estimated in CalEEMod based on the floor area of nonresidential buildings and on the default factor of pounds of VOC per building square foot per day. For parking lot land uses, CalEEMod estimates VOC emissions associated with use of parking surface degreasers based on a square footage of parking surface area and pounds of VOC per square foot per day.

VOC off-gassing emissions result from evaporation of solvents contained in surface coatings such as in paints and primers used during building maintenance. CalEEMod calculates the VOC evaporative emissions from application of nonresidential surface coatings based on the VOC emission factor, the building square footage, the assumed fraction of surface area, and the reapplication rate. The VOC emission factor is based on the VOC content of the surface coatings, and EDCAQMD Rule 215 (Architectural Coatings) governs the VOC (or ROG) content for interior and exterior coatings. The model default reapplication rate of 10% of area per year is assumed. Consistent with CalEEMod defaults, it is assumed that the nonresidential surface area for painting equals 2.0 times the floor square footage, with 75% assumed for interior coating and 25% assumed for exterior surface coating (CAPCOA 2022). For the parking lot, the architectural coating area is assumed to be 6% of the total square footage, consistent with the supporting CalEEMod studies provided as an appendix to the CalEEMod User's Guide (CAPCOA 2022).

Landscape maintenance includes fuel combustion emissions from equipment such as lawn mowers, rototillers, shredders/grinders, blowers, trimmers, chain saws, and hedge trimmers. The emissions associated from landscape equipment use are estimated based on CalEEMod default values for emission factors (grams per square foot of nonresidential building space per day) and number of summer days (when landscape maintenance would generally be performed) and winter days. For the County, the average annual "summer" days are estimated to be 180 (CAPCOA 2022).

Energy Sources

As represented in CalEEMod, energy sources include emissions associated with building electricity and natural gas usage (non-hearth). Electricity use would contribute indirectly to criteria air pollutant emissions; however, the emissions from electricity use are only quantified for greenhouse gases in CalEEMod, because criteria pollutant emissions occur at the site of the power plant, which is typically off-site. Therefore, for the purposes of the air quality analysis, the energy source parameters focus on criteria air pollutants generated as a result of natural gas consumption within the built environment. Natural gas consumption is attributed to systems like heating, ventilation, air conditioning (HVAC), and water heating. As discussed in Section 3.7, Greenhouse Gas Emissions, the project is subject to Mitigation Measure GHG-1 which would require the project to be an all-electric development unless the requirement is not enforceable or commercially infeasible at the time of issuance of building permit(s). If infeasible, the project applicant shall require future residential homebuilders to include pre-wiring in all residential units and neighborhood commercial space (if approved as part of the CVSP) to allow future retrofit of all natural gas appliances with all-electric appliances and purchase off-site mitigation credits or forecasted mitigation units ("FMUs") (collectively, "GHG credits") for project-related greenhouse gas (GHG) emissions from the component(s) using natural gas instead of electric.

Mobile Sources

Mobile sources for the project would be motor vehicles (e.g., automobiles) traveling to and from the project site. Motor vehicles may be fueled with gasoline, diesel, or alternative fuels. Default vehicle trip generation rates included in CalEEMod for all land uses were adjusted to match the trip generation rates and vehicle miles traveled (VMT) presented in the transportation assessment prepared for the project (Appendix H). CalEEMod default data, including trip lengths and emissions factors were used for the model inputs to estimate daily emissions from proposed mobile sources. Emission factors representing the vehicle mix and emissions for 2028 were used to estimate emissions associated with operation of the project.

Construction Health Risk Assessment

A construction HRA was performed to evaluate potential health risk associated with construction of the project. The following discussion summarizes the dispersion modeling and HRA methodology; supporting construction HRA documentation, including detailed assumptions, is presented in Appendix B.

To analyze potential health risks to nearby sensitive receptors that could result from DPM emissions from off-road equipment at the project site, total DPM emissions from project construction were estimated. DPM is considered a subset of $PM_{2.5}$, thus, the CalEEMod estimated $PM_{2.5}$ emissions from exhaust during construction was assumed to conservatively represent all DPM emitted on-site.

The CalEEMod estimated $PM_{2.5}$ exhaust emissions were used to calculate the concentration of DPM at the maximally exposed sensitive receptor near the project site and the off-site improvement areas. DPM concentrations resulting from project implementation were estimated using the American Meteorological Society/Environmental Protection Agency (AMS/EPA) Regulatory Model (AERMOD). In addition, the following information was input into the AMS/EPA AERMOD Model:

- The latest 5-year meteorological data was sourced from the Sacramento Executive Airport;
- Surrounding area receptors were placed in polygon grid pattern with the closest receptors (i.e., within 0.25-mile radius) placed five meters apart, and farther receptors placed 10 or 15 meters apart as distance increases;

- Volume sources were placed over the entire disturbance area, including the project site and the off-site improvement disturbance areas in a grid of approximately four sources per acre;
- Volume sources were assumed to have a release height of five meters, the initial lateral dimension was assumed to be 29.59 meters, and the initial vertical dimension was assumed to be one meter; and
- Construction was assumed to occur seven days per week for 12 hours per day, based on Section 130.37.020 of the County Code.

The associated cancer risk and non-cancer hazard index were calculated using the CARB's Hotspot Analysis Reporting Program Version 2 (HARP 2) Risk Assessment Standalone Tool (RAST), which calculates the cancer and non-cancer health impacts using the risk assessment guidelines of the 2015 OEHHA Guidance Manual for Preparation of Health Risk Assessments.[5] The modeling was performed in accordance with the USEPA's User's Guide for the AERMOD[6] and the 2015 OEHHA Guidance Manual. The results of the dispersion modeling are included as Figure 6 of the Air Quality and Greenhouse Gas Impact Analysis report (Appendix B).

Project Development Options

As described in Chapter 2, Project Description, the project includes two development options. The first option would be to convert the 1.8-acres of neighborhood commercial to park uses if neighborhood commercial is not adopted as part of the Specific Plan. This would result in a slight reduction in construction and operation emissions but would not change any impact conclusions. The second option proposes construction of up to 768 age-restricted units and 150 conventional homes ("Active Adult" option). Air quality impacts associated with the Active Adult option were analyzed in the December 5, 2024, *Creekside Village Specific Plan Project – Active Adult Option Technical Memorandum* (Active Adult Technical Memorandum) included in Appendix B. Construction emissions would essentially be the same as the proposed project under the Active Adult option; therefore, the impact analysis below indicates whether the Active Adult option would result in a change in impact significance or require new mitigation.

Project Impacts

Impact 3.2-1. The proposed project would conflict with or obstruct implementation of the applicable air quality plan.

As mentioned previously in Section 3.2.2, the MCAB is currently non-attainment for the O_3 CAAQS and NAAQS, as well as the CAAQS for PM_{10} and the $PM_{2.5}$ NAAQS. While an air quality plan exists for O_3, none currently exists for PM_{10} and the $PM_{2.5}$ Maintenance Plan is in the process of being resubmitted based on meeting the NAAQS standards. The Ozone Attainment Plan was developed for application within the Sacramento region, including the MCAB portion of the County (EDCAQMD *et al*. 2017). If a project can demonstrate consistency with the Ozone Attainment Plan for ROG and NO_x emissions, it would be determined that it would not have a significant cumulative impact with respect to O_3.

[5] Office of Environmental Health Hazard Assessment. Air Toxics Hot Spots Program Risk Assessment Guidelines, Guidance Manual for Preparation of Health Risk Assessments [pg. 8-18]. February 2015.

[6] U.S. Environmental Protection Agency. User's Guide for the AMS/EPA Regulatory Model (AERMOD). December 2016.

Projects within the MCAB portion of the County must demonstrate Ozone Attainment Plan consistency with the following four indicators:

- The project does not require a change in the existing land use designation (e.g., a general plan amendment or rezone), or projected emissions of ROG and NO_x from a project are equal to or less than the emissions anticipated for the site if development under the existing land use designation;
- The project does not exceed the "project alone" significance criteria;
- The lead agency for the project requires the project to implement any applicable emission reduction measures contained in and/or derived from the Ozone Attainment Plan; and
- The project complies with all applicable district rules and regulations.

The first way to assess project compliance with the Ozone Attainment Plan is to ensure that the population density and land uses are consistent with the growth assumptions used in the plans for the MCAB. The project is proposing development of up to 918 dwelling units and based on the County's current average of 2.52 persons per household (PPH), the project would generate a total of 2,314 new residents at buildout. The proposed project was not included as a specific plan area in the County's General Plan, although development of the project site with research and development uses has been assumed in the County's General Plan since approval of the El Dorado Hills Business Park in the 1980s. The project site is included in an Established Communities type of the SACOG MTP/SCS, which estimates that approximately 3,300 homes are projected to occur in the Established Communities areas within the county and, of the anticipated growth in Established Communities, approximately 70% is anticipated in the El Dorado Hills community (2,330 new homes in the Established Communities area of El Dorado County by 2040). Relative to only the unincorporated county (e.g., not including Placerville or South Lake Tahoe) population of 159,108 in 2020, this would be an approximate 1.5% increase in the unincorporated county population. Considering that the proposed project would not be fully built out until 2030 or later, population growth from the project would occur gradually over the years as new homes are built on the site. Furthermore, based on the results of the VMT Analysis included in Section 3.12, Transportation, the residential component of the project is anticipated to generate 13.6 VMT per capita for the Baseline (2018) Condition, and 13.1 VMT per capita for the Cumulative (2040) Condition, which is below the 17.3 VMT per capita threshold. Under the Active Adult option this would likely be further reduced given that age-restricted housing generates fewer trips compared to traditional housing. Trip generation and VMT associated with the project are consistent with other projects of similar scale and configuration elsewhere in the county.

The second criterion assesses a project's contribution to existing air quality violations. As discussed in Impact 3.2-2 below, it was determined that construction of the project would not exceed the EDCAQMD significance thresholds for ROG and NO_x emissions. However, the project would contribute to an air quality violation because operational emissions would exceed the EDCAQMD thresholds of significance for ROG emissions even with implementation of mitigation measure AQ-2. As such, the project would exceed the "project alone" significance criteria established by the EDCAQMD.

The final criterion is compliance with the EDCAQMD rules and regulations. The EDCAQMD has adopted rules designed specifically to address a variety of air quality impacts through measures that construction and operational related air quality emissions. The project would be required by law to comply with all applicable rules and regulations.

Based on these considerations, since the project exceeds the EDCAQMD significance threshold for ROG emissions during operations, the project could conflict with or obstruct implementation of an applicable air quality plan and the impact would be **potentially significant**.

Active Adult Option

Under the Active Adult option, reductions in operational emissions would occur due to the reduction in vehicle trips from future residents (see Section 3.12, Transportation). However, as discussed in Impact 3.2-2 below, this reduction in operational emissions would not bring ROG emissions below the EDCAQMD threshold; therefore, under this option the project would still exceed the "project alone" significance criteria established by the EDCAQMD and the impact is **potentially significant**.

Mitigation Measures

See mitigation measure AQ-2. Compliance with this mitigation would reduce emissions of ROG during project operations, including under the Active Adult option. However, as presented in Table 3.2-9, ROG emissions would still be above the applicable EDCAQMD threshold of significance, including under the Active Adult option. Mitigation measure AQ-2 represents all feasible mitigation to reduce project-generated ROG emissions. Therefore, even with implementation of mitigation measure AQ-2, the impact would remain **significant and unavoidable**.

AQ-1: Implement mitigation measure AQ-2.

Impact 3.2-2. The proposed project would result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard.

According to the CEQA Guidelines, an air quality impact may be considered significant if project implementation would result in, or potentially result in, conditions, which violate any existing local, state or federal air quality regulations. In order to evaluate ozone and other criteria air pollutant emissions and support attainment goals for those pollutants designated as nonattainment in the area, the EDCAQMD has established significance thresholds associated with development projects for emissions of ROG and NO_x emissions. If a project would result in mass emissions in excess of the thresholds of significance, the project could affect the EDCAQMD's commitment to attainment of the federal AAQS for ozone and, thus, could result in a significant adverse impact on air quality in the region.

Thresholds for PM_{10} or other pollutants, including CO, PM, SO_2, NO_2, sulfates, lead, and H_2S, have not yet been established by the EDCAQMD. However, a project could be considered to have a significant impact on air quality if it would cause or contribute significantly to a violation of the applicable AAQS. According to the EDCAQMD CEQA Guide, if construction-related ROG and NO_X mass emissions are determined to be less than significant, the assumption could be made that construction-related exhaust emissions of other air pollutants from the operation of equipment and worker commute vehicles would also be less than significant. Similarly, according to EDCAQMD's operational screening levels for CO and PM_{10}, if a project is anticipated to be below significance for ROG and NO_X, the project's CO and PM_{10} emissions are expected to be insignificant as well.

Proposed construction activities would result in the temporary addition of pollutants to the local airshed caused by on-site sources (i.e., off-road construction equipment, soil disturbance, and VOC off-gassing from architectural coatings and asphalt pavement application) and off-site sources (i.e., on-road haul trucks, delivery trucks, and worker vehicle trips). Construction emissions can vary substantially from day to day, depending on the level of activity, the specific type of operation, and for dust, the prevailing weather conditions. Therefore, such emissions levels can only be estimated, with a corresponding uncertainty in precise ambient air quality impacts.

The EDCAQMD screening approach for fugitive dust (PM_{10}) emissions is based on dust suppression measures that would prevent visible emissions beyond the boundaries of the project site. If such measures are incorporated into the design of the project, then further calculation to determine PM_{10} emissions is not necessary. All construction activities that would result in the disturbance of soil occurring within the County are subject to EDCAQMD Rule 223 related to fugitive dust. Rule 223 includes requirements related to visible emissions, vehicle speed limits on unpaved roads, and cessation of certain construction activities during times of sustained, wind caused dust emissions. Compliance with the requirements of Rule 223 would ensure that measures sufficient to prevent visible emissions beyond the boundaries of the project site would be implemented. Accordingly, fugitive dust emissions are not anticipated to result in visible emissions beyond the boundaries of the project site and further calculation to determine PM_{10} emissions is not necessary.

The application of architectural coatings, such as exterior application/interior paint and other finishes, and application of asphalt pavement would also produce ROG emissions; however, the contractor is required to procure architectural coatings from a supplier in compliance with the requirements of EDCAQMD Rules 215 (Architectural Coatings) and 224 (Cutback and Emulsified Asphalt Paving Materials).

Estimated unmitigated construction-related emissions are presented in Table 3.2-6. Details of the emission calculations are provided in Appendix B.

Table 3.2-6. Estimated Maximum Daily Construction Criteria Air Pollutant Emissions - Unmitigated

	ROG	NO_x
	Pounds per Day	
Project Emissions	50.51	33.29
Emission threshold	*82*	*82*
Threshold Exceeded?	**No**	**No**

Source: Appendix B.
Notes: ROG = reactive organic gases; NO_x = oxides of nitrogen.

As shown in Table 3.2-6, maximum daily construction emissions would not exceed the significance thresholds for ROG and NO_x during construction emissions (and thus exhaust CO, SO_x, PM_{10}, and $PM_{2.5}$ would also be less than significant for construction). Because the proposed project's estimated unmitigated construction emissions would be below the applicable EDCAQMD thresholds of significance, construction activities associated with development of the proposed project would not substantially contribute to the EDCAQMD's nonattainment status for ozone. The Active Adult Technical Memorandum (Appendix B) concluded that construction emissions under this option would remain the same as the proposed project. Accordingly, construction of the proposed project or the Active Adult option would not violate any AAQS or contribute substantially to an existing or projected air quality violation, and the impact is **less than significant**.

Operation

Operation of the project would generate criteria pollutant emissions from mobile sources (vehicular traffic), area sources (consumer products, architectural coatings, and landscaping equipment). CalEEMod was used to estimate daily emissions from project-related operational sources. Table 3.2-7 summarizes the operational emissions criteria pollutants that would be generated from the project. Operational emissions were then compared to the EDCAQMD operational thresholds.

Table 3.2-7. Estimated Maximum Daily Operational Criteria Air Pollutant Emissions - Unmitigated

	ROG	NO_x
	Pounds per Day	
Project Emissions	100.00	51.20
Emission threshold	*82*	*82*
Threshold Exceeded?	**Yes**	**No**

Source: See Appendix B for complete results.
Notes: ROG = reactive organic gases; NO_x = oxides of nitrogen.

As shown in Table 3.2-7, unmitigated operational emissions would fall below the EDCAQMD's thresholds of significance for NO_X and would exceed the threshold of significance for ROG. Considering the modeled operational emissions of ROG would exceed the adopted EDCAQMD thresholds of significance operations of the proposed project could violate an AAQS or contribute substantially to an existing or projected air quality violation, and a **potentially significant impact** could occur.

Active Adult Option

Under the Active Adult option, reductions in emissions would occur due to the reduction in vehicle trips from future residents. Based on the reduced trip generation rates, the Active Adult Technical Memorandum estimated operational emissions associated using CalEEMod version 2022.1.1.29. As demonstrated in Table 3.2-8 below, the Active Adult option would have a 15.1 lb/day reduction in ROG, which would not bring the ROG emissions below the EDCAQMD threshold. The Active Adult option would reduce NO_x by 3.8 lbs/day and, similar to the proposed project, would remain under the EDCAQMD threshold. ROG emissions would exceed the EDCAQMD threshold and result in a **potentially significant impact**.

Table 3.2-8. Active Adult Option Estimated Maximum Daily Operational Criteria Air Pollutant Emissions - Unmitigated

	ROG	NO_x
Year	Pounds per Day	
Proposed Project Emissions	100	51.20
Active Adult Option Emissions	84.9	47.4
Reduction	*-15.1*	*-3.8*
Emission threshold	*82*	*82*
Threshold Exceeded?	**Yes**	**No**

Source: Appendix B.
Notes: ROG = reactive organic gases; NO_x = oxides of nitrogen.

Mitigation Measures

Implementation of mitigation measure AQ-2, which requires that only paints with no volatile organic compounds (VOCs) be used on-site, would reduce emissions of ROG. However, the majority of ROG emissions would be generated by mobile sources and consumer products (e.g., deodorants, cleaning products, spray paint, etc.). As shown in Table 3.2-9, ROG emissions would still be above the applicable EDCAQMD threshold of significance. Feasible mitigation does not exist to reduce ROG emissions related to mobile sources and consumer products for

the project, including the Active Adult option. Mitigation measure AQ-2 represents all feasible mitigation available to reduce project-generated ROG emissions. Therefore, even with implementation of mitigation measure AQ-2, the impact would remain **significant and unavoidable**.

Table 3.2-9. Estimated Maximum Daily Operational Criteria Air Pollutant Emissions - Mitigated

	ROG	NO_x
Year	Pounds per Day	
Project Emissions	90.90	51.20
Emission threshold	*82*	*82*
Threshold Exceeded?	**Yes**	**No**

Source: See Appendix B for complete results.
Notes: ROG = reactive organic gases; NO_x = oxides of nitrogen.

AQ-2: Prior to the issuance of building permits, the project applicant shall ensure that all initial and ongoing interior and exterior architectural coatings (i.e., paints) associated with the proposed project have no volatile organic compounds (VOCs). A note stating products containing VOCs shall not be allowed shall be provided on the project's Improvement Plans and on the Informational Sheet filed with Final Subdivision Map(s) for review and approval by the El Dorado County Planning Department. Verification of the ongoing use of no VOC architectural coatings shall be ensured in perpetuity by the project's proposed homeowner's association (HOA) and shall be included in the HOA's Conditions, Covenants and Restrictions (CC&Rs).

In addition, a green cleaning product education program shall be made available to all residents and commercial tenants of the proposed project. The program shall include free educational materials such as brochures, pamphlets, checklists, etc., that provide information regarding the proper use of green cleaning products to be provided in information provided by the home buyer or commercial tenant.

Impact 3.2-3. The proposed project would expose sensitive receptors to substantial pollutant concentrations.

Some land uses are considered more sensitive to air pollution than others, due to the types of population groups or activities involved. Heightened sensitivity may be caused by health problems, proximity to the emissions source, and/or duration of exposure to air pollutants. Children, pregnant women, the elderly, and those with existing health problems are especially vulnerable to the effects of air pollution. Sensitive receptors are typically defined as facilities where sensitive receptor population groups (i.e., children, the elderly, the acutely ill, and the chronically ill) are likely to be located. Accordingly, land uses that are typically considered to be sensitive receptors include residences, schools, playgrounds, childcare centers, retirement homes, convalescent homes, hospitals, and medical clinics. The nearest sensitive receptors to the project site are the single-family residences across Latrobe Road, approximately 100 feet east of the project site, as well as single-family residences along the east side of Latrobe Road, near where proposed offsite improvements would be constructed. John Adams Academy is also located approximately 1,000 feet north of the project site. It should also be noted that an active adult (55 and older)

residential development is under construction to the west of the project site and would be a continuation of the active adult Heritage community located to the northwest of the project site.

The major pollutant concentrations of concern are localized CO emissions and TAC emissions, which are addressed in further detail below.

Localized CO Emissions

Localized concentrations of CO are related to the levels of traffic and congestion along streets and at intersections. Traffic congestion near a roadway's intersection with vehicles moving slowly or idling could result in localized CO emissions at that intersection due to a vehicle engine's inefficient combustion. High levels of localized CO concentrations are only expected where background levels are high, and traffic volumes and congestion levels are high. Accordingly, a land use project could result in impacts associated with localized CO concentrations at roadway intersections if the project generates substantial traffic.

The MCAB has been in attainment for CO for multiple years. Due to the continued attainment of CAAQS and NAAQS, and advances in vehicle emissions technologies, the likelihood that any single project would create a CO hotspot is minimal. In addition, the proposed project would include several offsite intersection improvements at Latrobe Road/Town Center Boulevard, Royal Oaks Drive/Latrobe Road, and Avanti Drive/Latrobe Road. As discussed in the Transportation Impact Study prepared for the proposed project (Appendix H), with implementation of the intersection improvements, the proposed project is not anticipated to cause new, or worsen existing, traffic deficiencies on project area roadways. Furthermore, enhanced fuel economies realized pursuant to federal and state regulatory actions, and related transition of vehicles to alternative energy sources (e.g., electricity, natural gas, biofuels, hydrogen cells) would likely decrease CO emissions. Therefore, given that high levels of localized CO concentrations are only expected where background levels are high, and traffic volumes and congestion levels are high, the proposed project would not be anticipated to generate localized CO emissions that would contribute to an exceedance of AAQS and/or expose sensitive receptors to substantial concentrations of localized CO.

Construction Health Risk

Another category of environmental concern is TACs. The CARB's *Air Quality and Land Use Handbook: A Community Health Perspective* (CARB 2005) provides recommended setback distances for sensitive land uses from major sources of TACs, including, but not limited to, freeways and high traffic roads, distribution centers, and rail yards. The CARB has identified DPM from diesel-fueled engines as a TAC; thus, high volume freeways, stationary diesel engines, and facilities attracting heavy and constant diesel vehicle traffic are identified as having the highest associated health risks from DPM. DPM is the solid material in diesel exhaust, more than 90% of such material is less than one micrometer in diameter, and, thus, DPM is a subset of the $PM_{2.5}$ category of pollutants. Health risks associated with TACs are a function of both the concentration of emissions and the duration of exposure, where the higher the concentration and/or the longer the period of time that a sensitive receptor is exposed to pollutant concentrations would correlate to a higher health risk.

The proposed project would not involve any land uses or operations that would be considered major sources of TACs, including DPM. As such, the proposed project would not generate any substantial pollutant concentrations during operations.

However, short-term, construction-related activities could result in the generation of TACs, primarily DPM, from on-road haul trucks and off-road equipment exhaust emissions. Although DPM emissions from on-road haul trucks

would be reduced with the use of renewable diesel and would be widely dispersed throughout the project site and surrounding vicinity as haul trucks move goods and material to and from the site, exhaust from off-road equipment would primarily occur within the project site. As noted previously, the nearest sensitive receptors are located approximately 100 feet east of the project site, as well as along the east side of Latrobe Road, near where offsite improvements are proposed. In addition, an active adult (55 and older) residential development is under construction to the west of the project site that would be a continuation of the active adult Heritage community to the northwest of the project site. Consequently, the operation of off-road equipment within the project site during project construction could result in exposure of nearby residents to DPM.

EDCAQMD has established significance criteria for local community risk and hazard impacts as a result of new sources of TACs. The EDCAQMD's thresholds for analyzing health risks from new sources of emissions are presented below:

1. The lifetime probability of contracting cancer is greater than one in one million (ten in one million if best available control technology for toxics [T-BACT] is applied); or
2. The ground-level concentration of non-carcinogenic toxic air contaminants would result in a Hazard Index of greater than 1.

As stated above, the foregoing thresholds are generally intended for use when analyzing the operation of new proposed sources of TACs. Although the proposed project would not involve the siting or operation of any permanent sources of TACs, in the absence of specific thresholds to analyze health risks from short-term projects, the EDCAQMD thresholds are applied to the project, for construction specifically.

Based on the methodology discussed in Section 3.2.3, the cancer risk and non-cancer hazard indices were estimated for the maximally exposed individual receptor and are presented in Table 3.2-10. As shown in Table 3.2-10, construction of the proposed project would not result in any health impacts in excess of the EDCAQMD's standards.

Table 3.2-10. Construction Health Risk Assessment Results – Unmitigated

Impact Parameter	Units	Project Impact	CEQA Threshold	Level of Significance
Cancer Risk – MEIR	Per Million	2.06	10.0	Less than Significant
Acute Hazard Index - MEIR	Not Applicable	0.00	1.0	Less than Significant
Chronic Hazard Index – MEIR	Not Applicable	0.001	1.0	Less than Significant

Source: See Appendix B.
Notes: CEQA = California Environmental Quality Act; MEIR = Maximally Exposed Individual Receptor.

Naturally Occurring Asbestos

When rock containing naturally occurring asbestos (NOA) is broken or crushed, asbestos may become released and become airborne, causing a potential health hazard. Asbestos is a known carcinogen and, thus, NOA is considered a TAC.

According to the El Dorado County Naturally Occurring Asbestos Review Map (EDCAQMD 2018), the project site is not within an Asbestos Review Area. Thus, the site is not expected to contain NOA and impacts associated with potential exposure to NOA would not occur.

Health Impacts of Other Criteria Air Pollutants

Project construction and operation would not exceed significance thresholds for ROG, NOx, CO, SO_x, PM_{10}, or $PM_{2.5}$. ROG and NO_x are precursors to O_3, for which the MCAB is designated as nonattainment with respect to the NAAQS and CAAQS. The health effects associated with O_3 are generally associated with reduced lung function. The contribution of ROGs and NO_x to regional ambient O_3 concentrations is the result of complex photochemistry. The increases in O_3 concentrations in the MCAB due to O_3 precursor emissions tend to be found downwind from the source location to allow time for the photochemical reactions to occur. However, the potential for exacerbating excessive O_3 concentrations would also depend on the time of year that the VOC emissions would occur because exceedances of the O_3 CAAQS/NAAQS tend to occur between April and October when solar radiation is highest. The holistic effect of a single project's emissions of O_3 precursors is speculative due to the lack of quantitative methods to assess this impact. That being said, because the project would exceed the EDCAQMD ROG threshold during project operations, the project could still contribute to health effects associated with O_3.

Operation of the proposed project would not contribute to exceedances of the NAAQS and CAAQS for NO_2. Health effects that result from NO_2 and NO_x include respiratory irritation, which could be experienced by nearby receptors during the periods of heaviest use of off-road construction equipment. However, project construction would be relatively short term, and off-road construction equipment would be operating at various portions of the site and would not be concentrated in one portion of the site at any one time. In addition, existing NO_2 concentrations in the area are well below the NAAQS and CAAQS standards. Because project generated NO_x emissions would not exceed the significance threshold, the proposed project would not result in potential health effects associated with NO_2 and NO_x.

CO tends to be a localized impact associated with congested intersections. The associated potential for CO hotspots was discussed previously and determined to be a less-than-significant impact. Furthermore, the existing CO concentrations in the area are well below the NAAQS and CAAQS standards. Thus, the proposed project's CO emissions would not contribute to significant health effects associated with this pollutant.

Construction and operation of the project were also determined to not result in significant emissions of PM_{10} or $PM_{2.5}$ and would not contribute to exceedances of the NAAQS and CAAQS for particulate matter or would obstruct the MCAB from coming into attainment for these pollutants. The proposed project would also not result in substantial DPM emissions during construction and operation, and therefore, would not result in significant health effects related to DPM exposure. Additionally, the proposed project would implement dust control strategies and be required to comply with EDCAQMD Rule 223-1, Fugitive Dust, which limits the amount of fugitive dust generated during construction. Due to the minimal contribution of particulate matter during construction and operation, the proposed project is not anticipated to result in health effects associated with PM_{10} or $PM_{2.5}$.

Based on the preceding considerations, construction of the project would not exceed the EDCAQMD significance thresholds for ROG and NO_x. However, because operation of the project would result in the emissions of criteria air pollutants that would exceed the applicable EDCAQMD significance thresholds for ROG emissions, and because the EDCAQMD thresholds are based on levels that the MCAB can accommodate without affecting the attainment date for the NAAQS and CAAQS, and the NAAQS and CAAQS are established to protect public health and welfare, it is anticipated that the project could result in health effects associated with criteria air pollutants and the impact would be **potentially significant**.

Active Adult Option

As discussed under Impact 3.2-2, the Active Adult option would have a 15.1 lb/day reduction in ROG, which would not bring ROG emissions below the EDCAQMD threshold. Therefore, the Active Adult option would result in the same health effects associated with criteria air pollutants as the proposed project and the impact would be **potentially significant**.

Mitigation Measures

As discussed above, implementation of mitigation measure AQ-2 would reduce emissions of ROG during project operations which is a precursor for O_3. However, ROG emissions would still be above the applicable EDCAQMD threshold of significance, including under the Active Adult option. Mitigation measure AQ-2 represents all feasible mitigation to reduce project-generated ROG emissions. Therefore, even with implementation of mitigation measure AQ-2, the impact would remain **significant and unavoidable**.

AQ-3: Implement mitigation measure AQ-2.

Impact 3.2-4. The proposed project would not result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.

Emissions of pollutants have the potential to adversely affect sensitive receptors within the project area. Pollutants of principal concern include emissions leading to odors, emissions of dust, or emissions considered to constitute air pollutants. Air pollutants have been discussed under Impacts 3.2-1 through 3.2-3. Therefore, the following discussion focuses on emissions of odors and dust during construction and operation of the project which would not change under the Active Adult option.

Odors and Dust

Odors are generally regarded as an annoyance rather than a health hazard. Due to the subjective nature of odor impacts, the number of variables that can influence the potential for an odor impact, and the variety of odor sources, quantitative methodologies to determine the presence of a significant odor impact do not exist. Certain land uses such as wastewater treatment facilities, landfills, confined animal facilities, composting operations, food manufacturing plants, refineries, and chemical plants have the potential to generate considerable odors. The proposed project would not introduce any such land uses and is not located in the vicinity of any such existing or planned land uses.

Diesel fumes from construction equipment and heavy-duty trucks could be found to be objectionable; however, as addressed above, operation of construction equipment would be regulated by EDCAPCD rules and regulations, restricted to daylight hours per the County Code, Section 130.37.020 (I), and would occur intermittently throughout the course of a day. All construction equipment and operation thereof would be regulated per the statewide In-Use Off-Road Diesel Vehicle Regulation. In addition, construction is temporary and construction equipment would operate intermittently and would likely only occur over portions of the site at one time. As noted under Impact 3.2-3, the modeling performed for the HRA indicated that nearby receptors would not be subjected to substantial pollutant concentration. It follows that nearby receptors would also not be subjected to substantial odor concentrations. For the aforementioned reasons and due to the distance between the project site and the nearest sensitive receptors, the project would not result in any noticeable objectionable odors associated with construction.

As noted previously, project construction within the County is required to comply with all applicable EDCAQMD rules and regulations. EDCAMDD Rule 223 includes requirements to reduce fugitive dust emissions associated with construction activities, such as limiting vehicle speed limits on construction sites and unpaved roads, reducing dust track-out, and use of water for soil stabilization when warranted. Compliance with Rule 223 would ensure that measures sufficient to prevent emissions of fugitive dust beyond the boundaries of the project site would be implemented. Following project construction, vehicles operating within the project site would be limited to paved areas of the site, which would not have the potential to create substantial dust emissions. Thus, project operations would not include sources of dust that could adversely affect a substantial number of people.

EDCAQMD Rule 205, Nuisance, addresses the exposure of "nuisance or annoyance" air contaminant discharges, including odors, and provides enforcement of odor control. Rule 205 is complaint-based, where if public complaints are sufficient to cause the odor source to be considered a public nuisance, then the EDCAQMD is required to investigate the identified source, as well as determine and ensure a solution for the source of the complaint, which could include operational modifications to correct the nuisance condition. The project is not proposing any uses that would generate sources of odors. However, if odor or air quality complaints are made during project operation, the EDCAQMD would be required (per EDCAQMD Rule 205) to ensure that such complaints are addressed and mitigated, as necessary.

Therefore, construction and operation of the proposed project (including the Active Adult option) would not create objectionable odors (or dust) affecting a substantial number of people, and impacts would be **less than significant.**

Mitigation Measures

No mitigation measures are required.

Cumulative Impacts

The cumulative context of an air pollutant is dependent on the specific pollutant being considered. O_3 precursors are a regional pollutant; therefore, the cumulative context would be existing and future development within the entire MCAB. This means that O_3 precursors generated in one location do not necessarily have O_3 impacts in that area. Instead, precursors from across the region can combine in the upper atmosphere and be transported by winds to various portions of the MCAB. Consequently, all O_3 precursors generated throughout the MCAB are part of the cumulative context.

The geographic scope of the area for the project's cumulative analysis includes the County and surrounding areas within the SFNA for O_3. The SFNA includes the counties of Sacramento, Yolo, Solano (partial), Sutter (partial), Placer (except Lake Tahoe Air Basin), and El Dorado (except Lake Tahoe Air Basin). The Yolo-Solano Air Quality Management District (YSAQMD) establishes emissions thresholds for regional emissions for projects within its jurisdiction.

Impact 3.2-5. The proposed project could result in a cumulatively considerable net increase of any criteria pollutant for which the project area is in non-attainment under an applicable federal or state ambient air quality standard (including the release of emissions that exceed quantitative thresholds for ozone precursors).

Criteria Air Pollutants

As described in the EDCAQMD Guide to Air Quality Assessment, EDCAQMD's primary criterion for determining whether a project has significant cumulative impacts is whether the project is consistent with an approved plan or mitigation program of District-wide or regional application in place for the pollutants emitted by the project. This criterion is applicable to both the construction and operation phases of the project.

With respect to O_3, the Ozone Attainment Plan was developed to bring the region (including MCAB portion of El Dorado County) into attainment as required by the federal and California Clean Air Acts. The Ozone Attainment Plan shows the region is meeting the requirements under the Clean Air Act in demonstrating reasonable further progress and attainment of the standards. The Ozone Attainment Plan includes an updated emissions inventory, analyzes air quality trends, evaluates photochemical modeling results, and establishes new motor vehicle emission budgets for transportation conformity purposes. In addition, the Ozone Attainment Plan also documents the region's reasonably available control measure (RACM) analysis and vehicle miles traveled offset demonstration.

If a project can demonstrate consistency with the Ozone Attainment Plan for ROG and NO_x emissions, it can be categorized as not having a significant cumulative air quality impact with respect to O_3. As described under Impact 3.2-1, the project would not conflict with the growth assumptions for the region, would be consistent with all control measures of the Ozone Attainment Plan, and would comply with applicable EDCAQMD rules, however, the project would exceed the EDCAQMD significance thresholds after mitigation. Therefore, the cumulative impact of the project combined with other development in the SFNA related to O_3 would be significant and unavoidable.

For other pollutants such as CO, PM_{10} (including $PM_{2.5}$), SO_2, and NO_2, there is no applicable air quality plan containing growth elements. Accordingly, the EDCAQMD applies the following pollutant-specific criteria for determining the significance of cumulative impacts:

- **CO:** CO is an attainment pollutant in El Dorado County, and local CO concentrations are expected to decline even further in the future as more stringent CO standards for motor vehicles take effect. The EDCAQMD does not consider CO to be an area-wide or regional pollutant that is likely to have cumulative effects. Accordingly, CO emissions for a project will ordinarily be considered not cumulatively significant as long as "project alone" emissions are not significant. As identified in Impact 3.2-3, the project would result in less-than-significant project emissions of CO during construction and operations. CO emissions of the project would not be great enough to result in a significant contribution.
- **PM_{10}, SO_2, and NO_2:** The MCAB is nonattainment for the state 24-hour PM_{10} standard, which dictates the use of a relatively sensitive criterion for identifying cumulative effects on PM_{10} ambient concentrations. The County is in attainment for the SO_2 and NO_2 ambient air quality standards, but SO_2 and NO_2 can also contribute to area wide PM_{10} impacts through their transformation into sulfate and nitrate particulate aerosols. There is no readily available model for predicting the combined ambient effects of directly emitted PM_{10}, SO_2 and NO_2 emissions from individual impacts. The EDCAQMD has determined that a project will be considered not significant for cumulative impacts of PM_{10}, SO_2 and NO_2 if the following conditions are met:
  - The project is not significant for "project alone" emissions of these pollutants;
  - The project complies with all applicable rules and regulations of the EDCAQMD; and
  - The project is not cumulatively significant for ROG, NO_x, and CO based on the criteria set forth above.

As shown under Impact 3.2-2, the project would not exceed the EDCAQMD significance thresholds during construction, however, operational ROG emissions would exceed the EDCAQMD significance threshold after

implementation of mitigation measure AQ-2. The Active Adult option would also exceed the threshold for ROG so under this option the contribution would be essentially the same as the proposed project. Additionally, the project complies with all applicable rules and regulations of the EDCAQMD. As such, the project would have a **potentially significant cumulative contribution** for other criteria air pollutants.

Toxic Air Contaminants

According to the EDCAQMD, emissions of TACs are typically localized and not region wide. Except in cases where there is information indicating the possible comingling of TACs from projects that are contiguous or nearby, EDCAQMD considers implementation of the "project alone" mitigation requirements, and compliance with all applicable emission limits and mitigation measures required by EPA, CARB, EDCAQMD rules and regulations, and local ordinances, sufficient for a finding of not significant for cumulative impacts of TACs. The project would result in less than significant impacts with respect to exposure of sensitive receptors to TACs during both construction (after mitigation) and operation. In addition, the maximally exposed individual receptor upon which the localized impact determination is based would be different for the project and for other cumulative projects based on dispersion of TACs over distance from the source. As such, the maximum localized emissions from each project would not be additive at the same receptors. Further, related projects would be subject to CEQA (or have already been reviewed under CEQA) and would require air quality analysis and, where necessary, would implement all feasible mitigation if the project would exceed EDCAQMD thresholds. Overall, TACs emitted during project construction and operations (including the Active Adult option) would be **less than significant** and not cumulatively considerable.

Odors

Odors are a localized impact. As indicated in Impact 3.2-4, the project (including the Active Adult option) impact related to odor would be less than significant. Since the EDCAQMD does not have a specific regulation or rule that addresses objectionable odors, any actions related to odors would be based on public complaints made to the EDCAQMD. Additionally, all future projects, would be subject to EDCAQMD Rule 402 (Nuisances), which prohibits the discharge of air contaminants or other materials which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public; or which endanger the comfort, repose, health, or safety of any such persons or the public; or which cause, or have a natural tendency to cause, injury or damage to business or property. Therefore, cumulative impacts related to odor would be **less than significant.**

Mitigation Measures

As discussed above, implementation of mitigation measure AQ-2 would reduce emissions of ROG during project operations. However, as presented in Table 3.2-9, ROG emissions would still be above the applicable EDCAQMD threshold of significance. Mitigation measure AQ-2 represents all feasible mitigation to reduce project-generated ROG emissions. Therefore, even with implementation of mitigation measure AQ-2, the project's cumulative contribution would remain **significant and unavoidable***.*

AQ-4: Implement mitigation measure mitigation measure AQ-2.

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3.3 Biological Resources

This section describes the existing biological resources conditions present on the Creekside Village Specific Plan (proposed project or CVSP) project site and vicinity (plan area or project site), identifies associated regulatory requirements, evaluates project specific and cumulative impacts, and identifies mitigation measures for any significant impacts to biological resources related to implementation of the proposed project.

Comments received in response to the November 6, 2020, Notice of Preparation (NOP) and the follow up second scoping meeting held on September 26, 2023, included standard comments from the Central Valley Regional Water Quality Control Board. No concerns regarding biological resources were received, however, prior to the second scoping meeting the applicant had met with community members and committed to evaluate the Project's impacts on the Carson Creek Preserve and to ensure that the project would not cause significant negative impacts to biological resources at the Carson Creek Preserve and those same commitments were discussed at the second scoping meeting. A copy of the NOP and comments received is included in Appendix A.

The biological resources analysis is based on data and review of information contained in the Creekside Village Project Biological Resources Constraints Report (November 2023), the updated Biological Resources Constraints Memorandum Report (January 2025), and the Creekside Village Project Aquatic Resources Delineation Report (November 2023) prepared by Environmental Science Associates. In addition to the Oak Resources Technical Report prepared by Foothill Associates (January 2019), and the updated Oak Resources Technical Report also prepared by Foothill Associates (December 2024). All reports are provided in Appendix C. In addition, the El Dorado County General Plan (El Dorado County 2019) and associated environmental impact report (El Dorado County 2003) were also referenced to prepare this section.

3.3.1 Environmental Setting

Watershed and Hydrology

The project site is located on the boundary of two watersheds: the Carson Creek watershed which comprises the largest area in the northern and western vicinities of the project site, and the Upper Deer Creek watershed which comprises a small area in the southeast portion of the project site. A complete assessment of hydrology and water quality for the project site including a figure showing the boundaries of the watersheds is provided in Section 3.8, Hydrology and Water Quality. The discussion presented here is focused on wetlands and waters as regulated by state and federal agencies as well as the habitat value that these resources provide for plant and animal species.

Aquatic Resource Features

Aquatic resources within the project site were mapped on August 20, 2019, and January 13, 2021 (Appendix C). Aquatic features are ecologically complex systems and habitats for wildlife and plant species. Table 3.3-1 summarizes the aquatic resources identified within the project site and offsite areas. Aquatic resource features and associated habitat are described in further detail in the Vegetation Communities and Land Cover Types Section below. Note that all aquatic resources and their extent within the project site are preliminary until verified by the U.S. Army Corps of Engineers (USACE) and/or the Regional Water Quality Control Board (RWQCB).

Table 3.3-1. Aquatic Resources Identified within the Project Site and Offsite Area

Aquatic Resources Type	Project Site (acres)	Offsite Area (acres)	Total (acres)
Wetlands			
Seasonal Wetland[1]	1.65	0.03	1.68
Riparian Wetland	0.48	0.47	0.95
Vernal Pool	0.07	—	0.07
Waters			
Perennial Drainage (Carson Creek)	—	0.30	0.30
Intermittent Drainage (Riverine)	1.76	0.04	1.80
Ephemeral Drainage (Riverine)	2.05	0.08	2.13
Culvert	0.01	0.07	0.08
Ditch	0.01	—	0.01
Total	**6.02**	**0.99**	**7.00**

Source: Appendix C, Biological Resources Constraints Report (2025).
Note: [1] Includes seep, seasonal wetland, riverine seasonal wetland, and wetland swale.
Totals may not sum due to rounding.

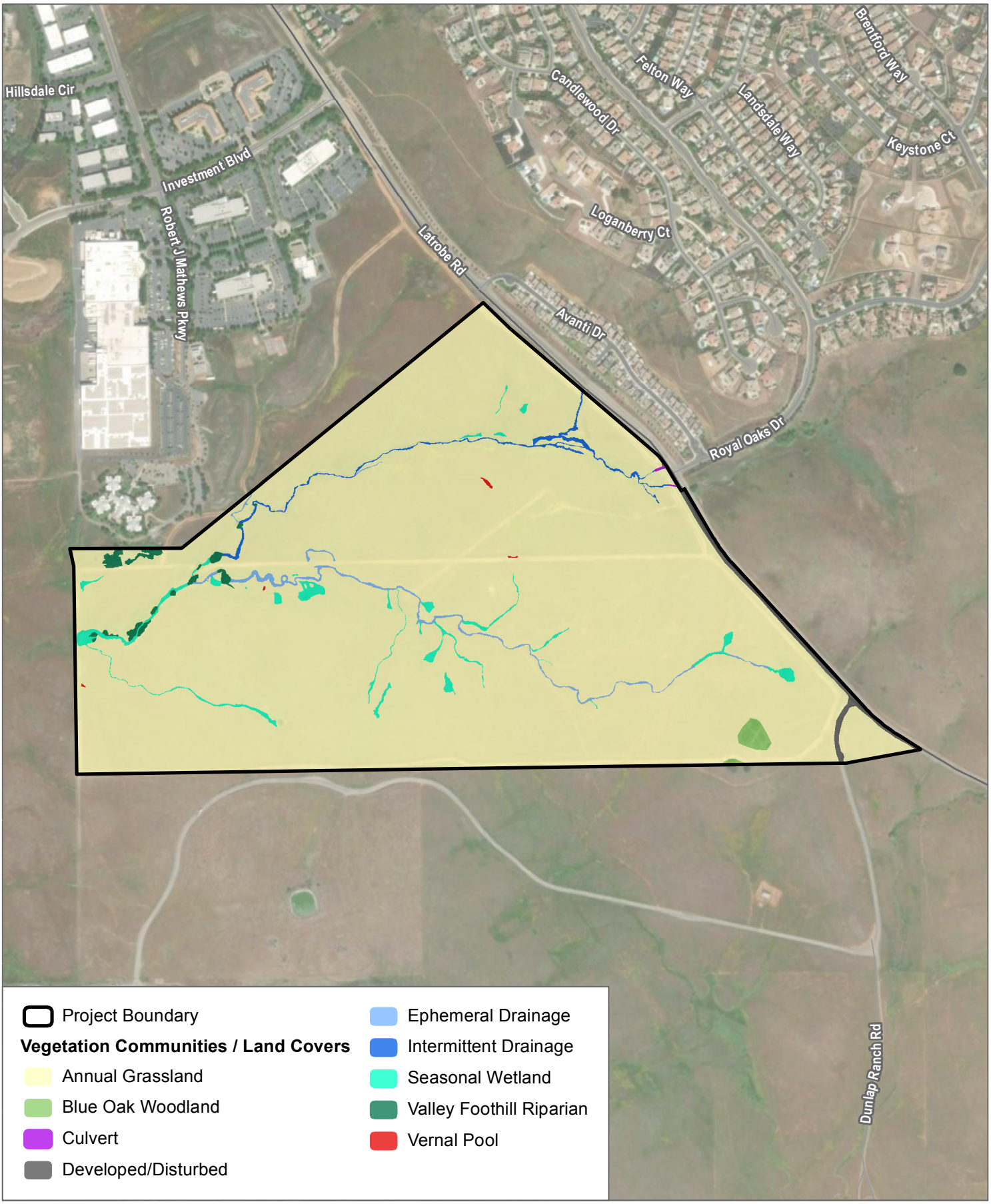
Vegetation Communities and Land Cover Types

Vegetation communities and land cover types within the project site are a combination of natural terrestrial vegetation communities, aquatic habitats, and developed land covers. The vegetation communities and land cover types were mapped within the project site and offsite area using aerial photo interpretation and field reconnaissance survey data (Appendix C). The location of these vegetation communities and land cover types is shown on Figure 3.3-1, Project Vegetation Communities and Land Cover Types and in Table 3-2.

Table 3.3-2. Summary of Vegetation Communities, Aquatic Habitats, and Land Covers within the Project Site and Offsite Area

Vegetation Community / Land Cover Type	Project Site (acres)	Offsite Area (acres)	Total (acres)
California Annual Grassland	202.88	6.18	209.05
Blue Oak Woodland	0.45	0	0.45
Valley Foothill Riparian	0.75	0.47	1.22
Aquatic Habitats[a]	6.02	0.99	7.00
Developed/Disturbed	0.43	20.72	21.15
Total	**210.05**	**27.88**	**237.93**

Source: Appendix C, Biological Resources Constraints Report (2025).
Note:
[a] Aquatic Habitats: acreage for all aquatic resource features compiled as shown in Table 3.3-1.
Totals may not sum due to rounding.



SOURCE: ESIR Imagery 2024; Open Street Map 2019; ESA 2023

DUDEK

0 400 800 Feet

FIGURE 3.3-1

Vegetation Communities and Land Covers

Creekside Village Specific Plan EIR

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Provided below is a complete description of each vegetation community and land cover type within the project site.

Vegetation Communities

California Annual Grasslands

The California annual grassland vegetation community is the most abundant habitat type throughout the project study area, comprising a total of 202.88 acres in the project site and 6.18 acres in the offsite areas. California annual grasslands are an annual herbaceous plant community characterized mostly by naturalized annual grasses. In the project site, annual grassland is dominated by naturalized herbaceous annual grasses and forbs, with smaller patches containing relatively high proportions of native grasses and forbs. The most abundant species in this community include non-native grasses such as wild oats (*Avena barbata, A. fatua, A. sativa*), bromes (*Bromus diandrus, B hordeaceus*), barley grasses (*Hordeum marinum* ssp. *gussoneanum, H. murinum*), and fescues (*Festuca myuros, F. perennis*); non-native weedy herbaceous species include yellow star-thistle (*Centaurea solstitialis*), tall sock-destroyer (*Torilis arvensis*), Italian thistle (*Carduus pycnocephalus* ssp. *pycnocephalus*), vetch (*Vicia villosa, V. sativa* ssp. *sativa*), California burclover (*Medicago polymorpha*), broad-leaf filaree (*Erodium botrys*), black mustard (*Brassica nigra*), and shortpod mustard (*Hirschfeldia incana*); and native herbaceous species such as narrow tarplant (*Holocarpha virgata* ssp. *virgata*), yarrow (*Achillea millefolium*), and spikeweed (*Centromadia fitchii*). The native perennial purple needle grass (*Stipa pulchra*) was observed in the project site but was not present in sufficient density to be considered as an individual alliance.

California annual grassland provides cover, foraging, and breeding habitat for many common wildlife species including western fence lizard (*Sceloporus occidentalis*), common garter snake (*Thamnophis sirtalis*), California ground squirrel (*Spermophilus beecheyi*), black-tailed jackrabbit (*Lepus californicus*), coyote (*Canis latrans*), mule deer (*Odocoileus hemionus californicus*), western meadowlark (*Sturnella neglecta*), American crow (*Corvus brachyrhynchos*), mourning dove (*Zenaida macroura*), and a variety of raptors such as northern harrier (*Circus cyaneus*), red-tailed hawk (*Buteo jamaicensis*), and American kestrel (*Falco sparverius*) (Appendix C).

Blue Oak Woodland

A small grove of 7 Heritage blue oak trees (*Quercus douglasii*) with annual grassland understory comprises approximately 0.45 acres is located on the top of a steep rise in the southeast corner of the project site, approximately 100 feet above the rest of the site. The updated Oak Resources Technical Report (2024) states that one additional blue oak tree not included in the 2019 report was added in the updated report. This oak tree is rooted on a parcel to the south but overhangs the project site. Of the 7 trees surveyed in the 2019 report one is now dead and has fallen over. Of the remaining trees surveyed, 2 are in poor health while the remaining trees are in fair to fair-poor health. Four of the trees surveyed have a diameter at breast height (DBH) of 36 inches or greater and qualify as heritage trees under the County's Oak Resources Management Plan (Appendix C). Oak trees provide nesting and foraging habitat for many species, including acorn woodpecker (*Melanerpes formicivorus*), yellow-billed magpie (*Pica nuttalli*), and gray squirrel (*Sciurus griseus*).

Valley Foothill Riparian

The Valley foothill riparian vegetation community within the project site totals approximately 0.75 acre in the western corner of the project site north of Carson Creek, and 0.47 acre is located in the offsite area adjacent to the water treatment plant on Latrobe Road. The portion within the project site appears to be isolated from the creek channel and may be supported by runoff from the adjacent office development to the north. Characteristic

species documented in the project site include Goodding's black willow (*Salix gooddingii*), Fremont cottonwood (*Populus fremontii*), and red willow (Salix laevigata) trees in the overstory. Understory species observed include sandbar willow (*Salix exigua*) and Himalayan blackberry (*Rubus armeniacus*), and a variety of grasses and forbs, including miner's lettuce (*Claytonia perfoliata*) and rye grass (Appendix C). As with any riparian habitat, this vegetation community provides high value for many amphibian, reptile, bird and mammal species.

Aquatic Resource Features and Associated Habitats

Riverine - Culvert, Ephemeral Drainage, Intermittent Drainage. Perennial Drainage

Riverine features including culverts, ephemeral drainages, and intermittent drainages throughout the project site comprise a total of 3.82 acres. An intermittent drainage has flowing water during certain times of the year, when precipitation or groundwater provides water for flow. During dry periods, intermittent drainages may not have flowing water. Specifically, intermittent drainages in the project site generally flow throughout the winter season and into the late spring or early summer. Two intermittent drainage segments, totaling approximately 1.76 acres, were identified as part of the Carson Creek drainage in the northern portion of the project site. Carson Creek supports sporadic patches of freshwater emergent wetland species within the drainage and riparian species along its lower and upper banks. An ephemeral drainage has flowing water only during, and for a short duration after, precipitation events in a typical year. Ephemeral drainage beds are located above the water table year-round. The project site contains nine ephemeral drainage segments, totaling approximately 2.05 acres generally traversing the northern most and central portions of the project site. Groundwater is not a source of water for the ephemeral drainages, as runoff from rainfall is the primary source of input. (Appendix C). No vegetation alliances are associated with the riverine features on the project site. Riverine features can provide seasonal and dispersal habitat for various invertebrate and amphibian species and provide upland habitat for many species when dry. The offsite area includes 0.49 acres of riverine features, including 0.30 acres of perennial drainage (Carson Creek).

Riparian Wetland

Three riparian wetlands occur along Carson Creek, an intermittent channel, and ten other riparian wetlands occur in a depression on the northwestern border of the project site. The riparian wetland community within the project site comprises a total of 0.48 acres. The offsite area includes 0.47 acres of riparian features. Characteristic species in the riparian wetlands include Fremont cottonwood (*Populus fremontii*) and red willow (*Salix laevigata*) trees in the overstory. The understory consists of sandbar willow (*Salix exigua*), red willow (*Salix laevigata*), and Himalayan blackberry (*Rubus armeniacus*), and a variety of grasses and forbs, including miner's lettuce (*Claytonia perfoliata*) and rye grass (Appendix C).

Riparian wetlands have an exceptionally high value for many wildlife species. These habitats offer water, shelter from heat, migration routes, and diverse nesting and feeding possibilities. A range of amphibians, reptiles, birds, and mammals may rely on riparian habitat in the project site for food, cover, and reproduction (Appendix C).

Seasonal Wetland / Seep / Wetland Swale

The seasonal wetland/seep/wetland swale communities within the project site comprise a total of 1.65 acres (Appendix C). The offsite area includes 0.03 acres of riverine seasonal wetland and seasonal wetland features (no seeps). These community types are discussed collectively due to the similarities in their vegetation composition,

substrate, and hydrologic conditions. These communities exhibit variable hydrologic conditions but annually pond surface water or maintain saturated soils at the ground surface for long enough each year to support facultative[1] or obligate[2] wetland plant species (i.e., hydrophytic ["water loving"] vegetation). These features support ponded or saturated soil conditions during winter and spring and are typically dry through the summer and fall. Vegetation is characterized by both annual and perennial species including native and non-native grasses and forbs. Plant species found within these wetlands are adapted to withstand intermittent periods of inundation and typically initiate growth as aquatic or semi-aquatic plants and transition to a dry-land environment as the wetlands dries. Upland grasses and forbs often establish after wetland species desiccate and features become dry. Within the project site, these wetlands occur in depressions or low areas within the California annual grassland vegetation community and are dominated by Mediterranean barley (*Hordeum marinum* subsp. *gussoneanum*), rye grass, rabbitsfoot grass (*Polypogon monspeliensis*), curly dock (*Rumex crispus*), and common toad rush (*Juncus bufonius*) (Appendix C).

Wildlife species use seasonal wetland, seep, and wetland swale habitats for temporary water sources and cover. Species expected to occur in this habitat type are like those expected to occur in the California annual grassland habitat, as discussed above. Seasonal wetland, seep, and wetland swale habitats may also support invertebrate communities that thrive in inundated conditions, as discussed under vernal pool community below (Appendix C).

Vernal Pool

Vernal pools are seasonal wetlands that occur in grasslands and are typically found in slight depressions that form over bedrock or hardpan soils that allow water to pool during winter and spring rains. Within the project site, the vernal pool community consists of five pools scattered in the central area of the project site totaling 0.07 acres (Appendix C). No vernal pools are present in offsite areas. Vernal pools are considered unique communities and often support species that are endemic to vernal pools or other shallow pools in that geographic region, especially plant and invertebrate species. Invertebrate species that may occur in vernal pools within the project site include common and special-status species such as clam shrimp (*Cyzicus californicus*), seed shrimp (*Cypria* sp.), vernal pool fairy shrimp (*Branchinecta lynchi*), vernal pool tadpole shrimp (*Lepidurus packardi*), and several aquatic insects. Dominant plant species observed were coyote-thistle (*Eryngium vaseyi*), toad rush, and popcornflower (*Plagiobothrys* sp.) (Appendix C).

Land Cover Types

Developed

Developed portions of the project study area primarily occur in the offsite areas, located in the northern portion of the project site and along Latrobe Road, and include paved roads, sidewalks, parking lots, buildings, and associated infrastructure. These areas are paved or otherwise developed and generally lack natural vegetation. Plant species adapted to frequent disturbance observed in the disturbed areas include: stinkwort (*Dittrichia graveolens*), Russian thistle (*Salsola tragus*), short-pod mustard, and yellow starthistle. Plant cover is extremely sparse; few individuals are established within the disturbed area. As such, no vegetation alliances correlate with the disturbed type. Developed/ornamental vegetation provides marginal habitat for wildlife species. Wildlife species that may occur in these areas include Brewer's blackbird (*Euphagus cyanocephalus*), European starling

1 Plants that can be found in both wetland and non-wetland habitat.
2 Plants that are only found in wetlands.

(*Sturnus vulgaris*), house sparrow (*Passer domesticus*), rock dove (*Columba livia*), and white crowned sparrow (*Zonotrichia leucophrys*) (Appendix C).

Sensitive Natural Communities

Sensitive natural communities are communities that are of limited distribution statewide or within a county or region and are often vulnerable to environmental effects of a project. These communities may or may not contain special-status species. Sensitive Natural Communities are those that are listed by the California Department of Fish and Wildlife (CDFW) or California Natural Diversity Database (CNDDB) due to the rarity of the community in the state or throughout its entire range (i.e., globally). For rarity, the ranking involves the knowledge of range and distribution of a given type of vegetation, and the proportion of occurrences that are of good ecological integrity. The conservation of sensitive natural communities is integral to maintaining biological diversity (CDFW 2021c).

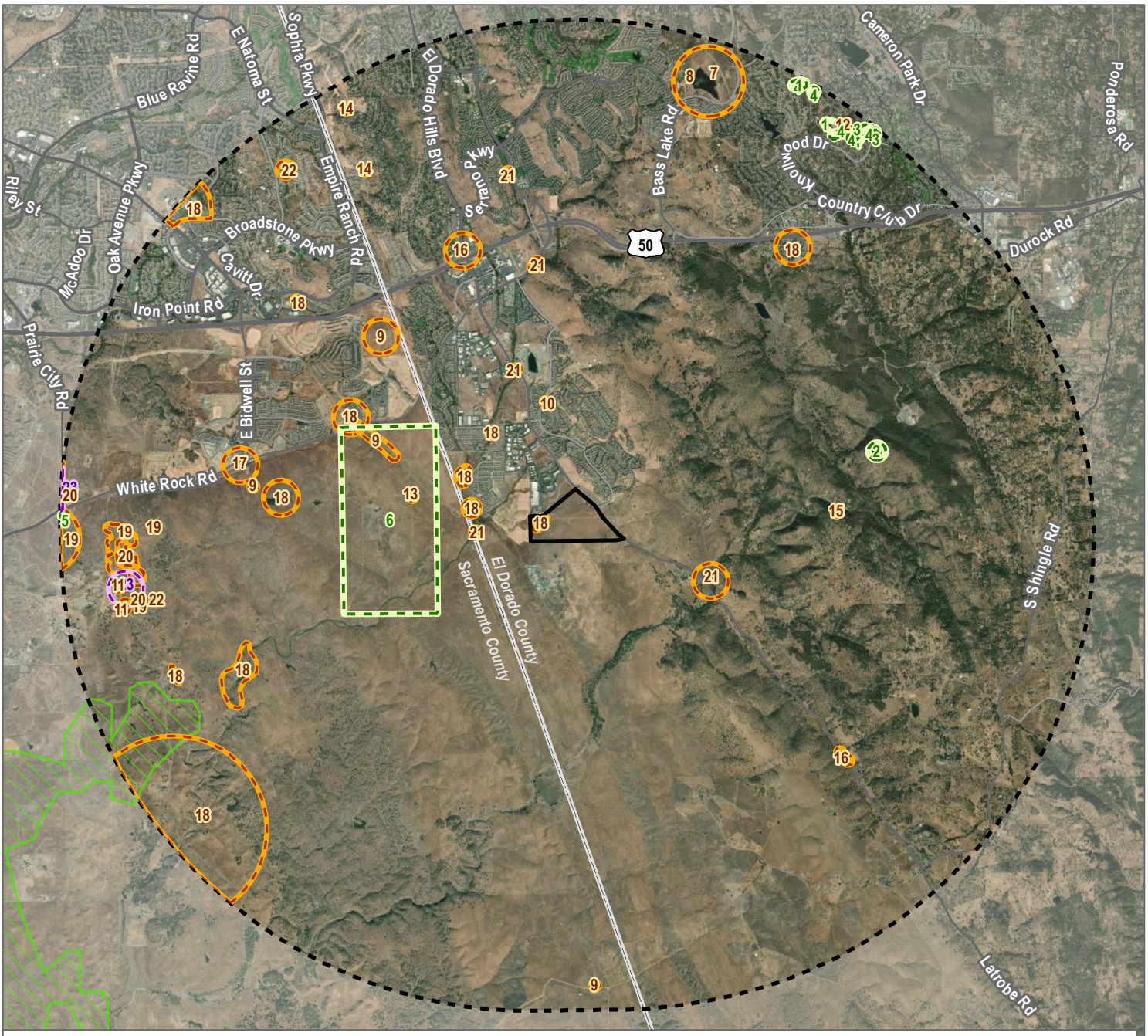
Northern Hardpan Vernal Pools/Coyote Thistle Vernal Pools

Northern Hardpan Vernal Pool has been identified within five miles of the project site, with the closest known occurrence located approximately 4.1 miles to the west of the project site along Scott Road, see Figure 3.3-2, Known Special-Status Species Occurrences and Sensitive Natural Communities (CDFW 2021c). Northern hardpan vernal pools are seasonally flooded or saturated with fresh water. Many species of plants and wildlife depend on these unique communities and are often classified special-status, including California tiger salamanders (*Ambystoma californiense*; CTS) and special-status vernal pool invertebrates, which have a potential to occur within the project site. Vegetative species composition varies from pool to pool and from year to year. Herbs and grasses typically grow less than a foot high with intermediate to open cover. These pools form over areas with hardpan soils and generally have more topographic relief associated with them. Although the vernal pools within the project site are not included as an occurrence for this community within the CNDDB, the results of field surveys indicate that they have the potential to be considered as part of the Northern Hardpan Vernal Pool complex. Specifically, they may be considered *Eryngium castrense* (42.007.06) Coyote-thistle vernal pools, with a CDFW Natural Community sensitivity rank of S2.[3]

Riparian Habitat

A stream or other watercourse is a body of water that flows year-round or intermittently and has surface and subsurface flow that supports or has supported a riparian vegetation community/habitat. Riparian habitat acts as a buffer between aquatic resources and uplands. Healthy riparian habitat is essential in supporting both plant and wildlife species, as well as supporting watercourse integrity. As such, riparian habitat is considered a sensitive habitat within California. The goal of conserving riparian habitat as a sensitive natural community is to preserve these systems to maintain species and watercourse health and function. Within the project site, riparian vegetation community/habitat is present within the western corner. It was mapped in the Biological Resource Constraints Report as being part of the *Salix gooddingii* (61.211.01) Goodding's willow thickets alliance, with a sensitivity rank of S3 (Appendix C).

[3] Natural Communities with ranks of S1-S3 are considered Sensitive Natural Communities to be addressed in the environmental review processes of CEQA and its equivalents.



Project Boundary

Buffer - 5 miles

Mather Core Recovery Area (USFWS)

CNDDB Plant Occurrences

1, Bisbee Peak rush-rose *(Crocanthemum suffrutescens)*

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

3, El Dorado County mule ears *(Wyethia reticulata)*

4, Layne's ragwort *(Packera layneae)*

5, legenere *(Legenere limosa)*

6, Sanford's arrowhead *(Sagittaria sanfordii)*

CNDDB Wildlife Occurrences

7, bald eagle *(Haliaeetus leucocephalus)*

8, Blennosperma vernal pool andrenid bee *(Andrena blennospermatis)*

9, burrowing owl *(Athene cunicularia)*

10, California black rail *(Laterallus jamaicensis coturniculus)*

11, California linderiella *(Linderiella occidentalis)*

12, coast horned lizard *(Phrynosoma blainvillii)*

13, ferruginous hawk *(Buteo regalis)*

14, golden eagle *(Aquila chrysaetos)*

15, great blue heron *(Ardea herodias)*

16, North American porcupine *(Erethizon dorsatum)*

17, Swainson's hawk *(Buteo swainsoni)*

18, tricolored blackbird *(Agelaius tricolor)*

19, vernal pool fairy shrimp *(Branchinecta lynchi)*

20, vernal pool tadpole shrimp *(Lepidurus packardi)*

21, western pond turtle *(Emys marmorata)*

22, white-tailed kite *(Elanus leucurus)*

CNDDB Sensitive Communities

23, Northern Hardpan Vernal Pool

SOURCE: ESRI Imagery 2024; Open Street Map 2019; CDFW CNDDB 2024

DUDEK

0 0.75 1.5 Miles

FIGURE 3.3-2

Special-Status Species and Sensitive Communities

Creekside Village Specific Plan EIR

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Designated Critical Habitat / Essential Fish Habitat

Critical habitat is designated by the U.S. Fish and Wildlife Service (USFWS) and is specifically defined as a geographic area that contains features essential to the conservation of species listed as threatened or endangered under the federal ESA. The purpose of Designated Critical Habitat is to identify areas that are essential to the species' conservation and recovery and what management requirements may be necessary to conserve the species. Essential Fish Habitat is designated by the National Marine Fisheries Service within the National Oceanic and Atmospheric Administration and is specific to aquatic habitat where federally managed fish species and invertebrates live and reproduce. There is no Designated Critical Habitat or Essential Fish Habitat within or adjacent to the project site (Appendix C; USFWS 2020a).

Habitat Connectivity and Wildlife Movements

Wildlife movement corridors have been recognized by federal and state agencies as important habitats worthy of conservation. Wildlife corridors provide migration channels seasonally (i.e., between winter and summer habitats), and provide non-migrant wildlife the opportunity to move within their home range for food, cover, reproduction, and refuge. They may also function as dispersal corridors allowing animals to move between various locations within their range. Human development can act together with topography and other natural factors to fragment large open space areas and impede wildlife movement between areas of suitable habitat. By isolating habitat, this fragmentation can also isolate populations and reduce genetic and species diversity. Movement corridors may allow animals to move between otherwise isolated habitats and maintain genetic exchange between separate populations.

The project site and open space in the vicinity are likely used by wildlife species for dispersal and seasonal movements. However, El Dorado County's (County) Important Biological Corridor overlay (El Dorado County 2004) does not designate the project site as a wildlife movement corridor, and it is not recognized by the County as an important habitat for migratory deer herds (El Dorado County 2010). The project site is in an area of "connections with implementation flexibility" according to the CDFW's Essential Habitat Connectivity natural landscape blocks (CDFW 2020b). This category includes areas that have been identified as having connectivity importance, but have not been identified as channelized areas, species corridors, or habitat linkages at this time (Appendix C).

Special-Status Species

Special-status plant and wildlife species determined to potentially occur in or near project site, based on the preliminary review discussed above, on the suitability of habitat to support the species, and on the results of the reconnaissance-level biological surveys conducted by Environmental Science Associates in August 2019, December 2020, January 2021, April 2022, and during protocol brachiopod surveys conducted between January to June 2024 are shown on Figure 3.3-2, Known Special-Status Species Occurrences and Sensitive Natural Communities. The location of previous documented occurrences of special-status species from the CNDDB and Sensitive Natural communities are depicted on Figure 3.3-2. Tables summarizing the potential occurrence of special-status plant and wildlife species are included in the updated Biological Resources Constraints Report (Appendix C pp. 5-12).

Special-Status Plants

Based on the updated results of the CNDDB, California Native Plant Society (CNPS) and IPaC database searches, a total of 31 special-status plant species occur within up to five miles of the project site and/or within nine USGS

7.5–minute quads (i.e., Buffalo Creek, Carbondale, Clarksville, Folsom SE, Irish Hill Latrobe, Shingle Springs, Sloughhouse). Of these, 25 were eliminated from consideration due to the lack of appropriate habitats, absence of suitable soils, extent of habitat degradation, or location of the project site outside of the species known range. The remaining six special-status plant species have at least a moderate potential to occur within the project site including the following: dwarf downingia (*Downingia pusilla*), Tuolumne button-celery (*Eryngium pinnatisectum*), Boggs Lake hedge-hyssop (*Gratiola heterosepala*), Ahart's dwarf rush (*Juncus leiospermus* var. *ahartii*), legenere (*Legenere limosa*), pincushion navarretia (*Navarretia myersii* ssp. *myersii*). One species, Sanford's arrowhead (*Sagittaria sanfordii)* has a low potential to be present on the site with only one recorded observation of this species within five miles.

This species considered to have at least a moderate potential to occur within the project site are described in more detail below.

Ahart's dwarf rush (Juncus leiospermus var. *ahartii)*

Ahart's dwarf rush is a California Rare Plant Ranks (CRPR) 1B.2 species (i.e., moderately threatened in California) with a moderate potential to occur in the project site. Ahart's dwarf rush is an annual herb that is native to California. The common blooming period for this species is March through May. This species can commonly be found in mesic valley and foothill grassland habitat from approximately 98 to 750 feet above mean seal level (AMSL). California annual grasslands and mesic environments (e.g., seasonal wetlands, swales, and seeps) within the project site provide suitable habitat. However, there are no known occurrences within five miles of the project site and this species was not identified during a focused botanical survey conducted in April 2022 (CDFW 2021a, CNPS 2021a, Appendix C).

Boggs Lake Hedge-Hyssop (Gratiola heterosepala)

Boggs Lake hedge-hyssop is a state endangered and CRPR 1B.2 species (i.e., moderately threatened in California) with a moderate potential to occur in the project site. Boggs Lake hedge-hyssop is an annual herb that is native to California. The common blooming period for this species is April through August. This species can commonly be found in clay soils in marshes, swamps, lake margins, and vernal pools from approximately 33 to 7,790 feet AMSL. Vernal pools within the project site provide suitable habitat. However, there are no known occurrences within five miles of the project site and this species was not identified during a focused botanical survey conducted in April 2022 (CDFW 2021a, CNPS 2021a, Appendix C).

Dwarf downingia (Downingia pusilla)

Dwarf downingia is a CRPR 2B.2 species (i.e., moderately threatened in California) with a moderate potential to occur in the project site. Dwarf downingia is an annual herb that is native to California. The common blooming period for this species is March through May. This species can commonly be found in mesic valley and foothill grassland and vernal pool habitat from approximately 3 to 1,455 feet AMSL. There is suitable habitat for this species within the project site, Vernal pools and valley and foothill grasslands within the project site provide suitable habitat. However, there are no known occurrences within five miles of the project site and this species was not identified during a focused botanical survey conducted in April 2022 (CDFW 2021a, CNPS 2021a, (Appendix C).

Legenere (Legenere limosa)

Legenere is a CRPR 1B.1 species (i.e., seriously threatened in California) with a moderate potential to occur in the project site. Legenere is an annual herb that is native to California. The common blooming period for this species is April through June. This species can commonly be found in vernal pools from approximately 2 to 2,885 feet AMSL. Suitable habitat is present in the vernal pools and seasonal wetlands within the project site. There is one recorded observation of this species in the CNDDB approximately five miles west of the project site north of the Prairie City State Vehicular Recreation Area, on the south side of White Rock Road (CDFW 2021a, CNPS 2021a,). This species was not identified during a focused botanical survey conducted in April 2022 (Appendix C).

Pincushion Navarretia (Navarretia myersii ssp*. myersii)*

Pincushion navarretia is a CRPR 1B.1 species (i.e., seriously threatened in California) with a moderate potential to occur in the project site. Pincushion navarretia is an annual herb that is native to California. The common blooming period for this species is April through May. This species can commonly be found in acidic vernal pools from approximately 66 to 1,080 feet AMSL. Suitable habitat is present within the vernal pools and seasonal wetlands present in the project site. However, there are no known occurrences within five miles of the project site and this species was not identified during a focused botanical survey conducted in April 2022 (CDFW 2021a, CNPS 2021a, Appendix C).

Tuolumne button-celery (Eryngium pinnatisectum)

Tuolumne button-celery is a CRPR 1B.2 species (i.e., moderately threatened in California) with a moderate potential to occur in the project site. Tuolumne button-celery is an annual or perennial herb that is native to California. The common blooming period for this species is May through August. This species can commonly be found in mesic cismontane woodland, lower montane coniferous forest, and vernal pools from approximately 230 to 3,000 feet AMSL. Suitable habitat is present in the vernal pools and seasonal wetlands present in the project site. However, there are no known occurrences within five miles of the project site and this species was not identified during a focused botanical survey conducted in April 2022 (Appendix C).

Special-Status Wildlife

Based on the results of the CNDDB and IPaC database searches, a total of 26 special-status wildlife species occur within up to five miles of the project site and/or within nine USGS 7.5-minute quads (i.e., Buffalo Creek, Carbondale, Clarksville, Folsom, Folsom SE, Irish Hill Latrobe, Shingle Springs, Sloughhouse). Of these, 17 were eliminated from consideration due to the lack of appropriate habitats, absence of suitable soils, extent of habitat degradation, or location of the project site outside of the species known range. The remaining 9 special-status wildlife species have at least a low, moderate, or known potential to occur within the project site and include: pallid bat (*Antrozous pallidus*), northwestern pond turtle (*Actinemys marmorata*), monarch butterfly (*Danaus plexippus)*, tricolored blackbird (*Agelaius tricolor*), grasshopper sparrow (*Ammodramus savannarum*), golden eagle (*Aquila chrysaetos*), burrowing owl (*Athene cunicularia*), Swainson's hawk (*Buteo swainsoni*), white-tailed kite (*Elanus leucurus*), and other migratory and nesting bird species. These species are described in more detail below.

Amphibians and Reptiles

Northwestern Pond Turtle (*Actinemys marmorata*)

Northwestern pond turtle is a state SSC, was proposed for listing as threatened under the ESA on October 3, 2023 (88 FR 68370-68399) and has a low potential to occur in the project site. Northwestern pond turtle was recognized as a separate species from the southwestern pond turtle (*Actinemys pallida*) in 2014 based on an analysis of range-wide genetic data, splitting the former "western pond turtle" into two separate species (Spinks et al. 2014). Northwestern pond turtle are aquatic habitat generalists but require some standing or slowly moving water including large rivers, lakes, permanent and intermittent streams and pools, wetlands, and artificial waters such as stock ponds and settling ponds (Bury and Germano 2008; Thomson et al. 2016). This species also requires basking sites for thermoregulation such as rocks, logs, emergent aquatic vegetation, and others (Bury and Germano 2008). Nesting occurs in grassy or forb-dominated areas, typically 200 meters or less from aquatic habitat (Jennings and Hayes 1994), Suitable aquatic habitat for the northwestern pond turtle is provided on the project site by the intermittent drainage when flooded, and annual grasslands adjacent to the intermittent drainage also provide suitable upland nesting habitat. However, it is unlikely that northwestern pond turtles would occur in intermittent drainage feature and adjacent uplands within 0.25-mile (1,320 feet) because of insufficient water in the drainage feature year-round. Four occurrences of northwestern pond turtle have been recorded within a five-mile radius of the site, with the closest two (#1316 and 468) resulting from observations in Carson Creek, 0.5 mile west of the project site in 2016, and Deer Creek where it intersects Latrobe Road, 0.9 miles southeast of the project site in 1988. Development between the project site and the Carson Creek occurrence makes it unlikely that any individuals would move toward the project site.

Birds

Tricolored Blackbird (*Agelaius tricolor*)

Tricolored blackbird is a state threatened species with known occurrences within the project site. This species typically nests in freshwater marshes with dense growths of emergent vegetation dominated by cattails or bulrushes, but has also established colonies in willows, blackberries (*Rubus* spp.), and a variety of other types of dense, herbaceous vegetation, such as thistles (*Cirsium* spp.) and nettles (*Urtica* sp.). Tricolored blackbirds forage in a variety of habitats, such as grasslands and croplands, where high densities of suitable insect prey are found. The riparian wetland features within the project site provide suitable nesting habitat for this species. There is a CNDDB recorded observation of this species within the project site. The observation is of a colony within riparian wetland blackberry patches associated with an intermittent channel in the western portion of the project site. This colony was active as of 2023, the last recorded survey date (UC Davis 2024, CDFW 2021a, Appendix C, USFWS 2021a). The nesting colony was observed again incidentally during surveys conducted in 2024.

Grasshopper Sparrow *(Ammodramus* savannarum*)*

Grasshopper sparrow is a state SSC that has a moderate potential to occur in the grasslands of the project site. This species requires tall and dense grasslands to conceal their ground-based nests, and typically occupy grasslands with scattered shrubs to provide perches. There are no recorded observations of this species in the CNDDB within five miles of the project site (Appendix C, USFWS 2021a).

Golden Eagle (*Aquila chrysaetos*)

Golden eagle is a state fully protected species and federally protected under the Bald and Golden Eagle Protection Act, with a low potential to use the project site for foraging. Golden eagle is a year-round species that is both a permanent resident and migrant throughout California where it tends to occupy mountain, foothill, and desert areas. Foraging habitat for this species includes open habitats with scrub, grasslands, desert communities, and agricultural areas. This species typically nests on cliffs within canyons and escarpments and in large trees (generally in open habitats) primarily within rugged, hilly, or mountainous terrain (Garrett and Dunn 1981b; Johnsgard 1990). But this species is also known to use electrical transmission towers and similarly sized structures as nest sites (Garrett and Dunn 1981b; Johnsgard 1990; Kochert et al. 2002; Scott 1985). Golden eagles commonly build, maintain, and use multiple alternative nest sites in their breeding territories, routinely refurbishing and reusing individual nests over many years. There is no nesting habitat present, and limited foraging habitat is present within the project site. There are recorded observations of this species in the CNDDB within five miles of the project site, with the nearest occurrence approximately 4.0 miles northwest of the project site between Empire Road and El Dorado Hills Boulevard (CDFW 2021a, Appendix C, USFWS 2021a).

Burrowing Owl (*Athene cunicularia*)

Burrowing owl is a state SSC and a candidate species under CESA that has a moderate potential to occur in the project site. In California, burrowing owls are yearlong residents of open, dry grassland and desert habitats, and in grass, forb, and open shrub stages of pinyon-juniper and ponderosa pine habitats. Preferred habitat is typified by short, sparse vegetation with few shrubs, level to gentle topography, and well-drained soils. The presence of burrows is the most essential component of burrowing owl habitat, as they are required for nesting, roosting, cover, and caching prey (Poulin et al. 2011). In California, burrowing owls most commonly live in burrows created by California ground squirrels. Burrowing owls may also occur in human-altered landscapes such as agricultural areas, ruderal grassy fields, vacant lots, and pastures if the vegetation structure is suitable (i.e., open and sparse), useable burrows are available, and foraging habitat occurs in close proximity (Gervais et al. 2008). Debris piles, riprap, culverts, and pipes can also be used for nesting, shelter, and roosting. There is suitable nesting and foraging habitat in the California annual grasslands that dominant the project site. Although this species was not observed during general reconnaissance-level surveys in August 2019, December 2020, January 2021, and April 2022, there are recorded observations of this species in the CNDDB within five miles of the project site, with the nearest occurrence approximately 2.0 miles west of the project site at the tributaries to Carson Creek, south of White Rock Road and east of Malby Crossing (CDFW 2021a, Appendix C, USFWS 2021a).

Swainson's Hawk (*Buteo swainsoni*)

Swainson's hawk is a state threatened species with a low potential to occur in the project site. In California, this species nests in the Central Valley and smaller adjacent valleys, the Klamath Basin, the Northeastern Plateau, Lassen County, and the Mojave Desert. It breeds in riparian areas, stands of trees in agricultural environments, oak savannah, Joshua trees (*Yucca brevifolia*) in the Mojave Desert, and juniper-sage flats. In the San Joaquin Valley, it nests in riparian areas and in isolated tree clusters, often near rural residences or other areas with some human disturbance. Alfalfa fields are the favored foraging areas of Swainson's hawk in the Sacramento and San Joaquin valleys, but the species also forages in undisturbed grasslands, fallow agricultural fields, and some row crops. No suitable nesting habitat is present within the site; however suitable foraging habitat is present within the California annual grasslands. There are recorded observations of this species in the CNDDB within five miles of the project site, with the nearest occurrence approximately 2.9 miles west of the project site at the intersection of White Rock Road and Scott Road (CDFW 2021a, Appendix C, USFWS 2021a).

White-Tailed Kite (*Elanus leucurus*)

White-tailed kite is a state fully protected species with a moderate potential to occur in the project site. White-tailed kites occur in grasslands, marshes, and lowland scrub habitats, and nest in dense foliage in taller- to medium-size trees near foraging habitat. This species may also forage in meadows, agricultural fields, other types of emergent wetlands, and disturbed lands. White-tailed kites feed principally on rodents, especially voles. Suitable nest trees are present within the grove of blue oak trees within the project site. California annual grassland within the project site provides foraging habitat for this species. There are recorded observations of this species in the CNDDB within five miles of the project site, with the nearest occurrence approximately 4.0 miles west of the project site on the north side of Scott Road (CDFW 2021a, Appendix C, USFWS 2021a).

Migratory Birds and Nesting Raptors

In addition to the special-status birds discussed above, the project site provides nesting habitat for several other local and migratory bird species including Cooper's hawk and ferruginous hawk. Native birds of prey are protected by California Fish and Game Code (FGC) Section 3503.5 and migratory bird species are protected by the federal Migratory Bird Treaty Act (MBTA).

Mammals

Pallid Bat (*Antrozous pallidus*)

Pallid bat is a state SSC that has low potential to occur in the project site. Pallid bat as well as other native bat species are protected by California FGC Section 4150. Pallid bats commonly roost in small colonies of about 12 to 100 bats within rock crevices, caves, mine shafts, buildings, tree hollows, and under bridges (NorCal Bats 2017). There is no suitable roosting habitat present within the project site, however suitable foraging habitat is present in the annual grasslands. There are no recorded observations of this species in the CNDDB within five miles of the project site, and no roosting bats or signs of presence identified during the multiple reconnaissance surveys conducted in August 2019, December 2020, January 2021, and April 2022. However, neither a focused survey for roosting bats nor a formal bat habitat assessment was conducted (CDFW 2021a, Appendix C).

American Badger (*Taxidea taxus*)

American badger is a state SSC that has low potential to occur in the project site. This species is most abundant in drier open stages of most shrub, forest and herbaceous habitats with loose soils for burrowing and hunting prey. Prey species are primarily ground squirrels (*Otospermophilus beecheyi*) and pocket gophers (*Thomomys* spp.), but also include insects, birds, and carrion. American badgers are elusive, nocturnal mammals with expansive home ranges (CDFW 2021a). Suitable burrowing and foraging habitat is present in annual grasslands in the project site; however, no burrows that could be utilized by this species were present. There are no recorded observations of this species in the CNDDB within five miles of the project site (CDFW 2021a, Appendix C).

Invertebrates

Monarch butterfly (*Danaus Plexippus*)

Monarch butterfly is a candidate for federal listing with a low potential to occur in the project site. This species is known to overwinter in eucalyptus and cypress trees occur near the coast. Larvae feed on milkweed plants and adults are itinerant throughout much of the state and are generalist nectar-feeders. Narrow leaf milkweed plants

were observed on the project site, but in low abundance. The project site provides limited habitat but is outside of known winter aggregation sites. Adults are likely to occur occasionally within the project site, as they do throughout much of the state.

3.3.2 Regulatory Setting

Federal

Federal Endangered Species Act

The federal Endangered Species Act (ESA) of 1973 (16 USC 1531 et seq.), as amended, is administered by the USFWS for most plant and animal species and by the National Oceanic and Atmospheric Administration National Marine Fisheries Service for certain marine species. This legislation is intended to provide a means to conserve the ecosystems upon which endangered and threatened species depend and provide programs for the conservation of those species, thus preventing extinction of plants and wildlife. The ESA defines an endangered species as "any species which is in danger of extinction throughout all or a significant portion of its range." A threatened species is defined as "any species which is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range." Under the ESA, it is unlawful to take any listed species; the ESA defines "take" as to "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct."

The ESA allows for the issuance of incidental take permits for listed species under Section 7, which is generally available for projects that also require other federal agency permits or other approvals, and under Section 10, which provides for the approval of habitat conservation plans on private property without any other federal agency involvement. Upon development of a habitat conservation plan, USFWS can issue incidental take permits for listed species.

Migratory Bird Treaty Act

The MBTA was originally passed in 1918 as four bilateral treaties, or conventions, for the protection of a shared migratory bird resource. The primary motivation for the international negotiations was to stop the "indiscriminate slaughter" of migratory birds by market hunters and others. Each of the treaties protects selected species of birds and provides for closed and open seasons for hunting game birds. The MBTA protects over 800 species of birds and prohibits the take of any migratory bird or any part, nest, or eggs of any such bird. Under the MBTA, "take" is defined as pursuing, hunting, shooting, capturing, collecting, or killing, or attempting to do so (16 USC 703 et seq.). Additionally, Executive Order 13186, Responsibilities of Federal Agencies to Protect Migratory Birds, requires that any project with federal involvement address impacts of federal actions on migratory birds with the purpose of promoting conservation of migratory bird populations (66 FR 3853–3856). The Executive Order requires federal agencies to work with USFWS to develop a memorandum of understanding. USFWS reviews actions that might affect these species.

Bald and Gold Eagle Protection Act

The Bald and Golden Eagle Protection Act (BAGEPA) (16 USC 668 et seq.) provides for the protection of both bald and golden eagles. Specifically, BAGEPA prohibits "take" of eagles, which is defined as any action that would "pursue, destroy, shoot at, poison, wound, kill, capture, trap, collect, molest or disturb" bald and golden eagles, including parts, nests, or eggs. The term "disturb" is further defined by regulation as "to agitate or bother a bald or

golden eagle to a degree that causes, or is likely to cause, injury to an eagle, a decrease in productivity, or nest abandonment" (50 CFR 22.3). Under BAGEPA, it is also illegal to "sell, purchase, barter, trade, import, or export, or offer for sale, purchase, barter, or trade, at any time or in any manner, any bald eagle or any golden eagle, or the parts, nests, or eggs" of these birds. Pursuant to 50 CFR 22.26, and as of the latest amendment to BAGEPA in December 2016, a permit may be obtained that authorizes "take" of bald eagles and golden eagles where the "take" is "compatible with the preservation of the bald eagle and the golden eagle; is necessary to protect an interest in a particular locality; is associated with, but not the purpose of, the activity; and cannot practicably be avoided" (USFWS 2021b).

Clean Water Act

The Clean Water Act (CWA) is the major federal legislation governing water quality, providing guidance for the restoration and maintenance of the chemical, physical, and biological integrity of the nation's waters. Section 401 of the CWA requires an applicant for a federal license or permit that may result in a discharge of pollutants into waters of the United States to obtain state certification, thereby ensuring that the discharge will comply with provisions of the CWA. The State Water Resources Control Board and Regional Water Quality Control Boards (RWQCBs) administer the Section 401 certification program in California. Section 402 of the CWA establishes a permitting system for the discharge of any pollutant (except dredged or fill material) into waters of the United States. Section 404 establishes a permit program administered by the U.S. Army Corps of Engineers (USACE) that regulates the discharge of dredged or fill material into waters of the United States, including wetlands. USACE implementing regulations are found in 33 Code of Federal Regulations (CFR) Parts 320 to 332. Guidelines for implementation are referred to as the Section 404(b)(1) Guidelines, which were developed by the U.S. Environmental Protection Agency (EPA) in conjunction with USACE (40 CFR 230). The guidelines allow the discharge of dredged or fill material into the aquatic ecosystem only if there is no practicable alternative that would have less adverse impacts.

Wetlands and Other Waters of the United States

The definition of waters of the United States establishes the geographic scope for authority under Section 404 of the CWA; however, the CWA does not specifically define waters of the United States, leaving the definition open to statutory interpretation and agency rulemaking. The definition of what constitutes "waters of the United States" (provided in 33 CFR Section 328.3(a)) has changed multiple times over the past few decades starting with the *United States v. Riverside Bayview Homes, Inc*. court ruling in 1985. Subsequent court proceedings, rule makings, and congressional acts in 2001 (*Solid Waste Agency of Northern Cook County v. United States Army Corps of Engineers*), 2006 (*Rapanos v. United States*), 2015 (Clean Water Rule), 2018 (suspension of the Clean Water Rule), 2019 (formal repeal of the Clean Water Rule), 2020 (Navigable Waters Protection Rule, NWPR), and 2021 (*Pasqua Tribe et al v. United States Environmental Protection Agency* resulting in remand and vacatur of the NWPR and a return to "the pre-2015 regulatory regime") have attempted to provide greater clarity to the term and its regulatory implementation.

The term "wetlands" (a subset of waters of the United States) is defined in 33 CFR, Section 328.3(c)(16), as "areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas." In the absence of wetlands, the limits of USACE jurisdiction in non-tidal waters, such as intermittent streams, extend to the "ordinary high water mark," which is defined in 33 CFR 328.3(c)(7) as "that line on the shore established by the fluctuations of water and indicated by physical characteristics such as a clear, natural line impressed on the bank, shelving, changes in the

character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas."

On May 25, 2023, the Supreme Court issued its long-anticipated decision in *Sackett v. EPA*, in which it rejected the EPA's claim that "waters of the United States," as defined in the CWA, includes wetlands with an ecologically significant nexus to traditional navigable waters. The Supreme Court held that only those wetlands with a continuous surface water connection to traditional navigable waterways would be afforded federal protection under the CWA. Specifically, to assert jurisdiction over an adjacent wetland under the CWA, a party must establish that (1) the adjacent body of water constitutes water[s] of the United States' (i.e., a relatively permanent body of water connected to traditional interstate navigable waters) and (2) the wetland has a continuous surface connection with that water, making it difficult to determine where the water ends and the wetland begins. A Final Rule was published by the EPA in August 2023 that established consistency with the *Sackett v. EPA* decision.

State

California Endangered Species Act

The California Department of Fish and Wildlife (CDFW) administers the California Endangered Species Act (CESA), which prohibits the "take" of plant and animal species designated by the California Fish and Game Commission as endangered or threatened in the state of California. Under CESA Section 86, take is defined as "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill." CESA Section 2053 stipulates that state agencies may not approve projects that will "jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of habitat essential to the continued existence of those species, if there are reasonable and prudent alternatives available consistent with conserving the species or its habitat which would prevent jeopardy."

CESA defines an endangered species as "a native species or subspecies of a bird, mammal, fish, amphibian, reptile, or plant which is in serious danger of becoming extinct throughout all, or a significant portion, of its range due to one or more causes, including loss of habitat, change in habitat, overexploitation, predation, competition, or disease." CESA defines a threatened species as "a native species or subspecies of a bird, mammal, fish, amphibian, reptile, or plant that, although not presently threatened with extinction, is likely to become an endangered species in the foreseeable future in the absence of the special protection and management efforts required by this chapter. Any animal determined by the [California Fish and Game] Commission as rare on or before January 1, 1985, is a threatened species." A candidate species is defined as "a native species or subspecies of a bird, mammal, fish, amphibian, reptile, or plant that the Commission has formally noticed as being under review by the department for addition to either the list of endangered species or the list of threatened species, or a species for which the Commission has published a notice of proposed regulation to add the species to either list." CESA does not list invertebrate species.

CESA authorizes the taking of threatened, endangered, or candidate species if take is incidental to otherwise lawful activity and if specific criteria are met. These provisions also require CDFW to coordinate consultations with USFWS for actions involving federally listed species that are also state-listed species. In certain circumstances, CESA allows CDFW to adopt a CESA incidental take authorization as satisfactory for CEQA purposes based on finding that the federal permit adequately protects the species and is consistent with state law. A CESA permit may not authorize the take of "fully protected" species that are protected in other provisions of the California Fish and Game Code, discussed further below.

California Fish and Game Code

Under the California FGC, CDFW provides protection from "take" for a variety of species, including Sections 3511 (birds), 4700 (mammals), 5050 (reptiles and amphibians), and 5515 (fish) of the California Fish and Game Code provide that designated fully protected species may not be taken or possessed without a permit. Incidental take of these species is not authorized by law. Pursuant to Section 3503.5 of the California Fish and Game Code, it is unlawful to take, possess, or destroy any birds of prey; or to take, possess, or destroy any nest or eggs of such birds. Birds of prey refer to species in the orders Falconiformes and Strigiformes. Nests of all other birds (except English sparrow and European starling) are protected under Sections 3503 and 3513 of the California FGC.

Under Sections 1600–1616 of the California FGC, the CDFW regulates activities that would alter the flow, bed, channel, or bank of streams and lakes. Diversion, obstruction, or changes to the natural flow or bed, channel, or bank of any river, stream, or lake that supports fish or wildlife requires authorization from CDFW by means of entering into an agreement pursuant to Section 1602 of the California FGC. The limits of CDFW's jurisdiction are defined in the code as the "bed, channel or bank of any river, stream, or lake designated by the department in which there is at any time an existing fish or wildlife resource or from which these resources derive benefit" (Section 1601). In practice, CDFW usually delineates its jurisdictional limit at the top of the stream or bank, or at the outer edge of the riparian vegetation, whichever is wider. Tributaries to Carson Creek within the project site would be subject to CDFW jurisdiction under these Sections.

Section 1940 of the California FGC requires CDFW to develop and maintain a vegetation mapping standard for the state. More than half of the vegetation communities in the state have been mapped through the Vegetation Classification and Mapping Program. Natural vegetation communities are evaluated by CDFW and are assigned global (G) and state (S) ranks based on rarity of and threats to these vegetation communities in California. Sensitive natural communities are defined by CDFW as vegetation alliances with state ranks of S1–S3 (S1: critically imperiled; S2: imperiled; S3: vulnerable), as identified in the 2010 List of Vegetation Alliances and Associations and subsequent updates. Natural communities with ranks of S1–S3 are considered sensitive natural communities to be addressed in the environmental review processes of CEQA and its equivalents. Additionally, all vegetation associations within the alliances with ranks of S1–S3 are considered sensitive habitats. CEQA requires that impacts to sensitive natural communities be evaluated and mitigated to the extent feasible. There are two sensitive natural communities on the project site (see Section 3.3.1).

The Native Plant Protection Act was enacted in 1977 and is administered by CDFW FGC Section 1900 et seq. The Native Plant Protection Act prohibits "take" of endangered, threatened, or rare plant species native to California, apart from special criteria identified in the California FGC. There are 64 species, subspecies, and varieties of plants that are protected as rare under the NPPA. If potential impacts to a "rare" plant are identified for a project activity, then consultation with CDFW, permitting, and/or other mitigation may be required (CLI 2021).

Porter–Cologne Water Quality Control Act

The Porter–Cologne Water Quality Control Act (Porter–Cologne Act) protects water quality and the beneficial uses of water. It applies to surface water and groundwater. Under this law, the State Water Resources Control Board develops statewide water quality plans, and the RWQCBs develop regional basin plans that identify beneficial uses, water quality objectives, and implementation plans. The RWQCBs have the primary responsibility to implement the provisions of statewide plans and basin plans. Waters regulated under the Porter–Cologne Act include isolated waters that are not regulated by USACE. RWQCBs regulate discharging waste, or proposing to discharge waste, within any region that could affect a "water of the state" (California Water Code,

Section 13260[a]). Waters of the state are defined as "any surface water or groundwater, including saline waters, within the boundaries of the state" (California Water Code, Section 13050[e]). Developments with impacts on jurisdictional waters must demonstrate compliance with the goals of the Porter–Cologne Act by developing stormwater pollution prevention plans, standard urban stormwater mitigation plans, and other measures to obtain a Clean Water Act (CWA) Section 401 certification. If a CWA Section 404 permit is not required for the project, the RWQCB may still require a permit (i.e., Waste Discharge Requirement) for impacts to waters of the state under the Porter–Cologne Act.

California Environmental Quality Act

CEQA (California Public Resources Code [PRC], Section 21000 et seq.) and the CEQA Guidelines (14 CCR 15000 et seq.) require identification of a project's potentially significant impacts on biological resources and feasible mitigation measures and alternatives that could avoid or reduce significant impacts. CEQA Guidelines Section 15380(b)(1) defines endangered animals or plants as species or subspecies whose "survival and reproduction in the wild are in immediate jeopardy from one or more causes, including loss of habitat, change in habitat, overexploitation, predation, competition, disease, or other factors" (14 CCR 15000 et seq.). A rare animal or plant is defined in CEQA Guidelines Section 15380(b)(2) as a species that, although not currently threatened with extinction, exists "in such small numbers throughout all or a significant portion of its range that it may become endangered if its environment worsens; or…[t]he species is likely to become endangered within the foreseeable future throughout all or a significant portion of its range and may be considered 'threatened' as that term is used in the federal Endangered Species Act." Additionally, an animal or plant may be presumed to be endangered, rare, or threatened if it meets the criteria for listing, as defined further in CEQA Guidelines Section 15380(c). CEQA also requires identification of a project's potentially significant impacts on riparian habitats (such as wetlands, bays, estuaries, and marshes) and other sensitive natural communities, including habitats occupied by endangered, rare, and threatened species.

In Title 14 of the California Code of Regulations (CCR), Section 1.72, CDFW defines a "stream" (including creeks and rivers) as "a body of water that flows at least periodically or intermittently through a bed or channel having banks and supports fish or other aquatic life. This includes watercourses having surface or subsurface flow that supports or has supported riparian vegetation."

In 14 CCR 1.56, CDFW's definition of "lake" includes "natural lakes or man-made reservoirs." Diversion, obstruction, or changes to the natural flow or bed, channel, or bank of any river, stream, or lake that supports fish or wildlife requires authorization from CDFW by means of entering into an agreement pursuant to Section 1602 of the California FGC.

CDFW recognizes that all plants with CRPR 1A, 1B, and 2 and some with CRPR 3 of the California Native Plant Society Inventory of Rare and Endangered Plants in California may meet the criteria for listing as threatened or endangered and should be considered under CEQA (CNPS 2023a). Some of the CRPR 3 and 4 plants meet the criteria for determination as "rare" or "endangered" as defined in Section 1901, Chapter 10 (Native Plant Protection Act), Division 2, of the California FGC, as well as Section 2062 and Section 2067, Chapter 1.5 (CESA), Division 3. Therefore, consideration under CEQA for these CRPR 3 and 4 species is strongly recommended by the California Native Plant Society (CNPS 2023a).

For purposes of this report, animals considered "rare" under CEQA include endangered or threatened species, California Species of Special Concern (CDFW 2023a), and fully protected species.

Section IV, Appendix G (Environmental Checklist Form) of the CEQA Guidelines (14 CCR 15000 et seq.) requires an evaluation of impacts to "any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game [now CDFW] or the U.S. Fish and Wildlife Service."

Local

El Dorado County General Plan

The El Dorado County General Plan (last amended 2019) addresses policies to help preserve and restore vegetation, wildlife, biological habitat, and aquatic resources throughout the County, including ways to ensure that these important natural resources are given adequate attention in development projects and master planning efforts. Additionally, the Conservation and Open Space Element of the General Plan describes protection measures and provides a management/acquisition for continued preservation and protection of the County's natural resource habitats Applicable policies from the Conservation and Open Space Element of the General Plan is listed below (El Dorado County 2019a).

Conservation and Open Space Element

Goal 7.3: Water Quality and Quantity. Conserve, enhance, and manage water resources and protect their quality from degradation.

Objective 7.3.3: Wetlands. Protection of natural and man-made wetlands, vernal pools, wet meadows, and riparian areas from impacts related to development for their importance to wildlife habitat, water purification, scenic values, and unique and sensitive plant life.

Policy 7.3.3.1: For projects that would result in the discharge of material to or that may affect the function and value of river, stream, lake, pond, or wetland features, the application shall include a delineation of all such features. For wetlands, the delineation shall be conducted using the U.S. Army Corps of Engineers (USACE) Wetland Delineation Manual.

Policy 7.3.3.5: Rivers, streams, lakes and ponds, and wetlands shall be integrated into new development in such a way that they enhance the aesthetic and natural character of the site while disturbance to the resource is avoided or minimized and fragmentation is limited.

Objective 7.3.4: Drainage. Protection and utilization of natural drainage patterns.

Policy 7.3.4.1: Natural watercourses shall be integrated into new development in such a way that they enhance the aesthetic and natural character of the site without disturbance.

Policy 7.3.4.2: Modification of natural stream beds and flow shall be regulated to ensure that adequate mitigation measures are utilized.

Goal 7.4: Wildlife and Vegetation Resources. Identify, conserve, and manage wildlife, wildlife habitat, fisheries, and vegetation resources of significant biological, ecological, and recreational value.

Objective 7.4.2: Identify and protect resources. Identification and protection, where feasible, of critical fish and wildlife habitat including deer winter, summer, and fawning ranges; deer migration

routes; stream and river riparian habitat; lake shore habitat; fish spawning areas; wetlands; wildlife corridors; and diverse wildlife habitat.

Policy 7.4.2.1: The County will coordinate wildlife and vegetation protection programs with appropriate Federal and State agencies.

Policy 7.4.2.2: The County shall continue to support the Noxious Weed Management Group in its efforts to reduce and eliminate noxious weed infestations to protect native habitats and to reduce fire hazards.

Policy 7.4.2.4: Protect and preserve wildlife habitat corridors within public parks and natural resource protection areas to allow for wildlife use. Recreational uses within these areas shall be limited to those activities that do not require grading or vegetation removal.

Policy 7.4.2.5: Setbacks from all rivers, streams, and lakes shall be included in the Zoning Ordinance for all ministerial and discretionary development projects.

Policy 7.4.2.8: Conserve contiguous blocks of important habitat to offset the effects of increased habitat loss and fragmentation elsewhere in the County through a Biological Resource Mitigation Program.

Objective 7.4.4: Forest, oak woodland, and tree resources. Protect and conserve forest, oak woodland, and tree resources for their wildlife habitat, recreation, water production, domestic livestock grazing, production of a sustainable flow of wood products, and aesthetic values.

Policy 7.4.4.2: Through the review of discretionary projects, the County, consistent with any limitations imposed by State law, shall encourage the protection, planting, restoration, and regeneration of native trees in new developments and within existing communities.

Policy 7.4.4.4: For all new development projects or actions that result in impacts to oak woodlands and/or individual native oak trees, including Heritage Trees, the County shall require mitigation as outlined in the El Dorado County Oak Resources Management Plan (ORMP). The ORMP functions as the oak resource's component of the County's biological resources mitigation program.

El Dorado County Oak Resources Management Plan (ORMP)

The County's ORMP, as last revised in September 2017, defines mitigation requirements for impacts to oak resources (oak woodlands, individual native oak trees, and Heritage Trees) and outlines the County's strategy for oak woodland conservation. The ORMP functions as the oak resources component of the County's biological resources mitigation program, identified in General Plan Policy 7.4.4.4. The ORMP identifies standards for oak woodland and native oak tree impact determination, mechanisms to mitigate oak woodland and native oak tree impacts, technical report submittal requirements, minimum qualifications for technical report preparation, mitigation monitoring and reporting requirements, and projects or actions that are exempt from mitigation requirements. The ORMP also establishes an in-lieu fee payment option for impacts to oak resources, identifies Priority Conservation Areas (PCAs) where oak woodland conservation efforts may be focused, and outlines minimum standards for identification of oak woodland conservation areas outside the PCAs. Requirements for

maintenance and monitoring of conserved oak woodland areas and identification of allowable uses within conserved oak woodland areas are also included in the ORMP. Lastly, the ORMP establishes a plan for voluntary conservation that landowners, the County, and others may use to seek grants and cost sharing from state programs for oak woodland conservation in the county.

El Dorado County Zoning Ordinance

Chapter 130.30, General Development Standards, of the El Dorado County Zoning Ordinance establishes the County's general development standards for development within all zone districts. These include requirements for minimum size and width of lots, setbacks, height limits, fences, walls (including retaining walls), hillside development, and gates. Chapter 130.30.030.G identifies setbacks required for the protection of wetlands and sensitive riparian habitat. For ministerial project permits, the minimum required setbacks are 25 feet from any intermittent stream, wetland, or sensitive riparian habitat and 50 feet from any perennial lake, river, or stream. For projects subject to discretionary development approvals, setbacks must be sufficient to reduce impacts to wetlands and sensitive riparian habitat to a less than significant level, as determined by a biological resource evaluation. In addition, Table 130.30.030.G.1 establishes specific riparian setbacks from major lakes, reservoirs, rivers, streams, and creeks (El Dorado County 2019b).

El Dorado County Oak Conservation Ordinance

The Oak Conservation Ordinance (Ordinance No. 5061, Chapter 130.39- Oak Resources Conservation, Title 130), adopts General Plan Policy 7.4.4.4 to implement the ORMP. The Oak Conservation Ordinance encourages on-site retention and discourages any unnecessary removal of oak trees by charging an in-lieu mitigation fee for the removal of oak trees and oak woodlands (El Dorado County 2017).

3.3.3 Thresholds of Significance

Thresholds of significance are used to determine the significance of a project's environmental effects. Per Section 15064.7 of the CEQA Guidelines, a threshold is an identifiable quantitative, qualitative or performance level of particular environmental effect, non-compliance with which means the effect will normally be determined to be significant and compliance with normally means the effect will be determined to be less than significant. A significant impact would occur if development of the proposed project would do any of the following:

- Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service.
- Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service.
- Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.
- Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.

- Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.
- Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

Significance Threshold Criteria Not Applicable to the Proposed Project

The proposed project is not located within an adopted Habitat Conservation Plan, Natural Community Conservation Plan, Oak Woodland Priority Conservation Area (El Dorado County 2017), or Ecological Preserves Overlay (El Dorado County 2004). Therefore, there would be no impact, and this threshold is not further discussed.

3.3.4 Impacts and Mitigation Measures

Methodology

This section addresses the potential direct and indirect impacts on biological resources that would result from implementation of the proposed project, including off-site areas, and provides an analysis of significance for each impact. The analysis of project impacts to biological resources draws from the baseline information summarized in the following reports: Updated Biological Resources Constraints Report (January 2025), Biological Resources Constraints Report (November 2023), Creekside Village Project Aquatic Resources Delineation Report (November 2023), updated Oak Resources Technical Report (December 2024), and the Oak Resources Technical Report (January 2019) (Appendix C). For those impacts considered to be potentially significant under CEQA, measures are proposed to avoid, minimize, and/or mitigate the impacts. Land cover impacts are presented in Table 3.3-3.

Field reconnaissance surveys were conducted on August 20, 2019, December 10, 2020, January 13, 2021, and April 19, 2022. In addition, from January to June 2024, wet and dry season surveys were conducted to evaluate the potential presence of special-status vernal pool species. The protocol-level branchiopod survey was conducted using two methodologies: dipnet surveys were conducted in the wet season (January to April 2024), and dry season soil samples were taken in June 2024 and analyzed for the presence of cysts from large, listed branchiopods.

The technical reports (updated Biological Resources Constraints Report, Creekside Village Project Aquatic Resources Delineation Report, updated Oak Resources Technical Report) prepared for the project included the proposed emergency vehicle access road within the project study area for the purposes of determining impacts to habitats, so impacts related to disturbance and development of the emergency access road are included in Table 3.3-3 and the discussion of project site impacts throughout this section. Impact acreages to the offsite areas along Latrobe Road and for transportation intersection and sewer improvements are not included in this table but would be limited to developed/disturbed land covers within the existing roadways and the roadway rights-of-way.

Table 3.3-3. Summary of Impacts to Vegetation Communities, Aquatic Habitats, and Land Covers within the Project Site and Emergency Access Road

Vegetation Community / Land Cover Type	Total Acreage
California Annual Grassland	180.78
Blue Oak Woodland	0.20
Developed/Disturbed	0.54
Riverine [a]	2.58
Seasonal Wetland [a]	1.33

Table 3.3-3. Summary of Impacts to Vegetation Communities, Aquatic Habitats, and Land Covers within the Project Site and Emergency Access Road

Vegetation Community / Land Cover Type	Total Acreage
Valley Foothill Riparian	0.10
Vernal Pool	0.07
Total	185.59

Source: Appendix C.
Notes:
[a] Riverine includes acreages for intermittent and ephemeral drainage features; Seasonal Wetland includes seeps, riverine seasonal wetland, seasonal wetland, and wetland swale features.

As described in Chapter 2, Project Description, the project includes two development options. The first option would be to convert the 1.8-acres of neighborhood commercial to park uses if neighborhood commercial is not adopted as part of the Specific Plan. The second option proposes construction of up to 768 age-restricted units and 150 conventional homes. The potential impacts to biological resources are not expected to be different with implementation of the neighborhood commercial nor the adult option because the development footprint, intensity, and disturbed area would remain the same as under the proposed project. Therefore, the impact analysis below does not evaluate these options in detail.

Project Impacts

Impact 3.3-1. The proposed project could have an adverse effect on candidate, sensitive, or special-status plant and wildlife species.

Special-Status Plants

Six special-status plant species have a moderate potential to occur within the project site: dwarf downingia, Tuolumne button-celery, Boggs Lake hedge-hyssop, Ahart's dwarf rush, legenere, and pincushion navarretia. There is one plant species, Sanford's arrowhead that has a low potential to occur. These species typically grow in seasonal wetlands or vernal pools with similar water regimes. None of these species were observed on the project site during the protocol-level botanical survey conducted in April 2022 (Appendix C), or during reconnaissance-level surveys conducted at the project site between 2019 to 2021. Suitable habitat occurs within the project site for these special-status plants; therefore, a potential exists for individuals or populations of these species to become established in future growing seasons prior to project development. Protocol (CDFW 2018) recommends that surveys for special-status plants be carried out annually in grassland areas where conditions are highly variable and annual plants may not be detectable (e.g., in low rain years like 2022).

Impacts could include the destruction of individual plants or populations of plants that may become established prior to ground disturbance. This is a **potentially significant impact**.

Off-site Infrastructure

The discussion of project site impacts includes the emergency access road, which is within an undeveloped area. All of what are considered offsite impacts in this analysis would be in Latrobe Road or adjacent developed/disturbed areas. Therefore, special-status plants would not be present due to lack of suitable habitat. in those areas and would not be affected. **No impact** would occur to special-status plants from offsite infrastructure development.

Special-Status Wildlife

Ten special-status wildlife species (includes birds, mammals, invertebrates, reptiles) have potential to occur within the project site: pallid bat, American badger, monarch butterfly, burrowing owl, tricolored blackbird, white-tailed kite, golden eagle, Swainson's hawk, grasshopper sparrow, and northwestern pond turtle. Of these species only 4 have a high to moderate potential to occur within the project site; tricolored blackbird, grasshopper sparrow, burrowing owl, and white-tailed kite. The remaining species all have a low potential to occur. Although the northwestern pond turtle has a low potential to be present, potential impacts to this species is discussed below because of nearby records of the species.

Northwestern Pond Turtle. Four occurrences of northwestern pond turtle have been recorded within a five-mile radius of the site, with the closest two (#1316 and 468) resulting from observations in Carson Creek, 0.5 miles west of the project site in 2016, and Deer Creek where it intersects Latrobe Road, 0.9 miles southeast of the project site in 1988. This species was only recently proposed as threatened under the federal Endangered Species Act; therefore, surveys were not consistently conducted for this species and detections may not have been uploaded into databases, as the USFWS does not yet have a standard protocol survey established. The project site does contain potentially suitable aquatic habitat for the northwestern pond turtle, particularly within the intermittent drainage when flooded. Annual grasslands adjacent to the intermittent drainage also provide suitable upland nesting habitat. However, it is unlikely that northwestern pond turtles would occur in intermittent drainage feature and adjacent uplands within 0.25-mile (1,320 feet) because of insufficient water in the drainage feature year-round. To date, this species has not been observed within this marginally suitable habitat during numerous survey efforts, including aquatic resource delineation and protocol-level branchiopod surveys. The drainage feature only has sufficient water during the winter and spring months, and it is typically dry by late spring. Also, the intermittent drainage is narrow (3-5 feet wide at the most), is densely vegetated throughout most of it, and has incised steep banks. Since the aquatic feature is mostly unsuitable habitat for northwestern pond turtle, it is unlikely any individuals would move upstream from the larger creek to the west into the project site. Also, there is no substantial open water upstream from where they may originate. Further, unrelated development has occurred between the project site and the nearest record along Carson Creek, greatly reducing the chance that a northwestern pond turtle from that aquatic habitat would nest within or otherwise use the project site.

Given the marginally suitable aquatic habitat present, the project would have low potential to directly impact northwestern pond turtle. However, if present, construction activities such as filling and grading could lead to harm to turtles or their nests. The project could also lead to a decrease in the quantity and quality of habitat due to changes in hydrology related to the installation of culverts or bridges, grading, or the construction of impervious surfaces, which could prevent adult turtles from using the affected habitats for nesting. Water quality could also be reduced by increasing the extent of bare soil. Once construction is complete and the project is occupied, human presence and disturbance may continue to result in impacts to this species if present and would permanently reduce habitat suitability. The project could also result in indirect effects to northwestern pond turtles that may be present in the Carson Creek Preserve area downstream of the project site. Therefore, impacts to northwestern pond turtles are considered **potentially significant**.

Tricolored Blackbird. The project site provides potential nesting habitat for tricolored blackbird. There is a CNDDB record of a tricolored blackbird nesting colony at the project site in 2022 (CNDDB Occurrence #1012). This occurrence is associated with an intermittent channel and supports dense thickets of Himalayan blackberry and a few willows, which provide suitable habitat to support this colony (CDFW 2023a). The nesting colony reported in CNDDB was observed in clusters of Himalayan blackberry in riparian wetlands on and adjacent to the project site associated with the intermittent channel during a survey conducted in 2022. The tricolored blackbird nesting

colony was observed again incidentally during surveys conducted in 2024. This nesting colony likely returns to these blackberry thickets most years because it continues to have successful nests. The colony is one of twelve colony locations in the county tracked in the Tricolored Blackbird Portal (UC Davis 2024) and was an active breeding colony during surveys in 2022 (an estimated 1,300 tricolored blackbirds present at peak) and 2023 (an estimated 250 tricolored blackbirds present at peak). The Tricolored Blackbird Portal also records colony locations just south and just west of the project site.

Project grading would result in the removal of approximately 0.10-acres of Valley Foothill riparian (e.g., blackberry thicket associated with riparian wetland) that is suitable for tricolored blackbird nesting habitat. Indirect human disturbances and noise from construction activities have the potential to cause colony abandonment and death of young or loss of reproductive success during nesting season. Human occupation of the portion of the project site nearest to the nesting colony location after construction is complete could result in disturbance of future nesting colony activities, potentially causing tricolored blackbirds to discontinue use of this nesting habitat. Therefore, the impact to tricolored blackbirds would be considered **potentially significant**.

Tricolored blackbird is threatened under the California ESA (CESA). In the event that impacts are unavoidable and an incidental take permit would be required under CESA and CDFW may require mitigation. CESA requires impacts to be "fully mitigated" (CA Fish and Game Code Section 2081(b)(2)), a threshold higher than what is required under CEQA.

Burrowing Owl. Annual grassland habitat within the project site provides potential nesting and foraging habitat for burrowing owl. No burrowing owls or grasshopper sparrows or active nests were observed during the biological surveys, but no protocol-level surveys were conducted (Appendix C). Some soils within the project site are sandy and friable, which could provide suitable burrowing sites. While no soil mounds were visible during the field surveys, surrounding fence posts would provide suitable perches above potential nests within the annual grassland habitat. The annual grassland habitat also provides suitable foraging habitat for this species. Direct impacts could include mortality or injury to owls or destruction of burrows/nests if owls are present in or adjacent to the project footprint during ground-disturbing activities. In addition, loud construction activities could cause indirect impacts (extending up to 500 feet from the limits of construction) leading to an adult owl to abandon an active nest burrow that is in close proximity to construction, which could lead to nest failure and the mortality of young. Following project construction, ongoing human disturbance from residents and visitors to the site could indirectly affect burrowing owl use of suitable habitat within open space or preserve areas or adjacent offsite areas. Therefore, the impact to burrowing owl would be considered **potentially significant**.

The burrowing owl is a candidate species under CESA, if the species is present, and could be impacted by the project, then an incidental take permit may be required under CESA. CDFW may require compensatory mitigation, to meet the "fully mitigated" standard (CA Fish and Game Code Section 2081(b)(2)), a threshold higher than CEQA requirements.

Other Nesting and Migratory Birds and Birds of Prey (including white-tailed kite and grasshopper sparrow). Suitable nest trees are located within and adjacent to the project site providing nesting habitat for a variety of native birds and raptors protected by the California FGC and the MBTA. Habitat features within the project site and adjacent areas, such as trees, shrubs, and herbaceous plants, could also serve as nesting habitats or foraging areas for common migratory birds and raptors, including the state Fully Protected white-tailed kite. Should any protected birds such as grasshopper sparrow or raptors occur in the project site while nesting, they could be impacted by project construction. Direct and indirect impacts to nesting birds and raptors would be similar to those described above for burrowing owl and tricolored blackbird. The impact to nesting birds would be

less than significant if construction activities occur during the non-breeding season (i.e., from September 1 through January 31). Construction activities conducted during the breeding season while an active nest is present would be considered **potentially significant**.

Offsite Infrastructure

The discussion of project site impacts includes the emergency access road, which is within an undeveloped area. All of what are considered offsite impacts in this analysis would be in Latrobe Road or adjacent developed/disturbed areas. The offsite impact areas are either not suitable or are too near to high levels of disturbance (e.g., Latrobe Road) to be considered habitat for burrowing owl and no vernal pools or other habitat for vernal pool branchiopod species was documented in the offsite areas (Appendix C). Impacts to burrowing owl and vernal pool branchiopod species from offsite infrastructure construction would be **less than significant**.

However, there is some potential for tricolored blackbird to be present in the riparian habitat along the perennial drainage area near the water treatment plant. If the species were present, it could be subject to indirect impacts from project construction. There is also some potential for northwestern pond turtle to be present in the perennial drainage area near the water treatment plant. If these species were present, they could be subject to indirect impacts from project construction, or even direct effects if they were to inhabit uplands areas adjacent to the habitat. This is a **potentially significant impact**.

Mitigation Measures

Compliance with mitigation measure BIO-1 would ensure impacts to special-status plant species (dwarf downingia, Tuolumne button-celery, Boggs Lake hedge-hyssop, Ahart's dwarf rush, legenere, and pincushion navarretia) would be reduced to a less-than-significant level by requiring plant surveys be conducted if more than a year has elapsed since the prior survey, and also requiring avoidance or salvage/transplanting if special-status plant cannot be avoided. Compliance with mitigation measures BIO-2 and BIO-3 would reduce overall project impacts to wetland habitats through delineation of work sites and worker environmental training that would collectively reduce potential impacts to a **less-than-significant level**.

With implementation of mitigation measures BIO-2, BIO-3, and BIO-4 the project's impact, both onsite and offsite on northwestern pond turtle would be reduced to less than significant. These measures require preconstruction surveys and construction monitoring to ensure the avoidance of the species, worker environmental training, and proper delineation of work sites. If project maintenance of existing vehicular/pedestrian crossings or utility crossings above and/or below the creek becomes necessary, a Streambed Alteration Agreement from CDFW would be obtained, which could stipulate additional protection measures for the northwestern pond turtle. This would ensure the project's impact on the species is reduced to a **less-than-significant level**.

Implementation of mitigation measure BIO-5 would reduce impacts to tricolored blackbird by requiring pre-construction nesting bird surveys and avoidance of occupied colony sites, both onsite and offsite. Mitigation measure BIO-6 would require that the project applicant provide compensatory mitigation for direct and indirect impacts to the tricolored blackbird colony from project construction. Finally, compliance with mitigation measures BIO-2 and BIO-3 would reduce the project's impact to tricolored blackbird through proper delineation of work sites, and worker environmental training. Taken together, implementation of these mitigation measures would reduce potential impacts to **less than significant**.

Implementation of mitigation measure BIO-7 would reduce impacts to burrowing owl by requiring pre-construction nesting bird surveys and avoidance of occupied burrowing owl nest locations. Compliance with mitigation measure BIO-2 and BIO-3 would reduce the project's impact to burrowing owl through delineation of work sites, and worker environmental training. Taken together, implementation of these mitigation measures would reduce potential impacts to **a less-than-significant level**.

Implementation of mitigation measure BIO-5 which involves preconstruction surveys for nesting birds and implementation of avoidance buffers (during the nesting season February through August), would avoid and/or minimize potential impacts to these species reducing potential impacts to **less than significant.**

BIO-1: Rare Plant Survey. If more than three years has elapsed since the last protocol-level rare plant survey in April 2022 (i.e., April 2025), a qualified botanist shall conduct plant surveys during the appropriate blooming period for potentially occurring special-status plant species prior to ground disturbance. The purpose of the survey shall be to delineate and flag populations of special-status plant species for avoidance. Special-status plant populations identified during the pre-construction survey shall be mapped using a hand-held submeter GPS unit and avoided where possible. Plant individuals or populations plus a 10-foot buffer shall be temporarily fenced during construction activities with high-visibility fencing or prominently flagged. If complete avoidance of populations is infeasible, further measures, as described below, shall be necessary.

If avoidance of special-status plant species is not feasible, a Rare Plant Salvage and Translocation Plan shall be prepared by a qualified botanist prior to implementation. The Rare Plant Salvage and Translocation Plan shall include, at a minimum: identification of occupied habitat to be preserved and removed; identification of on-site or off-site preservation, restoration, or enhancement locations; methods for preservation, restoration, enhancement, and/or translocation; goals and objectives; replacement ratio and success standard of 1:1 for impacted to established acreage; a monitoring program to ensure mitigation success; and adaptive management and remedial measures in the event that the performance standards are not achieved. If replanting and preservation occurs off-site, the replanting shall occur within existing rare plant preserves within the County that will be maintained in perpetuity.

Timing/Implementation: The developer/applicant shall be responsible for ensuring implementation of Mitigation Measure BIO-1. If a pre-construction survey is required (per the circumstances described in Mitigation Measure BIO-1), County Planning Services shall verify the survey's completion within 7 days of any ground disturbing activities. If grading would occur for implementation of improvements and/or infrastructure through the County Department of Transportation (DOT), DOT shall verify the completion of survey prior any ground disturbing activities. This mitigation measure shall be included as a note on any Final Map, grading plans, and construction plans.

BIO-2: Environmental Awareness Training. Before any work occurs in the project site, including site clearing, grading, and equipment staging, all construction personnel shall participate in an environmental awareness training provided by a qualified biologist regarding special-status species and sensitive habitats present in the project site. If new construction personnel are added to the project, they must receive the mandatory training before starting work. As part of the training, an environmental awareness handout shall be provided to all personnel that describes and illustrates sensitive resources to be avoided during project construction. The environmental

awareness handout shall be included with any grading permit plans being reviewed/to be reviewed by the County. This mitigation measure shall be noted on any Final Map, grading plans, and construction plans.

BIO-3: Work Area Delineation and Fencing. Before any site clearing, grading or other ground-disturbing activity occurs within the project site, the project applicant shall ensure that temporary orange barrier fencing is installed around the project site adjacent to sensitive habitat areas to be avoided, as appropriate. Construction personnel and construction activities shall avoid areas outside the fencing. The exact location of the fencing shall be determined by the resident construction contractor coordinating with a qualified biologist, with the goal of protecting sensitive biological habitat and water quality. The fencing material shall consist of temporary plastic mesh-type construction fence (Tensor Polygrid or equivalent) installed between the work area and environmentally sensitive habitat areas (i.e., waters of the U.S., special-status wildlife habitat, active bird nests), as appropriate. To minimize potential ground disturbance, the base of the fencing shall not be buried or keyed-in. Installation of the barrier fence shall occur under the supervision of a qualified biologist. The temporary orange barrier fencing shall also be installed in a manner that is consistent with applicable water quality requirements contained within the project's Stormwater Pollution Prevention Plan (SWPPP) or Water Pollution Control Plan (WPCP). The fencing shall be shown on any grading permit plans, building permit plans, and any final construction documents. The fencing shall be checked regularly and maintained until all construction is complete. No construction activity shall be allowed until this condition is satisfied. This mitigation measure shall be noted on any grading plans and/or construction plans.

BIO-4: Northwestern Pond Turtle Avoidance. To minimize adverse impacts on northwestern pond turtles and their habitat from project construction activities occurring within suitable habitat (intermittent stream and adjacent uplands), the project applicant and/or its contractor(s) shall implement the following measures during construction activities that require in-water work or ground disturbance within 300 feet of aquatic habitat in uninterrupted upland habitat (or within suitable upland habitat [e.g., annual grassland or valley foothill riparian]) or suitable aquatic habitat to minimize adverse impacts on northwestern pond turtles and their habitat:

- A qualified biologist shall be retained to conduct pre-construction visual encounter surveys of aquatic habitat for northwestern pond turtle occupancy. A minimum of two surveys shall be conducted at least 2 weeks apart during the morning (within 2 hours of 8:00 a.m.) or mid-afternoon (3:00 to 5:00 p.m.) when northwestern pond turtles are typically basking and the first inspection shall be completed no more than 4 weeks before construction activities commence. The purpose of the survey is to identify occupied aquatic habitat features around which further investigations of upland nesting would need to occur in subsequent measures. If no northwestern pond turtles are detected, implementation of the bullets listed below shall not be required. If northwestern pond turtle is detected during the surveys, the measures below shall be implemented.
- *(If detected during the pre-construction survey above)* Qualified biologists shall conduct visual detection/nesting surveys of upland areas for northwestern pond turtle within 160 feet of occupied aquatic habitat in May and June prior to project construction activities (including site clearing/grading) to mark/flag/protect as many nests as possible. An exclusion buffer of at least 50 feet around any found northwestern pond turtle nests shall

be created by installing construction fencing or another obvious barrier that shall not be crossed by construction equipment.

- *(If detected during the pre-construction survey above)* To prevent entrapment within the active work area, the biologist shall monitor any potential dewatering and/or diversion work to rescue and with necessary handling permits and prior approval from U.S. Fish and Wildlife Service and California Department of Fish and Wildlife will relocate northwestern pond turtles and other native aquatic wildlife species from to suitable habitat outside the work area.
- *(If detected during the pre-construction survey above)* Eggs shall be covered slightly with dry soil by the biologist and the nest site protected from construction/ predation (flagging, cage over the spot, etc.). The biological monitor or other responsible on-site party shall call USFWS (if species is listed under the ESA) and CDFW for further direction and the eggs shall not be moved unless direction from USFWS (if applicable) and CDFW to do so is received. If live hatchlings are excavated between August 1 through October 31, a qualified biologist with an appropriate handling permit from USFWS and CDFW shall transfer the neonates to the source water body nearest the nest site. If live hatchlings are excavated between November 1 through February 29, the nestling turtles will not survive outside the nest and must be transferred by a qualified biologist with a handling permit from USFWS and CDFW to a licensed wildlife rehabilitator.
- All equipment (e.g., buckets, boots, waders) that has contact with water bodies shall be sterilized in accordance with the CDFW Aquatic Invasive Species Disinfection/Decontamination Protocols (https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=92821) or current guidance.

Timing/Implementation: The developer/ applicant shall be responsible for ensuring implementation of Mitigation Measure BIO-5. Per the circumstances described in Mitigation Measure BIO-5, the pre-construction survey shall be completed prior to any ground-disturbing activities. This mitigation measure shall be noted on any Final Map, grading plans, and construction plans.

BIO-5: Nesting Bird Avoidance. If site clearing, grading and other construction activities begin during the nesting season (February 1 to August 31), a qualified biologist (as approved by California Department of Fish and Wildlife [CDFW]) shall conduct a preconstruction survey for active nests in suitable nesting habitat within 500 feet of the disturbance area for nesting raptors, including white-tailed kite, and 250 feet for other nesting birds, including tricolored blackbird and grasshopper sparrow. Areas adjacent to the project site that are inaccessible due to private property restrictions shall be surveyed using binoculars from the nearest vantage point. The survey shall be conducted by a qualified biologist no more than seven days prior to the onset of grading or construction activities. If no active nests are identified during the preconstruction survey, no further mitigation is necessary. Also, if construction is initiated outside of the nesting season no surveys are required for activities occurring in previously disturbed and continually active portions of the project.

If any active nests are observed during the surveys, a qualified biologist shall establish a suitable avoidance buffer from the active nest, as approved by CDFW. The buffer distance, to be determined by the qualified biologist, shall typically range from 50 to 300 feet, and shall be determined based on factors such as the species of bird, topographic features, intensity and extent of the disturbance, timing relative to the nesting cycle, and anticipated ground disturbance

schedule. Limits of construction to avoid active nests shall be established in the field with flagging, fencing, or other appropriate barriers and shall be maintained until the chicks have fledged and the nests are no longer active, as determined by the qualified biologist.

If at any time during the nesting season construction stops for a period of 7 days or longer, preconstruction surveys shall be conducted prior to construction resuming.

Timing/Implementation: The developer/ applicant shall be responsible for ensuring implementation of Mitigation Measure BIO-5. If a pre-construction survey is required (per the circumstances described in Mitigation Measure BIO-5), the survey's completion shall be within 7 days of any ground-disturbing activities. This mitigation measure shall be noted on any Final Map, grading plans, and construction plans.

BIO-6: Tricolored Blackbird Compensatory Mitigation. The project applicant shall purchase at least 0.30 acres of tricolored blackbird preservation credits (3:1 ratio for 0.10 acres of direct impacts) plus additional preservation credits for permanent disturbance of a breeding colony location if determined appropriate by the California Department of Fish and Wildlife (CDFW) during consultation under CESA during the Incidental Take Permit process. Credits shall be purchased at a conservation bank approved by CDFW for tricolored blackbird with a service area including the project, or at a conservation bank with a service area not including the project upon further approval of CDFW. Proof of purchase shall be provided to CDFW and El Dorado County prior to the issuance of any grading or building permit within 250 feet of the tricolored blackbird colony location.

BIO-7: Burrowing Owl Avoidance. Pre-construction surveys for burrowing owls shall be conducted by a qualified biologist prior to where clearing, grading or construction activities are planned within 500 feet of suitable habitat. Areas adjacent to the project site that are inaccessible due to private property restrictions shall be surveyed using binoculars from the nearest vantage point. Surveys shall be conducted no more than 30 days and no less than 14 days prior to the commencement of construction activities. If construction activities are delayed for more than 30 days after the initial preconstruction surveys, then a new preconstruction survey shall be required. All surveys shall be conducted in accordance with the Staff Report on Burrowing Owl Mitigation (CDFW, 2012). This mitigation shall be implemented by the project applicant or their contractor.

- If burrowing owls are discovered on the project site during construction, the California Department of Fish and Wildlife (CDFW) approved biologist shall be notified immediately. Occupied burrows shall not be disturbed without prior approval from CDFW, and if necessary, possession of a CDFW Incidental Take Permit may be requried for the species.
- If active burrows are observed within 500 feet of the project site, an impact assessment shall be prepared and submitted to the CDFW, in accordance with the *Staff Report on Burrowing Owl Mitigation* (CDFW, 2012). If it is determined that project activities may result in impacts to nesting, occupied, and satellite burrows and/or burrowing owl habitat, the project applicant shall delay commencement of construction activities until the biologist determines that the burrowing owls have fledged and the burrow is no longer occupied. If this is infeasible, the project applicant shall consult with CDFW to obtain an Incidental Take Pemit (if necessary based on species listing decision) and develop a detailed mitigation plan such that the habitat acreage, number of burrows, and burrowing owls impacted are replaced. The

mitigation plan shall be based on the requirements set forth in Appendix F of the *Staff Report on Burrowing Owl Mitigation* (CDFW, 2012). No construction can commence until CDFW has approved the mitigation plan. The mitigation prescribed by the mitigation plan shall meet the following requirements:

- Mitigation lands shall be selected based on comparison of the habitat lost to the compensatory habitat, including type and structure of habitat, disturbance levels, potential for conflicts with humans, pets, and other wildlife, density of burrowing owls, and relative importance of the habitat to the species range wide.
- If feasible, mitigation lands shall be provided adjacent or proximate to the site so that displaced owls can relocate with reduced risk of take. Feasibility of providing mitigation adjacent or proximate to the proposed project area depends on availability of sufficient suitable habitat to support displaced owls that may be preserved in perpetuity.
- If suitable habitat is not available for conservation adjacent or proximate to the proposed project area, mitigation lands shall be focused on consolidating and enlarging conservation areas outside of urban and planned growth areas and within foraging distance of other conservation lands. Mitigation may be accomplished through purchase of mitigation credits at a CDFW-approved mitigation bank, if available. If mitigation credits are not available from an approved bank and mitigation lands are not available adjacent to other conservation lands, alternative mitigation sites and acreage shall be determined in consultation with CDFW.
- If mitigation is not available through an approved mitigation bank and will be completed through permittee-responsible conservation lands, the mitigation plan shall include mitigation objectives, site selection factors, site management roles and responsibilities, vegetation management goals, financial assurances and funding mechanisms, performance standards and success criteria, monitoring and reporting protocols, and adaptive management measures. Success shall be based on the number of adult burrowing owls and pairs using the site and if the numbers are maintained over time. Measures of success, as suggested in the 2012 Staff Report, shall include site tenacity, number of adult owls present and reproducing, colonization by burrowing owls from elsewhere, changes in distribution, and trends in stressors.

Timing/Implementation: The developer/applicant shall be responsible for ensuring implementation of mitigation measure BIO-7. Per the circumstances described in mitigation measure BIO-7, County Planning Services shall verify the pre-construction survey's completion per the timing described in the first paragraph of mitigation measure BIO-7. This mitigation measure shall be noted on any Final Map, grading plans, and construction plans.

Impact 3.3-2. The proposed project could have an adverse effect on riparian habitat or other sensitive natural community.

Two vegetation communities found within the project site are considered of special concern by CDFW and should therefore be considered a sensitive natural community under CEQA: northern hardpan vernal pool and riparian habitat. Project grading would remove approximately 0.10 acre of riparian habitat consisting of Goodding's willow thickets, and 0.07 acre of northern hardpan vernal pool. The removal of these habitats would result in a potentially significant impact on habitat types identified as sensitive natural communities by the CDFW. Removal of vegetation within riparian areas, or any disturbance to the bed, bank, and/or channel would require authorization from CDFW in

the form of a Streambed Alteration Agreement pursuant to Section 1602 of the California FGC. Because these habitats are considered sensitive biological communities by CDFW and have substantial value to wildlife, loss would be considered a **potentially significant impact**.

Off-site Infrastructure

The discussion of project site impacts above includes the emergency access road, which is within an undeveloped area. Offsite impacts in this analysis would be in Latrobe Road or adjacent developed/disturbed areas, where sensitive natural communities are absent or would be completely avoided. Impacts from offsite infrastructure construction to sensitive natural communities would be **less than significant**.

Mitigation Measures

Implementation of mitigation measure BIO-9 would reduce the project's impact on vernal pools to less than significant by providing compensatory mitigation for direct impacts to vernal pool habitat. Compliance with mitigation measures BIO-2 and BIO-3 would reduce overall project impacts to wetland habitats through proper delineation of work sites, worker environmental training, and implementation of BMPs and reduce potential impacts to **less than significant**.

BIO-8: Implement mitigation measures BIO-2, BIO-3, and BIO-9.

Impact 3.3-3. The proposed project could have a substantial adverse effect on state or federally protected wetlands through direct removal, filling, hydrological interruption, or other means.

The project site contains 4.07 acres of aquatic resources that are considered potentially jurisdictional wetlands or other waters under the CWA and/or Porter-Cologne Water Quality Control Act. All perennial, intermittent, and ephemeral channels, along with adjacent wetlands and riparian features within the project site, are expected to fall under the jurisdiction of Section 1600 of the California FGC. Subject to requirements of Section 402 of the federal Clean Water Act, and the National Pollutant Discharge Elimination System (NPDES) permitting process, all construction projects that disturb more than one acre of land are required to prepare and implement a stormwater pollution prevention plan (SWPPP). The SWPPP is incorporated into all project plans and specifications. The restoration construction contractor(s) will be required to post a copy of the SWPPP at the project location, file a notice of intent to discharge stormwater with the RWQCB, and implement all measures required by the SWPPP. A Qualified SWPPP Practitioner (QSP) shall be responsible for construction monitoring to ensure that the provisions of the SWPPP are effectively enforced. In the event of noncompliance, the QSP shall have the authority to shut down the construction site or fine the responsible party or parties.

In addition to onsite resources, the project has the potential to impact aquatic resources and associated habitat values located downstream within the Carson Creek Preserve. This preserve area was required as part of permitting for the Carson Creek Specific Plan in order to ensure no net loss of aquatic resources from buildout of the Carson Creek Specific Plan. The proposed boundary for the Carson Creek Preserve is approximately 3,300 feet downstream of the project site, though no publicly available plans for the Carson Creek Preserve were available at the time of EIR preparation. Project construction could result in increased sedimentation, pollutants, and changes in flow rates or timing to this downstream watershed. Such inputs could result in impacts to these offsite aquatic resources, potentially impacting their aquatic resource and habitat values. However, the project would be designed to include a water quality bioswale, detention basins, and a hydromodification pond (e.g., retention/detention basin) at the western corner of the site. These features would retain and treat on-site

stormwater and settle any entrained runoff pollutants, reducing the potential for off-site water quality degradation. Detention basins would be strategically located throughout the plan area and would capture the upstream developed watershed storm runoff and provide water quality treatment and mitigate for the hydromodification of the receiving watercourse. Operation of the project may also result in impacts to downstream watersheds including the Carson Creek Preserve area through accidental or intentional release of pollutants as noted in Section 3.8, Hydrology and Water Quality. However, the project would comply with various federal, state and local requirements related to minimizing downstream water quality impacts as noted in Section 3.8. The project does integrate streams and others aquatic resources into the project design, as directed by General Plan Policies 7.3.3.5 and 7.3.4.1. However, development of the proposed project would have direct impacts through the removal of 4.07 acres of aquatic resources, resulting in the loss of potentially jurisdictional wetlands and other waters of the U.S. or state protected waters/wetlands. The loss of 4.07 acres of wetlands and other waters of the U.S. or state protected waters/wetlands would result in a **potentially significant impact**.

Off-site Infrastructure

The discussion of project site impacts above includes the emergency access road, which is within an undeveloped area. Offsite impacts in this analysis would be in Latrobe Road or adjacent developed/disturbed areas. However, the offsite study area does include some areas of wetlands and drainages. These wetlands and drainages could be impacted by construction of offsite infrastructure. Effects of offsite infrastructure construction on wetlands would be **a potentially significant impact.**

Mitigation Measures

Implementation of mitigation measure BIO-9 would offset impacts to wetlands through compensatory mitigation to ensure no net loss of wetlands and other waters of the United States. Additionally, mitigation measure BIO-10 would further reduce the project's impacts to the intermittent stream (Riverine) beyond such avoidance already included in the project design. Compliance with mitigation measures BIO-2 and BIO-3 would reduce overall project impacts to wetland habitats through proper delineation of work sites and worker environmental training and reduce potential impacts to **less than significant**.

BIO-9: Wetland Compensatory Mitigation. The project applicant shall demonstrate no net loss of wetlands and other waters of the United States or state. To ensure this, wetland mitigation shall be developed as a part of the permitting process. Mitigation shall be provided to El Dorado County prior to any construction-related impacts to the existing waters/wetlands. The exact mitigation ratio shall be determined in consultation with the applicable permitting agencies, which may include U.S. Army Corps of Engineers (USACE), California Department of Fish and Wildlife (CDFW), and/or the Regional Water Quality Control Board (RWQCB). The amount of mitigation shall be based on the type and value of the waters/wetlands affected by the project, and shall be determined in consultation with the USACE, RWQCB, and/or CDFW during the regulatory permitting process and shall, at a minimum, comply with the Habitat Mitigation Summary Table in Policy 7.4.2.8 of the General Plan. Compensation shall take the form of preservation or creation in accordance with USACE, RWQCB and/or CDFW mitigation requirements, as required under project permits. Preservation and creation may occur offsite through purchasing credits at a USACE, CDFW, and/or RWQCB-approved mitigation banks.

BIO-10: Stream Preservation with Park Design. Final design of the park in Lot K shall preserve a minimum of 0.08 acre of the existing intermittent stream that is adjacent to Q Drive and provide a minimum 50-

foot no-disturbance buffer (within which no ground disturbance shall occur) on both sides of the 0.08 acre of preserved intermittent stream. The park design shall retain the preservation area as a natural aesthetic feature within the park, but shall not include trails, benches, or other park improvements within the preservation area. Final park design shall incorporate fencing, including but not limited to post and cable fencing, around the buffer area to prevent public entry into the channel and buffer. Periodic upland (outside of intermittent stream banks) vegetation and thatch management to protect the ecological integrity of the stream and comply with El Dorado County Code Chapter 8.09 (Vegetation Management and Defensible Space) shall be performed under the direction of a qualified biologist to ensure no impacts to the intermittent stream. The tentative map shall note the preservation area within Lot K as "stream preservation."

BIO-11: Implement mitigation measures BIO-2 and BIO-3.

Impact 3.3-4. The proposed project is unlikely to interfere with established migratory wildlife corridors but could impede the use of native wildlife nursery sites.

Wildlife corridors are essential features that establish connections between two or more areas of habitat, which would otherwise be isolated and unusable. These corridors often include drainages, creeks, or riparian areas, which are frequently used by wildlife for movement as they provide cover and access across a landscape. Drainage features within the project site do not support sufficient riparian vegetation cover preferred by medium- and large-sized mammals to serve as valuable movement corridors. Furthermore, there are no known wildlife movement corridors on or near the project site. The project site is not located in an "Important Biological Corridor" as designated by the El Dorado County General Plan, nor is it identified as a crucial habitat for migratory deer herds (El Dorado County 2010). Given the absence of known wildlife corridors or migration routes in or around the project site, the project's impact on wildlife corridors and migration routes is anticipated to be **less than significant.**

A nesting colony of tricolored blackbirds, considered a native wildlife nursery site, is located in a riparian wetland feature in the western section of the project site. Project grading would remove approximately 0.10-acre of Riparian Wetland habitat suitable for tricolored blackbird nesting. In other portions of the nesting habitat, the limits of grading would be approximately 15 to over 100 feet away. Human disturbance and noise from construction activities could potentially cause colony abandonment and death of young or loss of reproductive success during the nesting season. Disturbance of active nest sites, which could result in nest abandonment, loss of young, or reduced health and vigor of eggs and/or nestlings, would be considered a **potentially significant impact**.

Off-site Infrastructure

The discussion of project site impacts above includes the emergency access road, which is within an undeveloped area. Offsite impacts in this analysis would be in Latrobe Road or adjacent developed/disturbed areas. None of those areas would include wildlife corridors or native wildlife nursery sites. Impacts from offsite infrastructure construction to migratory wildlife corridors and native wildlife nursery sites would be **less than significant**.

Mitigation Measures

Implementation of mitigation measure BIO-5 would reduce impacts to tricolored blackbird by requiring pre-construction nesting bird surveys and avoidance of occupied colony sites. Mitigation measure BIO-6 would require that the project applicant provide compensatory mitigation for direct and indirect impacts to the tricolored blackbird colony on the project site. Finally, compliance with mitigation measures BIO-2 and BIO-3 would reduce

the project's impact to tricolored blackbird through proper delineation of work sites, and worker environmental training. Taken together, implementation of these mitigation measures would reduce potential impacts to tricolored blackbirds to **less than significant**.

BIO-12: Implement mitigation measures BIO-2, BIO-3, BIO-5 and BIO-6.

Impact 3.3-5. The proposed project would not conflict with a local policy or ordinance protecting biological resources, such as a tree preservation policy or ordinance.

The project site contains 0.45 acres of blue oak woodland which is under the jurisdiction of the El Dorado County Oak Resources Conservation Ordinance (County Code Section 130.39). The proposed grading for the project would remove approximately 0.20 acres of this woodland with impacts to impacts to 2 oak trees.

According to the County ordinance, any project that removes less than 50% of the on-site oak woodland is required to provide mitigation at a 1:1 ratio. This mitigation can take several forms, including an in-lieu fee paid to the County (which is used to conserve oak woodland in high priority areas as per the El Dorado County [2017] ORMP), offsite conservation, replacement planting, or a combination of these methods.

This mitigation is incorporated into the development application and must be approved by the County during the review process. Therefore, while the project would result in the removal of some oak woodland, it would not conflict with the local ordinance as the project is required to comply with the County Ordinance and would replace the trees removed based on a 1:1 ratio. The project would not conflict with any other local policies or ordinances aimed at protecting biological resources and the impact would be **less than significant**.

Off-site Infrastructure

The discussion of project site impacts above includes the emergency access road, which is within an undeveloped area. Offsite impacts in this analysis would be in Latrobe Road or adjacent developed/disturbed areas. No oak woodlands are projected to be impacted in offsite areas. Impacts from offsite infrastructure construction related to local policies or ordinances aimed at protecting biological resources would be **less than significant**.

Mitigation Measures

No mitigation measures would be required.

Cumulative Impacts

Cumulative effects to biological resources would occur from the project in combination with other past projects, those remaining to be developed under buildout of the El Dorado County General Plan, and those projects proposed and approved since the adoption of the 2004 General Plan, see Chapter 3. This includes construction of approximately 5,107 new dwelling units within various specific plan and subdivision areas of the County. The cumulative study area for biological resources focuses on those developments that are adjacent to the project site and/or those that are not separated by substantial barriers. For example, development in El Dorado Hills north of White Rock Road and especially north of Highway 50 is not likely to contribute in a substantial way to cumulative impacts from the project to special-status species or wildlife movement because of the major impact to movement and genetic exchange posed by existing development and the major roadway and highway. For wetlands and waters, this same cumulative study area remains valid because it overlaps with the boundaries of

the Carson Creek watershed. Impacts to wetlands and waters from the project would be cumulative with those occurring from other projects in that watershed.

Key cumulative projects that are part of the cumulative study area include Carson Creek Specific Plan to the west, Blackstone (Valley View Specific Plan) to the east, and the Folsom Plan Area west of the project site in Sacramento County. Although other projects have been discussed in the project vicinity (e.g., a new high school to the south of the project site, the Community for Health and Independence conceptual plan spanning El Dorado County and Sacramento County to the south and west of the project site), these projects are considered too speculative at this time to be included in the cumulative context.

Impact 3.3-6. The proposed project, combined other past and reasonably foreseeable future projects, could result in a cumulative impact to candidate, sensitive, or special- status plant and wildlife species.

Special-Status Plants

Prior development along with approved projects throughout the cumulative study area, as defined above have impacted suitable habitat for special-status plant species such as dwarf downingia, Boggs Lake hedge-hyssop, Ahart's dwarf rush and others. Most potentially occurring special-status plant species are associated with vernal pools and seasonal wetlands, and the removal of these features poses the greatest threat on a cumulative basis. Although some mitigation has occurred for past projects, historical loss of these habitats has been extensive. Future projects would be expected to mitigate for impacts to special-status plants, but typical mitigation is in the form of habitat preservation which still results in net loss of habitat and special-status plant populations. This is considered a significant cumulative impact. The project's contribution to the existing cumulative impact is considerable because it is individually significant. The project's cumulative contribution would be avoided or substantially lessened to the extent feasible by avoiding direct impacts to approximately 46% of the site's wetlands and waters, which have the greatest potential for occurrence of special-status plants. Mitigation measure BIO-1 would ensure that any rare plants on the project site are identified, and if avoidance is infeasible are salvaged and/or replaced through compensatory mitigation. Indirect impacts from construction would be mitigated through worker education under mitigation measure BIO-2, and proper delineation of the work area and sensitive habitat areas under mitigation measure BIO-3. Compliance with mitigation would ensure the project's contribution would be reduced to **less than significant.**

Northwestern Pond Turtle

Northwestern pond turtles have been impacted throughout the cumulative study area through direct removal and degradation of aquatic habitat and adjacent upland habitat, as well as impacts to individuals that are located in construction areas. Approved projects in the cumulative study area would also potentially impact suitable habitat or individuals of northwestern pond turtle, especially those with onsite ponds or perennial riverine features. Other projects in the cumulative study area would likely be required to mitigate for their significant impacts to this species; however, past projects were often not required to mitigate for impacts to northwestern pond turtle as it was not a candidate for listing under the federal ESA. This is considered a significant cumulative impact. As stated under Impact 3.3-1, the proposed project has a potential for significant impacts to this species if present on the site; although there is only a low potential this species could be present. The project level impact on northwestern pond turtle is a considerable contribution to the cumulative impact because of the level of disturbance that has already occurred in the cumulative study area, and the range wide decline of the species that has led to its federally proposed threatened status. The project would implement mitigation measure BIO-4 to detect

northwestern pond turtles through preconstruction surveys, and if found, avoid direct impacts from construction to individuals and nests. Compliance with mitigation would ensure the project's contribution would be reduced to **less than significant.**

Tricolored Blackbird

Tricolored blackbird has experienced declining populations throughout much of their range. Loss of freshwater marsh breeding habitat is a major factor, though the species has shown adaptability by establishing colonies in thorny vegetation such as Himalayan blackberry. Development of foraging habitat has also threatened viability of some colonies as they may be unable to obtain sufficient large insect prey to feed nestlings. The cumulative study area represents the eastern edge of the species range and only twelve colony locations are known to exist within the County (UC Davis 2024), but foothill habitat such as that in the cumulative study area may become increasingly important for the species with climate-related shifts in habitat suitability. Cumulative projects in the vicinity are not known to have removed active tricolored blackbird colonies but have certainly removed suitable foraging habitat and may induce abandonment of colonies such as the one within the Carson Creek Specific Plan Area to the west of the project area (UC Davis 2024). Future cumulative projects would likely be required to mitigate for impacts to colony locations but impacts to foraging habitat are often not mitigated. This is considered a significant cumulative impact. The project's contribution to cumulative impacts on tricolored blackbird is cumulatively considerable because the incremental effects of the project alone are significant. The project would implement mitigation measure BIO-5 to detect tricolored blackbird through preconstruction surveys, and if found, avoid direct impacts from construction to individuals and nests. Further, the project would implement mitigation measure BIO-6 to provide compensatory mitigation for impacts to the tricolored blackbird colony onsite from project construction and operation. Compliance with mitigation would ensure the project's contribution would be reduced to **less than significant.**

Burrowing Owl

Cumulative projects such as development of the Carson Creek Specific Plan have resulted in conversion of suitable burrowing owl habitat to development. Completion of existing specific plan developments in the cumulative study area would result in additional loss of suitable habitat and potential displacement and harm to individual burrowing owls. Increased development in the cumulative area is also likely to result in increased use of rodenticides to control rodent pests, which can lead to secondary poisoning of rodent predators and reduce overall prey abundance for this species. Each cumulative project is required to mitigate independently for impacts to burrowing owls, but compensatory mitigation for loss of suitable habitat is not uniformly required. Therefore, a net reduction in habitat for this species is expected to continue. This is considered a significant cumulative impact. The project's contribution to cumulative impacts on burrowing owl is cumulatively considerable because the incremental effects of the project alone are significant. The project would implement mitigation measure BIO-7 to ensure avoidance of burrowing owl during construction and protect active burrows, and mitigation measures BIO-2 and BIO-3 would require worker environmental education and delineation of work areas, to minimize general environmental impacts of construction. Compliance with mitigation would ensure the project's contribution would be reduced to **less than significant.**

Other Nesting and Migratory Birds and Birds of Prey:

Loss of natural habitats suitable for nesting birds has occurred throughout the cumulative study area as natural habitats have been converted to urban development by past projects and would continue to occur from planned projects in the vicinity. Each project must comply with local ordinances and policies, in addition to CESA, ESA,

CWA, Fish and Game Code, and other relevant regulations permits and requirements. Nevertheless, the loss of natural habitats for nesting birds and birds-of-prey is a potential cumulative impact, as is the impact to individual birds from direct effects of cumulative projects. The project's contribution is cumulatively considerable because the incremental effects of the project alone are significant. The cumulative impact to nesting birds is potentially significant. The project would implement mitigation measure BIO-5 to detect nesting birds through preconstruction surveys, and if found, avoid disturbances from construction near the nests. Compliance with mitigation would ensure the project's contribution would be reduced to **less than significant.**

Mitigation Measures

Implementation and compliance with mitigation measures BIO-1 through BIO-7 would ensure the project's cumulative contribution to biological resource impacts would be reduced to **less than significant**.

BIO-13: Implement mitigation measures BIO-1 through BIO-7.

Impact 3.3-7. The proposed project, combined with other past and reasonably foreseeable future projects, would not result in a cumulative impact to riparian habitat or other sensitive natural communities.

Oak resources have been impacted through historic development of the cumulative study area and would continue to be impacted as natural habitats have been converted to urban development. Other past, present and foreseeable future projects in the vicinity would remove similar oak resources to those removed by the project, and in many cases could have a greater impact than the relatively small oak woodland removal associated with the project (0.20 acres). The loss of oak resources is a potentially significant cumulative impact due to the historic losses of oak trees within the County and the cumulative study area. However, any new projects within the cumulative study area, including the proposed project must comply with the County's Oak Resources Conservation Ordinance and mitigate for loss of oak trees. This would be compliant with General Plan Policy 7.4.4.4 directing that projects mitigate for loss of oak trees through the Oak Resources Management Plan. Therefore, the project's contribution to the cumulative impact would not be considerable and the impact to sensitive natural communities would be **less than significant.**

Mitigation Measures

No mitigation measures would be required.

Impact 3.3-8. The proposed project, combined other past and reasonably foreseeable future projects, could result in a cumulative impact to state or federally protected wetlands.

Other projects in the cumulative study area have impacted or would impact waters of the U.S. and state. The loss of waters of the U.S. and state is a potentially significant cumulative impact. The project's contribution is cumulatively considerable because the incremental effects of the project alone are significant. The cumulative impact to waters of the U.S. and state, including wetlands, is potentially significant.

Compliance with mitigation measure BIO-8 would require compensation of all waters of the U.S. and state removed by the project to a standard of no net loss. Other cumulative projects would also be expected to meet this mitigation standard. The mitigation measure reduces the project's contribution to this cumulative impact a **less-than-significant level.**

Mitigation Measures

Implementation and compliance with mitigation measure BIO-9 would ensure the project's cumulative contribution to biological resource impacts would be reduced to **less than significant**.

BIO-14: Implement mitigation measure BIO-9.

Impact 3.3-9. The project, combined other past and reasonably foreseeable future projects, could result in a cumulative impact to migratory wildlife corridors or native wildlife nursery sites.

Neither the project, nor the cumulative projects considered in the effects analysis for biological resources are located in areas designated by the County as Important Biological Corridors (IBC), Priority Conservation Areas (PCA), or Preserve (EP) overlays on General Plan maps. They are also located outside of important habitat for migratory deer herds. The cumulative projects are mostly surrounded by fragmented development and are near or adjacent to major roads, reducing their value as wildlife movement corridors.

As stated under Impact 3.3-6, the project would contribute to the loss of tricolored blackbird colonies through direct impacts to a portion of their habitat as well as introducing ongoing disturbance near an existing colony location due to construction and operation of the project. Other tricolored blackbird colonies in the cumulative study area have been affected by past development, and one or more colonies in the cumulative study area (e.g., Carson Creek Specific Plan Area) may be affected similarly to the project through future development. This is a significant cumulative impact. Other projects would be expected to mitigate for impacts to tricolored blackbird colony locations, but some colonies have been disrupted through surrounding development in the cumulative study area without effective mitigation. The project's contribution is cumulatively considerable because the incremental effects of the project alone are significant.

Compliance with mitigation measure BIO-5 would detect the presence of tricolored blackbirds through preconstruction surveys, and if found, avoid direct impacts from construction to individuals and nests. Further, the project would implement mitigation measure BIO-6 to provide compensatory mitigation for impacts to the tricolored blackbird colony onsite from project construction and operation. Implementing the mitigation measures reduces the project's contribution to this cumulative impact a **less-than-significant level.**

Mitigation Measures

Implementation and compliance with mitigation measures BIO-5 and BIO-6 would ensure the project's cumulative contribution to biological resource impacts would be reduced to **less than significant**.

BIO-15: Implement mitigation measures BIO-5 and BIO-6.

3.3.5 References

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3.4 Cultural Resources

This section assesses potential effects on cultural resources that may be impacted as a result of implementation of the Creekside Village Specific Plan (CVSP or proposed project). Cultural resources are defined as precontact or historic-period archaeological resources. Historic-period architectural resources include historic period engineering features, such as canals and railroad resources. Precontact resources include sites and artifacts associated with the indigenous, non-Euro-American population prior to contact with people of European descent. Historical resources consist of structures, features, artifacts, and sites that date from Euro-American settlement of the region. Precontact and Native American resources of cultural and religious significance that are identified as Tribal Cultural Resources are addressed in Section 3.13, Tribal Cultural Resources. This section describes the cultural setting of the project site, discusses known resources within the area, identifies the resource sensitivity of the site, discusses the relevant state and local regulatory considerations, and evaluates how implementation of the CVSP may affect cultural resources that may be present.

One public comment related to cultural resources was received in response to the November 6, 2020, Notice of Preparation (NOP). The Native American Heritage Commission (NAHC) submitted a letter regarding Assembly Bill (AB) 52 and Senate Bill (SB) 18 consultation methods and consistency. This is a standard letter submitted by the NAHC and does not raise any site-specific concerns. No additional comments were received at the second scoping meeting held on September 26, 2023. A copy of the NOP and comments received is included in Appendix A.

The primary sources referenced include the May 2019 Cultural Resources Inventory and Evaluation (May 2019 Evaluation), the January 2021 Creekside Village Determination of Site Boundaries, and the March 2021 Off-Site Utilities Cultural Resource Assessment (March 2021 Off-Site Assessment), all prepared by Windmiller Consulting. A follow up records search from the North Central Information Center (NCIC) was requested in August 2023 with the results documented in a Memorandum prepared by Environmental Science Associates (ESA Associates). El Dorado County staff have copies of these reports, but they are not available for public review due to sensitive and confidential information. Additional sources referenced include the El Dorado County General Plan Conservation and Open Space Element (El Dorado County 2017) and Google Earth aerial imagery.

3.4.1 Environmental Setting

The proposed project is a specific plan featuring a mix of single-family homes, parks, open space, and neighborhood commercial space located in the community of El Dorado Hills, in unincorporated El Dorado County (County). The project site lies on the west side of Latrobe Road approximately two miles south of the Latrobe Road and White Rock Road intersection. Two miles north of the project site is the historic town of Clarksville. Three miles southeast lies the historic town of Latrobe. The project site currently consists of undeveloped rolling grasslands and has not previously been developed.

The Cultural Resources Inventory and Evaluation prepared for the project used a geographic area of potential effects (APE) of 240 acres which is larger than the project site and includes areas bordering the El Dorado Hills Business Park to the north. Note that the term “APE” is used throughout this section to ensure consistency with the cultural resources technical studies but should be understood to constitute the entirety of the area of direct impact for the proposed project. The proposed project site consists of 208 acres not including the 32 acres of land bordering the El Dorado Hills Business Park. The APE in relation to the project site is illustrated in Figure 3.4-1, Area of Potential Effects. The Off-site Utilities Cultural Resources Assessment assessed areas slated for project

improvements to local roadways and water and sewer hookups that are outside of the project boundaries. The APE for these off-site improvements is included in Figure 2-9 in Chapter 2, Project Description.

El Dorado Hills Setting

Pre-Contact History

Initial human entry into California occurred at the beginning of the Paleo-Indian Period between about 10,000 and 6,000 B.C. (Fredrickson 1974). The oldest traditionally accepted evidence of people in California's Central Valley is marked by the presence of Clovis fluted projectile points found at widely scattered locations, most of which came from remnants of the landscape left behind by the last Ice Age. These early peoples are thought to have subsisted using a combination of hunting and scavenging in lakes. However, there is evidence of occupation on Southern California's Northern Channel Islands dated 2,000 to 3,000 years earlier than the Clovis fluted projectile finds. This and other evidence suggest that ethnically diverse peoples used not only the Bering land bridge and the ice-free corridor to enter North America but migrated by sea along a coastal route.

During the Lower Archaic period between 8550 and 5550 calibrated (cal) Before Christ (B.C.), many lakes created by rainfall across California became dry as a result of climatic changes. Previous finds of milling stones and Pinto-like projectile points at sites in the Marble Valley area, three miles east of the project APE, could reflect Native American use of the area dating back 4,000 to 7,000 years.

During the Middle Archaic period, dating between 5550 and 550 cal B.C., aboriginal cultures in California's Great Central Valley flourished. Milling stones from archaeological sites of this period imply a greater emphasis on food gathering and less emphasis on hunting. Middle Archaic people may have used the lower foothills as a summer resource area. Reliance on acorns as a staple is inferred from what is generally recognized as the first appearance of mortars and pestles in archeological sites dating early in the period.

Sedentary villages were established in the western Sierra by the time of Christ or possibly earlier. In the mid-Sacramento Valley, these developments followed the formation of the Sacramento Delta and marsh lands, which by 2000 B.C. were fully formed. Archaeologists have speculated that people of the same language group occupied the juncture between the Great Basin and Plateau provinces before 2500 B.C., although it is also possible that other Great Basin peoples occupied the area in place of the proto-Yokutsan speaking people of the Windmiller Pattern. The “Martis Complex,” with its characteristic basalt dart points originally identified by archaeologists at sites in the high Sierra, is also represented in the Sierra foothills and may reflect local settlement by an entirely different language group. Such sites may date to the period 2000 B.C. to A.D. 500. Large, Martis-like projectile points have been discovered at archaeological sites in the lower foothills. Finds in Marble Valley included projectile point styles similar to Martis.

Between 2000 and 500 B.C., Utian populations appear to have occupied the Sacramento Delta, the areas along rivers and streams, marsh land, as well as the hills on both the east and west sides of the Sacramento Valley. Expansion westward into the San Francisco Bay area is hypothesized to have brought about a fusion between the bearers of Utian languages (Miwok and Ohlone people) and the resident speakers of Hokan and Yukian languages. This apparent fusion of cultures resulted in what archaeologists now recognize as the Berkeley Pattern, sometimes referred to as the "Middle Horizon."

SOURCE: Helix Environmental 2019

FIGURE 3.4-1

Area of Potential Effects

Creekside Village Specific Plan EIR

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Ancestors of the Nisenan, a Maiduan people who historically inhabited the American River drainage and who lived for part of their history in the El Dorado Hills vicinity, migrated to the region rather late in time. During the Upper Archaic between 550 cal B.C. cal and A.D. 1100, particularly in the first 200 years of the Christian era, Maiduan groups spread farther west to territory in northeastern California. It is suggested that Maiduan-speakers entered California from the north around A.D. 500 and settled first in the foothills or valley edge in what historically became Nisenan territory.

The Emergent Period, cal Anno Domini (A.D.) 1100-Historic, was characterized by the consolidation of territories formed as a result of the migration of native groups, including the Nisenan. Interregional trade seems to have expanded greatly during the Emergent, up to the succeeding Mission Period when Spanish intrusions began to take place.

Ethnography

The project APE is located within a boundary zone between traditional Valley Nisenan and Plains Miwok territories. The broad boundary area is located between the Town of Latrobe to the south and the City of Folsom to the north.

Economic life for these groups revolved around hunting, fishing, and the collecting of plant foods. In both Valley Nisenan and Plains Miwok groups, the tribelet (a loose political organization) controlled specific districts usually bounded by the land between drainages. Prior to the gold rush, the establishment of Sutter's Fort in Sacramento, and the 1833 epidemic, villages were distributed along the banks and tributaries of major rivers such as the Sacramento, American, and Cosumnes. Villages ranged in size from small, extended families of 15 to 25 people to large villages with populations of over 500. The 1833 epidemic, thought to be malaria brought south from Oregon by a party of trappers, decimated an estimated 75% of California's native population. By the 1840s, a number of the remaining Nisenan people settled around Sutter's Fort and worked for John Sutter while others pressed farther toward the Sierra Nevada Mountain range into traditional Miwok territory.

Prior to 1843, it is likely that Valley Nisenan held the territory along the American River and Plains Miwok held the entire valley drainage of the Cosumnes River from its juncture with the Mokelumne River in the foothills. It is theorized that the area between the two drainages may have been used by both groups.

Historic Context

Following the initial discovery of gold at Sutter's Mill in January 1848, gold was found in the South Fork of the American River about a mile above its confluence with the river's North Fork. This discovery at "Mormon Island' in March 1848 started the gold rush. The discoveries spurred thousands of immigrants to California. By May 1848, there were only a few hundred working at shallow placer mines. By 1849, almost 40,000 gold seekers followed routes by land and sea to the gold fields. Early mining focused on deposits of gravel along the river meanders. Early placer mining expanded from Coloma to Weber Creek and then to the rich creek gravels in the vicinity of present-day Placerville. Fueled by discoveries at Coloma, Placerville and Folsom, nearly every ravine in the region was mined. The earliest settlement nearest the project site was Mormon Tavern. The tavern was situated at the foot of the first steep grade into the Sierra foothills from Sacramento. The original Mormon Tavern was built at the intersection of the Sacramento-Placerville Road and the stage road from Folsom and Mormon Island. The tavern remained in business through the 1860s and 1870s. One-half mile east of Mormon Tavern, Clarksville was established in 1850 as a mining camp and way station. By this time, ravines throughout the region were dotted with camps and cabins.

As mining became more corporate and began to eliminate small-scale participation, many miners turned to agriculture and other support industries. Most of the early ranches that resulted were self-sufficient operations which included a variety of livestock, small plots dedicated to growing vegetables and grain, and orchards and vineyards. The area's early ranchers included William S. Cothrin, a stock raiser who owned 3,213 acres. In the late 1850s, the Cothrins raised sheep, grew barley and bran, and cut and sold firewood. In 1910, Cothrin's estate included 4,786 acres. Robert Euer subsequently purchased the land including interest in livestock, farming tools, and dairy equipment. By 1925, the Euer family's land holdings included over 5,000 acres, among other surrounding properties. The land remained in Robert Euer's hands until approximately 1950.

Mining was a secondary source of income for ranchers of the Clarksville-Latrobe region. Within a mile east of Latrobe Road and the project APE, a mining claim was filed on Plunket Creek in the early 1880s. During the so-called "second gold rush" of the Great Depression in the 1930s, dragline and dry-land dredging was conducted along Carson Creek within two miles northwest of the project APE at the Jumbo Placer Mine.

Resources Identified and Assessment of Eligibility

Resources Identified within the Project Site APE

Within the project APE a number of archaeological resources have been identified based on the numerous surveys conducted. As part of the May 2019 Evaluation conducted by Windmiller Consulting, the cultural resource records search identified twelve previous studies that had been conducted and thirty-one precontact and historic archaeological resources recorded within the one quarter mile radius of the APE. There are 12 previously recorded cultural resources identified within the project's APE, including four precontact sites and one isolate and seven historic-period resources.[1] The precontact resources are addressed Section 3.13, Tribal Cultural Resources. The seven historic-period resources are listed below in Table 3.4-1. In August 2023, an updated records request was completed and confirmed that there have been no newly recorded resources or updated resources identified since the original records search was conducted in 2018.

Table 3.4-1. Historic-Period Archaeological Resources in the Project APE

Field No.	Primary No.	Trinomial	Description
Historic-Era Archaeological Resources			
CS-2	P-09-006005	—	Mine shaft and tailing pile
CS-3	P-09-006006	—	Mine shaft
CS-4	P-09-006012	—	Ditch
CS-5	P-09-006008	—	Placer mine and tailing pile
CS-6	P-09-006009	—	Concrete livestock watering trough
CS-7	P-09-006010	—	Well/spring box
CS-10	P-09-006013	—	Improved Spring

Source: Confidential appendix.

[1] While one precontact resource was initially not located on site, a tribal representative located it on a subsequent site visit. The isolate was never relocated.

Historic-Period Resources

Seven historic-period resources were identified within the APE. Three of the resources reflect historic grazing on the project site while the remaining four resources appear to be associated with mining. All of the resources were evaluated for listing on the National Register of Historic Places (NRHP) or the California Register of Historical Resources (CRHR) and it was determined none were eligible. A description of the resources is provided below.

P-09-006005: Field No. CS-2 (Mine Shaft). This minor historic archaeological resource is a mine shaft and a deflated tailings dump located on the south side of the shaft. The shaft is an estimated 20 feet deep to the present water level. The shaft was driven vertically to an unknown depth. However, the size of the deflated tailings suggests that the shaft was not driven deeper than 25-30 feet. The rock exposed in the shaft may be Jurassic metamorphic igneous rock as shown on geologic maps of the region.

P-09-006006: Field No. CS-3 (Mine Shaft). This minor historic archaeological resource is a largely in-filled shaft surrounded by weathered dirt and some rock. The shaft portal is roughly circular with a diameter of approximately 15 feet. Depth of the shaft is approximately five feet. Original depth is unknown, although the surviving evidence suggests shallow workings.

P-09-0066012: Field No. CS-4 (Ditch). This minor historic resource is a largely in-filled ditch segment located at the foot of a northwest trending low ridge. The ditch apparently captured water from the unnamed drainage downstream from the placer mine, Field No. CS-5, then re-directed the captured water back into the natural stream channel approximately 200 feet downstream. Several short ditches appear to have drained the longer ditch into the unnamed natural stream channel. While there is a physical association with the placer mine, Field No. CS-5, no further information such as period of use or relationship between the ditch and the placer mine was found during the study.

P-09-006008/CA-ELD-003108H: Field No. CS-5 (Placer Mine). This historic archaeological site is centered on a portion of an unnamed seasonal tributary to Carson Creek. The mine includes stream bank diggings and piles of excavated dirt and cobbles. The stream channel appears to have been altered with possible damming and excavation producing alternative channels.

P-09-006009: Field No. CS-6 (Livestock Watering Trough). This minor historic resource is a concrete livestock watering trough. No date has been assigned to this feature, although it may have been poured on-site in the 1950s or 1960s. The trough may be associated with Field No. CS-7, a nearby well (open spring box) lined with similar concrete.

P-09-006010: Field No. CS-7 (Well/Spring Box). This minor historic resource is a square, concrete lined well at a spring. The well is approximately five feet deep to the present water level in the well. The well's concrete appears similar to that of the nearby watering trough, Field No. CS-6. Both spring box and associated watering trough display the same or similar construction methods. There is no direct evidence of the builder, period of construction, or association with a person important in the past.

P-09-006013: Field No. CS-10 (Improved Spring). This minor historic archaeological resource is an improved spring consisting of stacked local rock measuring eight feet east-west and six feet north-south. The site is located between two low north-facing ridges. The present setting is hilly grassland. The spring may have had a spring box at one time in which water was pooled. Condition appears fair to poor. Some of the rock may have been removed or scattered. Vegetation obscures most of the resource.

Resources Identified within the Off-site Improvements APE

As described in Chapter 2, Project Description, the project requires extending water and sewer lines as well as connections to electric and natural gas services, roadway improvements, and construction of an additional emergency access road. All of the utility work would be within the existing right-of-way along Latrobe Road. An approximately 650-foot-long emergency access road that would be also used as a class 1 bike path would connect the project site to the adjacent business park, located northwest of the site (see Figure 2-9 in Chapter 2, Project Description). A cultural resources assessment of the off-site improvements APE was conducted by Windmiller Consulting in 2021.

Five previously recorded cultural resources are located within the off-site improvements APE and 15 reports of previous cultural resource studies have been completed within the same area. A pedestrian field survey of the off-site improvements APE was conducted by an archaeologist using transects spaced approximately 15 meters apart. The five resources identified included two historic-period resources, a mine site, a road, and one precontact resource (see Section 3.13, Tribal Cultural Resources). The four historic-period resources were determined not to be historic and include P-09-000992 (barbed wire fence recorded as an isolate), P-09-006007 (an unnamed earthen ditch segment), P-09-006008 (mine and tailings piles), and P-09-005667 (an unnamed dirt road connecting historic ranch sites), shown below in Table 3.4-2 and discussed within the March 2021 Off-Site Assessment.

A summary of the historic resources identified with the project's offsite APE is provided below.

Table 3.4-2. Historic-Era Archaeological Resources in the Project's Off-site APE

Field No.	Primary No.	Trinomial	Description
	P-09-0000992		Barbed wire fence (Isolate)
	P-09-006007		Unnamed earthen ditch segment
CS-5	P-09-006008	CA-ELD-3108H	Placer mine and tailings piles
	P-09-005667		Unnamed dirt road

Source: Confidential appendix.

P-09-6008/CA-ELD-3108H: Field No. CS-5 (Placer Mine). This resource was included in the May 2019 Evaluation for the project APE and has been previously described above.

During the May 2019 pedestrian study, the mine was reported as lying on the west side of Latrobe Road. A follow up survey in November 2020 concluded that the mine lies on both the east and west sides of Latrobe Road, a small portion of which lies within the Royal Oaks Drive-Latrobe Road intersection. The field survey confirmed that mining at the site continued east of Latrobe Road. The same site features are repeated in the "new" portion of the mine. Although the mined debris nearly doubled in size with recognition that the mine extended east from Latrobe Road, the evaluation of National Register eligibility remains the same: not eligible for the National Register and not eligible for the California Register under any criterion.

3.4.2 Regulatory Setting

Federal, state, and local governments have developed laws and regulations designed to protect and preserve significant cultural resources that may be affected by actions that they undertake or regulate. The National Historic Preservation Act (NHPA) and the California Environmental Quality Act (CEQA) are the basic federal and state laws

governing the preservation of historic and archeological resources of national, regional, state, and/or local or tribal significance within the state.

Cultural resources are defined as precontact or historic-period archaeological resources, historic-period architectural resources, and historic-period engineering features, including canals and railroad resources.

Federal

National Historic Preservation Act

The National Historic Preservation Act (NHPA) established the NRHP and the President's Advisory Council on Historic Preservation (ACHP), and provided that states may establish State Historic Preservation Officers to carry out some of the functions of the NHPA. Most significantly for federal agencies responsible for managing cultural resources, Section 106 of the NHPA directs the following:

> [t]he head of any Federal agency having direct or indirect jurisdiction over a proposed Federal or federally assisted undertaking in any State and the head of any Federal department or independent agency having authority to license any undertaking shall, prior to the approval of the expenditure of any Federal funds on the undertaking or prior to the issuance of any license, as the case may be, take into account the effect of the undertaking on any district, site, building, structure, or object that is included in or eligible for inclusion in the NRHP.

Section 106 also affords the ACHP a reasonable opportunity to comment on the undertaking (16 USC 470f).

Title 36 of the Code of Federal Regulations, Part 800 (36 CFR 800) implements Section 106 of the NHPA. It defines the steps necessary to identify historic properties (those cultural resources listed in or eligible for listing in the NRHP), including consultation with federally recognized Native American tribes to identify resources with important cultural values; to determine whether they may be adversely affected by a proposed undertaking; and the process for eliminating, reducing, or mitigating the adverse effects.

The content of Title 36 of the Code of Federal Regulations, Section 60.4, defines criteria for determining eligibility for listing in the NRHP. The significance of cultural resources identified during an inventory must be formally evaluated for historic significance in consultation with the ACHP and the California State Historic Preservation Officer to determine if the resources are eligible for inclusion in the NRHP. Cultural resources may be considered eligible for listing if they possess integrity of location, design, setting, materials, workmanship, feeling, and association.

Regarding criteria A through D of Section 106, the quality of significance in American history, architecture, archaeology, engineering, and culture is present in districts, cultural resources, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association, and that (36 CFR 60.4):

A. Are associated with events that have made a significant contribution to the broad patterns of our history; or
B. Are associated with the lives of persons significant in our past; or
C. Embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
D. Have yielded or may be likely to yield, information important in prehistory or history.

The 1992 amendments to the NHPA enhance the recognition of tribal governments' roles in the national historic preservation program, including adding a member of an Indian tribe or Native Hawaiian organization to the ACHP.

The NHPA amendments:

- Clarify that properties of traditional religious and cultural importance to an Indian tribe or Native Hawaiian organization may be determined eligible for inclusion in the National Register
- Reinforce the provisions of the Council's regulations that require the federal agency to consult on properties of religious and cultural importance.

The 1992 amendments also specify that the ACHP can enter into agreement with tribes that permit undertakings on tribal land and that are reviewed under tribal regulations governing Section 106. Regulations implementing the NHPA state that a federal agency must consult with any Indian tribe that attaches religious and cultural significance to historic properties that may be affected by an undertaking.

Clean Water Act, Section 404

A Clean Water Act, Section 404 permit is anticipated for the proposed development. Therefore, the U.S. Army Corps of Engineers (ACOE) must initiate a National Historic Preservation Act, Section 106 consultation in an effort to avoid harm to any historic properties listed in or eligible for the National Register of Historic Places. The Cultural Resources Inventory and Evaluation was designed to assist the ACOE in identifying historic properties that may be affected by the undertaking (issue of a federal permit).

State

California Register of Historical Resources

In California, the term "historical resource" includes but is not limited to "any object, building, structure, site, area, place, record, or manuscript which is historically or archaeologically significant, or is significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California" (Public Resources Code [PRC] Section 5020.1[j]). Historical resources are not limited only to built environment resources, they can take many different forms as long as the resource is eligible for or listed in the CRHR. In 1992, the California legislature established the CRHR "to be used by state and local agencies, private groups, and citizens to identify the state's historical resources and to indicate what properties are to be protected, to the extent prudent and feasible, from substantial adverse change" (PRC Section 5024.1[a]). The criteria for listing resources on the CRHR were expressly developed to be in accordance with previously established criteria developed for listing in the NRHP, enumerated below. According to PRC Section 5024.1(c)(1–4), a resource is considered historically significant if it (i) retains "substantial integrity," and (ii) meets at least one of the following criteria:

1. Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage.
2. Is associated with the lives of persons important in our past.
3. Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values.
4. Has yielded, or may be likely to yield, information important in prehistory or history.

In order to understand the historic importance of a resource, sufficient time must have passed to obtain a scholarly perspective on the events or individuals associated with the resource. A resource less than 50 years old may be considered for listing in the CRHR if it can be demonstrated that sufficient time has passed to understand its historical importance (see 14 CCR 4852[d][2]).

The CRHR protects cultural resources by requiring evaluations of the significance of precontact and historic resources. The criteria for the CRHR are nearly identical to those for the NRHP, and properties listed or formally designated as eligible for listing in the NRHP are automatically listed in the CRHR, as are the state landmarks and points of interest. The CRHR also includes properties designated under local ordinances or identified through local historical resource surveys.

California Environmental Quality Act

Under CEQA (PRC Section 21000 et seq.), public agencies must consider the effects of their actions on both historical resources and unique archaeological resources. Pursuant to Section 21084.1 of the PRC, a "project that may cause a substantial adverse change in the significance of an historical resource is a project that may have a significant effect on the environment." Section 21083.2 requires agencies to determine whether proposed projects would have effects on "unique archaeological resources."

"Historical resource" is a term of art with a defined statutory meaning (see PRC Section 21084.1, and 14 CCR 15064.5(a) and 15064.5(b)). The term embraces any resource listed in or determined to be eligible for listing in the CRHR. The CRHR includes resources listed in or formally determined eligible for listing in the NRHP, as well as some California State Landmarks and Points of Historical Interest.

Properties of local significance that have been designated under a local preservation ordinance (local landmarks or landmark districts) or that have been identified in a local historical resources inventory may be eligible for listing in the CRHR and are presumed to be "historical resources" for purposes of CEQA unless a preponderance of evidence indicates otherwise (PRC Section 5024.1, and 14 CCR 4850). Unless a resource listed in a survey has been demolished or has lost substantial integrity, or there is a preponderance of evidence indicating that it is otherwise not eligible for listing, a lead agency should consider the resource potentially eligible for the CRHR.

In addition to assessing whether historical resources potentially impacted by a proposed project are listed or have been identified in a survey process, lead agencies have a responsibility to evaluate them against the CRHR criteria as discussed previously, prior to making a finding as to a proposed project's impacts to historical resources (PRC Section 21084.1, and 14 CCR 15064.5(a)(3)). The fact that a resource is not listed or determined to be eligible for listing does not preclude a lead agency from determining that it may be a historical resource (PRC Section 21084.1, and 14 CCR 15064.5(a)(4)).

CEQA also distinguishes between two classes of archaeological resources: archaeological sites that meet the definition of a historical resource, as described previously, and unique archaeological resources. Under CEQA, an archaeological resource is considered "unique" if it:

- Contains information needed to answer important scientific research questions and there is a demonstrable public interest in that information;
- Has a special and particular quality such as being the oldest of its type or the best available example of its type; or

- Is directly associated with a scientifically recognized important prehistoric or historic event or person (PRC Section 21083.2(g)).

CEQA states that if a proposed project would result in an impact that might cause a substantial adverse change in the significance of a historical resource, then an EIR must be prepared, and mitigation measures and alternatives must be considered. A "substantial adverse change" in the significance of a historical resource means physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of a historical resource would be materially impaired (14 CCR 15064.5(b)(1)).

The CEQA Guidelines (Section 15064.5(c)) also provide specific guidance on the treatment of archaeological resources, depending on whether they meet the definition of a historical resource or a unique archaeological resource. If the site meets the definition of a unique archaeological resource, it must be treated in accordance with the provisions of PRC Section 21083.2.

CEQA Guidelines Section 15064.5(e), requires that excavation activities be stopped whenever human remains are uncovered, and the county coroner be called in to assess the remains. Additional protections are required for Native American remains, which are discussed in Section 3.13, Tribal Cultural Resources.

Senate Bill 297

SB 297 addresses the disposition of Native American burials in archaeological sites and protects such remains from disturbance, vandalism, or inadvertent destruction; establishes procedures to be implemented if Native American skeletal remains are discovered during construction; and establishes the NAHC to resolve disputes regarding the disposition of such remains. The provisions of SB 297 have been incorporated into Section 15064.5(e) of the CEQA Guidelines.

California Health and Safety Code

Section 7050.5(b) of the California Health and Safety Code specifies protocols to address any human remains that may be discovered. The code states:

> In the event of discovery or recognition of any human remains in any location other than a dedicated cemetery, there shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains until the coroner of the county in which the human remains are discovered has determined, in accordance with Chapter 10 (commencing with section 27460) of Part 3 of Division 2 of Title 3 of the Government Code, that the remains are not subject to the provisions of section 27492 of the Government Code or any other related provisions of law concerning investigation of the circumstances, manner and cause of death, and the recommendations concerning treatment and disposition of the human remains have been made to the person responsible for the excavation, or to his or her authorized representative, in the manner provided in section 5097.98 of the Public Resources Code.

Local

El Dorado County General Plan

The Conservation and Open Space Element included in the County General Plan (last amended 2019) contains the following goals, objectives, and policies related to cultural resources that are relevant to the proposed project:

Conservation and Open Space Element

Goal 7.5: Cultural Resources**:** Ensure the preservation of the County's important cultural resources.

Objective 7.5.1: Protection of Cultural Heritage: Creation of an identification and preservation program for the County's cultural resources.

Policy 7.5.1.2: Reports and/or maps identifying specific locations of archaeological or historical sites shall be kept confidential in the Planning Department but shall be disclosed where applicable.

Policy 7.5.1.3: Cultural resource studies (historic, prehistoric, and paleontological resources) shall be conducted prior to approval of discretionary projects. Studies may include, but are not limited to, record searches through the North Central Information Center at California State University, Sacramento, the Museum of Paleontology, University of California, Berkeley, field surveys, subsurface testing, and/or salvage excavations. The avoidance and protection of sites shall be encouraged.

Policy 7.5.1.4: Promote the registration of historic districts, sites, buildings, structures, and objects in the National Register of Historic Places and inclusion in the California State Office of Historic Preservation's California Points of Historic Interest and California Inventory of Historic Resources.

Objective 7.5.2: Visual Integrity: Maintenance of the visual integrity of historic resources.

Policy 7.5.2.4: The County shall prohibit the modification of all National Register of Historic Places (NRHP)/California Register of Historical Resources (CRHR) listed properties that would alter their integrity, historic setting, and appearance to a degree that would preclude their continued listing on these registers. If avoidance of such modifications on privately owned listed properties is deemed infeasible, mitigation measures commensurate with NRHP/CRHR standards shall be formulated in cooperation with the property owner.

Objective 7.5.3: Recognition of Prehistoric/Historic Resources - Recognition of the value of the County's prehistoric and historic resources to residents, tourists, and the economy of the County, and promotion of public access and enjoyment of prehistoric and historic resources where appropriate

3.4.3 Thresholds of Significance and Methodology

Thresholds of Significance

Thresholds of significance are used to determine the significance of a project's environmental effects. Per Section 15064.7 of the CEQA Guidelines, a threshold is an identifiable quantitative, qualitative or performance level of a particular environmental effect, non-compliance with which means the effect will normally be determined to be significant and compliance with normally means the effect will be determined to be less than significant. A significant impact would occur if development of the proposed project would do any of the following:

- Cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5 of the CEQA Guidelines.
- Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5 of the CEQA Guidelines.
- Disturb any human remains, including those interred outside of dedicated cemeteries.

Methodology

A records search was conducted by the NCIC of the California Historical Resource Information System (CHRIS) for the project APE in September 2018 and a pedestrian survey was conducted in November and December 2018. An updated records search was conducted at the NCIC in August 2023 to determine if any new recorded resources or updated resources were documented since the 2018 search. No newly recorded resources or updated resources were identified.

Several types of information were considered relevant to evaluating the types of cultural sites and site distribution that might be encountered within the project site. The information evaluated includes precontact and historic-period archaeological resources based on a records search by the NCIC via the CHRIS; contacts with the Clarksville Region Historical Society, the El Dorado County Historical Society and knowledgeable others to help identify significant historic sites; archival research to document a historic context; a review of previous cultural resource studies conducted on the same property to identify any previously recorded cultural resources on and immediately adjacent to the property that may be affected by the proposed project; a pedestrian field survey, documentation of each identified cultural resource on Department of Parks and Recreation (DPR) 523 forms distributed by the California Office of Historic Preservation; assessment of National Register eligibility for each cultural resource based on the surface survey results; and an assessment of effect of the undertaking on historic properties. As noted previously, the precontact resources are addressed in Section 3.13, Tribal Cultural Resources.

As described in Chapter 2, Project Description, the project includes two development options. The first option would be to convert the 1.8 acres of neighborhood commercial to park uses if neighborhood commercial is not adopted as part of the Specific Plan. The second option proposes construction of up to 768 age-restricted units and 150 conventional homes. The potential impacts to cultural resources are not expected to be different with implementation of either option because the development footprint, intensity, and disturbed area would remain the same as under the proposed project. Therefore, the impact analysis below would be the same under both options as the proposed project.

3.4.4 Impacts Analysis

Project Impacts

Impact 3.4-1. The proposed project would not cause a substantial adverse change in the significance of a historical resource.

As detailed in Chapter 2, Project Description, the project proposes to develop approximately 163 acres of the 208-acre project site. Development would include residences, a small 1.8-acre commercial use or an additional park if the commercial use is not approved, parks, and roadways. Approximately 45 acres would be left in open space. Project construction would require site clearing, grading, and trenching for utilities. "Historical resources", for the purposes of this analysis is understood to be the same as "historic built environment resources" defined as existing, functional buildings, features, and/or structures over 45 years in age. No such resources are present within the APE. Archaeological resources, consisting of remnants, destroyed, or abandoned elements, or other physical evidence of, past historic period and precontract activities are addressed below under Impact 3.4-2.

The May 2019 Evaluation prepared for the project (as verified by the updated records search) did not identify any historic period environment resources within the APE, including in the off-site APE. Therefore, the project would not impact any known historic built environment resources and the potential loss of and/or substantial damage to any such resources is considered a **less-than-significant impact**.

Mitigation Measures

No mitigation measures are required.

Impact 3.4-2. The proposed project could cause a substantial adverse change in the significance of an archaeological resource.

A total of 12 archaeological resources were identified on the project site. Future development of the site as described above under Impact 3.4-1 could disturb known on-site archaeological resources resulting in the destruction or removal of historic-period and precontact archeological resources. The May 2019 Evaluation identified seven historic-period archaeological resources addressed here and five precontact resources, including one isolate[2], that are discussed in Section 3.13, Tribal Cultural Resources. Of the historic-period archaeological resources, three reflect historic grazing on the project site while the remaining four resources appear to be associated with mining. These include a concrete livestock watering trough (P-09-006009), a ditch (P-09-006012), a concrete well/spring box (P-09-006010), mine shafts/tailing pile (P-09-006006, P-09-006008) and an improved spring (P-09-006013). The seven historic-period resources were evaluated and found not eligible for the NRHP or CRHR under any criterion. The four precontact archaeological sites (P-09-006004; P-09-006011; P-09-006012 (all within the Project APE); and P-09-000168 (in the offsite APE)) have been evaluated and recommended eligible for NRHP/CRHR listing (see Section 3.13, Tribal Cultural Resources for an analysis of these resources). One precontact isolate (P-09-006003) was never relocated and is categorically limited in its potential to meet CRHR criteria as thresholds of significance or be classified as a "unique" resource under CEQA due to being a single artifact with no specific temporal, ethnic, or spatially diagnostic associations. As such, this resource is not CRHR eligible.

[2] An isolate is considered a group of no more than three artifacts within approximately 100-feet (30 meters) of one another.

Development within the County is subject to the County's General Plan, which provides policies and actions that safeguard cultural resources from unnecessary impacts. These General Plan policies include Goal 7.5 which ensures the preservation of the County's important cultural resources, and Objective 7.5.1 that requires the County to create a preservation program for the County's cultural resources. Other policies include Policy 7.5.1.2 which requires the County to keep specific locations of archaeological or historical sites confidential; and Policy 7.5.1.4 that promotes the registration of historic districts, sites, buildings, structures, and objects in the NRHP and inclusion in the State Office of Historic Preservation's California Points of Historic Interest and California Inventory of Historic Resources.

As noted under Impact 3.4-1, development of the proposed project would include ground-disturbing activities to construct residences, park/recreation areas, roads, and a potential commercial (or park) site. Construction activities could result in damaging or destroying unknown archeological resources. Archaeological resources are often difficult to identify from surface evidence alone and may contain buried cultural deposits in areas with appropriate soils. Such subsurface deposits are most likely to be exposed within three feet of the surface during activities requiring grading and other ground preparation. Additionally, recreation areas, such as paths and trails introduce access by higher frequencies of people to areas where unknown archaeological resources may be present, thereby elevating the potential for resources to be identified and disturbed by the public that may have been missed during an archaeological survey.

The project would not impact any known NRHP or CRHR eligible archeological resources; however, due to the presence of resources in the area it suggests that the project may have the potential to unearth additional unknown archeological resources resulting in a substantial adverse change in the significance of the resource. The potential loss of and/or substantial damage to undiscovered archaeological resources is considered a **potentially significant impact**.

Offsite Infrastructure

The March 2021 Off-site Assessment reviewed areas slated for project improvements to local roadways and water and sewer hookups that are outside of the project boundaries. Since completion of that report, some of the required roadway improvements have been updated, as noted in Chapter 2, Project Description. However, there is no change to the extension of utilities along Latrobe Road and construction of the proposed emergency access. The APE for these off-site improvements is included in Figure 2-9 in Chapter 2, Project Description and all off-site areas have been evaluated for cultural resources.

A pedestrian field survey of the offsite APE was conducted by an archaeologist along transects approximately 15 meters apart. A total of five archaeological resources were identified within the offsite improvements APE, including one precontact resource that is addressed in Section 3.13, Tribal Cultural Resources. The other resources include P-09-0006008 (a placer mining site that also intersects the project APE and is discussed above), P-09-000992 (barbed wire fence recorded as an isolate), P-09-006007 (unnamed earthen ditch segment), and P-09-005667 (unnamed dirt road connecting historic ranch sites). As discussed above, P-09-006008 is not eligible for the NRHP or CRHR. The three other resources are not evaluated for eligibility for the NRHP or CRHR. Although the March 2021 Off-Site Assessment indicates the probability of encountering additional cultural resources is low, construction of required off-site improvements could impact unknown resources which would be considered a **potentially significant impact.**

Mitigation Measures

Compliance with mitigation measures CUL-1 and CUL-2 would ensure that potential impacts to archaeological resources are appropriately addressed, and impacts would be reduced to **less than significant**.

CUL-1: Cultural Resource Awareness Training. Mitigation Measure TCR-1 shall be implemented and as noted therein, include training on potential archaeological or cultural resources.

CUL-2: Unanticipated Discovery of a Cultural Resource. If unanticipated cultural or archeological resources are exposed during construction activities, all construction work occurring within 100 feet of the find shall immediately stop to provide up to 48 hours for the archeologist to evaluate the significance of the find and determine whether or not additional study is warranted. Temporary flagging or staking shall be required around the resource to avoid any disturbance from construction equipment if the archeologist determines that temporary flagging is necessary to protect the resource. The work exclusion buffer may be reduced based on the recommendation of the archeologist. If the unanticipated cultural resource appear to be human remains, Mitigation Measures CUL-3 and TCR-4 shall be implemented.

If the cultural or archeological resource is not determined to be a Tribal Cultural Resource under Mitigation Measure TCR-3 and is within an Open Space area that was not approved for grading or other disturbance, preservation in place shall occur, if recommended by the archeologist. Alterntaviely, the archeologist may determine that one of the other treatment strategies identified below is preferred for the particular cultural or archeological resource, in which case that treatment strategy shall be implemented.

If the cultural or archeological resource is not determined to be a Tribal Cultural Resource under Mitigation Measure TCR-3 and is within an area planned for residential lots, road and infrastructure improvements, grading, park improvements, or other development activity approved as part of the project, the archeologist shall direct whether the treatment of the cultural or archeological resource is one or more of the following: (1) recordation of the resource; (2) recovery and reburial in or relocation to an Open Space preserve area within the Specific Plan; (3) preservation in place through burial if feasible given the final elevation of the area and intended development; or (4) removal and preservation. Prior to the relocation, burial, or removal of a cultural or archeological resource, the project applicant shall document the cultural or archeological resource through pictures that are provided to the County. The photographs and management strategies recommended by the archaeologist shall remain confidential and be provided to the County in writing and approved by the El Dorado County Director of Planning and Building. The project construction contractor shall adhere to the management strategies approved by the archaeologist and County. Ground-disturbing activities may resume once the management strategies have been implemented to the satisfaction of the archaeologist and County's Director of Planning and Building.

CUL-3: Onsite Archaeological Monitoring. The project proponent or their construction contractor shall comply with the following measure to assist with identification of any unknown cultural resources at the earliest possible time during project-related earthmoving activities. These measures shall be included as notes on the project improvement plans prior to their approval by the County.

An archaeological monitor shall monitor the vegetation grubbing, stripping, grading, trenching, and other ground disturbing activities within 200 feet of P-09-006004; P-09-006011; P-09-006012 (all within the Project APE); and P-09-000168. All ground-disturbing activities within such areas shall be subject to archaeological monitoring unless otherwise determined unnecessary by archaeological monitor.

Impact 3.4-3. The project could potentially damage or disturb human remains during project construction activities.

Development of the proposed project site could result in the destruction, damage, or discovery of human remains during site disturbing construction activities, particularly site clearing, grading, trenching and excavation. As stated above, the area has been used both historically and during precontact times by Native American inhabitants as well as early settlers to the area. Human remains were not discovered during the site survey and a search of the NAHC Sacred Land Files (see Section 3.13, Tribal Cultural Resources) failed to identify any known onsite resources. Nonetheless, given the prior use of the site it is considered sensitive for the presence of human remains, including those interred outside of formal cemeteries. Therefore, there is the potential project construction could have the potential to encounter human remains.

Section 7050.5(b) of the California Health and Safety code specifies protocol to follow in the event human remains are discovered. In addition, CEQA Guidelines Section 15064.5(e), specifies steps that should be taken whenever human remains are uncovered, including stopping excavation activities in areas suspected of containing remains, and contacting the county coroner to determine if the cause of death needs to be investigated. If the county coroner determines that the remains are those of Native Americans, the coroner is responsible for contacting Native American Heritage Commission (NAHC) within 24 hours. The NAHC is responsible for identifying the most likely descendent of the deceased Native American, who may then make recommendations to the landowner or individual responsible for excavation regarding the means of treating or disposing of the remains. The Guidelines also make a provision for appropriate burial of the remains if the NAHC cannot identify a most likely descendent, if the identified individual fails to make recommendations, or if the recommendations are not acceptable to the landowner.

The proposed project would comply with Section 7050.5 of the California Health and Safety Code as well as CEQA Guidelines Section 15064.5; however, since ground-disturbing construction activities have the potential to uncover and potentially impact previously unrecorded human remains and due to the sensitivity of the site, this impact would be considered **potentially significant**.

Mitigation Measures

Management strategies have been developed with the intent of responding to the inadvertent discovery of human remains and to ensure compliance with applicable regulations and codes. Mitigation measure CUL-4 requires that project activities in the vicinity of any possible human remains be halted, and the County coroner be notified in the event human remains are discovered. The coroner would then identify if the remains are human and, if so, whether they are Native American in origin. If potential human remains are Native American, landowner coordination with the Tribe would be required in order to determine the appropriate course of action and methods for respectful treatment. With these measures implemented, impacts to human remains would be reduced to **less than significant.**

CUL-4: Discovery of Non-Native American Human Remains. If human remains are discovered during ground-disturbing construction work, all construction within 100 feet of the remains shall be halted immediately, and the El Dorado County coroner shall be notified immediately. If the remains are found to be non-Native American or the result of a crime scene, then the procedures in state law and mitigation measure TCR-4 shall be followed.

The County shall be responsible for confirming compliance with Section 5097.98 and CEQA Guidelines Section 15064.5(e) and the resumption of ground-disturbing activities within 100 feet

of the boundaries of the sensitive area defined by the investigation where the remains were discovered shall not occur until compliance with those standards is demonstrated in writing.

Cumulative Impacts

Cumulative impacts on cultural resources which include CEQA historical resources (primarily built environment), archaeological resources, and human remains consider whether impacts of the proposed project together with other projects in the County and the larger region, when taken as a whole, substantially diminish the number of such resources within the same or similar context or type. For cultural resources, this use is primarily associated with the record of past activity. The cumulative impact to these non-renewable resources are generally considered in terms of their cultural and/or informational value based on their resource type, context and relationships to the surrounding landscape and/or tribal histories. With regard to cultural resources (including historical built environment and archaeological resources), the importance of this type of information is revealed through review of the larger historical and archaeological record which, in turn, is dependent on the contribution of shared data resulting from technical investigations.

Chapter 3, Environmental Analysis, includes a list of projects that have been approved for development since the adoption of the County's General Plan in 2004.

Impact 3.4-4. The proposed project, in combination with past, present and reasonably foreseeable future development, could result in a cumulative impact on archeological resources and human remains.

As discussed under Impacts 3.4-1 through 3.4-3, the proposed project as presently designed would not directly impact NRHP and CRHR-eligible archeological resources. No human remains have been identified within the project site. However, urban development in the county and within nearby areas has resulted in the loss and alteration of significant cultural resources, and it is reasonable to assume that past, present and future development activities, including those planned and reasonably foreseeable County projects would continue to damage and/or destroy significant cultural resources. Because cultural resources are unique and non-renewable, all adverse effects or negative impacts contribute to a dwindling resource base, this is considered a significant cumulative impact.

As discussed in the regulatory setting, numerous laws, regulations, and statutes, on both the federal and state levels, seek to protect cultural resources. Future projects within the County and in nearby areas would also be subject to the same requirements as the proposed project. Technical studies would be required as part of the due diligence process and would result in the documentation and appropriate consideration of any resources that may be present. In addition, development within the County is subject to the County's General Plan, which provides policies and actions that further safeguard cultural resources from unnecessary impacts, as discussed above.

Although unlikely, there is the potential the proposed project could adversely affect significant cultural resources, including human remains and archaeological resources that are unique and non-renewable members of finite classes if discovered during site disturbing activities. In addition, due to the size of the project site it is reasonable to assume the project's incremental contribution to the cumulative loss of cultural resources is considerable resulting in a **potentially significant cumulative impact**. Implementation of project level mitigation measures CUL-1 through CUL-4 would address potential impacts to historic-period resources, archaeological resources, and human remains.

Mitigation Measures

Implementation of project-level mitigation measures CUL-1 through CUL-3 would address potential impacts to historic-period resources, archeological resources, and human remains and cumulative impacts would be **less than significant.**

CUL-5: Implement mitigation measures CUL-1 through CUL-3.

3.4.5 References

ESA. 2024. Alternatives and Recommendations for P-09-006011 (CA-ELD-3109) and P-09-006012 (CA-ELD-3110) *Confidential* Memorandum for the Creekside Village Project, El Dorado County, California. January 2024.

ESA. 2025. Off-site Improvements – Supplemental Records Search. *Confidential* Memorandum for the Creekside Village Project, El Dorado County, California. January 2025.

El Dorado County. 2017. *El Dorado County General Plan Conservation and Open Space Element*. Adopted July 19, 2004, amended October 2017. Available online at: https://edcgov.us/government/planning/adopted generalplan/documents/7conservation.pdf

Windmiller Consulting. 2019. Cultural Resources Inventory and Evaluation Report for the Creekside Village Project *(Confidential)*, El Dorado County, California. May 2019.

Windmiller Consulting. 2021. Off-Site Utilities Cultural Resources Assessment for the Creekside Village Project *(Confidential)*, El Dorado County, California. January 2021.

Windmiller Consulting. 2021. Determination of Site Boundaries for the Creekside Village Project *(Confidential),* El Dorado County, California. March 2021.

3.5 Energy

This section describes the energy conditions of the proposed Creekside Village Specific Plan (proposed project or CVSP), and identifies associated regulatory requirements, and evaluates potential impacts of the proposed project with respect to the potential for wasteful, inefficient or unnecessary use of energy associated with construction and operation of the proposed project.

Comments received in response to the November 6, 2020, Notice of Preparation (NOP) included concerns regarding the potential increase in demand for public services and utilities including electricity associated with the proposed project. Section 3.12, Transportation addresses the project's increase in vehicle trips and associated vehicle miles traveled. No additional comments were received at the second scoping meeting held on September 26, 2023. A copy of the NOP and comments received is included in Appendix A.

The primary sources referenced to prepare this section include the Air Quality and Greenhouse Gas Impact Analysis prepared by Raney Planning & Management (Appendix B) and the 2022 California Building Standards Code.

3.5.1 Environmental Setting

Electricity

Pacific Gas and Electric Company (PG&E) provides electrical and natural gas service to the region. Incorporated in California in 1905, PG&E is one of the largest combination natural gas and electric utilities in the United States. It currently provides service to approximately 16 million people throughout a 70,000-square-mile service area in northern and central California from Eureka in the north to Bakersfield in the south, and from the Pacific Ocean in the west, to the Sierra Nevada Mountains in the east. The service area includes 106,681 circuit miles of electric distribution lines, 18,466 circuit miles of interconnected transmission lines. PG&E and other privately owned public utilities in the state are regulated by the California Public Utilities Commission (CPUC) (PG&E 2023).

According to the U.S. Energy Information Administration (EIA), California used approximately 247,250 gigawatt hours of electricity in 2021 (EIA 2022a). Electricity usage in California for different land uses varies substantially by the types of uses in a building, type of construction materials used in a building, and the efficiency of all electricity-consuming devices within a building. In 2019, California was the second-largest total energy consumer among the states, but its per capita energy consumption was less than in all other states except Rhode Island, due in part to its mild climate and its energy efficiency programs. (EIA 2022b).

In El Dorado County (County), PG&E reported an annual electrical consumption of approximately 1,293 million kilowatt hours (kWh) in 2021 (CEC 2023a).

Pioneer Community Energy is a new community electrical provider and currently serves 166,000 customers throughout unincorporated El Dorado and Placer counties and the cities of Grass Valley and Nevada City. Pioneer Community Energy also provides 100% renewable energy to customers, if requested (Pioneer Energy 2024).

Natural Gas

According to the EIA, California used approximately 2,092,612 million cubic feet of natural gas in 2021 (EIA 2023a). The majority of California's natural gas customers are residential and small commercial customers (core customers). These customers account for approximately 35% of the natural gas delivered by California utilities

(CPUC 2021). Large consumers, such as electric generators and industrial customers (noncore customers), account for approximately 65% of the natural gas delivered by California utilities (CPUC 2021). CPUC regulates California natural gas rates and natural gas services, including in-state transportation over transmission and distribution pipeline systems, storage, procurement, metering, and billing. Most of the natural gas used in California comes from out-of-state natural gas basins. Biogas (e.g. from wastewater treatment facilities or dairy farms) is just beginning to be delivered into the gas utility pipeline systems, and the state has been encouraging its development (CPUC 2021).

In 2021, PG&E delivered approximately 33 million therms of natural gas to the County (CEC 2023b).

Petroleum

According to the EIA, California used approximately 524 million barrels of petroleum in 2020 (most recent data available), with the majority (433 million barrels) used for the transportation sector, which was a substantial reduction from 2019 (659 million barrels of petroleum) due to the COVID-19 pandemic (EIA 2023b). According to EIA's "Energy Outlook 2021", it may take years for the U.S. to return to 2019 levels of energy consumption following the impact of COVID-19 on the U.S. economy and global energy sector (EIA 2021). There are 42 U.S. gallons in a barrel, so in 2020, total daily use of approximately 60.3 million gallons of total petroleum was consumed in California. Petroleum usage in California includes petroleum products such as motor gasoline, distillate fuel, liquefied petroleum gases, and jet fuel. At the federal and state levels, various policies, rules, and regulations have been enacted to improve vehicle fuel efficiency, promote the development and use of alternative fuels, reduce transportation-source air pollutants and greenhouse gas (GHG) emissions, and reduce vehicle miles traveled (VMT). Section 3.7.2, Regulatory Setting, discusses in more detail both federal and state regulations that would help increase fuel efficiency of motor vehicles and energy required to heat and cool building as a means to reduce GHG emissions. Market forces have driven the price of petroleum products steadily upward over time, and technological advances have made use of other energy resources or alternative transportation modes increasingly feasible.

Largely as a result of and in response to these multiple factors, gasoline consumption within the state has declined in recent years, and availability of other alternative fuels/energy sources has increased. The quantity, availability, and reliability of transportation energy resources have increased in recent years, and this trend will likely continue and accelerate. Increasingly available and diversified transportation energy resources act to promote continuing reliable and affordable means to support vehicular transportation within the state. According to the California Air Resources Board's (CARB's) Emission Factor (EMFAC) Web Database, the County's on-road transportation sources are projected to consume about 72 million gallons of petroleum in 2028 (CARB 2021), which is analyzed as the first year of project operations herein.

3.5.2 Regulatory Setting

Federal

Federal Energy Policy and Conservation Act

In 1975, Congress enacted the Federal Energy Policy and Conservation Act, which established the first fuel economy standards for on-road motor vehicles in the United States. Pursuant to the act, the National Highway Traffic Safety Administration (NHTSA) is responsible for establishing additional vehicle standards. In 2012, new fuel economy standards for passenger cars and light trucks were approved for model years 2017 through 2021 (77 FR 62624–

63200). Fuel economy is determined based on each manufacturer's average fuel economy for the fleet of vehicles available for sale in the United States.

Energy Policy Act of 2005

In January 2005 the Energy Policy Act was signed into law. It addresses energy production in the United States, including energy efficiency; renewable energy; oil and gas; coal; tribal energy; nuclear matters and security; vehicles and motor fuels, including ethanol; hydrogen; electricity; energy tax incentives; hydropower and geothermal energy; and climate change technology. Another provision of the Energy Policy Act is the Renewable Fuel Standard (RFS), which increases the amount of biofuel that must be mixed with gasoline sold in the United States.

Energy Independence and Security Act of 2007

On December 19, 2007, the Energy Independence and Security Act of 2007 (EISA) was signed into law. In addition to setting increased corporate average fuel (CAFE) standards for motor vehicles, the EISA facilitates the reduction of national GHG emissions by requiring the following:

- Increasing the supply of alternative fuel sources by setting a mandatory RFS that requires fuel producers to use at least 36 billion gallons of biofuel in 2022.
- Prescribing or revising standards affecting regional efficiency for heating and cooling products, procedures for new or amended standards, energy conservation, energy efficiency labeling for consumer electronic products, residential boiler efficiency, electric motor efficiency, and home appliances.
- Requiring approximately 25% greater efficiency for light bulbs by phasing out incandescent light bulbs between 2012 and 2014; requiring approximately 200% greater efficiency for light bulbs, or similar energy savings, by 2020.
- While superseded by the U.S. Environmental Protection Agency (EPA) and NHTSA actions described previously, establishing miles per gallon targets for cars and light trucks and directing the NHTSA to establish a fuel economy program for medium-and heavy-duty trucks and create a separate fuel economy standard for trucks.

This federal legislation requires ever-increasing levels of renewable fuels (the RFS) to replace petroleum (EPA 2023). EPA is responsible for developing and implementing regulations to ensure that transportation fuel sold in the United States contains at least a minimum volume of renewable fuel. The RFS program regulations were developed in collaboration with refiners, renewable fuel producers, and many other stakeholders.

The RFS program was created under the Energy Policy Act and established the first renewable fuel volume mandate in the United States. As required under the Energy Policy Act, the original RFS program required 7.5 billion gallons of renewable fuel to be blended into gasoline by 2012. Under the EISA, the RFS program was expanded in several ways that laid the foundation for achieving significant reductions in GHG emissions from the use of renewable fuels, reducing imported petroleum, and encouraging the development and expansion of the renewable fuels sector in the United States. The updated program is referred to as "RFS2" and includes the following:

- The EISA expanded the RFS program to include diesel, in addition to gasoline.
- The EISA increased the volume of renewable fuel required to be blended into transportation fuel from 9 billion gallons in 2008 to 36 billion gallons by 2022.
- The EISA established new categories of renewable fuel and set separate volume requirements for each one.

- The EISA required EPA to apply lifecycle GHG performance threshold standards to ensure that each category of renewable fuel emits fewer GHGs than the petroleum fuel it replaces.

Additional provisions of the EISA address energy savings in government and public institutions, research for alternative energy, additional research in carbon capture, international energy programs, and the creation of green (environmentally beneficial) jobs.

Infrastructure Investment and Jobs Act

The Infrastructure Investment and Jobs Act (Infrastructure Deal) was signed into law November 15, 2021. The legislation includes $39 billion of new investment to modernize transit, in addition to continuing the existing transit programs for 5 years as part of surface transportation reauthorization. The Infrastructure Deal would also invest $7.5 billion to build out a national network of electric vehicle (EV) chargers. The Infrastructure Deal would provide funding for deployment of EV chargers along highway corridors to facilitate long-distance travel and within communities to provide convenient charging where people live, work, and shop to support a goal of building a nationwide network of 500,000 EV chargers. This would accelerate the adoption of EVs, which would help reduce emissions and improve air quality. In addition, the Infrastructure Deal would include more than $65 billion dollars of investments in clean energy transmission including upgrading existing power infrastructure through expanding transmission lines to facilitate the expansion of renewables and clean energy.

The Inflation Reduction Act of 2022

The Inflation Reduction Act was signed into law by President Biden in August 2022. The act includes specific investment in energy and climate reform and is projected to reduce GHG emissions within the United States by 40% as compared to 2005 levels by 2030. The act allocates funds to boost renewable energy infrastructure (e.g., solar panels and wind turbines), includes tax credits for the purchase of electric vehicles, and includes measures that will make homes more energy efficient.

State

Warren-Alquist Act

The California Legislature passed the Warren–Alquist Act in 1974, which created the California Energy Commission (CEC). The legislation also incorporated the following three key provisions designed to address the demand side of the energy equation:

- It directed the CEC to formulate and adopt the nation's first energy conservation standards for both buildings constructed and appliances sold in California.
- The act removed the responsibility of electricity demand forecasting from the utilities, which had a financial interest in high-demand projections, and transferred it to a more impartial CEC.

The CEC was directed to embark on an ambitious research and development program, with a particular focus on fostering what were characterized as non-conventional energy sources.

State of California Energy Action Plan

The CEC and the CPUC approved the first State of California Energy Action Plan in 2003. The plan established shared goals and specific actions to ensure the provision of adequate, reliable, and reasonably priced electrical power and natural gas supplies; it also identified cost-effective and environmentally sound energy policies, strategies, and actions for California's consumers and taxpayers. In 2005, the CEC and CPUC adopted a second Energy Action Plan to reflect various policy changes and actions of the prior 2 years.

At the beginning of 2008, the CEC and the CPUC determined that it was not necessary or productive to prepare a new energy action plan. This determination was based, in part, on a finding that the state's energy policies have been significantly influenced by the passage of Assembly Bill (AB) 32, the California Global Warming Solutions Act of 2006 (discussed below). Rather than produce a new energy action plan, the CEC and CPUC prepared an "update" that examines the state's ongoing actions in the context of global climate change.

Assembly Bill 1007

AB 1007 (2005) required the CEC to prepare a statewide plan to increase the use of alternative fuels in California (State Alternative Fuels Plan). CEC prepared the plan in partnership with the CARB and in consultation with other state agencies, plus federal and local agencies. The State Alternative Fuels Plan assessed various alternative fuels and developed fuel portfolios to meet California's goals to reduce petroleum consumption, increase alternative fuels use, reduce GHG emissions, and increase in-state production of biofuels without causing a significant degradation of public health and environmental quality.

California Code of Regulations, Title 24, Part 6

The California Building Standards Code was established in 1978 and serves to enhance and regulate California's building standards. While not initially promulgated to reduce GHG emissions, Part 6 of Title 24 specifically established Building Energy Efficiency Standards that are designed to ensure that new and existing buildings in California achieve energy efficiency and preserve outdoor and indoor environmental quality. These energy efficiency standards are reviewed every 3 years by the Building Standards Commission and CEC and revised if necessary (California Public Resources Code Section 25402[b][1]). The regulations receive input from members of industry, as well as the public, to "reduce the wasteful, uneconomic, inefficient, or unnecessary consumption of energy" (California Public Resources Code Section 25402). These regulations are carefully scrutinized and analyzed for technological and economic feasibility (California Public Resources Code Section 25402[d]) and cost effectiveness (California Public Resources Code Section 25402[b][2–3]). As a result, these standards save energy, increase electricity supply reliability, increase indoor comfort, avoid the need to construct new power plants, and help preserve the environment.

The current Title 24, Part 6 standards, referred to as the 2022 Title 24 Building Energy Efficiency Standards, became effective on January 1, 2023. The 2022 energy code focuses on four key areas in newly constructed homes and businesses quality (CEC 2021):

- Encouraging electric heat pump technology for space and water heating, which consumes less energy and produces fewer emissions than gas-powered units.
- Establishing electric-ready requirements for single-family homes to position owners to use cleaner electric heating, cooking, and EV charging options whenever they choose to adopt those technologies.

- Expanding solar photovoltaic (PV) system and battery storage standards to make clean energy available on site and complement the state's progress toward a 100% clean electricity grid.
- Strengthening ventilation standards to improve indoor air quality.

California Code of Regulations, Title 24, Part 11

In addition to CEC's efforts, in 2008, the California Building Standards Commission adopted the nation's first green building standards. The California Green Building Standards Code (Part 11 of Title 24), which is commonly referred to as CALGreen, establishes minimum mandatory standards and voluntary standards pertaining to the planning and design of sustainable site development, energy efficiency (in excess of the California Energy Code requirements), water conservation, material conservation, and interior air quality. CALGreen took effect in January 2011 and instituted mandatory minimum environmental performance standards for all ground-up new construction of commercial, low-rise residential and state-owned buildings and schools and hospitals.

The 2022 CALGreen standards are the current applicable standards. For residential projects, some of the key mandatory CALGreen standards involve requirements related to EV parking spaces and charging infrastructure, indoor and outdoor water efficiency and conservation, construction waste management, low volatile organic compound paints and finishes, and formaldehyde limits in wood products (24 CCR, Part 11). For nonresidential projects, some of the key mandatory CALGreen standards involve requirements related to bicycle parking, designated parking for clean air vehicles, EV charging stations for passenger vehicles, shade trees, water conserving plumbing fixtures and fittings, outdoor potable water use in landscaped areas, recycled water supply systems, construction waste management, excavated soil and land clearing debris, and commissioning (24 CCR, Part 11).

California Code of Regulations, Title 20

Title 20 of the California Code of Regulations requires manufacturers of appliances to meet state and federal standards for energy and water efficiency (20 CCR 1401–1410). CEC certifies an appliance based on a manufacturer's demonstration that the appliance meets the standards. New appliances regulated under Title 20 include refrigerators, refrigerator-freezers, and freezers; room air conditioners and room air-conditioning heat pumps; central air conditioners; spot air conditioners; vented gas space heaters; gas pool heaters; plumbing fittings and plumbing fixtures; fluorescent lamp ballasts; lamps; emergency lighting; traffic signal modules; dishwaters; clothes washers and dryers; cooking products; electric motors; low voltage dry-type distribution transformers; power supplies; televisions and consumer audio and video equipment; and battery charger systems. Title 20 presents protocols for testing each type of appliance covered under the regulations and appliances must meet the standards for energy performance, energy design, water performance, and water design. Title 20 contains three types of standards for appliances: federal and state standards for federally regulated appliances, state standards for federally regulated appliances, and state standards for non-federally regulated appliances.

Senate Bill 1078, Senate Bill 1368, Executive Order S-14-08, Executive Order S-21-09 and Senate Bill X1-2, Senate Bill 350, Senate Bill 100, and Senate Bill 1020

Senate Bill (SB) 1078 (2002) (California Public Utilities Code Section 399.11 et seq.) established the Renewables Portfolio Standard (RPS) program, which required an annual increase in renewable generation by the utilities equivalent to at least 1% of sales, with an aggregate goal of 20% by 2017. This goal was subsequently accelerated, requiring utilities to obtain 20% of their power from renewable sources by 2010 (see SB 107, Executive Order [EO] S-14-08, and EO S-21-09).

SB 1368 (2006) required CEC to develop and adopt regulations for GHG emission performance standards for the long-term procurement of electricity by local publicly owned utilities (California Public Utilities Code Section 8340-8341). These standards must be consistent with the standards adopted by CPUC.

EO S-14-08 (2008) focused on the contribution of renewable energy sources to meet the electrical needs of California while reducing the GHG emissions from the electrical sector. This EO required that all retail suppliers of electricity in California serve 33% of their load with renewable energy by 2020. Furthermore, the EO directed state agencies to take appropriate actions to facilitate reaching this target. California Natural Resources Agency, in collaboration with CEC and the California Department of Fish and Wildlife, was directed to lead this effort.

EO S-21-09 (2009) directed CARB to adopt a regulation consistent with the goal of EO S-14-08 by July 31, 2010. CARB was further directed to work with CPUC and CEC to ensure that the regulation builds upon the RPS program and was applicable to investor-owned utilities, publicly owned utilities, direct access providers, and community choice providers. Under this order, CARB was to give the highest priority to those renewable resources that provide the greatest environmental benefits with the least environmental costs and impacts on public health, as well as those that can be developed the most quickly in support of reliable, efficient, cost-effective electricity system operations. On September 23, 2010, CARB initially approved regulations to implement a Renewable Electricity Standard; however, this regulation was not finalized because of subsequent legislation (SB X1-2) signed by Governor Brown in April 2011.

SB X1-2 (April 2011) expanded RPS by establishing a renewable energy target of 20% of the total electricity sold to retail customers in California per year by December 31, 2013, and 33% by December 31, 2020, and in subsequent years. Under the bill, a renewable electrical generation facility is one that uses biomass, solar thermal, photovoltaic, wind, geothermal, fuel cells using renewable fuels, small hydroelectric generation (30 megawatts or less), digester gas, municipal solid waste conversion, landfill gas, ocean wave, ocean thermal, or tidal current and that meets other specified requirements with respect to its location. SB X1-2 applies to all electricity retailers in the state, including publicly owned utilities, investor-owned utilities, electricity service providers, and community choice aggregators. All these entities must meet the renewable energy goals listed above.

SB 350 (2015) further expanded the RPS program by establishing a goal of 50% of the total electricity sold to retail customers in California per year by December 31, 2030. In addition, SB 350 included the goal to double the energy efficiency savings in electricity and natural gas final end uses (such as heating, cooling, lighting, or class of energy uses on which an energy-efficiency program is focused) of retail customers through energy conservation and efficiency. The bill also requires CPUC, in consultation with CEC, to establish efficiency targets for electrical and gas corporations consistent with this goal.

SB 100 (2018) increased the standards set forth in SB 350, establishing that 44% of the total electricity sold to retail customers in California per year by December 31, 2024; 52% by December 31, 2027; and 60% by December 31, 2030, be secured from qualifying renewable energy sources. SB 100 states that it is the policy of the state that eligible renewable energy resources and zero-carbon resources supply 100% of the retail sales of electricity to California. This bill requires that the achievement of 100% zero-carbon electricity resources does not increase the carbon emissions elsewhere in the western grid and that the achievement not be achieved through resource shuffling.

SB 1020 (September 2022) revises the standards from SB 100, requiring the following percentage of retail sales of electricity to California end-use customers to come from eligible renewable energy resources and zero-carbon resources: 90% by December 31, 2035; 95% by December 31, 2040; and 100% by December 31, 2045.

State Vehicle Standards (Assembly Bill 1493 and Executive Order B-16-12)

In response to the transportation sector accounting for more than half of California's carbon dioxide (CO_2) emissions, AB 1493 was enacted in 2002. AB 1493 required CARB to set GHG emissions standards for passenger vehicles, light-duty trucks, and other vehicles determined by CARB to be vehicles whose primary use is noncommercial personal transportation in the state. AB 1493 required that CARB set GHG emissions standards for motor vehicles manufactured in 2009 and all subsequent model years. The 2009–2012 standards resulted in a reduction in GHG emissions of approximately 22% compared to emissions from the 2002 fleet, and the 2013-2016 standards resulted in a reduction of approximately 30% compared to the 2002 fleet.

In 2019, EPA and NHTSA published the Safer Affordable Fuel-Efficient Vehicles Rule Part One: One National Program (SAFE-1) (84 FR 51310), which revoked California's authority to set its own GHG emissions standards and set ZEV mandates in California. In March 2020 Part Two was issued, which set CO_2 emissions standards and CAFE standards for passenger vehicles and light-duty trucks for model years 2021 through 2026. In December 2021, NHTSA withdrew its portions of the SAFE I rule (NHTSA 2021). In March 2022, EPA reinstated California's authority under the Clean Air Act to implement its own GHG emission standards and ZEV sales mandate. EPA's action concludes its reconsideration of the 2019 SAFE-1 rule by finding that the actions taken under the previous administration as a part of SAFE-1 were decided in error and are now entirely rescinded.

Although the focus of the state's vehicle standards is on the reduction of air pollutants and GHG emissions, one co-benefit of implementation of these standards is a reduced demand for petroleum-based fuels.

Senate Bill 375

SB 375 (California Government Code Section 65080) addresses GHG emissions associated with the transportation sector through regional transportation and sustainability plans. SB 375 requires CARB to adopt regional GHG-reduction targets for the automobile and light-truck sector for 2020 and 2035 and to update those targets every 8 years. SB 375 requires the state's 18 regional metropolitan planning organizations to prepare a sustainable communities strategy as part of their regional transportation plan that will achieve the GHG-reduction targets set by CARB. If a metropolitan planning organization is unable to devise a sustainable communities strategy to achieve the GHG-reduction target, the metropolitan planning organization must prepare an alternative planning strategy demonstrating how the GHG-reduction target would be achieved through alternative development patterns, infrastructure, or additional transportation measures or policies.

A sustainable communities strategy does not (1) regulate the use of land; (2) supersede the land use authority of cities and counties; or (3) require that a city's or county's land use policies and regulations, including those in a general plan, be consistent with it (California Government Code Section 65080[b][2][K]). Nonetheless, SB 375 makes regional and local planning agencies responsible for developing those strategies as part of the federally required metropolitan transportation planning process and the state-mandated housing element process.

Advanced Clean Cars Program and Zero-Emissions Vehicle Program

The Advanced Clean Cars (ACC) I program (January 2012) is an emissions-control program for model years 2015 through 2025. The program combines the control of smog- and soot-causing pollutants and GHG emissions into a single coordinated package of regulations: the low-emission vehicle regulation for criteria air pollutant and GHG emissions and a technology forcing regulation for ZEVs that contributes to both types of emission reductions (CARB 2012). The package includes elements to reduce smog-forming pollution, reduce GHG emissions, promote clean cars,

and provide the fuels for clean cars. To improve air quality, CARB has implemented new emission standards to reduce smog-forming emissions beginning with 2015 model year vehicles. It is estimated that in 2025 cars will emit 75% less smog-forming pollution than the average new car sold in 2015. The ZEV program will act as the focused technology of the ACC I program by requiring manufacturers to produce increasing numbers of ZEVs and plug-in hybrid EVs in the 2018 to 2025 model years.

The ACC II program, which was adopted in August 2022, established the next set of low-emission vehicle and ZEV requirements for model years after 2025 to contribute to meeting federal ambient air quality ozone standards and California's carbon neutrality standards (CARB 2022). The main objectives of ACC II are as follows:

- Maximize criteria and GHG emission reductions through increased stringency and real-world reductions.
- Accelerate the transition to ZEVs through both increased stringency of requirements and associated actions to support wide-scale adoption and use.

The ACC II rulemaking package also considers technological feasibility, environmental impacts, equity, economic impacts, and consumer impacts.

Executive Order N-79-20

EO N-79-20 (September 2020) requires CARB to develop regulations as follows: (1) passenger vehicle and truck regulations requiring increasing volumes of new ZEVs sold in the state towards the target of 100% of in-state sales by 2035; (2) medium- and heavy-duty vehicle regulations requiring increasing volumes of new zero-emission trucks and buses sold and operated in the state towards the target of 100% of the fleet transitioning to ZEVs by 2045 everywhere feasible and for all drayage trucks to be zero emission by 2035; and (3) strategies, in coordination with other state agencies, EPA, and local air districts, to achieve 100% zero emissions from off-road vehicles and equipment operations in the state by 2035. EO N-79-20 called for the development of a ZEV Market Development Strategy, which was released February 2021, to be updated every 3 years, that ensures coordination and implementation of the EO and outlines actions to support new and used ZEV markets. In addition, the EO specifies identification of near-term actions and investment strategies to improve clean transportation, sustainable freight, and transit options and calls for development of strategies, recommendations, and actions by July 15, 2021, to manage and expedite the responsible closure and remediation of former oil extraction sites as the state transitions to a carbon-neutral economy.

Local

Metropolitan Transportation Plan/ Sustainable Communities Strategy

The Sustainable Communities and Climate Protection Act of 2008, or SB 375, coordinates land use planning, regional transportation plans, and funding priorities to help California meet its GHG emissions reduction mandates established in AB 32. As codified in California Government Code Section 65080, SB 375 requires Metropolitan Planning Organizations (MPOs) to include a sustainable communities strategy in their regional transportation plans. The main focus of the sustainable communities strategy (SCS) is to plan for growth in a fashion that will ultimately reduce GHG emissions, but the strategy is also part of a bigger effort to address other development issues, including transit and vehicle miles traveled (VMT), which influence the consumption of petroleum-based fuels.

SACOG is designated by the state and federal governments as the MPO and is responsible for developing the Metropolitan Transportation Plan (MTP)/SCS in coordination with Sacramento, Yolo, Yuba, Sutter, El Dorado and

Placer counties and the 22 cities within those counties (excluding the Tahoe Basin). In November 2019, SACOG adopted the 2020 MTP/SCS, which lays out a path for improving our air quality, preserving open space and natural resources, and helping California achieve its goal to reduce GHG that contribute to climate change (SACOG 2019). SB 375 requires updates to the long-range transportation and land use plan every four years, and SACOG is currently working on the 2025 MTP/SCS, which is referred to as the 2024 Blueprint Update.

El Dorado County General Plan

The El Dorado County General Plan (last amended 2019) includes the following goals, objectives, and policies related to sustainability and energy conservation in the Transportation and Circulation, Housing, Public Services and Utilities, Public Health, Safety, and Noise, and Conservation and Open Space Elements of the General Plan (El Dorado County 2019) applicable to the proposed project.

Transportation and Circulation Element

Goal TC-4: To provide a safe, continuous, and easily accessible non-motorized transportation system that facilitates the use of the viable alternative transportation modes.

Policy TC-4c: The County shall give priority to bikeways that will serve population centers and destinations of greatest demand and to bikeways that close gaps in the existing bikeway system.

Policy TC-4e: The County shall require that rights-of-way or easements be provided for bikeways or trails designated in adopted master plans, as a condition of land development when necessary to mitigate project impacts.

Policy TC-4g: The County shall support development of facilities that help link bicycling with other modes of transportation.

Policy TC-4i: Within Community Regions and Rural Centers, all development shall include pedestrian/bike paths connecting to adjacent development and to schools, parks, commercial areas and other facilities where feasible. In Rural Regions, pedestrian/bike paths shall be considered as appropriate.

Goal TC-5: To provide safe, continuous, and accessible sidewalks and pedestrian facilities as a viable alternative transportation mode.

Policy TC-5a: Sidewalks and curbs shall be required throughout residential subdivisions, including land divisions created through the parcel map process, where any residential lot or parcel size is 10,000 square feet or less.

Housing Element

Goal HO-5: To increase the efficiency of energy and water in new and existing homes.

Policy HO-5a: The County shall require all new dwelling units to meet current state requirements for energy efficiency and shall encourage the retrofitting of existing units.

Policy HO-5b: New land use development standards and review processes should encourage energy and water efficiency, to the extent feasible.

Public Services and Utilities Element

Goal 5.6: Sufficient utility service availability consistent with the needs of a growing community.

Objective 5.6.2: Encourage development of energy-efficient buildings, subdivisions, development, and landscape designs.

Policy 5.6.2.1: Require energy conserving landscaping plans for all projects requiring design review or other discretionary approval.

Policy 5.6.2.2: All new subdivisions should include design components that take advantage of passive or natural summer cooling and/or winter solar access, or both, when possible.

Public Health, Safety, and Noise Element

Goal 6.7: Strive to achieve and maintain ambient air quality standards established by the EPA and CARB and minimize exposure to TACs or HAPs and air pollutants that create unpleasant odors.

Objective 6.7.2: Reduce motor vehicle air pollution by developing programs aimed at minimizing congestion and reducing the number of vehicle trips made in the County and encouraging the use of clean fuels.

Policy 6.7.2.5: Upon reviewing projects, the County shall support and encourage the use of, and facilities for, alternative-fuel vehicles to the extent feasible. The County shall develop language to be included in County contract procedures to give preference to contractors that utilize low-emission heavy-duty vehicles.

Objective 6.7.4: Encourage project design that protects air quality and minimizes direct and indirect emissions of air contaminants.

Policy 6.7.4.1: Promote the development of new residential uses within walking or bicycling distance to the County's larger employment centers.

Policy 6.7.4.4: All discretionary development applications shall be reviewed to determine the need for pedestrian/bike paths connecting to adjacent development and to common service facilities (e.g., clustered mailboxes, bus stops, etc.).

Policy 6.7.4.5: Specific plans submitted to the County shall provide for the implementation of all policies contained under Objective 6.7.4 herein.

Policy 6.7.4.6: The County shall regulate wood-burning fireplaces and stoves in all new development. EPA approved stoves and fireplaces burning natural gas or propane are allowed. The County shall discourage the use of non-certified wood heaters and fireplaces during periods of unhealthy air quality.

Conservation and Open Space Element

Goal 7.3: Conserve, enhance, and manage water resources and protect their quality from degradation.

Objective 7.3.1: Preserve and protect the supply and quality of the County's water resources including the protection of critical watersheds, riparian zones, and aquifers.

Policy 7.3.1.2: Establish water conservation programs that include both drought tolerant landscaping and efficient building design requirements as well as incentives for the conservation and wise use of water.

Objective 7.3.5: Conservation of water resources, encouragement of water conservation, and construction of wastewater disposal systems designed to reclaim and re-use treated wastewater on agricultural crops and for other irrigation and wildlife enhancement projects.

Policy 7.3.5.4: Require efficient water conveyance systems in new construction. Establish a program of ongoing conversion of open ditch systems shall be considered for conversion to closed conduits, reclaimed water supplies, or both, as circumstances permit.

Policy 7.3.5.5: Encourage water reuse programs to conserve raw or potable water supplies consistent with State Law.

3.5.3 Thresholds of Significance

Thresholds of Significance

Thresholds of significance are used to determine the significance of a project's environmental effects. Per Section 15064.7 of the CEQA Guidelines, a threshold is an identifiable quantitative, qualitative or performance level of particular environmental effect, non-compliance with which means the effect will normally be determined to be significant and compliance with normally means the effect will be determined to be less than significant. A significant impact would occur if development of the project would do any of the following:

- Result in potential significant environmental impacts due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation.
- Conflict with or obstruct a state or local plan for renewable energy or energy efficiency.

3.5.4 Impacts and Mitigation Measures

Methodology

Construction

Electricity

The amount of electricity used during construction of the project would be minimal because demand generally would be generated from use of electrically powered hand tools. As such, construction electricity demand is qualitatively addressed.

Natural Gas

Natural gas is not anticipated to be required during construction of the project; therefore, construction natural gas demand is qualitatively addressed.

Petroleum

Potential impacts were assessed for off-road equipment and on-road vehicle trips during construction based on the California Emissions Estimator Model (CalEEMod) outputs (see Appendix B). Fuel consumption from equipment and vehicles was estimated by converting the total CO_2 emissions to gallons using the conversion factors for CO_2 to gallons of gasoline or diesel. The conversion factor for gasoline is 8.78 kilograms per metric ton (MT) CO_2 per gallon, and the conversion factor for diesel is 10.21 kilograms per MT CO_2 per gallon (The Climate Registry 2023). Heavy-duty construction equipment associated with construction activities, vendor trucks, and haul trucks are assumed to use diesel fuel. Worker vehicles are assumed to be gasoline fueled. The details for construction criteria air pollutant emissions modeling discussed in Section 3.2, Air Quality applies to the energy analysis as well; see Section 3.2.3, Methodology.

Operation

Energy consumption in support of or related to project operations would include facilities energy demands (energy consumed by building operations and site maintenance activities), transportation energy demands (energy consumed by on-road vehicles accessing the project site), and stationary sources.

Electricity

The project's operational phase would require electricity for multiple purposes including, but not limited to, building heating and cooling, lighting, appliances, electronics, and for water and wastewater treatment and conveyance.

Natural gas

Project natural gas consumption is based on the estimated total annual building load summaries from CalEEMod, if the project is developed to include natural gas. Default natural gas usage rates in CalEEMod were used for the residential and nonresidential components of the proposed project. The energy use from the residential and nonresidential land uses (natural gas usage per square foot per year) is calculated in CalEEMod based on the Residential Appliance Saturation Survey and Uncalibrated Commercial Sector Forecast. CalEEMod default values for energy consumption, which assume compliance with the 2019 Title 24 Building Energy Efficiency Standards.

Petroleum

Fuel consumption resulting from the project's operational phase would primarily be attributable to vehicles traveling to and from the project site. Energy that would be consumed by traffic is a function of total VMT and estimated vehicle fuel economies for the vehicles accessing the project. Annual VMT was estimated based on the default trip lengths in CalEEMod and the trip generation rates for the project (weekdays and Saturdays), which are based on the traffic data provided in Section 3.12, Transportation. Saturday trip rates were also input for Sundays to provide a conservative analysis. With respect to estimated VMT, the project would generate an estimated 17,230,430 VMT. Finally, gasoline was assumed to be required for landscaping equipment. Fuel consumption from all operational equipment and vehicles was estimated by converting the total CO_2 emissions to gallons using the conversion factors for CO_2 to gallons of gasoline or diesel. Details of these calculations and assumptions are provided in Appendix B.

As described in Chapter 2, Project Description, the project includes two development options. The first option would be to convert the 1,8-acres of neighborhood commercial to park uses if neighborhood commercial is not adopted as part of the Specific Plan. The second option proposes construction of up to 768 age-restricted units and 150 conventional homes. Construction emissions would essentially be the same as the proposed project under the Active Adult option; therefore, the impact analysis below indicates whether the Active Adult option would result in a change in impact significance or require new mitigation.

Project Impacts

Impact 3.5-1. The proposed project would not result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation.

Construction

Electricity

Temporary electric power for as-necessary lighting and electronic equipment it is assumed would be provided by PG&E. The amount of electricity used during construction would be minimal because typical demand would be generated by electrically powered hand tools. The electricity used for construction activities would be temporary and minimal; therefore, project construction would not result in wasteful, inefficient, or unnecessary consumption of electricity.

Natural Gas

Natural gas is not anticipated to be required during construction of the project. Fuels used for construction would primarily consist of diesel and gasoline, which are discussed below. Any minor amounts of natural gas that may be consumed due to project construction would be temporary and negligible and would not have an adverse effect; therefore, project construction would not result in wasteful, inefficient, or unnecessary consumption of natural gas.

Petroleum

Offroad equipment used during project construction would primarily rely on diesel fuel, as would vendor and haul trucks. In addition, construction workers would travel to and from the project site throughout the duration of construction. It is assumed in this analysis that construction workers would travel in gasoline-powered light-duty vehicles.

The estimated diesel fuel usage from construction equipment and trucks, as well as estimated gasoline fuel usage from worker vehicles, is shown in Table 3.5-1. See Appendix B, Energy Calculations, for details.

Table 3.5-1. Total Project Construction Petroleum Demand

Scenario	Off-Road Equipment (diesel)	Haul Trucks (diesel)	Vendor Trucks (diesel)	Worker Vehicles (gasoline)
	Gallons			
Project Construction	98,352	0.00	96,855	153,207
			Total Petroleum Consumed for Project Construction	349,948

Source: Appendix B.

In summary, construction associated with the development of the project is estimated to consume a total of approximately 348,948 gallons of petroleum. The project would be subject to CARB's In-Use Off-Road Diesel Vehicle Regulation that applies to certain off-road diesel engines, vehicles, or equipment greater than 25 horsepower. The regulation requires the following: (1) imposes limits on idling, requires a written idling policy, and requires a disclosure when selling vehicles; (2) requires all vehicles to be reported to CARB (using the Diesel Off-Road Online Reporting System) and labeled; (3) restricts the adding of older vehicles into fleets starting on January 1, 2014; and (4) requires fleets to reduce their emissions by retiring, replacing, or repowering older engines or installing Verified Diesel Emission Control Strategies (i.e., exhaust retrofits). The fleet must either show that its fleet average index was less than or equal to the calculated fleet average target rate, or that the fleet has met the Best Achievable Control Technology requirements.

Overall, while construction activities would consume petroleum-based fuels, consumption of such resources would be temporary and would cease upon the completion of construction. Further, the petroleum consumed related to construction would be typical of construction projects of similar types and sizes and would not necessitate new petroleum resources beyond what are typically consumed in California. The construction energy use, including petroleum use, is not expected to change significantly with the Active Adult option. Therefore, because petroleum use during project construction would be temporary and minimal and would not be wasteful or inefficient, project impacts, including the Active Adult option are determined to be **less than significant**.

Operations

Electricity

Project operation would require electricity for multiple purposes including, but not limited to, building heating, ventilation, and air conditioning; lighting; appliances; and electronics. Additionally, the supply, conveyance, treatment, and distribution of water would indirectly result in electricity usage. Based on information contained in the Air Quality and Greenhouse Gas Impact Analysis (Appendix B), the project would consume approximately 8,404,718 kWh of electricity per year during operation. The additional electricity demand for the project would be comparable to other similar projects of scale and configuration and would not be unusual or wasteful as compared to overall local and regional demand for energy resources. Notably, regarding solar power, the project would comply with the applicable Title 24 building energy efficiency standards and is anticipated to include solar panels, which at a minimum, would be provided for new residential buildings, and non-residential buildings which are anticipated to be solar-ready which would reduce the electricity demand of the project. For these reasons, electricity consumption of the project would not be considered inefficient or wasteful, and impacts would be less than significant. Table 3.5-2 shows the estimated annual operational electricity demand by land use. See Appendix B, Energy Calculations, for details.

Table 3.5-2 Annual Operational Electricity Demand

Electricity Demand	kWh/year
Single Family Housing	7,826,601
Fast Food Restaurant with Drive Thru	96,369
Fast Food Restaurant w/o Drive Thru	60,230
High Turnover (Sit Down Restaurant)	60,230
Subtotal	*8,043,431*

Table 3.5-2 Annual Operational Electricity Demand

Electricity Demand	kWh/year
Water Consumption	361,287
Total	**8,404,718**

Source: Appendix B.
Note: kWh = kilowatt-hour.

Natural Gas

The project would provide natural gas to approximately 918 residential units (if natural gas is provided) and the proposed neighborhood commercial use, if approved as part of the CVSP otherwise the 1.8-acre parcel would be converted to a park. Based on information contained in the Air Quality and Greenhouse Gas Impact Analysis (Appendix B), the project would consume approximately 27,362,638 kBTU per year during operation. The additional natural gas demand for the project would be comparable to the scale and configuration of other similar projects and would not be unusual or wasteful as compared to overall local and regional demand for natural gas resources. Notably, the project would also be required to implement mitigation measure GHG-1, which would require the project to be designed such that the project is built all-electric, and natural gas infrastructure shall be prohibited onsite. For these reasons, natural gas consumption of the project would not be considered inefficient or wasteful, and impacts would be less than significant. Table 3.5-3 shows the estimated annual operational electricity demand by land use. See Appendix B, Energy Calculations, for details.

Table 3.5-3 Annual Operational Natural Gas Demand

Land Use Demand	Natural Gas (kBTU/year)
Single Family Housing	26,704,643
Fast Food Restaurant with Drive Thru	292,442
Fast Food Restaurant w/o Drive Thru	182,776
High Turnover (Sit Down Restaurant)	182,776
Total	**27,362,638**

Source: Appendix B.
Note: kBTU = thousand British Thermal Units

Petroleum

During operations, fuel consumption would involve the use of motor vehicles traveling to and from the project site and landscaping equipment. Fuel demand estimates for the project are provided in Table 3.5-4.

Table 3.5-4. Annual Operational Petroleum Demand

Scenario	On-Road Vehicles (gasoline)	On-Road Vehicles (diesel)	Landscape Equipment (gasoline)
	Gallons		
Project Operations	691,633	37,238	25
Total Petroleum Consumed for Project Operations			**728,897**

Source: Appendix B.

As summarized in Table 3.5-4, the project would result in an estimated annual increase in fuel demand of approximately 728,897 gallons of petroleum. The proposed project would include a maximum of 5,400 sf of neighborhood commercial uses on-site. The VMT associated with this commercial use is not required to be evaluated because it is below 50,000 square feet, as explained in Section 3.12, Transportation. Therefore, this VMT reduction was not accounted for in the estimate of petroleum provided in Table 3.5-4. Furthermore, based on the results of the VMT Analysis provided in Section 3.12, Transportation, the residential component of the project is anticipated to generate 13.6 VMT per capita for the Baseline (2018) Condition, and 13.1 VMT per capita for the Cumulative (2040) Condition, which is below the 17.3 VMT per capita threshold. Under the Active Adult option this would likely be further reduced given that age-restricted housing generates fewer trips compared to traditional housing. The project's trip generation and VMT would be consistent with other projects of similar scale and configuration. That is, the project does not propose uses or operations that would inherently result in excessive and wasteful activities, nor associated excess and wasteful vehicle energy consumption. Finally, enhanced fuel economies realized pursuant to federal and state regulatory actions, and related transition of vehicles to alternative energy sources (e.g., electricity, natural gas, biofuels, hydrogen cells) would likely decrease the project's future fuel demands. As supported by the preceding discussions, the project's operational petroleum consumption would not be considered inefficient, wasteful, or otherwise unnecessary and impacts would be less than significant.

Renewable Energy Potential

As part of the project's design process, the County considered how the project could potentially increase its reliance on renewable energy sources to meet its energy demand. Renewable energy sources that were considered for their potential to be used to power the project, consistent with the CEC's definition of eligible renewables, include biomass, geothermal, solar, wind, and small hydroelectric facilities.

Given the project's location and the nature of the project, there are considerable site constraints including incompatibility with surrounding land uses for large scale power generation facilities, unknown interconnection feasibility, compatibility with utility provider systems, and no known water or geothermal resources to harness, that would eliminate the potential for biomass, geothermal, wind, and hydroelectric renewable energy to be installed onsite.

The project would comply with all applicable Title 24 code provisions, such as installation of solar photovoltaic panels on residential homes and would be required to have electrical conduit installed that is capable of supporting a Level 2 EV charging station. Nonresidential uses would also meet the mandatory building standards requiring EV charging station installation in parking spaces. While the project does not propose battery storage at the time, future residents could install battery storage at their discretion.

Active Adult Option

As explained in Section 3.9, Land Use, Population and Housing, the Active Adult option is assumed to have a population reduction of approximately 40% for active adult residential units. Assuming 2.52 residents per unit for 150 conventional units and a 40% reduction per unit for the remaining 768 units, the Active Adult option would have approximately 1,540 new residents. As compared to the estimated 2,314 new residents with the proposed project that assumes all conventional units, the Active Adult option would likely have an overall approximately 33.5% reduction in new residents. A reduction in project residents would likely correlate with a reduced consumption of energy during project operations due to fewer persons per household. A reduction in the amount of petroleum used would also occur under this option given the lower vehicle miles traveled and fewer daily trips, as explained in Section 3.12, Transportation.

Summary

As explained above, the project would install solar panels and EV charging stations in compliance with Title 24 and would not result in wasteful, inefficient, or unnecessary consumption of energy resources, including electricity, natural gas, or petroleum during project construction or operation. Project impacts, including the Active Adult option would be **less than significant**.

Mitigation Measures

No mitigation measures are required.

Impact 3.5-2. The proposed project would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency.

The proposed project as well as the Active Adult option would be subject to and would comply with, at a minimum, the California Building Energy Efficiency Standards (24 CCR Part 6). Part 6 of Title 24 establishes energy efficiency standards for residential and non-residential buildings constructed in California in order to reduce energy demand and consumption. As such, the proposed project would comply with the California code requirements for energy efficiency.

Part 11 of Title 24 sets forth voluntary and mandatory energy measures that are applicable to the proposed project under CALGreen. CALGreen institutes mandatory minimum environmental performance standards for all ground-up, new construction of commercial, low-rise residential, high-rise residential, state-owned buildings, schools, and hospitals, as well as certain residential and non-residential additions and alterations. Additionally, energy consumed by the proposed project's operation is calculated to be comparable to energy consumed by other residential uses of similar scale and intensity that are constructed and operating in the County. On this basis, the proposed project, including the Active Adult option would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency. This impact would be **less than significant**.

Mitigation Measures

No mitigation measures are required.

Cumulative Impacts

This section provides an evaluation of cumulative energy impacts associated with the project and past, present, and reasonably foreseeable future projects. The geographic scope for the analysis of cumulative energy impacts consists of the County, as well as all other surrounding areas serviced by PG&E for electrical and natural gas service. Implementation of either option would result in impacts similar to the proposed project; therefore, the analysis of cumulative impacts below would not change if one of the options were selected.

Impact 3.5-3. The proposed project would not result in a cumulatively considerable impact due to the consumption of electricity, natural gas and petroleum fuels during construction and operation.

Potential cumulative impacts on energy would result if the project, in combination with past, present, and future projects, would result in the wasteful or inefficient use of energy. Significant energy impacts could result from development that would not incorporate sufficient building energy efficiency features, achieve building energy efficiency standards, or if projects result in the unnecessary use of energy during construction or operation.

As discussed in Impacts 3.5-1 and 3.5-2, the project, including the Active Adult option would not result in wasteful, inefficient, or unnecessary use of energy during construction or operations, nor would it conflict with applicable plans. Each of the cumulative projects listed in Table 3-1 in Chapter 3.0, Environmental Analysis would have a construction period during which primarily petroleum would be used; however, it is expected that such usage would be temporary and would not constitute a wasteful, inefficient, or unnecessary consumption of energy. Regarding operations, it is anticipated that these other projects would also be designed to be comparable to the scale and configuration of other similar projects and would not contribute to any potential cumulative energy impacts. Furthermore, commercial and residential cumulative projects that include long-term energy demand would be subject to CALGreen, which requires energy efficiency standards. In addition, cumulative projects would be required to meet or exceed the Title 24 building standards, as applicable, further reducing the inefficient use of energy. Furthermore, various federal and state regulations, including the Low Carbon Fuel Standard, Pavley Clean Car Standards, and Low Emission Vehicle Program, would serve to reduce the transportation fuel demand of cumulative projects.

For the reasons above, the project, together with the cumulative projects would not result in wasteful, inefficient, or unnecessary use of energy or conflicts with applicable plans. Therefore, the project, would not contribute to a significant cumulative impact related to energy and the cumulative impact is **less than significant.**

Mitigation Measures

No mitigation measures are required.

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3.6 Geology, Soils and Paleontology

This section describes the geologic, soils, and paleontological conditions on and near the Creekside Village Specific Plan (proposed project or CVSP) area (project site or plan area); discusses the relevant federal, state, and regional regulatory considerations; and evaluates how implementation of the CVSP may affect the geology, soils, and paleontology of the plan area.

Public comments received in response to the November 6, 2020, Notice of Preparation (NOP) and the follow up second scoping meeting held on September 26, 2023, did not include any concerns related to geology, soils, or paleontological resources. A copy of the NOP and comments received is included in Appendix A.

The primary sources referenced to prepare this section include the Geotechnical Feasibility Study for Creekside Village (Geotechnical Study) prepared by Youngdahl Consulting Group, Inc. (Appendix D), as well as publicly available geologic/soils documents from the California Geological Survey (CGS), U.S. Geological Survey (USGS), Natural Resources Conservation Service (NRCS), and the El Dorado County (County) General Plan.

3.6.1 Environmental Setting

This section describes the existing conditions in the plan area based on the site-specific Geotechnical Study (Appendix D), along with published geologic maps and reports, and online resources.

Regional Geology

The project site is located along the western foothills of the Sierra Nevada geomorphic province of California (CGS 2002).[1] The Sierra Nevada Province is located in the east central portion of the state and characterized by a northwest trending mountain range that stretches from Bakersfield to Lassen Peak. It includes the Sierra Nevada mountain range and a broad belt of the western foothills. Due to a lesser predominance of alluvial cover, the Sierra Nevada Province is characterized by high levels of bedrock unit exposure, and relatively low levels of alluvium cover.[2] The topography ranges from 400 to 14,496 feet above mean sea level (AMSL) with many peaks on the order of 9,000 to 12,000 feet AMSL. The rocks that make up the Sierra Nevada Province primarily consist of metasedimentary basement rocks[3] intruded by the Sierra Nevada batholith.[4]

Topography

As described in Chapter 2, Project Description, the project site consists of approximately 208 acres of land located on the west side of Latrobe Road, south of Investment Boulevard, directly adjacent to the southern boundary of the El Dorado Hills Business Park. The project site is covered by undeveloped grasslands covering gently rolling hills with broad valleys. There are three seasonal drainages that cross the project site and merge at the western boundary to form one intermittent drainage that drains offsite. The site generally slopes to the west, with the elevation ranging from 470 feet along the western boundary to a high of 640 feet AMSL in the southeast corner.

1 A geomorphic province is a naturally defined geologic region that displays a distinct combination of features based on geology, faults, topography, and climate. Eleven geomorphic provinces are recognized in the state.
2 Alluvium is sand, silt, clay, gravel, or other matter deposited by flowing water, as in a riverbed, floodplain, delta, or alluvial fan.
3 Basement rocks are those located below sedimentary rock cover, and metasedimentary rock is a rock that was first formed through the deposition and solidification of sediment, and then subsequently buried and subjected to high pressures and temperatures, causing the rock to recrystallize.
4 A batholith is a large mass of volcanic rock larger than 40 square miles that form from cooled magma deep in the earth's crust.

Approximately 80% of the project site contains slopes of less than 10%; 16% of the site contains slopes of between 11 and 20%; 3% of the site contains slopes of between 21 and 29%; and the remaining 1% of the project site contains slopes of 30% or greater (CTA Engineering & Surveying 2023).

Local Geologic and Soil Conditions

The Geotechnical Study (Appendix D) indicates that, based on investigations in the vicinity of the project site, the subsurface conditions on the project site likely consist of silty clay and clayey silt soils overlying metavolcanic bedrock.[5] There are numerous outcrops of shallow bedrock protruding out of the ground along northeastern side of the project site. Groundwater is anticipated to occur at depths greater than 100 feet below the ground surface, however, due to relatively shallow bedrock, it is likely that perched water could be encountered near the soil and bedrock contact at the project site.

The Geotechnical Study's characterization of subsurface conditions on the project site are consistent with CGS mapping, which indicates that the project site is underlain by undivided Mesozoic age volcanic and metavolcanic rocks (CGS 2023). It is also consistent with NRCS mapping, which indicates that the project site contains shallow soils classified as rocky and gravelly loam and silt loam soils overlying bedrock (NRCS 2020).[6] The distribution of soils across the project site, as well as the estimated shrink-swell potential and hydrologic characteristics, are summarized in Table 3.6-1 and shown in Figure 3.6-1.

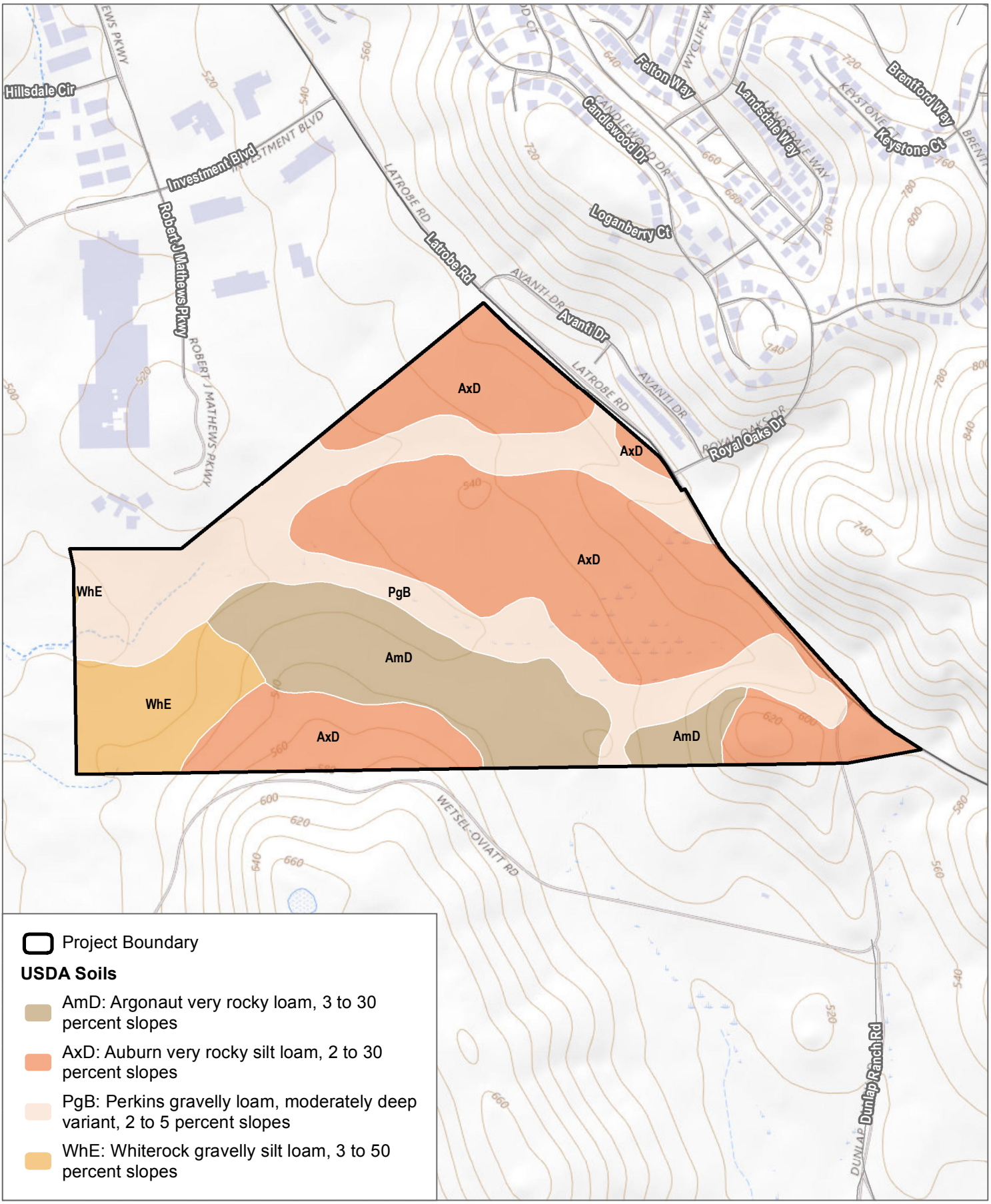
Geologic and Soil Hazards

Regional Faulting

The potential for ground shaking in the western foothills of the Sierra Nevada, where the project site is located, is low (Branum et al. 2016). The nearest fault to the project site is the Foothill fault, which primarily runs north to south approximately 8 miles northwest of the site (U.S. Geological Survey 2020). However, the Bear Mountain Fault, the western most strand of the Foothill fault zone, is within 100 feet of the site. Although located in close proximity, this fault is not considered an active fault, which is defined by the state of California has having surface displacement within the past 11,700 years. The nearest active faults to the project site are the West-Tahoe Dollar Point fault, located approximately 55 miles to the east, and the Rio Vista fault, located approximately 55 miles to the west (U.S. Geological Survey 2020). The project site is not located within an Alquist-Priolo Earthquake Fault Zone (California Department of Conservation 2020).

[5] Metavolcanic rock is a rock that was first produced by a volcano and was then buried and subjected to high pressures and temperatures, causing the rock to recrystallize.

[6] A loam is a type of soil with roughly equal proportions of sand, silt, and clay.



SOURCE: USGS National Map 2024; Open Street Map 2019; USDA SSURGO 2024

DUDEK

0 400 800 Feet

FIGURE 3.6-1

Soils

Creekside Village Specific Plan EIR

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Table 3.6-1. Soils in Plan Area

Soil Association/Name	Approximate Acreage/Percent of Total Project Area	Typical Profile Summary[a]	Shrink-Swell Potential[a,b]	Hydrologic Soil Group[a,b]
Argonaut very rocky loam, 3 to 30% slopes	37.7 acres/18.0%	15 percent rock outcrops 0 to 10 inches: gravelly loam 10 to 30 inches: clay 30 to 36 inches: weathered bedrock	Low High	D
Auburn very rocky silt loam, 2 to 30% slopes	98.1 acres/46.9%	15 percent rock outcrops 0 to 14 inches: silt loam 14 to 18 inches: unweathered bedrock	Low	D
Perkins gravelly loam, moderately deep variant, 2 to 5% slopes	56.6 acres/27.1%	0 percent rock outcrops 0 to 12 inches: gravelly loam 12 to 17 inches: clay loam 17 to 30 inches: very gravelly sandy clay loam 30 to 37 inches: sandy clay 37 to 41 inches: unweathered bedrock	Low Moderate Low High	C
Whiterock gravelly silt loam, 3 to 50% slopes	16.6 acres/8.0%	2 percent rock outcrops 0 to 8 inches: gravelly silt loam 8 to 12 inches: unweathered bedrock	Low	D

Source: NRCS 2020.

Notes:

[a] For complexes, description is of the non-urban land soil in the complex.

[b] Shrink-swell potential of soils is determined by measuring the linear extensibility, which is the change in length of an unconfined clod as moisture content is decreased from a moist to a dry state. A moderate, high, or very high shrink-swell potential can cause significant changes in soil volume as moisture content changes, which can result in damage to overlying improvements and buildings.

[c] Hydrologic soil groups are based on estimates of runoff potential. Group A soils have a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. Group B soils have a moderate infiltration rate when thoroughly wet. Group C soils have a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material.

Liquefaction, Lateral Spreading, and Seismically Induced Settlement

Liquefaction is the temporary transformation of loose, saturated granular sediments from a solid state to a liquefied state as a result of seismic ground shaking. In the process, the soil undergoes loss of strength, which commonly causes ground displacement or ground failure to occur. Lateral spreading is a form of horizontal displacement of soil toward an open channel or other "free" face, such as an excavation boundary. In a lateral spread failure, a layer of ground at the surface is carried on an underlying layer of liquefied material over a nearly flat surface toward a river channel or other bank. The lateral spreading hazard tends to mirror the liquefaction hazard for a site, assuming an exposed slope face is located nearby. Seismically induced settlement occurs when loose sandy soils become denser when subjected to shaking during an earthquake. In general, saturated, loose to medium-dense sands with a silt content of less than 25% and located within 50 feet below the ground surface are most susceptible to liquefaction and lateral spreading.

Potential impacts from liquefaction, lateral spreading, and seismically induced settlement include loss of bearing capacity, differential settlement[7], lateral movements, and surface manifestation such as sand boils. Based on the absence of a permanently elevated groundwater table, the low seismicity of the area, and the shallow depth to bedrock, the Geotechnical Study characterizes the potential for seismically induced liquefaction, lateral spreading, and seismically induced settlement as negligible (Appendix D).

Expansive Soils

Expansion and contraction of soil volume can occur when expansive soils undergo alternating cycles of wetting (swelling) and drying (shrinking). During these cycles, the volume of the soil changes markedly. Shrink-swell potential is influenced by the amount and type of clay minerals present, which higher clay content resulting in a greater potential for expansive properties and can be measured by the percent change of the soil volume. Shrink-swell potential is also influenced by the location of the soils; soils below the groundwater table maintain a steady moisture content and would therefore not be subject to shrink-swell effects. The movement of expansive soils may result in cracking foundations, distortion of structures, and warping of doors and windows.

The Geotechnical Study indicates soils on the project site are generally not expected to be dominated by high-clay soils, but notes that pockets of clay soils with expansive properties could be encountered throughout the project site (Appendix D). This is consistent with the soils shrink-swell potential presented in Table 3.6-1, which indicates that some soils present on the project site may contain clay layers with moderate to high shrink-swell potential (NRCS 2020).

Landslides

Slope failure can occur as either rapid movement of large masses of soil (landslide) or slow, continuous movement (creep) on slopes of varying steepness. Areas susceptible to landslides are characterized by steep slopes and downslope creep of surface materials. The project site, as well as surrounding areas, are characterized by gently rolling hills with broad valleys. Observations that were conducted as part of the Geotechnical Study noted that existing slopes on the project site are shallow, vegetated, and show no indications of slope instability such as tension cracks, slump blocks, seeps or springs. The Geotechnical Study concludes that the potential for slope instability to occur in the plan area is negligible (Appendix D).

[7] Differential settlement occurs when a structure spans over soils of variable compression and/or density characteristics causing uneven settlement across a foundation.

Settlement and Differential Settlement

Settlement is the lowering of the land surface elevation as a result of loading (i.e., placing heavy loads, typically fill or structures), which often occurs with the development of a site. Settlement or differential (i.e., unequal) settlement could occur if buildings or other improvements are built on low-strength foundation materials (including imported non-engineered fill) or if improvements straddle the boundary between different types of subsurface materials (e.g., a boundary between native material and/or new engineered fill). Although settlement generally occurs slowly enough that its effects are not dangerous to inhabitants, it can cause significant building damage over time. The Geotechnical Study characterized the soils on the project site as ranging from soft to medium stiff. Soft soils are generally susceptible to settlement. The Geotechnical Study concluded that settlement and differential settlement could occur when structures are developed on the project site if not engineered appropriately (Appendix D).

Subsidence is the lowering of the land-surface elevation. The mechanism for subsidence is generally related to groundwater pumping and subsequent consolidation of loose aquifer sediments. The primary hazards associated with subsidence are increased flooding hazards and damage to underground utilities as well as above-ground structures. Other effects of subsidence include changes in the gradients of stormwater and sanitary sewer drainage systems in which the flow is gravity driven.

Paleontological Resources

Paleontological resources include fossilized remains or traces of organisms, including plants, vertebrates (animals with backbones), invertebrates (e.g., starfish, clams, ammonites, and marine coral), and microscopic plants and animals (microfossils), including their imprints, from a previous geological period. Paleontological resources are considered to be older than recorded human history and/or older than middle Holocene (i.e., older than about 5,000 years) (Society of Vertebrate Paleontology 2010). Paleontological remains are primarily found in sedimentary rock formations. As described in the County's General Plan Draft EIR, the County's geology is predominantly igneous (volcanic) in nature and the type of sedimentary deposits where paleontological resources might be present are virtually nonexistent (El Dorado County 2003). No comprehensive paleontological studies have been conducted within the county and, as a result, no information is available regarding the sensitivity of certain areas to contain such resources. While paleontological finds could occur in river and stream gravel deposits, given the location of the project site and the underlying geology, the possibility the project site contains paleontological resources is remote. Consequently, paleontology is an area of research and concern generally not applicable to the County.

3.6.2 Regulatory Setting

Federal Regulations

National Earthquake Hazards Reduction Act

The National Earthquake Hazards Reduction Act of 1977 (Public Law 95-124) and creation of the National Earthquake Hazards Reduction Program (NEHRP) established a long-term earthquake risk-reduction program to better understand, predict, and mitigate risks associated with seismic events. The following four federal agencies are responsible for coordinating activities under NEHRP: USGS, National Science Foundation, Federal Emergency Management Agency, and National Institute of Standards and Technology. Since its inception, NEHRP has shifted its focus from earthquake prediction to hazard reduction. The current program goals (NEHRP 2020) are to:

1. Develop effective practices and policies for earthquake loss reduction and accelerate their implementation.
2. Improve techniques for reducing earthquake vulnerabilities of facilities and systems.

3. Improve earthquake hazards identification and risk assessment methods, and their use.
4. Improve the understanding of earthquakes and their effects.

Implementation of NEHRP objectives is accomplished primarily through original research, publications, and recommendations and guidelines for state, regional, and local agencies in the development of plans and policies to promote safety and emergency planning.

Occupational Safety and Health Administration Regulations

Excavation and trenching are among the most hazardous construction activities. The Occupational Safety and Health Administration's (OSHA's) Excavation and Trenching standard, Title 29 of the Code of Federal Regulations (CFR), Part 1926.650, covers requirements for excavation and trenching operations. OSHA requires that all excavations in which employees could potentially be exposed to cave-ins be protected by sloping or benching the sides of the excavation, supporting the sides of the excavation, or placing a shield between the side of the excavation and the work area.

State Regulations

Alquist-Priolo Earthquake Fault Zoning Act

The Alquist–Priolo Earthquake Fault Zoning Act (Public Resources Code Section 2621 et seq.) was passed to reduce the risk to life and property from surface faulting in California. The Alquist–Priolo Act prohibits construction of most types of structures intended for human occupancy on the surface traces of active faults and strictly regulates construction in the corridors along active faults (earthquake fault zones). It also defines criteria for identifying active faults, giving legal weight to terms such as "active," and establishes a process for reviewing building proposals in and adjacent to earthquake fault zones. Under the Alquist-Priolo Act, faults are zoned and construction along or across them is strictly regulated if they are "sufficiently active" and "well defined." Before a project can be permitted, cities and counties are required to have a geologic investigation conducted to demonstrate that the proposed buildings would not be constructed across active faults.

Historical seismic activity and fault and seismic hazards mapping in the project vicinity indicate that the area has relatively low potential for seismic activity (Branum et al. 2016). No active faults have been mapped in the project site, and none of the known faults have been designated as an Alquist-Priolo Earthquake Fault Zone.

Seismic Hazards Mapping Act

The Seismic Hazards Mapping Act of 1990 (Public Resources Code Sections 2690–2699.6) establishes statewide minimum public safety standards for mitigation of earthquake hazards. While the Alquist–Priolo Act addresses surface fault rupture, the Seismic Hazards Mapping Act addresses other earthquake-related hazards, including strong ground shaking, liquefaction, and seismically induced landslides. Its provisions are similar in concept to those of the Alquist–Priolo Act. The state is charged with identifying and mapping areas at risk of strong ground shaking, liquefaction, landslides, and other seismic hazards, and cities and counties are required to regulate development within mapped seismic hazard zones. In addition, the act addresses not only seismically induced hazards but also expansive soils, settlement, and slope stability.

Mapping and other information generated pursuant to the SHMA is to be made available to local governments for planning and development purposes. The state requires: (1) local governments to incorporate site-specific

geotechnical hazard investigations and associated hazard mitigation, as part of the local construction permit approval process; and (2) the agent for a property seller or the seller if acting without an agent, must disclose to any prospective buyer if the property is located within a Seismic Hazard Zone. Under the Seismic Hazards Mapping Act, cities and counties may withhold the development permits for a site within seismic hazard zones until appropriate site-specific geologic and/or geotechnical investigations have been carried out and measures to reduce potential damage have been incorporated into the development plans.

California Building Standards Code

The state regulations protecting structures from most geo-seismic hazards are contained in the California Building Code (CBC; Cal. Code Regs. tit. 24, Part 2), which is updated on a triennial basis. The purpose of the CBC is to establish minimum standards to safeguard the public health, safety, and general welfare through structural strength, means of egress facilities, and general stability by regulating and controlling the design, construction, quality of materials, use and occupancy, location, and maintenance of all building and structures within its jurisdiction. The provisions of the CBC apply to the construction, alteration, movement, replacement, and demolition of every public and private building in the state or any appurtenances connected or attached to such buildings or structure. The 2022 CBC, effective January 1, 2023, is based on the current (2021) International Building Code.

The 2022 CBC includes structural design requirements governing seismically resistant construction, including (but not limited to) factors and coefficients used to establish seismic site class and seismic occupancy category for the soil/rock at the building location and the proposed building design. Included in the CBC are requirements for foundation and soil investigations; excavation, grading, and fill; damp-proofing and waterproofing; allowable load-bearing values of soils; the design of foundation walls, retaining walls, embedded posts and poles and foundations; and design of shallow foundations and deep foundations. The CBC also includes requirements for safeguards at work sites to ensure stable excavations in the event any excavation or cut/fill work is required.

California Division of Occupational Safety and Health (CalOSHA)

Construction activities are subject to occupational safety standards for excavation and trenching, as specified in the California Safety and Health Administration regulations (Title 8 of the California Code of Regulations) and in Chapter 33 of the CBC. These regulations specify the measures to be used for excavation and trench work where workers could be exposed to unstable soil conditions. All project contractors would be required to employ these safety measures during excavation and trenching activities.

Construction General Permit (SWRCB Order 2021-0057-DWQ)

For stormwater discharges associated with construction activity in the state, the State Water Resources Control Board (SWRCB) has adopted the General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (Construction General Permit) to avoid and minimize water quality impacts attributable to such activities. The Construction General Permit applies to all projects in which construction activity disturbs one acre or more of soil. Construction activity subject to this permit includes clearing, grading, and disturbances to the ground, such as stockpiling and excavation. The Construction General Permit requires the development and implementation of a stormwater pollution prevention plan (SWPPP), which would include and specify water quality Best Management Practices (BMPs) designed to prevent pollutants from contacting stormwater and keep all products of erosion from moving off site into receiving waters. Routine inspection of all BMPs is required under the provisions of the Construction General Permit, and the SWPPP must be prepared and implemented by qualified individuals as defined by the SWRCB.

California Public Resources Code

Paleontological resources are limited, nonrenewable resources of scientific, cultural, and educational value and are afforded protection under state laws and regulations. Public Resources Code, Chapter 1.7, Sections 5097.5 and 30244 regulate removal of paleontological resources from state lands, define unauthorized removal of fossil resources as a misdemeanor, and require mitigation of disturbed sites. Professional standards of practice, such as those adopted by the Society of Vertebrate Paleontology Conformable Impact Mitigation Guidelines Committee (2010), offer additional guidance for the control and remediation of adverse effects on significant paleontological resources.

Local Regulations

El Dorado County General Plan

The County General Plan was adopted in 2004; the last amendment to the General Plan was December 10, 2019 (El Dorado County 2019). The following goals, objectives, and policies related to geology, soils, and paleontological resources are included in the Public Health, Safety, and Noise Element and Conservation and Open Space Element of the General Plan (El Dorado County 2019) are applicable to the proposed project.

Public Health, Safety, and Noise Element

Goal 6.3: Geologic and Seismic Hazards. Minimize the threat to life and property from seismic and geologic hazards.

Objective 6.3.2: Continue to evaluate seismic related hazards such as liquefaction, landslides, avalanche, and seiche, particularly in the Tahoe Basin.

Policy 6.3.2.4: Applications for development of habitable structures shall be reviewed for potential hazards associated with steep or unstable slopes, areas susceptible to high erosion, and avalanche risk. Geotechnical studies shall be required when development may be subject to geological hazards. If hazards are identified, applicants shall be required to mitigate or avoid identified hazards as a condition of approval. If no mitigation is feasible, the project will not be approved.

Conservation and Open Space Element

Goal 7.1: Soil Conservation. Conserve and protect the County's soil resources.

Objective 7.1.2: Minimize soil erosion and sedimentation.

Policy 7.1.2.1: Development or disturbance of slopes over 30% shall be restricted. Standards for implementation of this policy, including but not limited to exceptions for access, reasonable use of the parcel, and agricultural uses shall be incorporated into the Zoning Ordinance.

Policy 7.1.2.2: Discretionary and ministerial projects that require earthwork and grading, including cut and fill for roads, shall be required to minimize erosion and sedimentation, conform to natural contours, maintain natural drainage patterns, minimize impervious surfaces, and maximize the retention of natural vegetation. Specific standards for minimizing erosion and sedimentation shall be incorporated into the Zoning Ordinance.

Policy 7.1.2.3: Enforce Grading Ordinance provisions for erosion control on all development projects and adopt provisions for ongoing, applicant-funded monitoring of project grading.

Goal 7.3: Water Quality and Quantity. Conserve, enhance, and manage water resources and protect their quality from degradation.

Objective 7.3.2: Maintenance of and, where possible, improvement of the quality of underground and surface water.

Policy 7.3.2.1: Stream and lake embankments shall be protected from erosion, and streams and lakes shall be protected from excessive turbidity.

Policy 7.3.2.2: Projects requiring a grading permit shall have an erosion control program approved, where necessary.

El Dorado County Design and Improvement Standards Manual

The purpose of the County's Design and Improvement Standards Manual is to standardize development practices used in the hillside environment that is prevalent in the County and to minimize the environmental effects of construction. The manual provides requirements for the land capability reports that must be submitted as part of development projects, including reports related to surface water, geology, traffic, and noise. The manual also includes design standards for the development of subdivisions, including standards related to water supply, fire protection, sewage collection, underground power and communications infrastructure, and drainage. Volume III of the manual provides guidance on how to implement the erosion and sediment control standards in Chapter 110.14 (Grading, Erosion, and Sediment Control) of the County Code (Grading Ordinance).

Grading, Erosion, and Sediment Control Ordinance

Chapter 110.14 (Grading, Erosion, and Sediment Control) of the County Code regulates grading within unincorporated areas of the County in order to protect the public and avoid pollution of watercourses. The chapter establishes the administrative procedures for the issuance of grading permits and approval of grading plans, and the requirements for inspection of grading construction.

Chapter 110.14 enforces the procedures in Volume III: Grading, Erosion and Sediment Control of the Design Improvement Standards Manual (Grading Manual) (El Dorado County 2007). The Grading Manual includes standards for geotechnical, geologic, drainage, and soil studies that are required for development projects. A grading plan prepared by a professional civil engineer must be prepared in support of the grading permit application and must be consistent the design standards of the Grading Manual. An Erosion and Sediment Control Plan must also be submitted whenever the following would occur:

1. The graded portion of the site includes more than ten thousand (10,000) square feet of area for a non-agricultural grading project or more than one acre of area for an agricultural grading project.
2. There is a significant risk that more than two thousand five hundred (2,500) square feet will be unprotected or inadequately protected from erosion during any portion of the rainy season.
3. Grading will occur within twenty feet of any pre-existing watercourse.
4. Grading would occur within the 100-year event flood plain.
5. The Director determines that the grading could potentially result in significant erosion or sediment discharge.

The Erosion and Sediment Control Plan must be designed to prevent increased discharge of sediment at all stages of grading and development, from initial disturbance of the ground to project completion, and shall be consistent with all local, state, and federal rules and regulations. It must include an effective revegetation program to stabilize all disturbed areas that would not be otherwise protected.

Building Services

Effective January 1, 2023, the El Dorado County Building Services requires adherence to the 2022 California Building Standards Code (California Code of Regulations, Title 24), also referred to as the California Building Code (CBC).

Creekside Village Specific Plan

If the project is approved and the CVSP is adopted, there would be design elements required of all proposed improvements that are consistent with the County Code of Ordinances including the County's building code requirements. However, none of the design requirements are directly related to geology and soils.

3.6.3 Thresholds of Significance

Thresholds of significance are used to determine the significance of a project's environmental effects. Per Section 15064.7 of the CEQA Guidelines, a threshold is an identifiable quantitative, qualitative or performance level of particular environmental effect, non-compliance with which means the effect will normally be determined to be significant and compliance with normally means the effect will be determined to be less than significant. A significant impact would occur if development of the proposed project would do any of the following:

- Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:
  i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.
  ii. Strong seismic ground shaking
  iii. Seismic-related ground failure, including liquefaction
  iv. Landslides
- Result in substantial soil erosion or the loss of topsoil.
- Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse.
- Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property.
- Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater.
- Directly or indirectly destroy a unique paleontological resources or site or unique geologic feature.

Significance Threshold Criteria Not Applicable to the Proposed Project

As described under *Regional Faulting*, no active faults have been mapped in the plan area, and none of the known faults have been designated as an Alquist-Priolo Earthquake Fault Zone. Therefore, the potential rupture of a known

earthquake fault as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map is not applicable to the proposed project and is not discussed further.

Wastewater conveyance and treatment services to the proposed project would be provided by the El Dorado Irrigation District. Therefore, the use of septic tanks or alternative wastewater disposal systems is not applicable to the proposed project and is not discussed further.

3.6.4 Impacts and Mitigation Measures

Methodology

The Geotechnical Study, project plans, and publicly available geologic/soils documents were reviewed to determine if the proposed project would directly or indirectly result in increased exposure to health and/or safety risks associated with geologic, soils, or seismic hazards, or if the project would destroy unique paleontological resources or geologic features.

Analysis of impacts related to geology, soils, and paleontological resources are assessed by comparing existing conditions to changes that could occur associated with implementation of the proposed project. Implementation of the CVSP must be consistent with the County's General Plan goals and policies, and all applicable regulations such as CBC standards. Therefore, such policies and standards are not identified as mitigation, and compliance with relevant goals, policies, and federal, state or City requirements are presumed to be followed and are instead described within the impact analysis.

As described in Chapter 2, Project Description, the project includes two development options. The first option would be to convert the 1,8-acres of neighborhood commercial to park uses if neighborhood commercial is not adopted as part of the Specific Plan. The second option proposes construction of up to 768 age-restricted units and 150 conventional homes. The potential impacts to geology and soils are not expected to be different with implementation of either option because the development footprint, intensity, and disturbed area would remain the same as under the proposed project. Therefore, the impact analysis below would be the same under both options as the proposed project.

Project Impacts

Impact 3.6-1. The proposed project would not be affected by strong seismic ground shaking and secondary seismic hazards, including seismic-related ground failure, liquefaction, lateral spreading, and seismically induced settlement.

As described under *Regional Faulting* in the Environmental Setting, the potential for seismic ground shaking in the vicinity of the project site is relatively low (Branum et al. 2016). However, active faults to the west and east could potentially generate moderate ground shaking at the project site (USGS 2014), which in turn could expose the proposed residential development to varying levels of damage depending on distance to the fault and intensity of the earthquake as well as how the structures are constructed. Seismic-related ground shaking could also induce liquefaction, lateral spreading, and/or seismically induced settlement in the plan area.

The Geotechnical Study indicates that based on the shallow soils and the absence of a permanently elevated groundwater table (i.e., less than 50 feet below ground surface), the potential for liquefaction, lateral spreading, and seismically induced settlement on the project site is negligible (Appendix D). Although the strength of ground

shaking depends on the magnitude of the earthquake, type of fault, and distance from the epicenter, all proposed development would be constructed to meet the CBC to provide increased earthquake safety for residents and visitors. The Geotechnical Study provides anticipated design criteria for the proposed project that is consistent with the seismic design standards of the CBC. The Study notes that a final design-level geotechnical investigation based on detailed geotechnical exploration, testing, and engineering analysis would be required to develop final design criteria for the project prior to issuance of a building permit. The County's building permit process also requires the recommendations of the design-level geotechnical investigation report to be incorporated into the project design, thereby ensuring that development proposed under the CVSP would be seismically resistant consistent with current seismic design criteria within the CBC.

Therefore, compliance with the CBC and County building permit requirements, which requires a design-level geotechnical investigation report, would reduce the potential of the proposed project to expose people or structures to substantial adverse effects from seismic ground shaking or seismic-related ground failure including liquefaction, lateral spreading, and seismically induced settlement due to an earthquake. The County's building permit process would ensure that geotechnical recommendations are incorporated into the project design to ensure buildings are seismically resistant and do not expose people or the project to increase risks from earthquakes. For these reasons, the impact would be **less than significant**.

Mitigation Measures

No mitigation measures are required.

Impact 3.6-2. The proposed project would not be affected by or result in adverse effects involving landslides.

As described under *Landslides* in the Environmental Setting, the plan area, as well as surrounding areas, is characterized by gently rolling hills with broad valleys. Existing slopes on the project site are shallow, vegetated, and show no indication of slope instability such as tension cracks, slump blocks, seeps or springs. However, steep slopes, in conjunction with certain soil types, can be prone to landslides. Some of the natural causes of this instability are earthquakes, weak soils, erosion, heavy rainfall, and fire. Human activities such as poor grading, excessive irrigation, and removal of vegetation can also contribute to landslides. As described in the Environmental Setting, 16% of the site contains slopes of between 11% and 20%; 3% of the site contains slopes of between 21% and 29%; and the remaining 1% of the project site contains slopes of 30% or greater. The steeper slopes are primarily located within the existing drainage channels as well as areas on the western side of the hill located in the southeast corner of the plan area. General Plan policy 7.1.2.1 restricts development or disturbance of slopes over 30%. A majority of the development would occur along relatively flat areas, while existing areas of steeper slopes would be untouched for preservation, visual quality, and safety (e.g., the southeastern hill) or recontoured to a flatter grade during site grading. Additionally, the soils at the project site are relatively shallow before encountering bedrock and thus are less likely to pose a landslide hazard.

The Geotechnical Study concluded that the potential for slope instability to occur in the plan area is negligible (Appendix D). Therefore, the potential of the proposed project to expose people or structures substantial adverse effects from landslides would be **less than significant**.

Mitigation Measures

No mitigation measures are required.

Impact 3.6-3. The proposed project would not result in significant soil erosion or loss of topsoil.

As discussed in the *Local Geologic and Soil Conditions* in the Environmental Setting, the plan area consists of shallow soils atop Mesozoic age (between 252 and 66 million years ago) volcanic and metavolcanic rocks (CGS 2010). Site clearing and construction activities associated with development under the CVSP, including vegetation removal, excavation, and grading, would temporarily expose underlying soils, thereby increasing the potential of wind- and water-induced soil erosion. The effects of erosion are intensified with an increase in slope and the narrowing of runoff channels.

Construction of the proposed project would be required to comply with Chapter 110.14 (Grading, Erosion, and Sediment Control) of the County Code, which states when grading more than 250 cubic yards an Erosion and Sediment Control Plan must be prepared and implemented that specifies best management practices to prevent increased discharge of sediment at all stages of grading and development. Furthermore, grading activities would disturb more than 1 acre and therefore would be subject to the requirements of the Stormwater Construction General Permit, which requires projects to implement a SWPPP that also includes sediment and erosion control measures (see Section 4.9, Hydrology, Water Quality and Drainage for further detail). Therefore, compliance with local and state regulations would reduce the potential of the proposed project to result in substantial soil erosion or the loss of topsoil and impacts would be **less than significant**.

Mitigation Measures

No mitigation measures are required.

Impact 3.6-4. The proposed project would not be developed on unstable soils that could become unstable resulting in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse.

As discussed under Impact 3.6-1 and Impact 3.6-2 above, the potential of landslides, liquefaction, lateral spreading, or seismically induced settlement on the project site is negligible, and the development of new residences and a small commercial space along with associated facilities under the proposed CVSP would not alter geologic and soils conditions in a manner that would increase the potential occurrence of these events.

The project site is underlain by shallow soils over bedrock, with the groundwater table located more than approximately 100 feet below the ground surface. The proposed project would tie into existing water infrastructure and does not propose pumping groundwater from the underlying aquifer. Based on near-surface bedrock and deep groundwater conditions, the potential for the proposed project to be subject to or result in subsidence or collapse of on-site soils would be a less-than-significant impact.

Due to the likely presence of soft soils on the project site, the Geotechnical Study concluded that settlement and differential settlement could occur when structures are developed on the project site if not given appropriate ground improvements (Appendix D). The Study noted that the mass grading typically associated with the development of foothill areas generally removes soft soils and reduces the potential for settlement to occur. However, depending on the depth of grading and depth of the soft soils across the project site, a program of over-excavation and recompaction would likely be necessary and no import or export of soils would be required. A final design-level geotechnical investigation report, as required by the County would be prepared that would provide detailed recommendations in accordance with CBC requirements on the over-excavation and recompaction program. The County's building permit process also requires geotechnical report recommendations be incorporated into the project's design specifications, thereby ensuring that development under the CVSP would be resistant to soil

instability. Compliance with the CBC and the County's building permit requirements would reduce the potential of the proposed project to expose people or structures to substantial adverse effects from unstable soils. Therefore, the impact would be **less than significant**.

Mitigation Measures

No mitigation measures are required.

Impact 3.6-5. The proposed project would not be located on expansive soils.

As described in the *Local and Geologic Hazards* in the Environmental Setting, expansive soils are those that greatly increase in volume when water is absorbed and shrink when the soils dry out. When buildings are placed on expansive soils, foundations may rise each wet season and fall each dry season. This movement may result in cracking foundations, distortion of structures, and warping of doors and windows.

As discussed in the Environmental Setting, the Geotechnical Study indicated soils on the project site are generally not dominated by high-clay soils, but notes that pockets of expansive clay soils could be encountered throughout the project site (Appendix D). This is consistent with the soil shrink-swell potential presented in Table 3.6-1, which indicates that some soils present on the project site may contain clay layers with moderate to high shrink-swell potential. The Study noted that the mass grading typically associated with the development of foothill areas generally removes soft soils and reduces the potential for settlement to occur. However, depending on the depth of grading and depth of the high-clay expansive soils across the project site, measures to reduce the potential exposure of the proposed development to expansive soils may need to be implemented. Such measures typically include mixing of expansive and non-expansive soils during site grading, focused clay excavations, and special foundation and slab preparation recommendations. A final design-level investigation geotechnical report would be prepared that would provide detailed recommendations in accordance with CBC requirements on the measures required to protect proposed structures from damage by expansive soils. The County's building permit process requires geotechnical report recommendations to be incorporated into the final project design specifications, thereby ensuring that development under the CVSP would be resistant to substantive property damage from expansive soils. Compliance with the CBC and the County's building permit requirements would reduce the potential of the proposed project to expose people or structures to substantial adverse effects from expansive soils, resulting in a **less-than-significant impact**.

Mitigation Measures

No mitigation measures are required.

Impact 3.6-6. The proposed project would not destroy a unique paleontological resource or unique geologic features.

The project site is characterized by gently rolling hills with broad valleys and does not contain any unique geologic features. The California Department of Parks and Recreation defines a geologic feature and landscape as a mountain peaks, coastal cliffs, headlands, beaches and dunes, caves, lava fields and tufa structures (DPR 2024). None of these features exist within the project site. The potential to disturb paleontological resources during project construction depends on the types of geologic units (and their fossil-bearing characteristics) that would be encountered. As discussed under *Paleontological Resources* in the Environmental Setting, geology in the county is predominantly igneous (volcanic) in nature, and the type of sedimentary deposits where paleontological resources

might be present are virtually nonexistent (El Dorado County 2003). The possibility of encountering paleontological resources in river and stream gravel deposits within the project site is also remote. The project site's geologic conditions are consistent with the shallow soils and overlying volcanic bedrock found throughout the County. There is no indication that sedimentary deposits are located on the project site. Consequently, the potential of the proposed project to destroy or adversely impact a unique paleontological resource is **less than significant**.

Mitigation Measures

No mitigation measures are required.

Cumulative Impacts

The geographic context for the cumulative analysis is the foothills of the Sierra Nevada Mountain range based on the regional generalized contextual similarity of conditions. However, geologic and soil impacts typically do not extend far beyond a project's boundaries because geologic and soils conditions can vary widely over a short distance and therefore potential impacts are typically confined to discrete locations and do not combine to create a significant cumulative impact. The exception to this generalization would occur where the effects from the development of the proposed project could affect the geology of an off-site location (e.g., construction would destabilize an area prone to landslides) or where effects from the proposed project and cumulative projects could contribute to a potential cumulative effect. There are no large landslide features or fault zones present in the vicinity of the project site. Thus, the project would not contribute to a potential cumulative effect.

The geographic scope of cumulative impacts to paleontological resources includes other projects within the county that would disturb geologic and soils materials similar to the project site (i.e., shallow soils overlying metavolcanic bedrock).

Impact 3.6-7. The proposed project would not result in a cumulative impact related to loss of paleontological resources.

As discussed under Impact 3.6-6, geology in the county is predominantly igneous (volcanic) in nature, and the type of sedimentary deposits where paleontological resources might be present are virtually nonexistent (El Dorado County 2003). The possibility of encountering paleontological resources in river and stream gravel deposits within the project site is also remote. There are also no unique geologic or soils features on or near the location of the project site. Because overlying volcanic bedrock is found throughout the county the potential for the project, together with other past, present, and probable future projects, would not combine to create a significant cumulative impact. Therefore, the project would not contribute to a significant cumulative impact and there would be no cumulative contribution, and the impact is **less than significant**.

Mitigation Measures

No mitigation measures are required.

3.6.5 References

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3.7 Greenhouse Gas Emissions

The following analysis identifies potential impacts related to climate change and greenhouse gases (GHGs) due to implementation of the proposed Creekside Village Specific Plan (proposed project or CVSP). This section describes the existing GHG conditions in El Dorado County (County), identifies associated regulatory requirements, evaluates potential impacts, and identifies mitigation measures related to implementation of the proposed project.

Public comments received in response to the November 6, 2020, Notice of Preparation (NOP) included concerns related to increasing GHG emissions and potential adverse effects including an increase in global temperatures, increase in wildfires, decrease in snowpack, and an increase in flooding. No additional comments were received at the second scoping meeting held on September 26, 2023. All of these concerns are addressed in this section. A copy of the NOP and comments received is included in Appendix A.

The primary sources referenced to prepare this section include the Air Quality and Greenhouse Gas Impact Analysis and Creekside Village Specific Plan Project Active Adult Project Option Technical Memorandum prepared by Raney Planning & Management (Appendix B) and the Sacramento Metropolitan Air Quality Management District's (SMAQMD's) Guide to Air Quality Assessment in Sacramento County.

3.7.1 Environmental Setting

Climate Change Overview

Climate change refers to any significant change in measures of climate—such as temperature, precipitation, or wind patterns—lasting for an extended period of time (decades or longer). The Earth's temperature depends on the balance between energy entering and leaving the planet's system. Many factors, both natural and human, can cause changes in Earth's energy balance, including variations in the sun's energy reaching Earth, changes in the reflectivity of Earth's atmosphere and surface, and changes in the greenhouse effect, which affects the amount of heat retained by Earth's atmosphere (EPA 2017).

The greenhouse effect is the trapping and buildup of heat in the atmosphere (troposphere) near the Earth's surface. The greenhouse effect traps heat in the troposphere through a three-part process as follows: (1) short-wave radiation emitted by the Sun is absorbed by the Earth, (2) the Earth emits a portion of this energy in the form of long-wave radiation, and (3) GHGs in the upper atmosphere absorb this long-wave radiation and emit it both into space and back toward the Earth. The greenhouse effect is a natural process that contributes to regulating the Earth's temperature and creates a pleasant, livable environment on the Earth. Human activities that emit additional GHGs to the atmosphere increase the amount of infrared radiation that gets absorbed before escaping into space, thus, enhancing the greenhouse effect and causing the Earth's surface temperature to rise.

The scientific record of the Earth's climate shows that the climate system varies naturally over a wide range of time scales and that, in general, climate changes prior to the Industrial Revolution in the 1700s can be explained by natural causes, such as changes in solar energy, volcanic eruptions, and natural changes in GHG concentrations. However, recent climate changes, in particular the warming observed over the past century, cannot be explained by natural causes alone. Rather, it is extremely likely that human activities have been the dominant cause of warming since the mid-twentieth century and are the most significant driver of observed climate change (IPCC 2013; EPA 2017). Human influence on the climate system is evident from the increasing GHG concentrations in the atmosphere, positive radiative forcing, observed warming, and improved understanding of the climate system

(IPCC 2013). The atmospheric concentrations of GHGs have increased to levels unprecedented in the last 800,000 years, primarily from fossil fuel emissions and secondarily from emissions associated with land use changes (IPCC 2013). Continued emissions of GHGs will cause further warming and changes in all components of the climate system.

Greenhouse Gases

A GHG is any gas that absorbs infrared radiation in the atmosphere; in other words, GHGs trap heat in the atmosphere. As defined in California Health and Safety Code Section 38505(g), for purposes of administering many of the State's primary GHG emissions reduction programs, GHGs include carbon dioxide (CO2), methane (CH4), nitrous oxide (N2O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulfur hexafluoride (SF6), and nitrogen trifluoride (see also see also 14 California Code of Regulations [CCR] Section 15364.5).1 Some GHGs, such as CO2, CH4, and N2O, occur naturally and are emitted into the atmosphere through natural processes and human activities. Of these gases, CO2 and CH4 are the predominant GHGs emitted from human activities. Manufactured GHGs, which have a much greater heat-absorption potential than CO2, include fluorinated gases, such as HFCs, PFCs, and SF6, which are associated with certain industrial products and processes. The following provides a summary of the most common GHGs and their sources.[2] Please see Appendix E for a more detailed description of GHGs.

Carbon Dioxide

CO2 is a naturally occurring gas and a by-product of human activities; it is the principal anthropogenic GHG that affects the Earth's radiative balance. Natural sources of CO2 include respiration of bacteria, plants, animals, and fungus; evaporation from oceans; volcanic out-gassing; and decomposition of dead organic matter. Human activities that generate CO2 include the combustion of fuels such as coal, oil, natural gas, and wood, and changes in land use.

Methane

CH_4 is produced through both natural and human activities. CH_4 is a flammable gas and is the main component of natural gas. CH_4 is produced through anaerobic (i.e., without oxygen) decomposition of waste in landfills, flooded rice fields, animal digestion, decomposition of animal wastes, production and distribution of natural gas and petroleum, coal production, and incomplete fossil fuel combustion.

Nitrous Oxide

N_2O is produced through natural and human activities, mainly through agricultural activities and natural biological processes, although fuel burning and other processes also create N_2O. Sources of N_2O include soil cultivation practices (microbial processes in soil and water), especially the use of commercial and organic fertilizers, manure management, industrial processes (such as in nitric acid production, nylon production, and fossil-fuel-fired power plants), vehicle emissions, and using N_2O as a propellant (such as in rockets, racecars, and aerosol sprays).

1 Climate-forcing substances include GHGs and other substances such as black carbon and aerosols. This discussion focuses on the seven GHGs identified in California Health and Safety Code, Section 38505. Impacts associated with other climate-forcing substances are not evaluated herein.

2 The descriptions of GHGs are summarized from the Intergovernmental Panel on Climate Change's Fourth Assessment Report (IPCC 2007), The California Air Resources Board's (CARB's) Glossary of Terms Used in GHG Inventories (CARB 2020), and EPA's Glossary of Climate Change Terms (EPA 2017).

Fluorinated Gases

Fluorinated gases (also referred to as F-gases) are synthetic powerful GHGs emitted from many industrial processes. Fluorinated gases are commonly used as substitutes for stratospheric ozone (O_3)-depleting substances (e.g., chlorofluorocarbons (CFCs), hydrochlorofluorocarbons (HCFCs), and halons).

Chlorofluorocarbons

CFCs are synthetic chemicals that have been used as cleaning solvents, refrigerants, and aerosol propellants. CFCs are chemically unreactive in the lower atmosphere (troposphere), and the production of CFCs was prohibited in 1987 due to the chemical destruction of stratospheric O_3.

Hydrochlorofluorocarbons

HCFCs are a large group of compounds whose structure is very close to that of CFCs—containing fluorine, chlorine, and carbon atoms—but also including one or more hydrogen atoms. Like HFCs, HCFCs are used in refrigerants and propellants. HCFCs were also used in place of CFCs for some applications; however, their use in general is being phased out.

Black Carbon

Black carbon is a component of fine particulate matter ($PM_{2.5}$), which has been identified as a leading environmental risk factor for premature death. It is produced from the incomplete combustion of fossil fuels and biomass burning, particularly from older diesel engines and forest fires. Black carbon warms the atmosphere by absorbing solar radiation; influences cloud formation; and darkens the surface of snow and ice, which accelerates heat absorption and melting. Black carbon is a short-lived substance that varies spatially, which makes it difficult to quantify its global warming potential (GWP). Diesel particulate matter emissions are a major source of black carbon and are toxic air contaminants that have been regulated and controlled in California for several decades to protect public health. In relation to declining diesel particulate matter as a result of the California Air Resources Board's (CARB's) regulations pertaining to diesel engines, diesel fuels, and burning activities, CARB estimates that annual black carbon emissions in California have decreased by 70% between 1990 and 2010 (latest information available), with 95% control expected by 2020 (CARB 2014).

Water Vapor

The primary source of water vapor is evaporation from the ocean, with additional vapor generated by sublimation (change from solid to gas) from ice and snow, evaporation from other water bodies, and transpiration from plant leaves. Water vapor is the most important, abundant, and variable GHG in the atmosphere and maintains a climate necessary for life.

Ozone

Tropospheric O_3, which is created by photochemical reactions involving gases from both natural sources and human activities, acts as a GHG. Stratospheric O_3, which is created by the interaction between solar ultraviolet radiation and molecular oxygen, plays a decisive role in the stratospheric radiative balance. Depletion of stratospheric O_3, which occurs due to chemical reactions that may be enhanced by climate change, results in an increased ground-level flux of ultraviolet-B radiation.

Aerosols

Aerosols are suspensions of particulate matter in a gas emitted into the air through burning biomass (plant material) and fossil fuels. Aerosols can warm the atmosphere by absorbing and emitting heat and can cool the atmosphere by reflecting light.

Global Warming Potential

Gases in the atmosphere can contribute to climate change both directly and indirectly. Direct effects occur when the gas itself absorbs radiation. Indirect radiative forcing occurs when chemical transformations of the substance produce other GHGs, when a gas influences the atmospheric lifetimes of other gases, and/or when a gas affects atmospheric processes that alter the radiative balance of the Earth (e.g., affect cloud formation or albedo) (EPA 2017). The Intergovernmental Panel on Climate Change (IPCC) developed the GWP concept to compare the ability of each GHG to trap heat in the atmosphere relative to another gas. The GWP of a GHG is defined as the ratio of the time-integrated radiative forcing from the instantaneous release of 1 kilogram of a trace substance relative to that of 1 kilogram of a reference gas (IPCC 2014). The reference gas used is CO_2; therefore, GWP-weighted emissions are measured in metric tons of CO_2 equivalent (MT CO_2e).

The current version of the California Emissions Estimator Model (CalEEMod) (Version 2022.1) assumes that the GWP for CH_4 is 25 (so emissions of 1 MT of CH_4 are equivalent to emissions of 25 MT of CO_2), and the GWP for N_2O is 298, based on the IPCC's Fourth Assessment Report (IPCC 2007).

Greenhouse Gas Inventories and Climate Change Conditions

Contributions of Greenhouse Gas Emissions

Global Inventory

Anthropogenic GHG emissions worldwide in 2020 (the most recent year for which data is available) totaled approximately 49,800 million metric tons (MMT) of CO_2e, excluding land use change and forestry (PBL 2022). The top six GHG emitters include China, the United States, the Russian Federation, India, Japan, and the European Union, which accounted for approximately 60% of the total global emissions, or approximately 30,270 MMT CO_2e (PBL 2022). Table 3.7-1 presents the top GHG-emissions-producing countries.

Table 3.7-1. Six Top GHG Producer Countries

Emitting Countries	2020 GHG Emissions (MMT CO2e)a
China	14,300
United States	5,640
European Union	3,440
India	3,520
Russian Federation	2,210
Japan	1,160
Total	**30,270**

Source: PBL 2022.
Notes: MMT CO_2e = million metric tons of carbon dioxide equivalent.
[a] Column may not add due to rounding.

National Inventory

Per the EPA's Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990–2021, total United States GHG emissions were approximately 6,340.2 million MT CO_2e (MMT CO_2e) in 2021 (EPA 2023). Total U.S. emissions have decreased by 2.3% from 1990 to 2021, down from a high of 15.8% above 1990 levels in 2007. Emissions increased from 2020 to 2021 by 5.2% (314.3 MMT CO_2e). Net emissions (i.e., including sinks) were 5,586.0 MMT CO_2e in 2021. Overall, net emissions increased 6.4% from 2020 to 2021 and decreased 16.6% from 2005 levels Between 2020 and 2021, the increase in total GHG emissions was driven largely by an increase in CO_2 emissions from fossil fuel combustion due to economic activity rebounding after the height of the COVID-19 pandemic. The CO_2 emissions from fossil fuel combustion increased by 6.8% from 2020 to 2021, including a 11.4% increase in transportation sector emissions and a 7.0% increase in electric power sector emissions. The increase in electric power sector emissions was due in part to an increase in electricity demand of 2.4% since 2020. Overall, there has been a decrease in electric power sector emissions from 1990 through 2021, which reflects the combined impacts of long-term trends in many factors, including population, economic growth, energy markets, technological changes including energy efficiency, and the carbon intensity of energy fuel choices (EPA 2023).

State Inventory

According to California's 2000–2020 GHG emissions inventory (2022 edition), California emitted approximately 369.2 MMT CO_2e in 2020, including emissions resulting from out-of-state electrical generation (CARB 2022a). The sources of GHG emissions in California include transportation, industry, electric power production from both in-state and out-of-state sources, residential and commercial activities, agriculture, high-GWP substances, and recycling and waste. Table 3.7-2 presents California GHG emission source categories and their relative contributions to the emissions inventory in 2020.

Table 3.7-2. GHG Emissions Sources in California

Source Category	Annual GHG Emissions (MMT CO2e)	Percent of Total*
Transportation	136.60	37%
Industrial uses	73.84	20%
Electricity generation[a]	59.07	16%
Residential and commercial uses	36.92	10%
Agriculture and Forestry	33.22	9%
High GWP substances	22.15	6%
Recycling and waste	7.38	2%
Total	**369.2**	**100%**

Source: CARB 2022a.
Notes: GHG = greenhouse gas; GWP = global warming potential; MMT CO_2e = million metric tons of carbon dioxide equivalent. Emissions reflect 2020 California GHG inventory.
Total may not sum due to rounding.
[a] Includes emissions associated with imported electricity, which account for 18.46 MMT CO_2e.

Per capita GHG emissions in California have dropped from a 2001 peak of 13.8 MT per person to 9.3 MT per person in 2020, a 33% decrease. In 2016, statewide GHG emissions dropped below the 2020 GHG limit of 431 MMT CO2e and have remained below that level since that time (CARB 2022a).

Potential Effects of Climate Change

Globally, climate change has the potential to affect numerous environmental resources through uncertain impacts related to future air temperatures and precipitation patterns. The 2014 IPCC Synthesis Report (IPCC 2014) indicated that warming of the climate system is unequivocal, and since the 1950s, many of the observed changes are unprecedented over decades to millennia. Signs that global climate change has occurred include warming of the atmosphere and ocean, diminished amounts of snow and ice, rising sea levels, and ocean acidification (IPCC 2014).

In California, climate change impacts have the potential to affect sea-level rise, agriculture, snowpack and water supply, forestry, wildfire risk, public health, frequency of severe weather events, and electricity demand and supply. The primary effect of global climate change has been a rise in average global tropospheric temperature. Reflecting the long-term warming trend since pre-industrial times, observed global mean surface temperature for the decade 2006–2015 was 0.87°C (1.6°F) (likely between 0.75°C [1.4°F] and 0.99°C [1.8°F]) higher than the average over the 1850–1900 period (IPCC 2018). Scientific modeling predicts that continued emissions of GHGs at or above current rates would induce more extreme climate changes during the twenty-first century than were observed during the twentieth century. Human activities are estimated to have caused approximately 1.0°C (1.8°F) of global warming above pre-industrial levels, with a likely range of 0.8°C to 1.2°C (1.4°F to 2.2°F) (IPCC 2018). Global warming is likely to reach 1.5°C (2.7°F) between 2030 and 2052 if it continues to increase at the current rate (IPCC 2018).

Although climate change is driven by global atmospheric conditions, climate change impacts are felt locally. A scientific consensus confirms that climate change is already affecting California. The Office of Environmental Health Hazard Assessment (OEHHA) identified various indicators of climate change in California, which are scientifically based measurements that track trends in various aspects of climate change. Many indicators reveal discernible evidence that climate change is occurring in California and is having significant, measurable impacts in the state. Changes in the state's climate have been observed including an increase in annual average air temperature, more frequent extreme heat events, more extreme drought, a decline in winter chill, an increase in cooling degree days and a decrease in heating degree days, and an increase in variability of statewide precipitation (OEHHA 2022).

Warming temperatures and changing precipitation patterns have altered California's physical systems—the ocean, lakes, rivers and snowpack—upon which the state depends. Winter snowpack and spring snowmelt runoff from the Sierra Nevada and southern Cascade Mountains provide approximately one-third of the state's annual water supply. Impacts of climate on physical systems have been observed such as high variability of snow-water content (i.e., amount of water stored in snowpack), decrease in spring snowmelt runoff, glacier change (loss in area), rise in sea levels, increase in average lake water temperature and coastal ocean temperature, and a decrease in dissolved oxygen in coastal waters (OEHHA 2022).

Impacts of climate change on biological systems, including humans, wildlife, and vegetation, have also been observed including climate change impacts on terrestrial, marine, and freshwater ecosystems. As with global observations, species responses include those consistent with warming: elevational or latitudinal shifts in range, changes in the timing of key plant and animal life cycle events, and changes in the abundance of species and in community composition. Humans are better able to adapt to a changing climate than plants and animals in natural ecosystems. Nevertheless, climate change poses a threat to public health as warming temperatures and changes in precipitation can affect vector-borne pathogen transmission and disease patterns in California as well as the variability of heat-related deaths and illnesses. In addition, since 1950, the area burned by wildfires each year has been increasing.

The California Natural Resources Agency (CNRA) has released four California Climate Change Assessments (in 2006, 2009, 2012, and 2018), which have addressed the following: acceleration of warming across the state, more intense and frequent heat waves, greater riverine flows, accelerating sea level rise, more intense and frequent drought, more severe and frequent wildfires, more severe storms and extreme weather events, shrinking snowpack and less overall precipitation, and ocean acidification, hypoxia, and warming. To address local and regional governments' need for information to support action in their communities, the Fourth Assessment includes reports for nine regions of the state. Key projected climate changes for the Sierra Nevada region (which includes the County) include the following (CNRA 2018):

> Climate change is already underway in the Sierra Nevada region, affecting heat and precipitation extremes, with long-term warming trends, declining snowpacks, and changes in streamflow timing. These ongoing trends foreshadow larger changes to come. By the end of the 21st century, temperatures in the Sierra Nevada are projected to warm by 6 to 9°F on average, enough to raise the transition from rain to snow during a storm by about 1,500 to 3,000 feet. In contrast, future precipitation is predicted to vary less than temperature; long-term changes may be no more than ±10-15% of current totals. However, precipitation extremes (both as deluge and drought) are expected to increase markedly under climate change. These climatic changes will depend on and reflect many factors, including elevation within the mountain range, with quicker warming trends and precipitation changes at highest elevations.
>
> As a result of projected warming, Sierra Nevada snowpacks will very likely be eradicated below about 6,000 feet elevation and will be much reduced by more than 60% across nearly all of the range. Notably, though, recent studies suggest that even these snowpack-loss projections may be underestimates, due to feedback loops with warming trends causing snow cover losses, and snow cover losses resulting in warmer land surfaces and thus enhanced warming trends in turn.
>
> The loss of snowpack will combine to dry soils 15% to 40% below historical norms, depending on elevations. The result will be reduced soil and vegetation moisture; changes in rivers and lakes; and ultimately stresses on fora and fauna. Loss of snowpack and overall drying will lead to increased winter stream flows and floods, and to (largely compensating) reductions in spring and summer stream flows.

3.7.2 Regulatory Setting

The following is a summary of regulations relevant to the proposed project.

Federal Regulations

Federal Vehicle Standards

In 2007, in response to the *Massachusetts v. EPA* U.S. Supreme Court ruling, the Bush Administration issued Executive Order (EO) 13432 directing EPA, the Department of Transportation, and the Department of Energy to establish regulations that reduce GHG emissions from motor vehicles, non-road vehicles, and non-road engines by 2008. In 2009, National Highway Traffic Safety Administration (NHTSA) issued a final rule regulating fuel efficiency and GHG emissions from cars and light-duty trucks for model year 2011; and, in 2010, the EPA and NHTSA issued a final rule regulating cars and light-duty trucks for model years 2012 through 2016 (75 FR 25324–25728).

In 2010, President Obama issued a memorandum directing the Department of Transportation, Department of Energy, EPA, and NHTSA to establish additional standards regarding fuel efficiency and GHG reduction, clean fuels, and advanced vehicle infrastructure. In response to this directive, EPA and NHTSA proposed stringent, coordinated federal GHG and fuel economy standards for model years 2017 through 2025 light-duty vehicles. The proposed standards projected to achieve 163 grams per mile of CO_2 in model year 2025, on an average industry fleet-wide basis, which is equivalent to 54.5 miles per gallon if this level were achieved solely through fuel efficiency. The final rule was adopted in 2012 for model years 2017 through 2021 (77 FR 62624–63200). On January 12, 2017, the EPA finalized its decision to maintain the current GHG emissions standards for model years 2022–2025 cars and light trucks.

On April 2, 2018, EPA, under administrator Scott Pruitt, reconsidered the final determination for light-duty vehicles and withdrew its previous 2017 determination, stating that the current standards may be too stringent and therefore should be revised as appropriate (83 FR 16077–16087).

In August 2018, EPA and NHTSA proposed to amend certain fuel economy and GHG standards for passenger cars and light trucks and establish new standards for model years 2021 through 2026. Compared to maintaining the post-2020 standards then in place, the 2018 proposal would increase U.S. fuel consumption by about half a million barrels per day (2% to 3% of total daily consumption, according to the Energy Information Administration) and would impact the global climate by 3/1000th of 1°C by 2100 (EPA and NHTSA 2018). California and other states have stated their intent to challenge federal actions that would delay or eliminate GHG reduction measures and have committed to cooperating with other countries to implement global climate change initiatives.

In 2019, the EPA and NHTSA published the Safer Affordable Fuel-Efficient Vehicles Rule Part One: One National Program (SAFE-1) (84 FR 51310), which revoked California's authority to set its own GHG emissions standards and set zero-emission vehicle (ZEV) mandates in California. In March 2020, Part Two was issued, which set CO_2 emissions standards and CAFE standards for passenger vehicles and light-duty trucks for model years 2021 through 2026.

In response to EO 13990, on December 21, 2021, NHTSA finalized the CAFE Preemption rulemaking to withdraw its portions of the Part One Rule. The final rule concluded that the Part One Rule overstepped the agency's legal authority and established overly broad prohibitions that did not account for a variety of important state and local interests.

Then, in March 2022, NHTSA established new fuel economy standards that would require an industry-wide fleet average of approximately 49 miles per gallon for passenger cars and light trucks in model year 2026, by increasing fuel efficiency by 8% annually for model years 2024 and 2025, and 10% annually for model year 2026.

Infrastructure Investment and Jobs Act

The Infrastructure Investment and Jobs Act (Infrastructure Deal) was signed into law November 15, 2021. The legislation includes $39 billion of new investment to modernize transit, in addition to continuing the existing transit programs for 5 years as part of surface transportation reauthorization. The Infrastructure Deal would also invest $7.5 billion to build-out a national network of electric vehicle (EV) chargers. The Infrastructure Deal would provide funding for deployment of EV chargers along highway corridors to facilitate long-distance travel and within communities to provide convenient charging where people live, work, and shop to support a goal of building a nationwide network of 500,000 EV chargers. This would accelerate the adoption of EVs, which would help reduce emissions and improve air quality. In addition, the Infrastructure Deal would include more than $65 billion of

investments in clean energy transmission including upgrading existing power infrastructure through expanding transmission lines to facilitate the expansion of renewables and clean energy.

The Inflation Reduction Act of 2022

The Inflation Reduction Act was signed into law by President Biden in August 2022. The bill includes specific investment in energy and climate reform and is projected to reduce GHG emissions within the United States by 40% as compared to 2005 levels by 2030. The bill allocates funds to boost renewable energy infrastructure (e.g., solar panels and wind turbines), includes tax credits for the purchase of electric vehicles, and includes measures that will make homes more energy efficient.

EPA National Pollution Standards

In March 2024, EPA announced the final Multi-Pollutant Emissions Standards for passenger-carrying light-duty vehicles (Class 2b) and medium-duty vehicles (Class 3) rule. These new standards aim to significantly reduce GHG and other air toxic emissions from new passenger cars, light trucks, and larger pickups and vans and would be phased in gradually over model years 2027 through 2032. For light-duty vehicles, these standards project to achieve a nearly 50% reduction in projected average emissions for the light-duty fleet by 2032 relative to the existing model year 2026 standards. For medium-duty vehicles, a nearly 4% reduction in projected average emissions for the medium-duty fleet is projected for 2032 relative to the existing model year 2026 standards.

State Regulations

The statewide GHG emissions regulatory framework is summarized in this subsection by category: state climate change targets, building energy, renewable energy and energy procurement, mobile sources, water, solid waste, and other state actions. The following text describes EOs, Assembly Bills (ABs), Senate Bills (SBs), and other plans and policies that would directly or indirectly reduce GHG emissions and/or address climate change issues. Appendix E includes additional regulations which are not included within this Draft EIR section.

State Climate Change Targets

The state has taken a number of actions to address climate change. These actions are summarized below, and include EOs, legislation, and CARB plans and requirements.

Executive Order S-3-05

EO S-3-05 (June 2005) identified GHG emissions-reduction targets and laid out responsibilities among the state agencies for implementing the EO and for reporting on progress toward the targets. This EO identified the following targets:

- By 2010, reduce GHG emissions to 2000 levels.
- By 2020, reduce GHG emissions to 1990 levels.
- By 2050, reduce GHG emissions to 80% below 1990 levels.

EO S-3-05 also directed the California Environmental Protection Agency to report biannually on progress made toward meeting the GHG targets and the impacts to California due to global warming, including impacts to water supply, public health, agriculture, the coastline, and forestry.

Assembly Bill 32

In furtherance of the goals identified in EO S-3-05, the Legislature enacted AB 32, the California Global Warming Solutions Act of 2006 (California Health and Safety Code Sections 38500–38599). AB 32 provided initial direction on creating a comprehensive multiyear program to limit California's GHG emissions at 1990 levels by 2020, and initiate the transformations required to achieve the state's long-range climate objectives.

Executive Order B-30-15

EO B-30-15 (April 2015) identified an interim GHG-reduction target in support of targets previously identified under S-3-05 and AB 32. EO B-30-15 set an interim target goal of reducing GHG emissions to 40% below 1990 levels by 2030 to keep California on its trajectory toward meeting or exceeding the long-term goal of reducing GHG emissions to 80% below 1990 levels by 2050, as set forth in S-3-05. To facilitate achieving this goal, EO B-30-15 called for CARB to update the Climate Change Scoping Plan (Scoping Plan) to express the 2030 target in terms of MMT CO_2e. The EO also called for state agencies to continue to develop and implement GHG emission-reduction programs in support of the reduction targets.

Senate Bill 32 and Assembly Bill 197

SB 32 and AB 197 (enacted in 2016) are companion bills. SB 32 codified the 2030 emissions-reduction goal of EO B-30-15 by requiring CARB to ensure that statewide GHG emissions are reduced to 40% below 1990 levels by 2030. AB 197 established the Joint Legislative Committee on Climate Change Policies, consisting of at least three members of the Senate and three members of the Assembly, to provide ongoing oversight over implementation of the state's climate policies. AB 197 also added two members of the Legislature to the Board as nonvoting members; requires CARB to make available and update (at least annually via its website) emissions data for GHGs, criteria air pollutants, and toxic air contaminants from reporting facilities; and requires CARB to identify specific information for GHG emissions-reduction measures when updating the Scoping Plan.

Executive Order B-55-18

EO B-55-18 (September 2018) identified a policy for the state to achieve carbon neutrality as soon as possible (no later than 2045) and achieve and maintain net negative emissions thereafter. The goal is an addition to the existing statewide targets of reducing the state's GHG emissions. CARB will work with relevant state agencies to ensure that future Scoping Plans identify and recommend measures to achieve the carbon neutrality goal.

Assembly Bill 1279

The Legislature enacted AB 1279, the California Climate Crisis Act, in September 2022. The bill declares the policy of the state to achieve net zero GHG emissions as soon as possible, but no later than 2045, and achieve and maintain net negative GHG emissions thereafter. Additionally, the bill requires that by 2045, statewide anthropogenic GHG emissions be reduced to at least 85% below 1990 levels.

Although AB 1279 establishes an overall policy to achieve net zero greenhouse gas emissions as soon as possible, but no later than 2045, recognizing the need to implement CO_2 removal and carbon capture, utilization and storage technologies, the Legislature established a specific target of 85% below 1990 levels by 2045 for anthropogenic GHG emissions. Therefore, the net zero target does not directly apply to development projects, but the 2045 target

of 85% below 1990 levels represents the reductions required to contribute to accomplishing the State's overall net zero policy.

California Air Resources Board's Climate Change Scoping Plan

One specific requirement of AB 32 is for CARB to prepare a scoping plan for achieving the maximum technologically feasible and cost-effective GHG emission reductions by 2020 (California Health and Safety Code Section 38561[a]), and to update the plan at least once every 5 years. In 2008, CARB approved the first scoping plan: The Climate Change Proposed Scoping Plan: A Framework for Change (Scoping Plan) (CARB 2008). The Scoping Plan included a mix of recommended strategies that combined direct regulations, market-based approaches, voluntary measures, policies, and other emission-reduction programs calculated to meet the 2020 statewide GHG emission limit and initiate the transformations needed to achieve the state's long-range climate objectives.

In 2014, CARB approved the first update to the Scoping Plan. The First Update to the Climate Change Scoping Plan: Building on the Framework (2014 Scoping Plan) defined the state's GHG emission reduction priorities for the next 5 years and laid the groundwork to start the transition to the post-2020 goals set forth in EO S-3-05 and EO B-16-2012 (CARB 2014). The 2014 Scoping Plan concluded that California was on track to meet the 2020 target but recommended that a 2030 mid-term GHG reduction target be established to ensure a continuum of action to reduce emissions. The 2014 Scoping Plan recommended a mix of technologies in key economic sectors to reduce emissions through 2050 including energy demand reduction through efficiency and activity changes; large-scale electrification of on-road vehicles, buildings, and industrial machinery; decarbonizing electricity and fuel supplies; and the rapid market penetration of efficient and clean energy technologies.

In December 2017, CARB released the 2017 Climate Change Scoping Plan Update (2017 Scoping Plan) for public review and comment (CARB 2017a). The 2017 Scoping Plan built on the successful framework established in the initial Scoping Plan and 2014 Scoping Plan, while identifying new technologically feasible and cost-effective strategies to serve as the framework to achieve the 2030 GHG target and define the state's climate change priorities to 2030 and beyond. The strategies' known commitments include implementing renewable energy and energy efficiency (including the mandates of SB 350), increased stringency of the Low Carbon Fuel Standard, measures identified in the Mobile Source and Freight Strategies, measures identified in the proposed Short-Lived Climate Pollutant (SLCP) Plan, and increased stringency of SB 375 targets. To fill the gap in additional reductions needed to achieve the 2030 target, the 2017 Scoping Plan recommended continuing the Cap-and-Trade Program which is a market-based policy that aims to reduce GHG emissions through a statewide cap on emissions that decreases each year including a measure to reduce GHGs from refineries by 20%. The 2017 Scoping Plan was approved by CARB's Governing Board on December 14, 2017.

The Final 2022 Scoping Plan for Achieving Carbon Neutrality (2022 Scoping Plan) was issued on November 16, 2022 (CARB 2022b) and approved on December 15, 2022. The 2022 Scoping Plan lays out a path not just to carbon neutrality by 2045 but also to the 2030 GHG emissions reduction target. The 2022 Scoping Plan analyzed four scenarios, with the objective of informing the most viable path to remain on track to achieve the 2030 GHG reduction target. The scenario modeling indicates that, if the plan described in the Proposed Scenario is fully implemented, and done so on schedule, the State would cut GHG emissions by 85% below 1990 levels, result in a 71% reduction in smog-forming air pollution, reduce fossil fuel consumption by 94%, and create 4 million new jobs, among other benefits (CARB 2022b).

The 2022 Scoping Plan details "Local Actions" in Appendix D. The Local Actions include recommendations intended to build momentum for local government actions that align with the State's climate goals, with a focus

on local GHG reduction strategies (commonly referred to as climate action planning) and approval of new land use development projects, including through environmental review under CEQA. The recommendations provided in Appendix D are non-binding and should not be interpreted as a directive to local governments, but rather as evidence-based analytical tools to assist local governments with their role as essential partners in achieving California's climate goals.[3] Appendix D recognizes consistency with a CEQA-qualified GHG reduction plan such as a Climate Action Plan as a preferred option for evaluating potential GHG emission impacts under CEQA. Absent a qualified GHG reduction plan, Appendix D provides recommendations for key attributes that residential and mixed-use projects should achieve that would align with the State's climate goals (CARB 2022b). Projects that achieve all key attributes are considered clearly consistent with the State's climate and housing goals and would have a less-than-significant GHG impact under CEQA (CARB 2022b). However, projects that do not achieve all attributes are not considered to result in a potentially significant GHG emission impact. Additional potential threshold options identified when a CEQA-qualified GHG reduction plan is not available included a net-zero threshold and use of air district recommended thresholds of significance.

The 2022 Scoping Plan also emphasizes that there is no realistic path to carbon neutrality without carbon removal and sequestration, and to achieve the state's carbon neutrality goal, carbon reduction programs must be supplemented by strategies to remove and sequester carbon.

The Scoping Plan recommends strategies for implementation at the statewide level to meet the goals of AB 32, SB 32, and the EOs; it also establishes an overall framework for the measures that will be adopted to reduce California's GHG emissions. A project is considered consistent with the statutes and EOs if it would meet the general policies in reducing GHG emissions to facilitate the achievement of the state's goals and would not impede attainment of those goals.

Building Energy

The California Building Standards Code was established in 1978 and serves to enhance and regulate California's building standards. While not initially promulgated to reduce GHG emissions, Part 6 of Title 24 specifically established Building Energy Efficiency Standards that are designed to ensure that new and existing buildings in California achieve energy efficiency and preserve outdoor and indoor environmental quality. These energy efficiency standards are reviewed every 3 years by the Building Standards Commission and the California Energy Commission (CEC) and revised if necessary (California Public Resources Code Section 25402[b][1]). The regulations receive input from members of industry, as well as the public, to "reduce the wasteful, uneconomic, inefficient, or unnecessary consumption of energy" (California Public Resources Code Section 25402). These regulations are carefully scrutinized and analyzed for technological and economic feasibility (California Public Resources Code Section 25402[d]) and cost effectiveness (California Public Resources Code Section 25402[b][2–3]). As a result, these standards save energy, increase electricity supply reliability, increase indoor comfort, avoid the need to construct new power plants, and help preserve the environment. The current Title 24 standards are the 2022 Title 24 building energy efficiency standards, which became effective January 1, 2023. The 2022 Energy Code focuses on four key areas in newly constructed homes and businesses (CEC 2021):

- Encouraging electric heat pump technology for space and water heating, which consumes less energy and produces fewer emissions than gas-powered units.

[3] The threshold approaches outlined in the 2022 Scoping Plan, Appendix D, are recommendations only and are not requirements; they do not supplant lead agencies' discretion to develop their own evidence-based approaches for determining whether a project would have a potentially significant impact on GHG emissions.

- Establishing electric-ready requirements for single-family homes to position owners to use cleaner electric heating, cooking, and electric vehicle (EV) charging options whenever they choose to adopt those technologies.
- Expanding solar photovoltaic (PV) system and battery storage standards to make clean energy available on site and complement the state's progress toward a 100% clean electricity grid.
- Strengthening ventilation standards to improve indoor air quality.

In addition to CEC's efforts, in 2008, the California Building Standards Commission adopted the nation's first green building standards. The California Green Building Standards Code (Part 11 of Title 24), which is commonly referred to as California's Green Building Standards (CALGreen), establishes minimum mandatory standards and voluntary standards pertaining to the planning and design of sustainable site development, energy efficiency (in excess of the California Energy Code requirements), water conservation, material conservation, and interior air quality. The 2022 CALGreen standards are the current applicable standards. For nonresidential projects, some of the key mandatory CALGreen 2022 standards involve requirements related to bicycle parking, designated parking for clean air vehicles, EV charging stations for passenger vehicles, medium heavy duty and heavy duty trucks , shade trees, water conserving plumbing fixtures and fittings, outdoor potable water use in landscaped areas, recycled water supply systems, construction waste management, excavated soil and land clearing debris, and commissioning (24 CCR, Part 11).

Renewable Energy and Energy Procurement

SB 350 (2015) expanded the Renewables Portfolio Standard (RPS) program by establishing a goal of 50% of the total electricity sold to retail customers in California per year be secured from qualifying renewable energy sources by December 31, 2030. In addition, SB 350 included the goal to double the energy efficiency savings in electricity and natural gas final end uses (such as heating, cooling, lighting, or class of energy uses on which an energy-efficiency program is focused) of retail customers through energy conservation and efficiency. The bill also requires California Public Utilities Commission (CPUC), in consultation with CEC, to establish efficiency targets for electrical and gas corporations consistent with this goal.

SB 100 (2018) increased the standards set forth in SB 350, establishing that 44% of the total electricity sold to retail customers in California per year by December 31, 2024; 52% by December 31, 2027; and 60% by December 31, 2030, be secured from qualifying renewable energy sources. SB 100 states that it is the policy of the state that eligible renewable energy resources and zero-carbon resources supply 100% of the retail sales of electricity to California. This bill requires that the achievement of 100% zero-carbon electricity resources do not increase the carbon emissions elsewhere in the western grid and that the achievement not be achieved through resource shuffling.

SB 1020 (September 2022) revises the standards from SB 100, requiring the following percentage of retail sales of electricity to California end-use customers to come from eligible renewable energy resources and zero-carbon resources: 90% by December 31, 2035; 95% by December 31, 2040; and 100% by December 31, 2045.

Mobile Sources

State Vehicle Standards (Assembly Bill 1493 and Executive Order B-16-12)

AB 1493 (July 2002) was enacted in a response to the transportation sector accounting for more than half of California's CO_2 emissions. AB 1493 required CARB to set GHG emission standards for passenger vehicles, light-duty trucks, and other vehicles determined by CARB to be vehicles that are primarily used for noncommercial personal transportation in the state. The bill required that CARB set GHG emission standards for motor vehicles manufactured in 2009 and all subsequent model years. CARB adopted the standards in September 2004. EO

B-16-12 (March 2012) required that state entities under the governor's direction and control support and facilitate the rapid commercialization of ZEVs. It ordered CARB, CEC, CPUC, and other relevant agencies to work with the Plug-In Electric Vehicle Collaborative and the California Fuel Cell Partnership to establish benchmarks to help achieve benchmark goals by 2015, 2020, and 2025. On a statewide basis, EO B-16-12 identified a target reduction of GHG emissions from the transportation sector equaling 80% less than 1990 levels by 2050. This directive did not apply to vehicles that have special performance requirements necessary for the protection of the public safety and welfare. As explained under the "Federal Vehicle Standards" description in the Federal Regulations section above, EPA and NHTSA approved the SAFE Vehicles Rule Part One and Two, which revoked California's authority to set its own GHG emissions standards and set ZEV mandates in California. In March 2022, EPA reinstated California's authority under the Clean Air Act to implement its own GHG emission standards and ZEV sales mandate. EPA's action concludes its reconsideration of the 2019 SAFE-1 rule by finding that the actions taken under the previous administration as a part of SAFE-1 were decided in error and are now entirely rescinded.

Executive Order S-1-07

EO S-1-07 (January 2007, implementing regulation adopted in April 2009) sets a declining Low Carbon Fuel Standard for GHG emissions measured in CO_2e grams per unit of fuel energy sold in California. The target of the Low Carbon Fuel Standard is to reduce the carbon intensity of California passenger vehicle fuels by at least 10% by 2020 (17 CCR 95480 et seq.). The carbon intensity measures the amount of GHG emissions in the lifecycle of a fuel—including extraction/feedstock production, processing, transportation, and final consumption—per unit of energy delivered.

Senate Bill 375

SB 375 (California Government Code Section 65080) addresses GHG emissions associated with the transportation sector through regional transportation and sustainability plans. SB 375 requires CARB to adopt regional GHG-reduction targets for the automobile and light-truck sector for 2020 and 2035, and to update those targets every 8 years. SB 375 requires the state's 18 regional metropolitan planning organizations (MPOs) to prepare a sustainable communities strategy (SCS) as part of their Regional Transportation Plan that will achieve the GHG-reduction targets set by CARB. If an MPO is unable to devise an SCS to achieve the GHG-reduction target, the MPO must prepare an alternative planning strategy demonstrating how the GHG-reduction target would be achieved through alternative development patterns, infrastructure, or additional transportation measures or policies.

An SCS does not: (1) regulate the use of land; (2) supersede the land use authority of cities and counties; or (3) require that a city or county land use policies and regulations, including those in a general plan, be consistent with it (California Government Code Section 65080[b][2][K]). Nonetheless, SB 375 makes regional and local planning agencies responsible for developing those strategies as part of the federally required metropolitan transportation planning process and the state-mandated housing element process.

Advanced Clean Cars Program and Zero-Emissions Vehicle Program

The Advanced Clean Cars (ACC) I program (January 2012) is an emissions-control program for model years 2015 through 2025. The program combines the control of smog- and soot-causing pollutants and GHG emissions into a single coordinated package of regulations: the Low-Emission Vehicle (LEV) regulation for criteria air pollutant and GHG emissions and a technology forcing regulation for ZEVs that contributes to both types of emission reductions (CARB 2023). The package includes elements to reduce smog-forming pollution, reduce GHG emissions, promote clean cars, and provide the fuels for clean cars. To improve air quality, CARB has implemented new emission standards

to reduce smog-forming emissions beginning with 2015 model year vehicles. It is estimated that in 2025 cars will emit 75% less smog-forming pollution than the average new car sold in 2015. The ZEV program will act as the focused technology of the ACC I program by requiring manufacturers to produce increasing numbers of ZEVs and plug-in hybrid EVs in the 2018 to 2025 model years.

The ACC II program, which was adopted in August 2022, established the next set of LEV and ZEV requirements for model years after 2025 to contribute to meeting federal ambient air quality ozone standards and California's carbon neutrality standards (CARB 2023). The main objectives of ACC II are as follows:

- Maximize criteria air pollutant and GHG emission reductions through increased stringency and real-world reductions.
- Accelerate the transition to ZEVs through both increased stringency of requirements and associated actions to support wide-scale adoption and use.

The ACC II rulemaking package also considers technological feasibility, environmental impacts, equity, economic impacts, and consumer impacts.

Executive Order N-79-20

EO N-79-20 (September 2020) requires CARB to develop regulations as follows: (1) Passenger vehicle and truck regulations requiring increasing volumes of new ZEVs sold in the state towards the target of 100% of in-state sales by 2035; (2) medium- and heavy-duty vehicle regulations requiring increasing volumes of new zero-emission trucks and buses sold and operated in the state towards the target of 100% of the fleet transitioning to ZEVs by 2045 everywhere feasible and for all drayage trucks to be zero emission by 2035; and (3) strategies, in coordination with other state agencies, the EPA, and local air districts, to achieve 100% zero emissions from off-road vehicles and equipment operations in the state by 2035. EO N-79-20 called for the development of a ZEV Market Development Strategy, which was released February 2021, to be updated every 3 years, that ensures coordination and implementation of the EO and outlines actions to support new and used ZEV markets. In addition, the EO specifies identification of near-term actions, and investment strategies, to improve clean transportation, sustainable freight, and transit options; and calls for development of strategies, recommendations, and actions by July 15, 2021, to manage and expedite the responsible closure and remediation of former oil extraction sites as the state transitions to a carbon-neutral economy.

In-Use Off-Road Diesel-Fueled Fleets Regulation

The In-Use Off-Road Diesel-Fueled Fleets Regulation applies to all self-propelled off-road diesel vehicles 25 horsepower or greater used in California and most two-engine vehicles (except on-road two-engine sweepers). The In-Use Off-Road Diesel Vehicle Regulation has timetables by which manufacturers must comply, and existing operators must upgrade their diesel-powered equipment. CARB recently approved additional amendments to the Off-Road Regulation which are effective October 1, 2023. Notably, the changes include the procurement and use of renewable diesel (R99 or R100) starting January 1, 2024, with limited exceptions.

Other State Actions

Senate Bill 97

SB 97 (2007) directed the Governor's Office of Planning and Research and CNRA to develop guidelines under CEQA for the mitigation of GHG emissions. CNRA adopted the CEQA Guidelines amendments in December 2009, which became effective in March 2010.

Under the amended CEQA Guidelines, a lead agency has the discretion to determine whether to use a quantitative or qualitative analysis or apply performance standards to determine the significance of GHG emissions resulting from a particular project (14 CCR 15064.4[a]). The CEQA Guidelines require a lead agency to consider the extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions (14 CCR 15064.4[b]). The CEQA Guidelines also allow a lead agency to consider feasible means of mitigating the significant effects of GHG emissions, including reductions in emissions through the implementation of project features or off-site measures (14 CCR 15126.4[c]). The adopted amendments do not establish a GHG emission threshold, instead allowing a lead agency to develop, adopt, and apply its own thresholds of significance or those developed by other agencies or experts. CNRA also acknowledged that a lead agency could consider compliance with regulations or requirements implementing AB 32 in determining the significance of a project's GHG emissions (CNRA 2009).

With respect to GHG emissions, CEQA Guidelines Section 15064.4(a), as subsequently amended in 2018, states that lead agencies "shall make a good-faith effort, based to the extent possible on scientific and factual data, to describe, calculate or estimate" GHG emissions. The CEQA Guidelines now note that an agency "shall have discretion to determine, in the context of a particular project, whether to: (1) Quantify greenhouse gas emissions resulting from a project; and/or (2) Rely on a qualitative analysis or performance-based standards" (14 CCR 15064.4[a]). Section 15064.4(b) states that the lead agency should consider the following when assessing the significance of impacts from GHG emissions on the environment: (1) the extent to which a project may increase or reduce GHG emissions as compared to the existing environmental setting; (2) whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project; and (3) the extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions (14 CCR 15064.4[b]).

Local Regulations

Metropolitan Transportation Plan/Sustainable Communities Strategy

The El Dorado County Transportation Commission (EDCTC) is the Regional Transportation Planning Agency (RPTA) for El Dorado County, except for that portion of the County within the Tahoe Basin, which is under the jurisdiction of the Tahoe Regional Planning Agency (TRPA). One of the fundamental responsibilities which results from this designation, is the preparation of the County's Regional Transportation Plan. Under the terms of a Memorandum of Understanding (MOU) between the EDCTC and the Sacramento Area Council of Governments (SACOG), EDCTC submits the Regional Transportation Plan for inclusion into the SACOG Metropolitan Transportation Plan (MTP) and SCS. This process is important to both the SACOG MTP and the EDCTC RTP, as it allows for a locally developed RTP to be included in the regional air quality conformity process. The MOU also stipulates that EDCTC shall utilize data and data analysis methodologies which are consistent with that developed by SACOG. This data includes existing and projected travel data, socio-economic data, and travel demand forecasts and assumptions. However, this data is integrated into this locally developed RTP process which is focused on local consensus of policies, projects,

programs, and funding decisions. The El Dorado County 2020-2040 RTP was adopted in November 2020 is included in the El Dorado County portion of the SACOG MTP (EDCTC 2020). EDCTC has initiated the 2025-2045 RTP in January 2024 and is currently in the process of conducting public outreach.

SACOG is designated by the state and federal governments as the MPO and is responsible for developing the MTP/SCS in coordination with Sacramento, Yolo, Yuba, Sutter, El Dorado and Placer counties and the 22 cities within those counties (excluding the Tahoe Basin). In November 2019, SACOG adopted the 2020 MTP/SCS, which lays out a path for improving our air quality, preserving open space and natural resources, and helping California achieve its goal to reduce GHG that contribute to climate change (SACOG 2019). For the 2020 MTP/SCS, CARB assigned SACOG a GHG reduction target from passenger vehicles of 19% below 2005 levels per capita by 2035.

El Dorado County Air Quality Management District

The El Dorado County Air Quality Management District (EDCAQMD) is the regional agency responsible for the regulation and enforcement of federal, state, and local air pollution control regulations in the County, where the project is located. The EDCAQMD has not established plans or thresholds for GHGs.

Environmental Vision for El Dorado County Resolution No. 29-2008

On March 25, 2008, the El Dorado County Board of Supervisors adopted the "Environmental Vision for El Dorado County" Resolution No. 29-2008. The Resolution sets forth goals and calls for implementation of positive environmental changes to reduce global impact, improve air quality and reduce dependence on landfills, promote alternative energies, increase recycling, and encourage local governments to adopt green and sustainable practices (El Dorado County 2008).

El Dorado County General Plan

The following goals, objectives, and policies related to GHGs in the El Dorado County General Plan (last amended 2019) are included in the Transportation and Circulation; Housing; Public Services and Utilities; Public Health, Safety, and Noise; and the Conservation Elements of the General Plan (El Dorado County 2019) and are applicable to the proposed project.

Transportation and Circulation Element

Goal TC-4: To provide a safe, continuous, and easily accessible non-motorized transportation system that facilitates the use of the viable alternative transportation modes.

Policy TC-4c: The County shall give priority to bikeways that will serve population centers and destinations of greatest demand and to bikeways that close gaps in the existing bikeway system.

Policy TC-4e: The County shall require that rights-of-way or easements be provided for bikeways or trails designated in adopted master plans, as a condition of land development when necessary to mitigate project impacts.

Policy TC-4g: The County shall support development of facilities that help link bicycling with other modes of transportation.

Policy TC-4i: Within Community Regions and Rural Centers, all development shall include pedestrian/bike paths connecting to adjacent development and to schools, parks, commercial areas and other facilities where feasible. In Rural Regions, pedestrian/bike paths shall be considered as appropriate.

Goal TC-5: To provide safe, continuous, and accessible sidewalks and pedestrian facilities as a viable alternative transportation mode.

Policy TC-5a: Sidewalks and curbs shall be required throughout residential subdivisions, including land divisions created through the parcel map process, where any residential lot or parcel size is 10,000 square feet or less.

Housing Element

Goal HO-5: To increase the efficiency of energy and water in new and existing homes.

Policy HO-5a: The County shall require all new dwelling units to meet current state requirements for energy efficiency and shall encourage the retrofitting of existing units.

Policy HO-5b: New land use development standards and review processes should encourage energy and water efficiency, to the extent feasible.

Public Services and Utilities Element

Goal 5.6: Sufficient utility service availability consistent with the needs of a growing community.

Objective 5.6.2: Encourage development of energy-efficient buildings, subdivisions, development, and landscape designs.

Policy 5.6.2.1: Require energy conserving landscaping plans for all projects requiring design review or other discretionary approval.

Policy 5.6.2.2: All new subdivisions should include design components that take advantage of passive or natural summer cooling and/or winter solar access, or both, when possible.

Public Health, Safety, and Noise Element

Goal 6.7: Strive to achieve and maintain ambient air quality standards established by the EPA and CARB and minimize exposure to TACs or HAPs and air pollutants that create unpleasant odors.

Objective 6.7.2: Reduce motor vehicle air pollution by developing programs aimed at minimizing congestion and reducing the number of vehicle trips made in the County and encouraging the use of clean fuels.

Policy 6.7.2.5: Upon reviewing projects, the County shall support and encourage the use of, and facilities for, alternative-fuel vehicles to the extent feasible. The County shall develop language to be included in County contract procedures to give preference to contractors that utilize low-emission heavy-duty vehicles.

Objective 6.7.4: Encourage project design that protects air quality and minimizes direct and indirect emissions of air contaminants.

Policy 6.7.4.1: Promote the development of new residential uses within walking or bicycling distance to the County's larger employment centers.

Policy 6.7.4.4: All discretionary development applications shall be reviewed to determine the need for pedestrian/bike paths connecting to adjacent development and to common service facilities (e.g., clustered mailboxes, bus stops, etc.).

Policy 6.7.4.5: Specific plans submitted to the County shall provide for the implementation of all policies contained under Objective 6.7.4 herein.

Policy 6.7.4.6: The County shall regulate wood-burning fireplaces and stoves in all new development. EPA approved stoves and fireplaces burning natural gas or propane are allowed. The County shall discourage the use of non-certified wood heaters and fireplaces during periods of unhealthy air quality.

Conservation and Open Space Element

Goal 7.3: Conserve, enhance, and manage water resources and protect their quality from degradation.

Objective 7.3.1: Preserve and protect the supply and quality of the County's water resources including the protection of critical watersheds, riparian zones, and aquifers.

Policy 7.3.1.2: Establish water conservation programs that include both drought tolerant landscaping and efficient building design requirements as well as incentives for the conservation and wise use of water.

Objective 7.3.5: Conservation of water resources, encouragement of water conservation, and construction of wastewater disposal systems designed to reclaim and re-use treated wastewater on agricultural crops and for other irrigation and wildlife enhancement projects.

Policy 7.3.5.4: Require efficient water conveyance systems in new construction. Establish a program of ongoing conversion of open ditch systems shall be considered for conversion to closed conduits, reclaimed water supplies, or both, as circumstances permit.

3.7.3 Thresholds of Significance

Thresholds of significance are used to determine the significance of a project's environmental effects. Per Section 15064.7 of the CEQA Guidelines, a threshold is an identifiable quantitative, qualitative or performance level of a particular environmental effect, non-compliance with which means the effect will normally be determined to be significant and compliance with normally means the effect will be determined to be less than significant. A significant impact would occur if development of the project would do any of the following:

- Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment.

- Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases.

In addition, the CEQA Guidelines specify that "[w]hen adopting or using thresholds of significance, a lead agency may consider thresholds of significance previously adopted or recommended by other public agencies, or recommended by experts, provided the decision of the lead agency to adopt such thresholds is supported by substantial evidence" (14 CCR 15064.7[c]).

The extent to which a project increases or decreases GHG emissions in the existing environmental setting should be estimated in accordance with Section 15064.4, Determining the Significance of Impacts from Greenhouse Gas Emissions, of the CEQA Guidelines. The CEQA Guidelines indicate that when calculating GHG emissions resulting from a project, lead agencies shall make a good-faith effort based on scientific and factual data (Section 15064.4 (a)), and lead agencies have discretion to select the model or methodology deemed most appropriate for enabling decision makers to intelligently assess the project's incremental contribution to climate change (Section 15064.4 (c)).

Air Quality Thresholds

The EDCAQMD has not formally adopted a numerical threshold of significance for GHG emissions within the region. However, EDCAQMD staff recommended use of the Sacramento Metropolitan Air Quality Management District's (SMAQMD) adopted thresholds in order to determine impacts of the project (pers. com Rania Serieh).

The GHG analysis has been prepared to show compliance with SMAQMD's GHG thresholds of significance.[4] For construction related GHG emissions, SMAQMD has adopted a threshold of significance of 1,100 MT CO_2e/yr. For evaluating operational GHG emissions, SMAQMD has prepared a two-tiered framework of analysis for new projects. All development projects are required to implement Tier 1 measures (BMP 1 and 2). In addition, if operations would exceed 1,100 MT CO_2e/yr after implementation of the Tier 1 measures, then the project is required to implement Tier 2 measures (BMP 3). The Tier 1 and Tier 2 measures are presented below.

The 1,100 MT CO_2e/yr numerical thresholds used by SMAQMD is a screening level threshold that has been established as a universally accepted threshold throughout the state, with several other air districts, including the Placer County Air Pollution Control District (PCAPCD), which also has jurisdiction of a portion of the MCAB, having adopted the same 1,100 MT CO_2e/yr numerical threshold. In any case, SMAQMD has further included requirements to implement best management practices (BMPs), as presented below, to reduce operational GHG emissions associated with new development. The SMAQMD BMPs are consistent with the statewide CARB GHG reduction targets by focusing on reducing GHG emissions related to natural gas and vehicle trips, which are widespread sources of GHG emissions. Therefore, while other approaches may be used in other areas of the state, and even by other development projects within the County, to reduce GHG emissions, for the reasons stated above, use of the SMAQMD GHG thresholds for the proposed project is appropriate. The SMAQMD BMPs are also consistent with guidance from other agencies, including the Governor's Office of Land Use and Climate Innovation (formerly the Office of Planning and Research [OPR]).

[4] Sacramento Metropolitan Air Quality Management District. *Guide to Air Quality Assessment, Chapter 6: Greenhouse Gas Emissions.* February 2021.

Tier 1

The SMAQMD adopted the following Tier 1 BMPs in which projects would be required to comply with, including the proposed project. The proposed Tier 1 BMPs are as follows:

- **BMP 1:** No natural gas: Projects shall be designed and constructed without natural gas infrastructure.
- **BMP 2:** Electric vehicle (EV) ready: Projects shall meet the current California Green Building Code (CalGreen) Tier 2 standards, except all EV Capable spaces shall instead be EV Ready.

If a project would not comply with both BMPs, the project would be required to include features that would achieve an equivalent level of GHG emissions reductions. For instance, a project that includes natural gas infrastructure may include prewiring to allow for the future retrofit of all natural gas appliances with all-electric appliances. Furthermore, projects that are below OPR's *de minimis* vehicle miles traveled (VMT) criteria,[5] and/or projects that emit less than 1,100 MT CO_2e/yr prior to implementation of BMP 1 and BMP 2 would be considered sufficiently small to screen out of further requirements and would be assumed to result in a less-than-significant impact related to GHG emissions and climate change. Projects that are not small enough to screen out of further review are subject to review under Tier 2 of SMAQMD's updated Thresholds.

Tier 2

The second tier of SMAQMD's updated thresholds includes the following BMP:

- **BMP 3:** Residential projects shall achieve a 15% reduction in VMT per resident, and office projects should achieve a 15% reduction in VMT per worker compared to existing average VMT per capita for the county, or for the city if a more local Senate Bill (SB) 743 target has been established. Retail projects should achieve no net increase in total VMT, as required to show consistency with SB 743. These reductions can be achieved by many strategies, such as:
  - Locate in an area that already has low VMT due to location, transit service, etc.;
  - Adopt CAPCOA measures;
  - Adopt measures noted in Sacramento's CAP checklist;
  - Join a Transportation Management Association;
  - Incorporate traffic calming measures;
  - Incorporate pedestrian facilities and connections to public transportation; and/or
  - Promote electric bicycle or other micro-mobility options.

As noted in SMAQMD's Guidance, for jurisdictions with SB 743 targets already established, projects that show consistency with those established targets would show consistency with the SMAQMD GHG targets. For the County, the 15% reduction goal for residential projects would be applicable for the proposed project.

If a project cannot incorporate the BMPs listed above, other reductions or purchasing and retiring of GHG/carbon offsets can be used as an alternative method of compliance. Additionally, while the all electric requirement in

[5] Projects which would be considered below the OPR's de minimis VMT criteria include projects within half a mile of an existing major transit stop or within a quarter of an existing stop along a high-quality transit corridor, 100% affordable residential development in infill locations, projects that generate or attract fewer than 110 trips per day; and local-serving retail developments (considered to be less than 50,000 square feet in size).

SMAQMD's BMP 1 has not been challenged and is consistent with guidance from other agencies, the Ninth Circuit recently held that the Energy Policy and Conservation Act expressly preempted an ordinance banning natural gas piping within new buildings for appliances covered by the Act unless narrow exceptions applied.[6] While that Ninth Circuit decision does not address mitigation measures or GHG emissions thresholds, a similar challenge could be brought forth in the future and a future court decision could find that all-electric mitigation requirements or GHG emissions thresholds are similarly preempted for covered appliances. The feasibility of BMP 1 also relies on the adequate availability of electricity at the time of development.

Governor's Office of Planning and Research Guidance

The Governor's Office of Planning and Research (OPR)[7] technical advisory titled, CEQA and Climate Change: Addressing Climate Change through California Environmental Quality Act (CEQA) Review, states that "public agencies are encouraged but not required to adopt thresholds of significance for environmental impacts. Even in the absence of clearly defined thresholds for GHG emissions, the law requires that such emissions from CEQA projects must be disclosed and mitigated to the extent feasible whenever the lead agency determines that the project contributes to a significant, cumulative climate change impact" (OPR 2018). Furthermore, the advisory document indicates that "in the absence of regulatory standards for GHG emissions or other scientific data to clearly define what constitutes a 'significant impact,' individual lead agencies may undertake a project-by-project analysis, consistent with available guidance and current CEQA practice" (OPR 2008).

3.7.4 Impacts and Mitigation Measures

Methodology

Construction

CalEEMod Version 2022.1.1.21 was used to estimate potential project generated GHG emissions during construction. Construction of the proposed project would result in GHG emissions primarily associated with use of off-road construction equipment, on-road hauling and vendor (material delivery) trucks, and worker vehicles. The analysis of GHG emissions used the same methodology and assumptions as the analysis of air quality impacts in Section 3.2, Air Quality, of this EIR. All details for construction criteria air pollutants discussed in Section 3.2.3, Methodology (Construction) are also applicable for the estimation of construction related GHG emissions. Please see Section 3.2 for a discussion of construction emissions calculation methodology and assumptions that is also used in the GHG emissions analysis. In addition, California has recently amended the In-Use Off-Road Diesel-Fueled Fleets Regulation, which requires the use of renewable diesel fuel in all off-road equipment greater than 25 horsepower. CalEEMod does not include renewable diesel as a fuel type for off-road equipment. As such, off-model calculations were conducted to determine the emissions reduction associated with renewable diesel-powered off-road equipment anticipated to be used during project construction.

6 *California Restaurant Association v. City of Berkeley* (9th Cir. 2023) 65 F.4th 1045, opinion modified (9th Cir. 2024) 89 F.4th 1094, rehearing and request for En banc hearing denied on January 2, 2024.

7 As of July 1, 2024, the Governor's Office of Planning and Research has been renamed the Governor's Office of Land Use and Climate Innovation.

Operation

Emissions from the operational phase of the proposed project were estimated using CalEEMod Version 2022.1.1.21. Operational year 2028 was assumed which would be the first full year after construction of the proposed project.

Potential project generated operational GHG emissions were estimated for area sources (landscape maintenance), energy sources (natural gas and electricity), mobile sources, solid waste, water supply and wastewater treatment, and refrigerants. Emissions from each category are discussed in the following text with respect to the proposed project. For additional details, see Section 3.2.3, Methodology (Operational), in Section 3.2, Air Quality, for a discussion of operational emission calculation methodology and assumptions, specifically for area, energy (natural gas), and mobile sources that also apply to the assessment of GHG emissions.

Area

CalEEMod was used to estimate GHG emissions from the proposed project's area sources, which include operation of gasoline-powered landscape maintenance equipment, which produce minimal GHG emissions. See Section 3.2.3 in Section 3.2, Air Quality, for a discussion of landscaping equipment emissions calculations that are also applicable to the analysis of GHG emissions. Consumer product use and architectural coatings result in VOC emissions, which are analyzed in air quality analysis only, and little to no GHG emissions.

Energy

The estimation of operational energy emissions was based on CalEEMod land use defaults and units or total area (i.e., square footage) of the proposed project land uses. The energy use (electricity or natural gas usage per square foot per year) from residential land uses is calculated in CalEEMod based on the Residential Appliance Saturation Study, while the energy use from nonresidential land uses is calculated in CalEEMod based on the California Commercial End-Use Survey database. Emissions are calculated by multiplying the energy use by the utility carbon intensity (pounds of GHGs per kilowatt-hour for electricity or 1,000 British thermal units for natural gas) for CO_2 and other GHGs. Annual natural gas and electricity emissions were estimated in CalEEMod using the emissions factors for Pacific Gas and Electric Company (PG&E), which would be the energy provider for the proposed project.

CalEEMod default energy intensity factors (CO_2, CH_4, and N_2O mass emissions per kilowatt-hour) for PG&E were used for the project analysis. As explained in Section 3.7.2, state SB X1 2 established a target of 33% from renewable energy sources for all electricity providers in California by 2020 and SB 100 calls for further development of renewable energy, with a target of 60% by 2030. As such, GHG emissions associated with project electricity demand would continue to decrease over time.

Mobile Sources

All details for criteria air pollutants discussed in Section 3.2, Air Quality, are also applicable for the estimation of operational mobile source GHG emissions. Regulatory measures related to mobile sources include AB 1493 (Pavley) and related federal standards. AB 1493 required that CARB establish GHG emission standards for automobiles, light-duty trucks, and other vehicles determined by CARB to be vehicles that are primarily used for noncommercial personal transportation in the state. In addition, the NHTSA and EPA have established corporate fuel economy standards and GHG emission standards, respectively, for automobiles and light-, medium-, and heavy-duty vehicles. Implementation of these standards and fleet turnover (replacement of older vehicles with newer

ones) will gradually reduce emissions from the project's motor vehicles. The effectiveness of fuel economy improvements was evaluated by using the CalEEMod emission factors for motor vehicles in 2028 for the proposed project to the extent it was captured in EMFAC 2014.[8]

Solid Waste

The proposed project would generate solid waste, and therefore, result in CO_2e emissions associated with landfill off-gassing. CalEEMod default values for solid waste generation were used to estimate GHG emissions associated with solid waste for the proposed project. It was assumed that the proposed project would be consistent with the County's 75% diversion goal by 2020 in accordance with AB 341.

Water and Wastewater Treatment

Supply, conveyance, treatment, and distribution of water for the project require the use of electricity, which would result in associated indirect GHG emissions. Similarly, wastewater generated by the project requires the use of electricity for conveyance and treatment, along with GHG emissions generated during wastewater treatment. Water consumption estimates for both indoor and outdoor water use and associated electricity consumption from water use and wastewater generation were estimated using default values in CalEEMod.

As described in Chapter 2, Project Description, the project includes two development options. The first option would be to convert the 1,8-acres of neighborhood commercial to park uses if neighborhood commercial is not adopted as part of the Specific Plan. The second option proposes construction of up to 768 age-restricted units and 150 conventional homes. Due to the similarities between the proposed project and the Active Adult option GHG emissions attributed to construction activities would essentially be the same as the proposed project. Therefore, where applicable, the impact analysis below indicates if a proposed option would result in a change in impact significance or require new mitigation. GHG emissions associated with the Active Adult option were analyzed in the December 5, 2024, *Creekside Village Specific Plan Project – Active Adult Project Option Technical Memorandum* ("Active Adult Technical Memorandum" provided in Appendix B).

Project Impacts

Impact 3.7-1. The proposed project would not generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment.

Construction Emissions

Construction of the proposed project would result in GHG emissions, which are primarily associated with the use of off-road construction equipment, haul trucks, on-road vendor trucks, and worker vehicles.

CalEEMod was used to calculate the annual GHG emissions based on the construction scenario described in Section 3.7.3, Methodology (Construction). Construction of the proposed project is anticipated to commence in June 2025 and end by approximately August 2028. On-site sources of GHG emissions include off-road equipment and off-

[8] The Low Carbon Fuel Standard calls for a 10% reduction in the "carbon intensity" of motor vehicle fuels by 2020, which would further reduce GHG emissions. However, the carbon intensity reduction associated with the Low Carbon Fuel Standard was not assumed in EMFAC 2014 and thus, was not included in CalEEMod 2022.1.1.21.

site sources including vendor trucks and worker vehicles. Table 3.7-3 presents construction emissions for the proposed project from on-site and off-site emission sources.

Table 3.7-3. Estimated Annual Construction Greenhouse Gas Emissions - Unmitigated

Source	CO_2e Metric Tons per Year
Project Emissions	997
SMAQMD Threshold	1,100
Exceeds Threshold?	**No**

Source: See Appendix B.
Notes: CO_2e = carbon dioxide equivalent; SMAQMD = Sacramento Metropolitan Air Quality Management District.

As shown in Table 3.7-3, the estimated maximum total GHG emissions during construction of would be approximately 997 MT CO_2e which would be below the SMAQMD significance threshold. Therefore, project construction would not be considered to result in a cumulatively considerable contribution to global climate change. As with project-generated construction criteria air pollutant emissions, GHG emissions generated during construction of the proposed project would be short-term in nature, lasting only for the duration of the construction period, and would not represent a long-term source of GHG emissions.

Operational Emissions

Operation of the proposed project would generate GHG emissions through motor vehicle and delivery truck trips to and from the project site; landscape maintenance equipment operation; energy use (natural gas and generation of electricity consumed by the proposed project); solid waste disposal; and generation of electricity associated with water supply, treatment, distribution and wastewater treatment, and refrigerants. CalEEMod was used to calculate the annual GHG emissions based on the operational assumptions described in Section 3.7.3, Methodology (Operation). Furthermore, the proposed project's compliance with the SMAQMD's BMPs is discussed in further detail below.

BMP-1: No Natural Gas

In order to be consistent with BMP 1, the proposed project is required to include all electric appliances and plumbing. However, project specific information is not available to ensure that the project would be designed and constructed without natural gas infrastructure, thus, mitigation measure GHG-1 implements BMP 1.

It should be noted, however, that as discussed above, the potential exists that a challenge could be brought forth in the future and a future court decision could find that all-electric mitigation requirements or GHG emissions thresholds are preempted for covered appliances. The feasibility of BMP 1 also relies on the adequate availability of electricity at the time of development. Therefore, because the implementation of BMP 1 may not be enforceable or commercially feasible at the time of development for certain project components, this is considered a potentially significant impact.

BMP-2: EV-Ready

Consistent with BMP-2, the proposed project would be required to provide EV Ready parking spaces at the ratio with which the current CalGreen Tier 2 standards require EV Capable spaces (see Table 3.7-4).

Table 3.7-4. EV Ready Parking Space Requirements

Land Use Type	Requirements for New Construction		
1-2 family dwelling units/townhouses[1]	Each dwelling unit shall accommodate a dedicated 208/40-volt branch circuit		
Nonresidential[2]	Total Number of Parking Spaces	EV Capable Spaces	EV Ready Spaces
	0-9	3	0
	10-25	8	3
	26-50	17	6
	51-75	28	9
	76-100	40	13
	101-150	57	19
	151-200	79	26
	201 and over	45% of actual parking spaces	33% of EV Ready Spaces

Source: Appendix B.
Notes:
1 2022 CalGreen Code Section A4.106.8.1.
2 2022 CalGreen Code Table A5.106.5.3.3.

BMP-3: VMT Reduction

As noted above, the project would be required to implement BMPs 1 and 2. However, even with implementation of BMPs 1 and 2, the project would still result in annual emissions over the SMAQMD's threshold of significance and, therefore, would be subject to BMP 3. The proposed project would not qualify for an exemption from BMP 3 under the OPR's *de minimis* VMT criteria. Therefore, in order to address the VMT reduction required by BMP-3, the project's transportation consultant conducted a VMT Analysis for the proposed project (Appendix H).

Consistent with the County's VMT Guidance (Resolution 141-2020), for the residential component of the project, a VMT model run was conducted for the Baseline Condition and Baseline Plus Project Condition (2018), as well as the Cumulative and Cumulative Plus Project Condition (2040) using the County's Travel Demand Model. Based on County guidance, project VMT was compared to the 15% reduction threshold of 17.3 VMT per capita. Based on the results of the VMT Analysis, the residential component of the project is anticipated to generate 13.6 VMT per capita for the Baseline (2018) Condition, and 13.1 VMT per capita for the Cumulative (2040) Condition, which is below the County's 17.3 VMT per capita threshold (see Section 3.12, Transportation, for more information on transportation-related impacts).

In addition, with regard to the commercial component of the proposed project, the OPR Technical Advisory notes that projects less than 50,000 square feet (sf) can generally be considered local serving. The proposed project would include a maximum of 5,400 sf of commercial uses on-site. Thus, the neighborhood commercial component[9] of the project would be well below 50,000 sf, and, as a result, would be considered local serving. In addition, given the nature of the project and the existing residential uses located in the direct vicinity of the project site, a reasonable assumption can be made that the majority of patrons visiting the neighborhood commercial use would

9 There would be an option for converting the neighborhood commercial to park uses if neighborhood commercial is not adopted as part of the Specific Plan. The expansion of onsite parks would not impact the project's VMT or GHG emissions.

be traveling from the immediately surrounding area. As such, the proposed project would be classified as local-serving, and, based on guidance provided by OPR, may be presumed to result in a less-than-significant VMT impact.

Based on the above, implementation of the proposed project would result in a reduction in local VMT in compliance with the relevant thresholds of significance and, consequently, the project would be considered to comply with BMP-3.

The estimated existing and project operational GHG emissions from area sources, energy usage, motor vehicles, solid waste generation, and water usage and wastewater generation are shown in Table 3.7-5.

Table 3.7-5. Estimated Annual Operational Greenhouse Gas Emissions

Emission Source	CO_2e Metric Tons per Year
Mobile	6,582
Area	731
Energy	2,210
Water supply and wastewater	55
Solid Waste	180
Refrigerants	4
Total	**9,761**
SMAQMD Threshold	1,100
Exceeds Threshold?	**Yes**

Source: See Appendix B.
Notes: CO_2e = carbon dioxide equivalent; SMAQMD = Sacramento Metropolitan Air Quality Management District.

Active Adult Option

Based on the reduced trips associated with the Active Adult option, the Active Adult Technical Memorandum concluded that the maximum unmitigated operational GHG emissions would be reduced by approximately 247 MTCO2e/yr. However, given the similarities of the proposed project and the Active Adult option, consistency with SMAQMD BMP-1 and BMP-2 cannot be ensured at this time. Therefore, even with the reduction in GHG emissions, because the analysis is based on SMAQMD's qualitative BMP-based thresholds of significance, impacts associated with operational GHG emissions would remain the same as under the proposed project.

Conclusion

Based on the information presented above, the proposed project and the Active Adult option would not meet BMP-1 or BMP-2 without mitigation; therefore, the project including the Active Adult option could be considered to generate GHG emissions during operations that would have a significant impact on the environment. The Active Adult option would contribute slightly less GHG emissions. However, the proposed project as well as the Active Adult option would result in a **potentially significant impact**.

Mitigation Measures

Implementation of the following mitigation measure would ensure the project and the Active Adult option would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing GHG emissions.

Compliance with this mitigation measure would reduce the impact to **less than significant** by not including natural gas, incorporation of EV parking spaces, and with the purchase of carbon offset credits.

GHG-1: The following requirements shall be noted on project improvement plans, subject to review and approval by the El Dorado County Planning Services Department:

- The proposed project shall be designed such that the project is built all-electric, and natural gas infrastructure shall be prohibited onsite; and
- The project shall be constructed to include electric vehicle (EV) ready parking spaces at the ratio with which the current CalGreen Tier 2 standards require EV Capable spaces in effect at the time building permits are issued.

If the use of all-electric for any project component(s) (e.g., an appliance) is not enforceable or commercially feasible at the time of issuance of building permit(s), the project applicant shall require future residential homebuilders to include pre-wiring in all residential units and the neighborhood commercial space (if approved as part of the Creekside Village Specific Plan) to allow for the future retrofit of all natural gas appliances with all-electric appliances and purchase off-site mitigation credits or forecasted mitigation units ("FMUs") (collectively, "GHG credits") for project-related greenhouse gas (GHG) emissions from the component(s) using natural gas instead of electric. The emissions from the use of natural gas shall be calculated by a qualified professional using El Dorado County Air Quality Management District (EDCAQMD), California Air Resource Board (CARB), or the EPA-approved emissions models and quantification methods available and submitted to the County for review and approval, which shall include third-party review by a qualified consultant of the County's selection and be subject to applicant reimbursement of consultant costs.

Any and all GHG credits to off-set for the use of natural gas must be created through a CARB-approved registry. These registries are currently the American Carbon Registry (ACR), Climate Action Reserve (CAR), and Verra, although CARB may accredit additional registries in the future. These registries use robust accounting protocols for all GHG credits created for their exchange, including the six currently approved CARB protocols. This mitigation measure specifically requires GHG credits created for the project originate from a CARB-approved protocol or a protocol that is equal to or more rigorous than CARB requirements under 17 CCR 95972. The selected protocol must demonstrate that the GHG emissions reductions are real, permanent, quantifiable, verifiable, enforceable, and additional. Definitions of these terms from 17 CCR 95802(a) are provided below.

1. Real: GHG reductions or enhancements result from a demonstrable action or set of actions and are quantified using appropriate, accurate, and conservative methodologies that account for all GHG emissions sources, GHG sinks, and GHG reservoirs within the [GHG credit] project boundary and account for uncertainty and the potential for activity-shifting and market-shifting leakage.
2. Additional: GHG reductions or removals that exceed any GHG reduction, or removals otherwise required by law, regulation, or legally binding mandate, and that exceed any GHG reductions or removals that would otherwise occur in a conservative Business as Usual scenario.
3. Permanent: GHG reductions and removal enhancements are not reversible or, when GHG reductions and GHG-removal enhancements may be reversible, mechanisms are in place

to replace any reversed GHG-emission reductions and GHG-removal enhancements to ensure that all credited reductions endure for at least 100 years.

4. Quantifiable: The ability to accurately measure and calculate GHG reductions or GHG-removal enhancements relative to a project baseline in a reliable and replicable manner for all GHG emission sources, GHG sinks, or GHG reservoirs included within the [GHG credit] project boundary, while accounting for uncertainty. Activity-shifting, and market-shifting leakage.
5. Verifiable: A [GHG credit] project report assertion is well-documented and transparent such that it lends itself to an objective review by an accredited verification body.
6. Enforceable: The authority for CARB to hold a particular party liable and take appropriate action if any of the provisions of this article are violated. Note that this definition of enforceability is specific to the Cap and-Trade regulation, where CARB holds enforcement authority, but this measure shall employ GHG credits from the voluntary market, where CARB has no enforcement authority. Applying the definition to this mitigation measure means that GHG reductions must be owned by a single entity and backed by a legal instrument or contract that defines exclusive ownership.

Geographic Prioritization of GHG Credits

GHG credits from reduction projects in El Dorado County (County) shall be prioritized before projects in larger geographies (i.e., northern California, California, United States, and international). The project applicant shall inform brokers of the required geographic prioritization for the procurement of GHG credits. GHG credits from reduction projects identified in the County that are of equal or lesser cost compared to the settlement price of the latest Cap-and-Trade auction must be included in the transaction. GHG credits from reduction projects outside of the County may be purchased if adequate credits cannot be found in the County or if they exceed the maximum price identified above. The economic and geographic analysis undertaken to inform the selection of GHG credits must be provided by the project applicant to the County as part of the required documentation discussed below under Plan Implementation and Reporting.

Types of GHG Credits

GHG credits may be in the form of GHG offsets for prior reductions of GHG emissions verified through protocols or FMUs for future committed GHG emissions meeting protocols. Because emissions reductions from GHG offsets have already occurred, their benefits are immediate and can be used to compensate for an equivalent quantity of project-generated emissions at any time. GHG credits from FMUs must be funded and implemented within 5 years of project GHG emissions to qualify as a GHG credit under this measure (i.e., there can only be a maximum of 5 years lag between project emissions and their real-world reductions through funding a FMU in advance and implementing the FMU on the ground). Any use of FMUs that result in a time lag between project emissions and their reduction by GHG credits from FMUs must be compensated through a prorated surcharge of additional FMUs proportional to the effect of the delay. Because emissions of CO_2 in the atmosphere reach their peak radiative forcing within 10 years, a surcharge of 10% for every year of lag between project emissions and their reduction through a FMU shall be added to the GHG credit requirement (i.e., 1.10 FMUs would be required to mitigate 1 metric ton of project GHG emissions generated in the year prior to funding and implementation of the FMU).

Verification and Independent Review of GHG Credits

All GHG credits shall be verified by an independent verifier accredited by the ANSI National Accreditation Board (ANAB) or CARB, or an expert with equivalent qualifications to the extent necessary to assist with the verification. Following the standards and requirements established by the accreditation board (i.e., ANAB or CARB), the verifier shall certify the following.

- GHG credits conform to a CARB-approved protocol or a protocol that is equal to or more rigorous than CARB requirements under 17 CCR 95972. Verification of the latter requires certification that the credits meet or exceed the standards set in 17 CCR 95972.
- GHG credits are real, permanent, quantifiable, verifiable, enforceable, and additional, as defined in this measure.
- GHG credits are purchased according to the geographic prioritization standard defined in this measure under Geographic Prioritization of GHG Credits.

Verification of GHG offsets must occur as part of the certification process for compliance with the accounting protocol. Because FMUs are GHG credits that result from future projects, additional verification must occur beyond initial certification is required. Verification for FMUs must include initial certification and independent verification every 5 years over the duration of the FMU generating the GHG credits. The verification shall examine both the GHG credit realization on the ground and its progress toward delivering future GHG credits. The project applicant shall retain an independent verifier meeting the qualifications described above to certify reductions achieved by FMUs are achieved following completion of the future reduction project.

Impact 3.7-2. The proposed project would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases.

Potential to Conflict with State Reduction Targets and CARB's Scoping Plan

The state passed the Global Warming Solutions Act of 2006 (AB 32) to provide initial direction to limit California's GHG emissions to 1990 levels by 2020 and initiate the state's long-range climate objectives. Since the passage of AB 32, the State has adopted GHG emissions reduction targets for future years beyond the initial 2020 horizon year. For the project, the relevant GHG emissions reduction targets include those established by SB 32 and AB 1279, which require GHG emissions be reduced to 40% below 1990 levels by 2030, and 85% below 1990 levels by 2045, respectively. In addition, AB 1279 requires the state achieve net zero GHG emissions by no later than 2045 and achieve and maintain net negative GHG emissions thereafter.

As defined by AB 32, CARB is required to develop the Scoping Plan, which provides the framework for actions to achieve the State's GHG emission targets. The Scoping Plan is required to be updated every five years and requires CARB and other state agencies to adopt regulations and initiatives that will reduce GHG emissions statewide. As discussed in Section 3.7.2.3, the first Scoping Plan was adopted in 2008, and was updated in 2014, 2017, and most recently in 2022. While the Scoping Plan is not directly applicable to specific projects, nor is it intended to be used as the sole basis for project-level evaluations, it is the official framework for the measures and regulations that will be implemented to reduce California's GHG emissions in alignment with the adopted targets. Therefore, a project would be found to not conflict with the statutes if it would meet the Scoping Plan policies and would not impede attainment of the goals therein.

CARB's 2017 Climate Change Scoping Plan update was the first to address the state's strategy for achieving the 2030 GHG reduction target set forth in SB 32 (CARB 2017), and the most recent CARB 2022 Scoping Plan for Achieving Carbon Neutrality update outlines the state's plan to reduce emissions and achieve carbon neutrality by 2045 in alignment with AB 1279 and assesses progress is making toward the 2030 SB 32 target (CARB 2022b). As such, given that SB 32 and AB 1279 are the relevant GHG emission targets, the 2017 and 2022 Scoping Plan updates that outline the strategy to achieve those targets, are the most applicable to the project.

The 2017 Scoping Plan included measures to promote renewable energy and energy efficiency (including the mandates of SB 350), increase stringency of the carbon intensity of transportation fuels (LCFS), measures identified in the Mobile Source and Freight Strategies, measures identified in the proposed Short-Lived Climate Pollutant Plan, and increase stringency of SB 375 targets. The 2022 Scoping Plan builds upon and accelerates programs currently in place, including moving to zero-emission transportation; phasing out use of fossil gas use for heating homes and buildings; reducing chemical and refrigerants with high GWP; providing communities with sustainable options for walking, biking, and public transit; and displacement of fossil-fuel fired electrical generation through use of renewable energy alternatives (e.g., solar arrays and wind turbines) (CARB 2022b). Many of the measures and programs included in the Scoping Plan would result in the reduction of project-related GHG emissions with no action required at the project-level, including GHG emission reductions through increased energy efficiency and renewable energy production (SB 350), reduction in LCFS, and the accelerated efficiency and electrification of the statewide vehicle fleet (Mobile Source Strategy).

Regarding VMT reduction efforts, as previously discussed, the OPR Technical Advisory notes that commercial projects less than 50,000 sf can generally be considered local serving. The proposed project would include a maximum of 5,400 sf of neighborhood commercial uses on-site. Thus, the commercial component of the proposed project would be well below 50,000 sf, and, as a result, would be considered local serving.

Table 3.7-6 highlights measures that have been developed under the 2017 Scoping Plan and presents the project's consistency with the applicable 2017 Scoping Plan measures. Given the similarities between the proposed project and the Active Adult option, the Active Adult option would also be consistent with the 2017 and 2022 Scoping Plan and there would be no change in the analysis provided below.

Table 3.7-6. Project Potential to Conflict with the 2017 Scoping Plan GHG Reduction Measures

Action	Potential to Conflict
Transportation Sector	
Advanced Clean Cars	**No conflict.** The project's residents, employees, and visitors would purchase vehicles in compliance with CARB vehicle standards that are in effect at the time of vehicle purchase.
Low Carbon Fuel Standard	**No conflict.** Motor vehicles driven by the project's residents, employees, and visitors would use available compliant fuels.
Reduction in VMT	**No Conflict.** The project would not prevent CARB from implementing this measure. As discussed above, the project is anticipated to result in a reduction in the total regional VMT.

Table 3.7-6. Project Potential to Conflict with the 2017 Scoping Plan GHG Reduction Measures

Action	Potential to Conflict
Electricity and Natural Gas Sector	
Energy Efficiency Measures (Electricity)	**No conflict.** The project would be constructed in accordance with CALGreen and Title 24 building standards.
Energy Efficiency (Natural Gas)	**No conflict.** With mitigation measure GHG-1, the project would designed such that it would be built all-electric, and natural gas infrastructure shall be prohibited onsite.
Renewables Portfolio Standard (33% by 2020)	**No conflict.** The project would procure electricity from PG&E, which is in compliance with this measure.
Renewables Portfolio Standard (50% by 2050)	**No conflict.** The project would procure electricity from PG&E, which is on trajectory to be compliance with this measure.
Water Sector	
Water Use Efficiency	**No conflict.** The project would be constructed in accordance with CALGreen and Title 24 building requirements, including water conservation measures.
Recycling and Waste Management Sector	
Mandatory Commercial Recycling	**No conflict.** The project would include recycling and solid waste diversion, pursuant to regulatory requirements.

Source: CARB 2014, 2017.
Notes: GHG = greenhouse gas; CARB = California Air Resources Board; VMT = vehicle miles traveled; SB = Senate Bill; PG&E = Pacific Gas and Electric.

Table 3.7-7 highlights the measures from the 2022 Scoping Plan that are relevant to the project.

Table 3.7-7. Project Potential to Conflict with 2022 Scoping Plan GHG Reduction Measures

Action	Potential to Conflict
GHG Emissions Reductions Relative to the SB 32 Target	
40% below 1990 levels by 2030	**No conflict.** While the SB 32 GHG emissions reduction target is not an Action that is analyzed independently, it is included in Table 2-1 of the 2022 Scoping Plan for reference. The project would implement mitigation measure GHG-1, which requires the project be designed such that the project is built all-electric, and natural gas infrastructure shall be prohibited onsite and include EV ready parking spaces consistent with the current CalGreen Tier 2 standards. Furthermore, GHG-1 would require the project to use GHG credits to off-set the use of natural gas if the use of all-electric for

Table 3.7-7. Project Potential to Conflict with 2022 Scoping Plan GHG Reduction Measures

Action	Potential to Conflict
	any project component(s) (e.g., an appliance) is not enforceable or commercially feasible at the time of issuance of building permit(s). Implementation of mitigation measure GHG-1 would reduce the project's GHG emissions and would ensure that the project would not obstruct or interfere with agency efforts to meet the SB 32 reduction goal.
Smart Growth / VMT Sector	
VMT per capita reduced 25% below 2019 levels by 2030, and 30% below 2019 levels by 2045	**No conflict.** The project would not obstruct or interfere with agency efforts to meet this regional VMT reduction goal, including through implementation of SB 375. As detailed below, the project would be consistent with the SACOG 2020 MTP/SCS, which is the regional growth management strategy that targets per capita GHG reduction from passenger vehicles and light trucks pursuant to SB 375.
Light-duty Vehicle (LDV) Zero Emission Vehicles (ZEVs) Sector	
100% of Light-Duty Vehicle (LDV) sales are ZEV by 2035	**No conflict.** As this action pertains to LDV sales within California, the project would not obstruct or interfere with its implementation. Furthermore, the project would support the transition from fossil fuel LDV to zero emission vehicles (ZEV) through its provision of EV chargers.
Truck ZEVs Sector	
100% of medium-duty vehicle (MDV)/ heavy-duty vehicle (HDV) sales are ZEV by 2040	**No conflict.** As this action pertains to MDV and HDV sales within California, the project would not obstruct or interfere with its implementation.
Electricity Generation Sector	
Sector GHG target of 38 million metric tons of carbon dioxide equivalent ($MMTCO_2e$) in 2030 and 30 $MMTCO_2e$ in 2035 Retail sales load coverage[1] 20 gigawatts (GW) of offshore wind by 2045 Meet increased demand for electrification without new fossil gas-fired resources	**No conflict.** As this action pertains to the statewide procurement of renewably generated electricity, the project would not obstruct or interfere with its implementation. However, the project would support increased usage of renewable electricity through the installation of on-site solar panels, per Title 24 Standards.
New Residential and Commercial Buildings Sector	
All electric appliances beginning 2026 (residential) and 2029 (commercial), contributing to 6 million heat pumps installed statewide by 2030	**No conflict.** The project would not obstruct or interfere with agency efforts to meet the all-electric appliance and heat pump goals.
Construction Equipment Sector	
25% of energy demand electrified by 2030 and 75% electrified by 2045	**No conflict.** As this action pertains to the electrification of off-road equipment across California, the project would not obstruct or interfere with its implementation.

Table 3.7-7. Project Potential to Conflict with 2022 Scoping Plan GHG Reduction Measures

Action	Potential to Conflict
Low Carbon Fuels for Transportation Sector	
Biomass supply is used to produce conventional and advanced biofuels, as well as hydrogen	No conflict. The project would not obstruct or interfere with agency efforts to increase the provision of low carbon fuels for transportation.
Low Carbon Fuels for Buildings and Industry Sector	
In 2030s biomethane blended in pipeline Renewable hydrogen blended in fossil gas pipeline at 7% energy (~20% by volume), ramping up between 2030 and 2040 In 2030s, dedicated hydrogen pipelines constructed to serve certain industrial clusters	No conflict. The project would not obstruct or interfere with agency efforts to increase the provision of low carbon fuels for use in buildings and industry. Notably, however, the project would designed such that it would be built all-electric, and natural gas infrastructure shall be prohibited onsite.
High GWP Potential Emissions Sector	
Low GWP refrigerants introduced as building electrification increases, mitigating HFC emissions	No conflict. The project would not obstruct or interfere with agency efforts to introduce low GWP refrigerants.

Source: CARB 2022b.
Notes:
[1] As noted in Table 2-1 of the 2022 Scoping Plan, SB 100 speaks only to retail sales and state agency procurement of electricity (i.e., wholesale or non-retail sales and losses from storage and transmission and distribution lines are not subject to the law).

Based on the analysis in Tables 3.7-6 and 3.7-7, the project and the Active Adult option would not conflict with the applicable strategies and measures in the 2017 Scoping Plan and 2022 Scoping Plan, respectively.

The 2045 carbon neutrality goal required CARB to expand proposed actions in the 2022 Scoping Plan to include those that capture and store carbon in addition to those that reduce only anthropogenic sources of GHG emissions. However, the 2022 Scoping Plan emphasizes that reliance on carbon sequestration in the state's natural and working lands will not be sufficient to address residual GHG emissions, and achieving carbon neutrality will require research, development, and deployment of additional methods to capture atmospheric GHG emissions (e.g., mechanical direct air capture). Given that the specific path to neutrality would require development of technologies and programs that are not currently known or available, the project's role in supporting the statewide goal would be speculative and cannot be wholly identified at this time. Therefore, the project would not be consistent with state GHG reduction targets and CARB's Scoping Plan.

Potential to Conflict with the Sacramento Area Council of Governments 2020 Metropolitan Transportation Plan/Sustainable Communities Strategy

As discussed in Section 3.7.2, for the 2020 MTP/SCS, CARB assigned SACOG a GHG reduction target from passenger vehicles of 19% below 2005 levels per capita by 2035. There are many factors that influence the amount people drive and the emissions their vehicles generate. Two of these factors are largely outside of the region's control. First, changes in auto operating cost related to the cost of owning and driving a vehicle (e.g., maintenance, tires, insurance) and second, demographic factors like aging of the population (SACOG 2019). To achieve the GHG reduction target, SACOG identified five additional factors related to policies and actions in the 2020 MTP/SCS, which are outlined in Table 3.7-8 below. As shown in the table, the proposed project would not conflict with any of the MTP/SCS policies and actions. Given the similarities between the proposed project and the Active Adult option,

the Active Adult option would also be consistent with applicable MTP/SCS policies and actions and there would be no change in the analysis provided below.

Table 3.7-8. Project Potential to Conflict with 2020 MTP/SCS Policies and Actions

Action	Potential to Conflict
Shortened Vehicle Trips	
Reducing the average trip length of the vehicle trips that residents take daily. This is accomplished largely through a more compact development pattern with a greater density of uses.	No conflict. As described previously, the project would potentially result in reduced regional VMT and would be considered local serving.
Increased Transit, Bike, Walk Trips	
Shifting trips from vehicle travel (which generate passenger vehicle GHGs) to non-vehicle modes such as transit, biking, and walking.	No conflict. Based on the project's configured uses, and its location, the project would serve the local community by providing a park and a small neighborhood commercial use (if approved) where visitors could walk and bike, rather than driving to parks or commercial uses that are farther away. The project also proposes Class I bike facilities and would connect to existing trails.
Express Lanes and Pay-As-You-Go Fees	
Price signals are an important factor in predicting how people will travel. Transitioning away from the California fuel tax, which will diminish on a per-mile-traveled basis over time, to tolling and a pay-as-you-go or mileage-based fee, will not only help generate revenue to build and maintain the system, but help to better manage demand on that system.	No conflict. As this action pertains to shifting price signals in the region, the project would not obstruct or interfere with its implementation.
ITS/TSM	
Implementing intelligent transportation systems (ITS) and transportation system management (TSM), will smooth traffic flows which have the benefits of making the system more reliable, making better use of existing travel lanes, and reducing emissions from vehicles.	No conflict. As this action pertains implementing ITS/TSM in the region, the project would not obstruct or interfere with its implementation.
Electric Vehicles	
Locally funded and implemented programs that incentivize the use of EVs and accelerate the penetration of these vehicles into the regional market.	No conflict. The project would support the transition from fossil fuel EVs through its provision of EV chargers.

Source: SACOG 2019.

Based on the analysis above, the project as well as the Active Adult option would be consistent with SACOG's 2020 MTP/SCS.

Conclusion

Based on the information presented above, the proposed project as well as the Active Adult option could be considered to generate GHG emissions during operations that would have a significant impact on the environment.

In addition, project consistency with BMP-1 and BMP-2 cannot be assured at this time. Therefore, the proposed project including the Active Adult option could conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs. Consequently, the project's impact would be **potentially significant**.

Mitigation Measures

See mitigation measure GHG-1. Implementation of GHG-1 would ensure the project (and the Active Adult option) would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing GHG emissions. Compliance with this mitigation measure would reduce the impact to a **less-than-significant level** by not including natural gas, incorporation of EV parking spaces, and with the purchase of carbon offset credits.

GHG-2: Implement mitigation measure GHG-1.

Cumulative Impacts

Global climate change is inherently a cumulative impact; a project participates in this potential impact through its incremental contribution combined with the cumulative increase of all other sources of GHGs. As previously discussed above, the project's GHG emissions contribute to the overall contribution of cumulative GHGs. As shown under Impacts 3.7-1 and 3.7-2, the project would be required to incorporate mitigation measure GHG-1 in order to ensure that the project's contribution to GHG emissions would be **less than significant.**

Mitigation Measures

No mitigation measures are required.

3.7.5 References

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3.8 Hydrology and Water Quality

This section describes potential adverse effects of the Creekside Village Specific Plan (proposed project or CVSP) on hydrology, water quality, drainage, and groundwater resources. Potential effects evaluated include those associated with grading and drainage changes within the CVSP area (project site or plan area), groundwater recharge, groundwater use, water quality, and stormwater runoff. Included in this discussion is a description of the existing environmental setting, and a summary of applicable laws, regulations, and agencies responsible for their implementation and oversight.

Public comments received in response to the November 6, 2020, Notice of Preparation (NOP) and the follow up second scoping meeting held on September 26, 2023, did not include any concerns related to hydrology or water quality. A copy of the NOP and comments received is included in Appendix A.

Main sources referenced to prepare this section include the Drainage Report Creekside Village prepared by CTA Engineering & Surveying (Appendix F), Geotechnical Feasibility Study for Creekside Village (Geotechnical Study) prepared by Youngdahl Consulting Group, Inc. (see Appendix D), Phase I Environmental Site Assessment (ESA) prepared by ENGEO (ENGEO 2016), and public agency reports, web map viewers, and databases. This includes U.S. Geological Survey (USGS) hydrography data, California Department of Water Resources (DWR) groundwater resource information, State Water Resources Control Board (SWRCB) water resource data, and flood information from the Federal Emergency Management Agency (FEMA).

3.8.1 Environmental Setting

Regional Watershed

The project site is located within the Cosumnes River watershed. The Cosumnes River flows approximately 52.5 miles west from the western slope of the Sierra Nevada Mountain range into the Central Valley, where the river merges with the Mokelumne River, which then flows to the Sacramento-San Joaquin Delta (Water Education Foundation 2020). The major tributaries flowing directly into the Cosumnes River are the South, Middle, and North Fork Cosumnes rivers, and Canyon Creek (El Dorado County 2003). Both Deer Creek and Carson Creek are also tributaries to the Cosumnes River (El Dorado County 2003). The majority of the project site (approximately 199.5 acres) is located within the Carson Creek subwatershed of the larger Cosumnes River watershed, while approximately 8.5 acres is located within the Upper Deer Creek subwatershed, as shown on Figure 3.8-1 (USGS 2020). Carson Creek flows to Deer Creek which then flows to the Cosumnes River (USGS 2020).

Topography and Drainage

As described in Chapter 2, Project Description, the project site consists of approximately 208 acres of land located on the west side of Latrobe Road, south of Investment Boulevard, directly adjacent to the southern boundary of the El Dorado Hills Business Park. The site is comprised of undeveloped grasslands covering gently rolling hills with broad valleys. There are three seasonal drainages that cross the project site and merge at the western boundary to form one intermittent drainage that drains offsite towards Carson Creek, which is located approximately 0.6 miles to the west. Deer Creek is located approximately 1 mile to the south.

The topography of the site generally slopes to the west, with the elevation ranging from 470 feet along the western boundary to a high of 640 feet above mean sea level in the southeast corner. Approximately 80% of the

project site contains slopes of less than 10%; 16% contains slopes of between 11% and 20%; 3% contains slopes of between 21% and 29%; and the remaining 1% of the plan area contains slopes of 30% or greater (CTA Engineering & Surveying Undated).

Climate

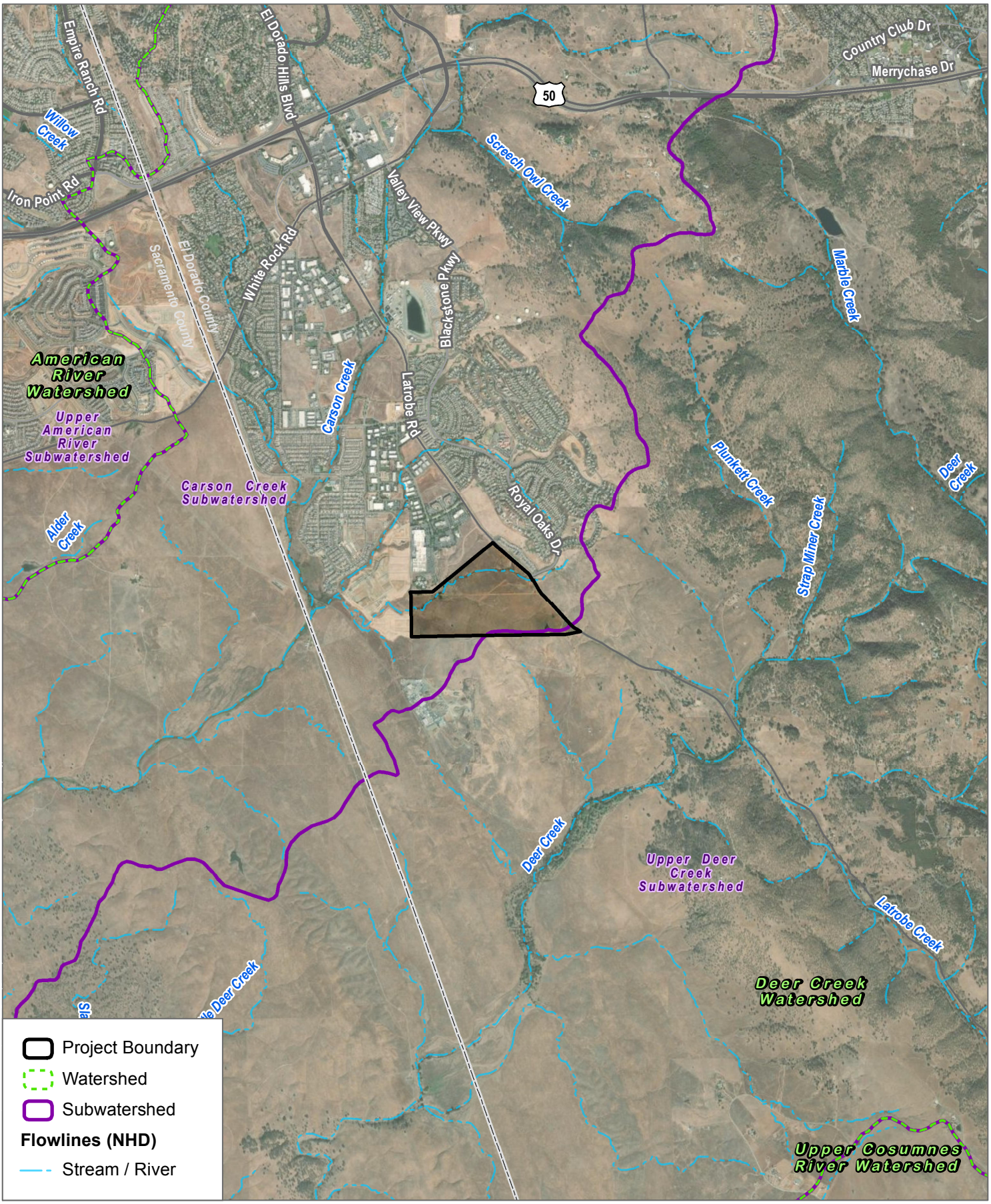
The climate of western El Dorado County (County) is characterized as Mediterranean, with cool wet winters and warm dry summers. The average annual high temperature is approximately 73.1 degrees Fahrenheit (ºF), and the average annual low temperature is approximately 49.8º F (WRCC 2012). However, during the summer and fall months temperatures can exceed 90º F. The mean annual rainfall is approximately 18.15 inches, and primarily occurs from October through April (WRCC 2023). Annual rainfall has varied from approximately 6.67 inches (1976) to approximately 37.62 inches (1983), with a highest one-day precipitation total of approximately 5.28 inches during the period of 1877 to 2023 (WRCC 2023).

Local Geologic and Groundwater Conditions

The Geotechnical Study prepared for the project (Appendix D) indicates that, based on investigations in the vicinity of the project site, the subsurface conditions on the project site likely consist of silty clay and clayey silt soils overlying metavolcanic bedrock.[1] There are numerous outcrops of shallow bedrock protruding out of the ground along the northeastern portion of the project site. Groundwater is anticipated to occur at depths greater than 100 feet below the ground surface; however, due to relatively shallow bedrock, it is likely that perched water is located near the soil and bedrock contact at the project site. The geologic and soils conditions within the project site are discussed further in Section 3.6, Geology and Soils.

The Department of Water Resources (DWR), California's Groundwater (Bulletin 118), is the state's official publication on the occurrence and nature of groundwater in California. The publication defines the boundaries and describes the hydrologic characteristics of groundwater basins within the entire state. Bulletin 118 also provides information on groundwater management and recommendations for the future (DWR 2020a). According to DWR Groundwater Basin Boundary Assessment Tool, no defined groundwater basins underly the project site (DWR 2020b).

[1] Metavolcanic rock is a rock that was first produced by a volcano and was then buried and subjected to high pressures and temperatures, causing the rock to recrystallize.



SOURCE: ESRI Imagery 2024; Open Street Map 2019; USGS NHD 2022; USFWS NWI 2022

DUDEK

0 2,000 4,000 Feet

FIGURE 3.8-1

Hydrologic Setting

Creekside Village Specific Plan EIR

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Flood Hazard Areas

Flood zones identified on FEMA Flood Insurance Rate Maps (FIRMs) are identified as a Special Flood Hazard Area. A Special Flood Hazard Area is defined as the area that will likely be inundated by a flood event having a 1% chance of being equaled or exceeded in any given year. The 1%-annual-chance flood is also referred to as the base flood or 100-year flood. FEMA mapping indicates that the project site is located within an area designated Zone X (Area of Minimal Flood Hazard) (FEMA 2008). Zone X is considered to be an area outside of a Special Flood Hazard Area and higher than the elevation of the 0.2% annual (500-year) chance flood (FEMA 2008).

A dam failure can occur due to an earthquake, an isolated incident because of structural instability, or during heavy stormwater runoff that exceeds spillway design capacity. Nine dams located within the County have been identified as having the potential of inundating habitable portions of the County in the unlikely event of dam failure. These nine dams are Echo Lake Dam, Union Valley Dam, Ice House Dam, Chili Bar Reservoir, Stumpy Meadows Dam, Weber Creek Dam, Slab Creek Dam, Loon Lake Auxiliary Dam, and Blakely Dam. According to the Division of Safety of Dams (DSOD), the project site is not located within a dam inundation zone (DSOD 2023). The nearest DSOD jurisdictional dam is associated with the Carson Creek Reservoir, known as the El Dorado Hills Dam, and the inundation map for this dam does not intersect the site (DSOD 2023). The project site is located hundreds of miles inland and due to the lack of large nearby lakes or reservoirs, the project site is not within an area prone to sea level rise, tsunami or seiche hazards.

Water Quality

The quality of surface water and groundwater in the vicinity of the project site is affected by past and current land uses within the site and the watershed and the composition of geologic materials in the vicinity. The SWRCB and nine regional water quality control boards regulate the quality of surface water and groundwater bodies throughout California. The Central Valley Regional Water Quality Control Board (CVRWQCB), among various other agencies, regulates water quality within the Upper American River Watershed, and is responsible for implementing the Water Quality Control Plan for the Sacramento River Basin and the San Joaquin River Basin (Basin Plan) (CVRWQCB 2019). The Basin Plan establishes beneficial water uses for waterways and water bodies within the region and is a master policy document for managing water quality in the region. The existing and proposed beneficial uses of the Upper American River Watershed is shown in Table 3.8-1, Beneficial Uses.

Under Section 303 (d) of the Clean Water Act (Clean Water Act) (described in the Regulatory Setting), states must present the U.S. Environmental Protection Agency (EPA) with a list of “impaired water bodies,” defined as those water bodies that do not meet water quality standards, which in some cases results in the development of a total maximum daily load (TMDL). TMDLs specify the maximum amount of a pollutant a water body can receive and still meet water quality standards. On a broad level, the TMDL process leads to a “pollution budget” designed to restore the health of a polluted body of water. The TMDL process provides a quantitative assessment of the sources of pollution contributing to a violation of the water quality standards and identifies the pollutant load reductions or control actions needed to restore and protect the beneficial uses of the impaired waterbody.

Table 3.8-2 lists the 303(d) impairments for Carson Creek (from the Serrano Parkway to Deer Creek), Deer Creek (Sacramento County), and Cosumnes River, Lower (below Michigan Bar, partly in Delta Waterways, eastern portion). There are no 303(d) impairments listed for Deer Creek. The Cosumnes River is listed as impaired for indicator bacteria, invasive species, mercury, dissolved oxygen, and toxicity under Category 5 in the SWRCB Integrated Report, which includes waters where at least one beneficial use is not supported, and a TMDL is required. Carson Creek (from Serrano Parkway to Deer Creek) is listed as a Category 3 surface water where there

is insufficient information to assess beneficial use support, but some uses may be potentially threatened aldrin, aluminum, heptachlor epoxide, iron, manganese, PCBs, and specific conductivity, pH, copper, and dissolved oxygen (SWRCB 2022).

There is no water quality testing data presently available for the seasonal drainages that cross the project site. The Phase I ESA prepared for the project (ENGEO 2016) indicates that there have been no known releases of hazardous materials within the project site, and due to the undeveloped nature of the project site it is anticipated water quality is likely of good quality, and representative of natural conditions.

Table 3.8-1. Beneficial Uses

Surface Water Bodies	MUN	AGR		REC-1		REC-2	WARM	COLD	MIGR		SPWN		WILD
	Municipal and Domestic Supply	Irrigation	Stock Watering	Contact	Canoeing and Rafting	Other Noncontact	Warm	Cold	Warm (3)	Cold (4)	Warm (3)	Cold (4)	Wildlife Habitat
Cosumnes River, Source to Delta	E	E	E	E	E	E	E	E	E	E	E	E	E
Mokelumne River, Camanche Reservoir to Delta		E	E	E	E	E	E	E	E	E	E	E	E

Source: CVRWQCB 2019.
Notes: There are no beneficial uses listed for Carson Creek and Deer Creek.
Legend:

E	Existing Beneficial Uses
MUN	Municipal and Domestic Supply
AGR	Agricultural Supply – Irrigation and Stock Watering
REC-1	Water Contact Recreation and/or Canoeing and Rafting
REC-2	Non-contact Water Recreation
WARM	Warm Freshwater Habitat
COLD	Cold Freshwater Habitat
MIGR	Migration of Aquatic Organisms
SPWN	Spawning, Reproduction, and/or Early Development
WILD	Wildlife Habitat

Table 3.8-2. Water Quality Impairments

Water Body	2022 303(d) List of Water Quality Impairments	Source and TMDL Status
Carson Creek (from Serrano Parkway to Deer Creek)	aldrin, aluminum, heptachlor epoxide, iron, manganese, PCBs, and specific conductivity, pH, copper, and dissolved oxygen.[1]	NA
Deer Creek (Sacramento County)	None	NA
Cosumnes River, Lower (below Michigan Bar, partly in Delta Waterways, eastern portion)	Indicator bacteria Invasive species, Mercury, Dissolved Oxygen, and Toxicity	Sources of these pollutants are unknown. TMDLs are required but have not yet been developed.

Source: SWRCB 2022.
Notes:
PCBs = Polychlorinated biphenyl
WWTP = Wastewater Treatment Plant
NA = Not Applicable
TMDL = total maximum daily load
[1] Impairments listed as Category 3 which are defined as having insufficient information to assess beneficial use support, but some uses may be potentially threatened.

3.8.2 Regulatory Setting

Federal Regulations

Clean Water Act

Increasing public awareness and concern for controlling water pollution led to the enactment of the Federal Water Pollution Control Act Amendments of 1972. As amended in 1977, this law became commonly known as the Clean Water Act (33 USC 1251 et seq.). The objective of the Clean Water Act is to restore and maintain the chemical, physical, and biological integrity of the waters of the United States. The Clean Water Act established basic guidelines for regulating discharges of pollutants into the waters of the United States. The Clean Water Act requires that states adopt water quality standards to protect public health, enhance the quality of water resources, and ensure implementation of the Clean Water Act.

National Pollutant Discharge Elimination System (NPDES) Permit Program

The Clean Water Act was amended in 1972 to provide that the discharge of pollutants to waters of the United States from any point source is unlawful unless the discharge is in compliance with a National Pollutant Discharge Elimination System (NPDES) Permit. The NPDES permit program, as authorized by Section 402 of the Clean Water Act, was established to control water pollution by regulating point sources that discharge pollutants into waters of the United States (33 USC 1342). In the State of California, the U.S. Environmental Protection Agency (USEPA) has authorized the SWRCB with permitting authority to implement the NPDES Program.

State Regulations

Section 303 of the Clean Water Act (Beneficial Uses and Water Quality Objectives)

The CVRWQCB is responsible for the protection of the beneficial uses of waterways within their jurisdiction. The proposed project is located within the CVRWCQB regulatory boundaries. The CVRWQCB uses its planning, permitting, and enforcement authority to meet its responsibilities adopted in the Basin Plan to implement plans, policies, and provisions for water quality management.

In accordance with state policy for water quality control, the CVRWQCB employs a range of beneficial use definitions for surface waters, groundwater basins, marshes, and mudflats that serve as the basis for establishing water quality objectives and discharge conditions and prohibitions. The Basin Plan for the Central Valley has identified existing and potential beneficial uses supported by key surface water drainages throughout its jurisdiction. Under Clean Water Act Section 303(d), the state is required to develop a list of impaired water bodies that do not meet water quality standards and objectives. A total daily maximum load (TMDLs) action plan defines how much of a specific pollutant/stressor a given water body can tolerate and still meet relevant water quality standards. The CVRWQCB has developed TMDLs for select reaches of water bodies which includes Carson Creek, Deer Creek and Cosumnes River, as shown in Table 3.8-2.

Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act (known as the Porter-Cologne Act), passed in 1969, dovetails with the Clean Water Act (see discussion of Clean Water Act above). It established the SWRCB and divided the state into nine regions, each overseen by a Regional Water Quality Control Board (RWQCB). The SWRCB is the primary state agency responsible for protecting the quality of the state's surface water and groundwater supplies; however, much of the SWRCB's daily implementation authority is delegated to the nine RWQCBs, which are responsible for implementing Clean Water Act Sections 401, 402, and 303(d). In general, SWRCB manages water rights and regulates statewide water quality, whereas RWQCBs focus on water quality within their respective regions.

The Porter–Cologne Act requires RWQCBs to develop water quality control plans (also known as basin plans) that designate beneficial uses of California's major surface-water bodies and groundwater basins and establish specific narrative and numerical water quality objectives for those waters. Beneficial uses represent the services and qualities of a waterbody (i.e., the reasons that the waterbody is considered valuable). Water quality objectives reflect the standards necessary to protect and support those beneficial uses. Basin plan standards are primarily implemented by regulating waste discharges so that water quality objectives are met. Under the Porter-Cologne Act, basin plans must be updated every 3 years. The Basin Plan for the Central Valley was last updated February 2019.

NPDES Construction General Permit

Construction projects disturbing more than 1- acre of land are required to comply with the NPDES General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities, Order No. 2021-0057-DWQ, NPDES No. CAS000002 (Construction General Permit).

To obtain coverage under the Construction General Permit, the project applicant must provide via electronic submittal, a Notice of Intent, a Storm Water Pollution Prevention Plan (SWPPP), and other documents required by Attachment B of the Construction General Permit. Activities subject to the Construction General Permit include

clearing, grading, grubbing, and/or excavation. The permit also covers linear underground and overhead projects such as pipeline installations. Construction General Permit activities are regulated in the County by the CVRQCB.

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

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

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

NPDES Small MS4 Permit

Pursuant to Section 402 of the Clean Water Act and the California Porter-Cologne Water Quality Control Act, municipal stormwater discharges at the project site are regulated under the statewide NPDES General Permit for the Discharge of Storm Water from Small Municipal Separate Storm Sewer Systems (Small MS4 Permit). Locally, the NPDES program is overseen by the CVRWQCB. Implementation of the program elements is the responsibility of the small MS4 operator, which is usually either a city, county, community services district, or special district. Development projects in the County are subject to compliance with requirements of the current Small MS4 Permit, issued in February 2013 by State Water Board Order 2013-0001-DWQ. The Storm Water Management Plan for western El Dorado County (described below under Local Regulations) presents the program implemented by the County to reduce the discharge of pollutants in accordance with the Small MS4 Permit.

The Small MS4 Permit consists of the following program elements: Program Management, Public Involvement/Participation, Illicit Discharge Detection and Elimination, Construction Site Storm Water Runoff Control, Pollution Prevention/Good Housekeeping for Permittee Operations, Post Construction Storm Water Management for New Development and Re-development, Water Quality Monitoring Requirements, Program Effectiveness Assessment, and Annual Reporting. Besides requiring implementation of construction site BMPs, and performance criteria and design guidelines for development within the small MS4s service area, the Small MS4 Permit also requires operators to map their outfalls, properly maintain the storm drain system, educate the public on pollution prevention, and monitor and report on the quality of MS4 discharges to receiving waters, so that the effectiveness of the program can be evaluated. Collectively, the program elements are designed to ensure

discharges from the storm drain system do not contain pollutant loads at levels that violate water quality standards and Basin Plan objectives and policies (such as a TMDL for a Section 303(d) impaired water body).

Of particular relevance to the proposed project is that the Small MS4 Permit requires regulated projects[2] to implement post-construction measures in the form of site design, source control, stormwater treatment measures, and baseline hydromodification management measures to reduce the discharge of pollutants in storm water to the Maximum Extent Practicable.[3] These include:

- **Source Control Measures:** Source control measures seek to avoid introduction of water quality pollution/degradation altogether. Source control strategies include strategies such as covering refuse/trash areas, properly managing outdoor storage of equipment/materials, minimizing use of pesticides and fertilizers in landscaping, using sumps or special area drains to send non-stormwater discharges to the sewer, ensuring regular grounds maintenance, etc.
- **Site Design Measures:** Site design measures require early assessment and evaluation of how site conditions, such as soils, vegetation, and flow paths, will influence the placement of buildings and paved surfaces. The evaluation is used to meet the goals of capturing and treating runoff and maximizing opportunities to mimic natural hydrology. Options for site design measures include preserving trees, buffering natural water features, disconnecting impervious surfaces, and using green roofs or porous pavement.
- **Treatment Control Measures:** Treatment control measures retain, treat and/or infiltrate the site runoff produced under normal circumstances, controlling both the quality and quantity of stormwater released to the stormwater conveyance system and natural receiving waters. In most situations, this means implementing structural BMPs (e.g., infiltration, bioretention, and/or rainfall harvest and re-use) to address the volume and rate of runoff produced by an 85th percentile storm4 (i.e., design capture volume). The Small MS4 Permit requires regulated projects to prioritize stormwater capture (e.g., infiltration and/or harvest and re-use) unless site conditions (e.g., low-permeability soils) make it infeasible.
- **Hydromodification Measures:** Hydromodification measures are required for projects that create or replace one or more acres of impervious surfacing, so that post-project runoff shall not exceed the estimated pre-project flow rate for the 2-year, 24-hour storm. If the project creates or replaces less than 1 acre of impervious surfaces and demonstrates that post-project flows from the site are less than pre-project flows, then no hydromodification measures from Section E.12.e.(ii)(f) of the Phase II Small MS4 General Permit are required.
- **Operation and Maintenance Requirements:** The Small MS4 Permit requires that maintenance agreements stay in place with each property (executed and then recorded with the County Clerk) to ensure permanent treatment control measures developed on site are properly maintained and/or repaired in accordance with the stormwater quality control plan.

The aforementioned site design, treatment control, and hydromodification measures are often collectively referred to as “Low Impact Development” standards (or LID design). LID design employs principles such as preserving and

[2] Regulated Projects are defined in Section E.12.c of Water Quality Order 2013-0001-DWQ and include all projects that create and/or replace 5,000 square feet or more of impervious surface, not including: detached single-family home projects that are not part of a larger plan of development; interior remodels; routine maintenance or repair within the existing footprint; or linear underground/overhead projects.

[3] The Maximum Extent Practical standard involves applying BMPs that are effective in reducing the discharge of pollutants in stormwater runoff. The Maximum Extent Practical requires permittees to choose effective BMPs, and to reject applicable BMPs only where other effective BMPs will serve the same purpose, the BMPs would not be technically feasible, or the cost would be prohibitive.

[4] The 85th percentile storm represents a value of rainfall, in inches, such that 85% of the observed 24-hour rainfall totals within the historical record will be less than that value.

recreating natural landscape features and minimizing impervious surfaces to create functional and appealing site drainage that treats stormwater as a resource, rather than as a waste product. LID measures provide effective stormwater treatment by filtering pollutants and sequestering them within soils.

Local Regulations

El Dorado County Design and Improvement Standards Manual

The purpose of the County's Design and Improvement Standards Manual is to standardize development practices used in the hillside environment that is prevalent in the County and to minimize the environmental effects of construction. The manual provides requirements for the land capability reports that must be submitted as part of development projects, including reports related to surface water, geology, traffic, and noise. The manual also includes design standards for the development of subdivisions, including standards related to water supply, fire protection, sewage collection, underground power and communications infrastructure, and drainage. Volume III of the manual provides guidance on how to implement the erosion and sediment control standards in Chapter 110.14 (Grading, Erosion, and Sediment Control) of the County Code (Grading Ordinance).

El Dorado County Ordinance Code - Grading Ordinance

Chapter 110.14 (Grading, Erosion, and Sediment Control) of the County Ordinance Code (Grading Ordinance) regulates grading within unincorporated areas of the County in order to protect the public and avoid pollution of watercourses. Chapter 110.14 enforces the procedures in Volume III: Grading, Erosion and Sediment Control of the Design Improvement Standards Manual (Grading Manual) (County of El Dorado 2007). The Grading Manual includes standards for geotechnical, geologic, drainage, and soil studies that are required for development projects.

The Grading Plan must be prepared by a professional civil engineer. An Erosion and Sediment Control Plan (ESCP) must also be submitted whenever:

- The graded portion of the site includes more than 10,000 square feet of area for a non-agricultural grading project or more than one acre of area for an agricultural grading project.
- There is a significant risk that more than 2,500 square feet will be unprotected or inadequately protected from erosion during any portion of the rainy season.
- Grading will occur within 20 feet of any pre-existing watercourse.
- Grading would occur within the 100-year event flood plain.
- The Director determines that the grading could potentially result in significant erosion or sediment discharge.

The ESCP must be designed to prevent increased discharge of sediment at all stages of grading and development, from initial disturbance of the ground to project completion, and shall be consistent with all local, state, and federal rules and regulations. It must include an effective revegetation program to stabilize all disturbed areas that will not be otherwise protected.

El Dorado County Drainage Manual (Drainage Manual)

The El Dorado County Drainage Manual (Drainage Manual) (El Dorado County 2020) establishes the computational techniques and criteria required for the performance of hydrologic and hydraulic analysis and design of stormwater drainage facilities within the County. The guidelines established by the Drainage Manual are intended to support the design of discretionary applications such as tentative subdivision maps and parcel maps. The Drainage Manual

is intended to be applied to projects concurrently with the Design and Improvement Standards Manual and the Grading Ordinance.

The Drainage Manual requires subdivisions to be designed to receive surface water, stream water, and flood water emanating from outside its boundaries and from within and passing such water through and off the subdivision without injury to improvements, buildings or building sites and without adversely impacting or exceeding the capacity of existing downstream drainage facilities. Surface waters shall be discharged into the natural watercourse to which they would normally drain. If surface waters are gathered, they must be conveyed under control to a water course.

The levels of risk and protection for drainage facilities in the county applicable to the proposed project are defined in the Drainage Manual as follows:

- Those watercourses set forth in master drainage plans for specific catchments within El Dorado County shall be designed and constructed not to exceed the quantities of water indicated in such master drainage plans when said plans are adopted. All other watercourses and drainage ways shall be designed by a civil engineer in accordance with the criteria described herein.
- Drainage facilities for areas greater than 100 acres shall be designed to safely convey the storm runoff from an event with an average recurrence interval of 100 years. All available headwater depth of the culvert may be utilized for these facilities. Flooding effects from back water shall be analyzed when available headwater depth is incorporated into the design.
- The use of natural channels for the collection and conveyance of stormwater runoff is preferred.
- The depth of flow or ponding shall not exceed a level which would cause inundation of building sites. One foot of freeboard shall be maintained between the building finished floor elevation and the water surface elevation resulting from a storm runoff event with an average recurrence interval of 100 years.
- Depressed areas that create ponding which encroach into the traveled land will not be allowed in El Dorado County.
- Depressed areas that create ponding due to site grading will generally not be allowed.

The submittal of a hydrologic and hydraulic analysis is required for all proposed drainage facilities. Provisions in the Grading Ordinance also require submittal of a grading and drainage plan when surface drainage is discharged onto any adjoining property. An analysis of the effect of the discharge is required to be included with the submittal. The Drainage Manual notes that stormwater drainage facilities must meet both drainage and water quality treatment requirements. The County's water quality treatment requirements are addressed in the Storm Water Management Plan for western El Dorado County, described below.

Storm Water Management Plan for Western El Dorado County

The County developed a Storm Water Management Plan (SWMP) that identifies how the County will comply with the provisions of the Small MS4 Permit. It describes the minimum procedures and practices the County uses to reduce the discharge of pollutants to storm drainage systems owned or operated by the County. The SWMP addresses stormwater pollution control related to project planning, design, construction, and maintenance activities throughout the unincorporated area of western El Dorado County (that portion of the county within the jurisdiction of the CVRWQCB, excluding the Tahoe Basin). In addition, the SWMP addresses assignment of responsibilities within the county for implementing stormwater management procedures and practices and training, public education and outreach, monitoring and research, program evaluation, and reporting activities (County of El Dorado 2004).

El Dorado County Storm Water Quality Ordinance

On May 19, 2015, the County Board of Supervisors formally adopted revisions to the Storm Water Quality Ordinance (Ordinance 4992). The ordinance establishes the County's legal authority to implement the requirements of the Small MS4 Permit by:

1. Prohibiting illicit discharges to a stormwater facility;
2. Establishing authority to adopt requirements for stormwater management, including source control requirements, to reduce pollution to the maximum extent practicable;
3. Establishing authority to adopt requirements for development projects to reduce stormwater pollution and erosion both during construction and after the project is complete; and
4. Establishing authority that will enable the County to implement and enforce any stormwater management plan adopted by the County.

Chapter 8.79 of the County's Title 8 Public Health and Safety Code provides the specifics of the County's Stormwater Quality Ordinance.

Carson Creek Regional Drainage Study

The Carson Creek Regional Drainage Study was completed in 1996 and updated in 2005 (2005 Update) for the 15-square-mile Carson Creek watershed, most of which is located in the southwestern portion of the county. The purpose of this drainage study was to provide a unified plan for stormwater management in the county's portion of the watershed. The study recognizes the drainage needs of individual projects, assesses the impacts of the proposed drainage improvements on the entire catchment area, and satisfies the requirements of the Drainage Manual.

The Carson Creek Regional Drainage Study uses results from previous drainage studies within the watershed, as well as land use information and drainage improvements included in the previous studies, to develop a regional drainage model. The 2005 Update incorporated revised parameters into the regional drainage model to reflect additional development in the lower watershed. The study concluded that runoff for the 100-year storm would result in minor downstream impacts in Sacramento County and that the increase in existing flood inundation areas would be negligible. The 2005 Update concluded that 100-year flows at key points along Carson Creek were substantially unchanged by the development in the lower watershed. The study recommended that future drainage improvements be designed and analyzed in context of the regional drainage model. Specific drainage improvements, such as culvert upgrades, channel improvements, and construction of a regional detention storage facility were also recommended (CTA Engineering & Surveying 2020).

El Dorado County General Plan

The County General Plan was adopted in 2004; the last amendment to the General Plan was December 10, 2019 (El Dorado County 2019). The Land Use Element of the General Plan contains goals and policies related to water supply and water quality protection (El Dorado County 2019). In addition, the Public Services and Utilities Element, the Public Health, Safety, and Noise Element, and the Conservation and Open Space Element contain goals and policies related to stormwater and flood infrastructure, mitigation of flood hazards, and preservation of water supply and quality, respectively (El Dorado County 2019). The following goals, objectives and policies apply to the proposed project:

Land Use Element

Goal 2.2: A set of land use designations which provide for the maintenance of the rural and open character of the County and maintenance of a high standard of environmental quality.

Objective 2.2.1: An appropriate range of land use designations that will distribute growth and development in a manner that maintains the rural character of the County, utilizes infrastructure in an efficient, cost-effective manner, and further the implementation of the Community Region, Rural Center, and Rural Region concept areas.

Policy 2.2.5.3: The County shall evaluate future rezoning: (1) To be based on the General Plan's general direction as to minimum parcel size or maximum allowable density; and (2) To assess whether changes in conditions would support a higher density or intensity zoning district. The specific criteria to be considered include, but are not limited to, the following:

- Availability of an adequate public water source or an approved Capital Improvement Project to increase service for existing land use demands;
- Availability and capacity of the public treated water system;
- Erosion hazard;
- Septic and leach field capability;
- Groundwater capability to support wells; and
- Proximity to a perennial watercourse.

Policy 2.2.5.14: Buffers shall be established around future water supplies and other public facilities to protect them from incompatible land uses. Such buffer lands should be contained on site where possible.

Public Services and Utilities Element

Goal 5.4: Storm Drainage. Manage and control stormwater runoff to prevent flooding, protect soils from erosion, prevent contamination of surface waters, and minimize impacts to existing drainage infrastructure.

Objective 5.4.1: Drainage And Flood Management Program. Initiate Countywide drainage and flood management program to prevent flooding, protect soils from erosion, and minimize impacts on existing drainage facilities.

Policy 5.4.1.1: Require storm drainage systems for discretionary development that protect public health and safety, preserve natural resources, prevent erosion of adjacent and downstream lands, prevent the increase in the potential for flood hazard or damage on either adjacent, upstream, or downstream properties, minimize impacts to existing facilities, meet the NPDES requirements, and preserve natural resources such as wetlands and riparian areas.

Policy 5.4.1.2: Discretionary development shall protect natural drainage patterns, minimize erosion, and ensure existing facilities are not adversely impacted while retaining the aesthetic qualities of the drainage way.

Policy 5.4.1.3: The County will evaluate the funding requirements for a maintenance, operation, and Infrastructure replacement program for regionally effective stormwater drainage management.

Public Health, Safety, and Noise Element

Goal 6.4: Flood Hazards. Protect the residents of El Dorado County from flood hazards.

Objective 6.4.1: Development Regulations. Minimize loss of life and property by regulating development in areas subject to flooding in accordance with FEMA guidelines, California law, and the El Dorado County Flood Damage Prevention Ordinance.

Policy 6.4.1.1: Continue participation in the NFIP and application of floodplain zoning regulations to qualify for flood insurance and disaster assistance.

Policy 6.4.1.2: Identify and delineate flood-prone study areas discovered during the completion of the master drainage studies or plans.

Policy 6.4.1.4: Creation of new parcels that lie entirely within the 100-year floodplain as identified on the most current version of the flood insurance rate maps provided by FEMA or dam failure inundation areas delineated in dam failure emergency response plans maintained by the County shall be prohibited.

Conservation and Open Space Element

Goal 7.3: Water Quality and Quantity. Conserve, enhance, and manage water resources and protect their quality from degradation.

Objective 7.3.1: Water Resource Protection. Preserve and protect the supply and quality of the County's water resources, including the protection of critical watersheds, riparian zones, and aquifers.

Policy 7.3.1.1: Encourage the use of BMPs, as identified by the Soil Conservation Service, in watershed lands as a means to prevent erosion, siltation, and flooding.

Policy 7.3.1.2: Establish water conservation programs that include both drought-tolerant landscaping and efficient building design requirements as well as incentives for the conservation and wise use of water.

Policy 7.3.1.3: The County shall develop the criteria and draft an ordinance to encourage domestic gray water for landscape irrigation purposes. (See Title 22 of the State Water Code and the Graywater Regulations of the Uniform Plumbing Code).

Objective 7.3.2: Water Quality. Maintenance of and, where possible, improvement of the quality of underground and surface water.

Policy 7.3.2.1: Stream and lake embankments shall be protected from erosion, and streams and lakes shall be protected from excessive turbidity.

Policy 7.3.2.2: Projects requiring a grading permit shall have an Erosion and Sediment Control Plan approved, where necessary.

Policy 7.3.2.3: Where practical and when warranted by the size of the project, parking lot storm drainage shall include facilities to separate oils and salts from stormwater in accordance with the recommendations of the Storm Water Quality Task Force's California Storm Water Best Management Practices Handbooks.

Policy 7.3.2.5: As a means to improve the water quality affecting the County's recreational waters, enhanced and increased detailed analytical water quality studies and monitoring should be implemented to identify and reduce point and non-point pollutants and contaminants. Where such studies or monitoring reports have identified pollution sources, the County shall propose means to prevent, control, or treat identified pollutants and contaminants.

Objective 7.3.4: Drainage. Protection and utilization of natural drainage patterns.

Policy 7.3.4.1: Natural watercourses shall be integrated into new development in such a way that they enhance the aesthetic and natural character of the site without disturbance.

Policy 7.3.4.2: Modification of natural stream beds and flow shall be regulated to ensure that adequate mitigation measures are utilized.

Objective 7.3.5: Water Conservation. Conservation of water resources, encouragement of water conservation, and construction of wastewater disposal systems are designed to reclaim and reuse treated wastewater on agricultural crops and other irrigation and wildlife enhancement projects.

Policy 7.3.5.1: Drought-tolerant plant species, where feasible, shall be used for landscaping of commercial development. Where the use of drought-tolerant native plant species is feasible, they should be used instead of non-native plant species.

Policy 7.3.5.2: A list of appropriate local indigenous drought-tolerant plant materials shall be maintained by the County Planning Department and made available to the public.

Policy 7.3.5.4: Require efficient water conveyance systems in new construction. Establish a program of ongoing conversion of open ditch systems shall be considered for conversion to closed conduits, reclaimed water supplies, or both, as circumstances permit.

Policy 7.3.5.5: Encourage water reuse programs to conserve raw or potable water supplies consistent with State Law.

Creekside Village Specific Plan

If the project is approved and the CVSP is adopted, the following design elements associated with project design would apply to hydrology and water quality, specifically stormwater management (CVSP 2023). The Stormwater Drainage Master Plan prepared for the proposed project would comply with the requirements of the County's Phase II NPDES permit as well as the County's hydromodification standards. The plan would include post development runoff controls that incorporate low impact development features, flow duration control basins and in-stream

approaches (e.g., stream embankment stabilization measures and flow metering at roadway culvert crossings) to drainage control.

3.8.3 Thresholds of Significance

Thresholds of significance are used to determine the significance of a project's environmental effects. Per Section 15064.7 of the CEQA Guidelines, a threshold is an identifiable quantitative, qualitative or performance level of particular environmental effect, non-compliance with which means the effect will normally be determined to be significant and compliance with normally means the effect will be determined to be less than significant. A significant impact would occur if development of the proposed project would do any of the following:

- Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality.
- Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin.
- Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:
  - i.) result in substantial erosion or siltation on or off site;
  - ii.) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on or off site;
  - iii.) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or
  - iv.) impede or redirect flood flows.
- Be inundated by a flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation.
- Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.

Significance Threshold Criteria Not Applicable to the Proposed Project

The project site is in an area of minimal flood hazard and thus has a low potential for flooding. Moreover, according to dam failure Inundation maps, the project site is not located within a dam inundation zone and thus would not be susceptible to inundation as a result of dam failure (DSOD 2023). As the project site is not located near the ocean nor an enclosed or semi-enclosed body of water, such as a lake or reservoir, there is no potential for tsunamis or seiches to affect the project site. As such, there would be no impact associated with releasing pollutants as a result of project inundation and this threshold is not discussed further.

3.8.4 Impacts and Mitigation Measures

Methodology

The Drainage Report (Appendix F), Geotechnical Feasibility Study (Appendix D), Phase I Environmental Site Assessment (ENGEO 2016), project plans, and publicly available resources related to hydrology and water quality were reviewed to determine if the proposed project would directly or indirectly result in adverse effects related to hydrology and water quality.

Implementation of the CVSP must be consistent with the County's General Plan goals and policies, and all applicable federal, state and local regulations such as the CWA, NPDES Permit requirements, and County ordinances. Therefore, such policies and standards are not identified as mitigation, and compliance with relevant goals, policies, and federal, state or County requirements are instead described within the impact analysis.

As described in Chapter 2, Project Description, the project includes two development options. The first option would be to convert the 1.8-acres of neighborhood commercial to park uses if neighborhood commercial is not adopted as part of the Specific Plan. The second option proposes construction of up to 768 age-restricted units and 150 conventional homes. The potential impacts to hydrology and water quality are not expected to be different with implementation of either option because the development footprint, intensity, and disturbed area would remain the same as under the proposed project. Therefore, the impact analysis below would be the same under both options as the proposed project.

Project Impacts

Impact 3.8-1. The proposed project would not violate water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality.

Construction

The proposed project would result in the development of approximately 163 acres of currently vacant land into mixed land uses, leaving roughly 45 acres in undeveloped open space. Ground disturbance activities would include substantive grading, installing utilities, and excavations for construction of building foundations. No import or export of fill would be required. As such, the proposed construction activities would disturb site soils and potentially expose them to the effects of wind and water erosion such that sediments are transported offsite if construction activities are not managed appropriately.

The analysis of potential impacts of construction activities, construction materials, and non-stormwater runoff on water quality during the site clearing and construction phase focuses primarily on sediment and certain non-sediment-related pollutants. Construction-related activities that primarily result in sediment releases are related to exposing previously stabilized soils to potential erosion by rainfall/runoff and wind. Such activities include the removal of impervious surfaces and grading of the site. Environmental factors that affect erosion include topography, soil, and rainfall characteristics. Erosion and sedimentation affect water quality and interferes with photosynthesis; oxygen exchange; and the respiration, growth, and reproduction of aquatic species. Additionally, other pollutants, such as nutrients, trace metals, and hydrocarbons, can attach to sediment and be transported to the three onsite drainages that continue on to downstream receiving waters, including the Carson Creek and the Cosumnes River, which could contribute to the degradation of water quality. Furthermore, during grading and temporary stockpiling of soil, there is the potential for soil migration off site via wind (Section 3.2, Air Quality, for further discussion of construction generated air quality impacts).

Non-sediment-related pollutants that are also of concern during construction include construction materials (e.g., paint, stucco); chemicals, liquid products, and petroleum products used in building construction or the maintenance of heavy equipment; and concrete-related pollutants.

The County is a co-permittee under the El Dorado County Municipal Phase II NPDES Small MS4 Permit. The MS4 Permit requires the County to enact construction related BMPs to prevent construction site discharges of pollutants and impacts on beneficial uses of receiving waters. To comply with the provisions of the MS4 Permit, the County

requires the implementation of an ESCP prior to permit issuance for building, grading, or land clearing activities. The ESCP must be consistent with the General Plan, the CVSP, the SWMP, and applicable County ordinances (County of El Dorado 2020).

To fulfill the regional requirements of the ESCP as well as ensure that the proposed project would not result in the incidental release of pollutants during construction activities, the project applicant or developer would comply with the provisions of the NPDES General Permit for Storm Water Associated with Construction Activities (Order No. 2022-0057-DWQ, NPDES No. CAS000002), also known as the Construction General Permit. Because the proposed project is greater than 1 acre in size, future developers would be required to submit a Notice of Intent to the CVRWQCB in order to obtain approval to complete construction activities under the Construction General Permit. This Permit would include a number of design, management, and monitoring requirements for the protection of water quality and the reduction of construction phase impacts related to stormwater (and some non-stormwater) discharges. Permit requirements would include the preparation of a SWPPP, implementation and monitoring of BMPs, implementation of best available technology for toxic and non-conventional pollutants, implementation of best conventional technology for conventional pollutants, and periodic submittal of performance summaries and reports to the CVRWQCB. The SWPPP would apply to the project and would include reference to the major construction areas, materials staging areas, and haul roads. Typical BMPs that could be incorporated into the SWPPP to protect water quality include the following:

- Diverting off-site runoff away from the construction site
- Vegetating landscaped/vegetated swale areas as soon as feasible following grading activities
- Placing perimeter straw wattles to prevent off-site transport of sediment
- Using drop inlet protection (filters and sandbags or straw wattles), with sandbag check dams within paved areas
- Regular watering of exposed soils to control dust during construction
- Implementing specifications for construction waste handling and disposal
- Using contained equipment wash-out and vehicle maintenance areas
- Maintaining erosion and sedimentation control measures throughout the construction period
- Stabilizing construction entrances to avoid trucks from imprinting soil and debris onto adjoining roadways
- Training, including for subcontractors, on general site housekeeping

Incorporation of required BMPs for materials and waste storage and handling, and equipment and vehicle maintenance and fueling would reduce the potential discharge of polluted runoff from construction sites, consistent with the NPDES General Construction Permit, SWMP, and County Ordinances. Compliance with existing regulations would prevent violation of water quality standards and minimize the potential for contributing sources of polluted runoff. Compliance with existing regulations would ensure that the project would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface quality from construction activities. Therefore, short-term construction impacts associated with water quality standards and waste discharge requirements would be **less than significant**.

Operation

As previously mentioned, the project site currently consists of undeveloped rolling annual grasslands with no existing storm drainage infrastructure. Implementation of the proposed project would result in a substantial change in land use and substantial increase in impervious surfaces. As such, operations of the project site could contribute operational pollutants to stormwater runoff from uncovered parking areas and driveways (through small fuel and/or

fluid leaks), uncovered refuse storage/management areas, landscape/open space areas (if pesticides/herbicides and fertilizers are improperly applied), and general litter/debris.

During storm events, pollutants from paved areas without proper stormwater controls and BMPs could be conveyed off site in existing drainages that intersect the site. Most pollutants flowing off site in this manner would be dust, litter, and possibly residual petroleum products (e.g., motor oil, gasoline, diesel fuel). Certain metals, along with nutrients and pesticides from landscape areas, can also be present in stormwater runoff. Between periods of rainfall, surface pollutants tend to accumulate, and runoff from the first significant storm of the year ("first flush") would likely have the largest concentration of pollutants. Untreated runoff could be transported to the onsite drainages and could contribute to the degradation of water quality of downstream surface waters as well as impair established beneficial uses. As indicated in Table 3.8-2, Water Quality Impairments, the Lower Cosumnes River is impaired with Indicator bacteria invasive species, mercury, dissolved oxygen, and toxicity.

As previously discussed, the County is a co-permittee under the Phase II Small MS4 Permit. The MS4 Permit requires the County to implement a Post-Construction Storm Water Management Program for all Regulated Projects, as defined in the Phase II Small MS4 Permit, and consistent with the SWMP for western El Dorado County (CVRWQCB 2013; County of El Dorado 2004). Regulated Projects are those that create or replace 5,000 square feet or more of impervious surface.

The Post-Construction Program sets limits on pollutants being discharged into waterways and requires all new development to incorporate structural and non-structural BMPs to improve water quality and reduce on- and off-site runoff potential. Hydromodification Projects (projects that create or replace 1 acre or more of impervious surfaces) are required to retain and treat runoff generated by the 2-year 24-hour stormwater runoff events by implementing appropriately sized LID features, including infiltration, evapotranspiration, and/or harvesting/reuse treatment systems (County of El Dorado 2020).

Post-construction, the project would be designed to include a water quality bioswale, detention basins, and a hydromodification[5] pond (e.g., retention/detention basin) at the western corner of the site. These features would be sized to retain and treat on-site stormwater generated by the 2-year 24-hour storm event in accordance with the Post-Construction Program guidelines. These features would also be designed to settle any entrained runoff pollutants, reducing the potential for off-site water quality degradation. Detention basins would be strategically located throughout the plan area and would capture the upstream developed watershed storm runoff and provide water quality treatment and mitigate for the hydromodification of the receiving watercourse. Off-stream detention basins would meter the storm outflow out of the basin and into the receiving water closely matching that watercourse's pre-development runoff flow rates and durations. Some in-stream measures for addressing changes to drainage patterns and stormwater runoff discharges to the receiving watercourse may also be included. The in-stream measures to mitigate for these changes which largely consist of the introduction of new impervious surfaces would typically consist of stream embankment stabilization and flow metering at roadway culvert crossings.

In addition, General Plan policies such as Policy 5.4.1.1 require storm drainage systems to protect public health and safety, preserve natural resources, prevent erosion of adjacent and downstream lands, meet the NPDES requirements, and preserve natural resources such as wetlands and riparian areas. Policy 5.4.1.2 also requires

[5] Hydromodification refers to alterations in natural watershed hydrology associated with changes in land use or cover (e.g., introduction of new impervious surfaces).

protection of natural drainage patterns, including minimizing erosion to ensure existing facilities are not adversely impacted, which would also ensure protection of water quality standards and waste discharge requirements.

Implementation of LID features and BMPs would, to the maximum extent practicable, reduce the discharge of pollutants into receiving waters, including the inadvertent release of pollutants (e.g., hydraulic fluids and petroleum) and trash and debris in accordance with all relevant local and state development standards.

Residents of the nearby Carson Creek Specific Plan have raised concerns regarding the potential for the project to impact the Carson Creek Preserve, located approximately 3,300 feet downstream of the project site. As discussed above under construction, the project would be required to comply with the provisions of the Construction General Permit which includes a number of design, management, and monitoring requirements for the protection of water quality during construction. In addition to BMP Permit requirements would include the preparation of a SWPPP, implementation and monitoring of BMPs, implementation of best available technology for toxic and non-conventional pollutants, implementation of best conventional technology for conventional pollutants, and periodic submittal of performance summaries and reports to the CVRWQCB. Compliance with these mandatory requirements would ensure project construction would not adversely impact the downstream preserve. During project operation, as discussed above, the project includes a water quality bioswale, detention basins, and a hydromodification pond which would retain and treat on-site stormwater and settle any entrained runoff pollutants, reducing the potential for off-site water quality degradation in the preserve.

The final design of the proposed stormwater drainage master plan would undergo full review in accordance with County Code requirements and the NPDES Phase II MS4 Permit. As part of the County's permitting and inspection process, compliance with existing regulations pertaining to stormwater runoff and water quality of receiving waters would reduce the potential of the proposed project to adversely affect downstream waters. Therefore, long-term operational impacts associated with water quality standards and waste discharge requirements would be **less than significant.**

Mitigation Measures

No mitigation measures are required.

Impact 3.8-2. The proposed project would not decrease groundwater supplies or interfere with groundwater recharge that could impede sustainable groundwater management of the basin.

Groundwater Recharge

A Geotechnical Feasibility Study prepared for the project site (Appendix D) determined that the subsurface materials on the site primarily consist of shallow soils overlying bedrock. Based on a review of available resources, the Geotechnical Study concluded that groundwater was anticipated to be greater than 100 feet deep though perched water conditions are highly likely in areas. In general, bedrock units typically lack the porosity and permeability to constitute being considered a substantive groundwater unit. Moreover, according to the DWR Groundwater Basin Boundary Assessment Tool, no defined groundwater basins underly the project site (DWR 2023). In addition, while development of the site would result in an increase in impermeable surfaces, the project would incorporate LID BMP features, including detention basins and landscaped areas, to retain and infiltrate runoff generated by a 2-year 24-hour storm event such that post-project flows offsite do not exceed pre-project flows. As such, with the implementation of LID BMP features, local recharge rates would not substantially decrease compared to existing conditions. As a result, impacts would be **less than significant**.

Groundwater Supply

Water supply to serve the proposed project would be provided by the El Dorado Irrigation District (EID). According to EID's 2020 Urban Water Management Plan, water supply for the district is sourced entirely from Jenkinson Lake, the upper South Fork American River, and Folsom Reservoir. EID does not use groundwater as a supply but does capture and treat wastewater from many of the local communities, producing recycled water for irrigation to supplement its potable supplies (EID 2021). In addition, as noted above, the county does not overlie an established groundwater basin and as such there is no applicable groundwater management plan. Moreover, the project would incorporate LID BMP features to infiltrate runoff to the greatest extent feasible. As such, the proposed project would not substantially decrease groundwater supplies or impede a sustainable groundwater management plan. **No impact** would occur.

Mitigation Measures

No mitigation measures are required.

Impact 3.8-3. The proposed project would not alter the existing drainage pattern of the site through the addition of impervious surfaces, in a manner which would:

i) result in substantial erosion or siltation on or off site

Currently, runoff from the proposed project site occurs as sheet flow that flows from east to west. Development of the project site with impervious surfaces would substantially alter existing drainage patterns. This increase in impervious surfaces could increase localized on- and off-site runoff into nearby undeveloped land or the existing drainages. However, the proposed project would be constructed in accordance with a Stormwater Drainage Master Plan that has been prepared for the project that complies with the requirements of the County's Phase II NPDES permit as well as the County's hydromodification standards which incorporate LID BMP features, such as underground pipe conveyances, detention basins, and surface components of the system including inlets, filters, maintenance access and outfall structures that are designed to capture and infiltrate runoff generated by the 2-year 24-hour rainfall event. The calculated outflow would be designed to ensure that storm outflows do not exceed existing pre-development runoff flow rates and durations, consistent with the County's drainage control requirements. As such, substantial erosion or siltation on or off site due to increased runoff would not occur, and project impacts would be considered **less than significant**.

Mitigation Measures

No mitigation measures are required.

ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on or off site

As noted above, development of the project site would represent a substantial increase in impermeable or impervious surfaces. As discussed above under (i), project development would be designed in accordance with the Stormwater Drainage Master Plan which would incorporate LID BMP features into the project design that are sized to retain and treat runoff generated by the 2-year, 24-hour storm event. The detention basins would provide flood storage of peak storm water runoff in accordance with all local drainage control requirements that would ensure the potential for flooding on

or off site is minimized. As such, the development of the project would not result in a substantial rate or amount of runoff that would result in flooding on or off site. Impacts would be **less than significant**.

Mitigation Measures

No mitigation measures are required.

iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff

As previously discussed above, the proposed project would incorporate LID and BMP features, such as off-stream detention basins, sized to accommodate the 2-year, 24-hour storm event. These features would be designed to reduce the potential incidental release of contaminants into the environment, such as oil, grease, nutrients, heavy metals, and certain pesticides, including legacy pesticides. Moreover, stormwater in excess of the capacity of the detention basins would be slowed, allowing for entrained pollutants to settle before being discharged off site at a manageable rate. Therefore, the proposed project would not create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff. Impacts would be **less than significant**.

Mitigation Measures

No mitigation measures are required.

iv) impede or redirect flood flows

According to the most recent FEMA Flood Map 06017C0950E, effective on September 26, 2008, the project site is located within Zone X, an area of minimal flood hazard. This zone is higher in elevation than the 0.2% annual flood chance (i.e., 500-year flood). In addition, as previously discussed, although site drainage patterns would be substantially altered as a result of project development, and the site would introduce new residential uses and a small commercial space, the project would include adequate stormwater conveyance as part of project design to ensure that stormwater runoff is adequately managed during peak storm events. Therefore, impacts associated with impeding or redirecting flood flows would be **less than significant**.

Mitigation Measures

No mitigation measures are required.

Impact 3.8-4. The proposed project would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.

As previously discussed, the project would comply with applicable water quality regulatory requirements, including implementation of a SWPPP, stormwater BMPs, and LID design, which would minimize potential off site surface water quality impacts and contribute to a reduction in water quality impacts within the overall Upper American River Watershed. In addition, with compliance with these regulatory requirements, the project would reduce potential water quality impairment of surface waters such that existing and potential beneficial uses of key surface water drainages downstream steam of the project site, including the Upper and Middle Fork of the American River, would not be adversely impacted. As a result, the project would not conflict with or obstruct the Central Valley Basin Plan with respect to water quality.

With respect the groundwater management, the project site is not located within a regulated groundwater management plan, and EID has no plans to use local or regional groundwater for its service area. Therefore, the project would not conflict with or obstruct any local or regional sustainable groundwater management plans. Impacts would be considered **less than significant**.

Mitigation Measures

No mitigation measures are required.

Cumulative Impacts

This section provides an analysis of cumulative impacts from construction and operation of the proposed project in combination with other past, present, and reasonably foreseeable future projects within the county and areas adjacent to the county. The geographic context for the cumulative analysis as it relates to hydrology, flooding, and water quality is the Cosumnes River watershed. The geographic context for groundwater is also the Cosumnes River watershed boundaries since the project site is not located within an identified groundwater basin. The past, present, and reasonably foreseeable projects (i.e., cumulative projects) used for this analysis are presented in of Chapter 3 of this Draft EIR.

Impact 3.8-5. The proposed project combined with past, present, and reasonably foreseeable future projects would not violate any water quality standards or degrade surface or ground water quality.

The proposed project as well as other cumulative projects in undeveloped portions of the Cosumnes River watershed would alter existing land uses, which have the potential to increase the amount of pollutants in stormwater runoff during both construction and operation. Typical pollutants of concern associated with construction and operation would include sediment creation, fuels leakage, private vehicle use (e.g., any leakage of grease/oils), landscaping/grounds work (e.g., improper/excessive use of pesticides, herbicides, and/or fertilizers), and/or trash (e.g., due to improper waste disposal). This is considered a potentially significant cumulative impact.

All cumulative development in the Cosumnes River watershed would be subject to existing state and local regulatory requirements to protect water quality and minimize increase in stormwater runoff in compliance with the applicable NPDES permits, CALGreen Code, California Building Code, NPDES Phase II Small MS4 Permit, and the municipal codes and ordinances of other jurisdictions, including the requirement to implement a SWPPP for development disturbing an area of 1 or more acre(s) for coverage under the Construction General Permit. In summary, all cumulative development would be subject to existing regulatory requirements to protect water quality and minimize increases in stormwater runoff.

Every two years, the CVRWQCB must reevaluate water quality within its geographic region and identify those water bodies not meeting water quality standards. For those impaired water bodies, a TMDL must be prepared and implemented to reduce pollutant loads to levels that would not contribute to a violation of water quality standards. All development within the Cosumnes River watershed would be subject to the water quality standards outlined in the CVRWQCB Basin Plan and would comply with any established TMDLs. The continuing review process would ensure that cumulative development within the watershed would not substantially degrade water quality.

The project would be required to comply with existing and future regulations to protect water quality, including the Construction General Permit, WDRs for groundwater discharge and dewatering, NPDES Phase II Small MS4 Permit,

and all applicable County requirements. Compliance with existing regulations would prevent violation of water quality standards and minimize the potential for contributing additional sources of polluted runoff. Therefore, the project's contribution is not considerable resulting in a **less-than-significant cumulative impact** to hydrology and water quality.

Mitigation Measures

No mitigation measures are required.

Impact 3.8-6. The proposed project combined with past, present, and reasonably foreseeable future projects would not decrease groundwater supplies or interfere substantially with groundwater recharge.

The project site is not located within an identified groundwater basin and local water supplies are not sourced from groundwater. While cumulative projects could increase the amount of impervious surfaces which could impact groundwater recharge and may rely on groundwater for potable water, the existing regulatory requirements for LID drainage control features would provide opportunities for onsite infiltration to the extent feasible (i.e., where site subsurface materials can provide sufficient permeabilities to infiltrate peak storm events). As such, cumulative impacts related to groundwater supplies would be less than significant. Because there is not an underlying cumulative impact that the project could contribute to, cumulative impacts to groundwater would be **less than significant.**

Mitigation Measures

No mitigation measures are required.

Impact 3.8-7. The proposed project combined with past, present, and reasonably foreseeable future projects would not contribute to a cumulative impact relating to flooding, drainage capacity, and erosion.

As discussed above, cumulative development within the Consumnes River watershed could increase the amount of impervious surface area resulting in an increase in stormwater runoff rates and flooding, exceeding stormwater drainage capacity, and increased erosion; however, all development projects would be required to adhere to existing state and local regulatory drainage control requirements. Therefore, a substantial increase in the amount of surface water that would result in flooding or exceed the capacity of existing stormwater infrastructure would not occur. As such, cumulative impacts related to the alteration of existing drainage patterns would be less than significant. Because there is not an underlying cumulative impact that the project could contribute to, cumulative impacts to flooding, drainage capacity, and erosion would be **less than significant**.

Mitigation Measures

No mitigation measures are required.

3.8.5 References

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3.9 Land Use, Population and Housing

The following analysis identifies potential impacts to land use and population resulting from implementation of the proposed Creekside Village Specific Plan (proposed project or CVSP).

Under the California Environmental Quality Act (CEQA), land use impacts relate to the environmental effects of physically dividing an established community or conflicting with land use plans, policies, or regulations adopted for the purpose of avoiding or mitigating an environmental effect. Population and housing impacts relate to the environmental effects of inducing substantial unplanned population growth or displacing substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere that could result in environmental impacts. Changes in population and housing demand are considered social and economic effects, not environmental effects. Section 15382 of the CEQA Guidelines states: "An economic or social change by itself shall not be considered a significant effect on the environment." According to CEQA, these effects should be considered in an EIR only to the extent that they create adverse impacts on the physical environment. This section of the EIR examines the potential for the proposed project to result in unplanned population growth that was not contemplated in the El Dorado County General Plan as well as the potential for the project to conflict with the County's General Plan and any other relevant plans, policies, or regulations adopted for the purpose of avoiding or mitigating an environmental effect.

Public comments received in response to the November 6, 2020, Notice of Preparation (NOP) include several comments related to the potential financial, transportation, housing, and cumulative impacts that could result from adding a new population to the area and the proposed land use and zoning change required for the project. As noted above, CEQA does not require economic or financial issues to be evaluated; therefore, comments requesting the economic consequences and effect on County revenues be addressed are not evaluated in this EIR. Section 3.12, Transportation addresses impacts associated with the project's increase in vehicle miles traveled, potential to create a hazardous condition, emergency access and cumulative impacts. A second scoping meeting was held on September 26, 2023, and an additional comment was received requesting that the EIR address population projections for local school districts. A discussion of impacts on schools is included in Section 3.11, Public Services and Recreation. A copy of the NOP and comments received is included in Appendix A.

Sources reviewed to prepare this section include the 2004 El Dorado County General Plan and Housing Element (El Dorado County 2019a; 2022), the El Dorado County Code, and the Sacramento Area Council of Governments (SACOG) Metropolitan Transportation Plan/Sustainable Communities Strategy (MTP/SCS) (SACOG 2020), and U.S. Census Bureau data.

3.9.1 Environmental Setting

Existing Land Uses, General Plan Designation and Zoning

The proposed project site is located within an unincorporated area of El Dorado County (County) in the community of El Dorado Hills located in the western foothills, approximately 25 miles east of downtown Sacramento and 18 miles west of the City of Placerville (see Figure 2-1 in Chapter 2, Project Description). The approximately 208-acre project site consists of Assessor's Parcel Numbers (APN) 117-010-032 and a portion of 117-720-012. According to the County's General Plan Land Use Element, the proposed project site is located within the El Dorado Hills Community Region.

The project site is designated in the County's General Plan for Research & Development. Current County zoning is also Research & Development including a Design Review overlay (-DC combining zone). The project site was previously part of the El Dorado Hills Business Park and was approved to be de-annexed from the Business Park in 2018.

The R&D zone is intended to provide areas for the location of high technology, non-polluting manufacturing plants, research and development facilities, corporate and industrial offices, and support service facilities in a rural or campus-like setting, such as a business park environment (El Dorado County 2019).

A review of historical Google Earth aerial imagery indicates that the project site has never been developed, including for any commercial, retail, or industrial purpose, and there are no buildings or other structures located on the project site. The project site consists of undeveloped rolling grasslands with a small grove of blue oak trees located on a knoll in the southeast portion of the site. There are firebreaks that mostly run along the project site's boundaries as well as an east-west dirt firebreak through the middle of the site from Latrobe Road to the western site boundary. There are three seasonal drainages that cross the project site and merge at the western boundary to form one intermittent drainage that drains offsite. Seasonal wetlands and a small vernal pool are also present on the site.

Surrounding Land Uses

Adjacent land uses include the existing El Dorado Hills Business Park and the John Adams Academy Charter school to the north, the Blackstone residential community within the Valley View Specific Plan to the east, undeveloped land and industrial uses to the south, and undeveloped land designated for research & development, residential, open space and park uses within the Carson Creek Specific Plan to the west, as shown on Figure 2-2 in Chapter 2, Project Description. Zoning and General Plan land use designations adjacent to the project site include land zoned and designed R&D for the El Dorado Hills Business Park to the north, land zoned Valley View Specific Plan and designated Adopted Plan (AP) for the Blackstone residential community to the east, land zoned Carson Creek Specific Plan and designated AP to the west, land zoned Estate Residential (RE-10) and designated Rural Residential (RR) for land uses to the southwest, and land zoned and designated Industrial to the south. Public roadways nearest to the project site include Latrobe Road to the east and roads within the El Dorado Hills Business Park area to the north. No roadways exist adjacent to the western border of the project site. There are no public or paved roads within the project site; however, as mentioned previously, there are firebreaks throughout the property.

Demographics

Population

According to the U.S. Census Bureau, the County's population grew approximately 5.6% from 2010 to 2020. As of the most recent April 2020 Census, the County's population was 191,185, representing an increase of 10,127 from the 2010 Census (U.S. Census Bureau 2020). It should be noted that approximately 83% of the County's population live in the unincorporated portions of the county. The population in the unincorporated county (e.g., not including the cities of Placerville and South Lake Tahoe) was 159,108 as of the 2020 Census (U.S. Census Bureau 2020). The EIR (SCH #2020019055) prepared for the 2040 El Dorado County Regional Transportation Plan states that population growth in the county continues to be due in part, but not limited to:

- Sacramento Area jobholders taking up residence in the county;
- Job relocations to the Sacramento Area due to lower cost of doing business;
- In-state migration from other cities in California, including the San Francisco Bay Area;

- An increase in the economic interaction with surrounding counties; and
- An increase in employment opportunities for residents due to emerging job centers, such as the El Dorado Business Park.

Over the past 20 years, the County has experienced a significant increase in older residents in relation to the total population. In 2010, people 65 years and older made up 14.7% of the total population of 181,058 (26,524) (U.S. Census Bureau 2010a). In 2020, they made up 22.3% of the 2020 Census population of 191,185 (42,658 residents 65 years or older). The County has also experienced a higher rate of growth among people over 65 as compared to the rest of California. The population of the County is expected to experience slow yet consistent urban and suburban growth in the coming years. According to the projections contained in the Sacramento Area Council of Governments (SACOG) 2020 (most recent) Metropolitan Transportation Plan/Sustainable Communities Strategy (MTP/SCS), the area expected to experience the most rapid growth over the 2016 to 2040 period is the Community Region of El Dorado Hills. According to the County's 2021-2029 Housing Element Update, it is anticipated that the County's population will increase to 225,419 in 2040 (El Dorado County 2022).

Housing

In the last two decades, suburban residential and employment growth has occurred at the county's western edge in the communities of El Dorado Hills, including the Carson Creek and Valley View developments, and Cameron Park (SACOG 2019a). Today, these areas are primarily made up of low-density housing and supporting commercial and public uses, as well as light industrial uses. The growth within the western portion of the county is primarily focused on development of single-family homes. The 2020 MTP/SCS provides housing unit projections for the County (not including the Tahoe Basin area, as this area is not included within the SACOG boundary). According to the 2020 MTP/SCS projections, the number of housing units within the county is expected to grow from 63,780 in 2016 to 72,280 in 2040, a growth of 13.3% (SACOG 2019a).

Employment

The number of workers in the county is expected to increase through 2040 due to steady population growth. However, the majority of the employed County workforce does not work within the county. The U.S. Census Bureau's Longitudinal Employment Data indicates that approximately 64% of people that lived in the county in 2021 worked outside of the county (U.S. Census Bureau 2021). The most common counties where these workers were employed were in Sacramento County (27.2%) and Placer County (7.7%). In 2010, 64.4% of the employed population worked outside of the county (U.S. Census Bureau 2010b). Overall, the ratio of county residents employed within the county has remained steady. Since a large share of the proposed growth in the local housing supply is concentrated in El Dorado Hills, which is near job centers outside of the county, the proportion of locally employed residents may drop in the short term.

Historically, the county has maintained a lower ratio of jobs to housing. The majority of the county's recent residential and employment growth has occurred in the unincorporated communities of El Dorado Hills and Cameron Park at the western edge of the county. These new communities are characterized by low-density residential and commercial development. However, in recent years, new business park and mixed-use developments have also emerged in El Dorado Hills. According to SACOG, the jobs/housing ratio was 0.8 as of 2016 (SACOG 2019b). According to the County's 2021-2029 Housing Element Update, the jobs/housing ratio was 0.7 in 2018 (El Dorado County 2022).

3.9.2 Regulatory Setting

Federal Regulations

There are no federal plans, policies, regulations, or laws pertaining to topics addressed under CEQA that are applicable to local land use and planning concerns. However, compliance with federal and state regulations that pertain to secondary effects attributed to an increase in population are discussed in the various technical sections in Chapter 3 of this EIR.

State Regulations

Housing Element Law

The Housing Element Law, enacted in 1969, requires that all local governments adequately plan to meet the housing needs of everyone in the community. Specifically, the law states that counties and cities must prepare and implement a Housing Element as part of their General Plan to encourage "the early attainment of decent housing and a suitable living environment for every Californian, including farmworkers" (Cal Government Code Section 65580[a]). The law recognizes that each locality is best capable of determining what efforts are required to contribute to the attainment of the state housing goal, provided such a determination is compatible with the state housing goal and regional housing needs.

State law requires the Housing Element to contain a program which sets forth a five-year schedule of actions of the local government to implement the goals and objectives of the housing element. With the passage of Senate Bill (SB) 375 in 2008, Housing Element Law under Government Code Section 65588 was modified to align that time period to eight years for those jurisdictions located within a region covered by a regional transportation planning agency, such as SACOG.

The County's current Housing Element covers the planning period from 2021 to 2029 (El Dorado County 2022).

Local Regulations

SACOG MTP/SCS

The MTP/SCS is a 20-year plan for growth and transportation investment within the Sacramento region. In partnership with its 28 member cities and counties, including El Dorado County, SACOG addresses complex regional issues that surpass the capacity of individual jurisdictions to handle independently. The MTP/SCS includes policies and strategies focused on building communities where residents have access to homes, jobs, clean air, and transportation infrastructure. While the MTP/SCS makes land use assumptions about future growth, the assumptions do not supersede land use regulations. (Gov. Code Section 65080(b)(2)(K).) SACOG is required to update the long-range transportation and land use plan every four years and is currently working on the 2025 Blueprint as an update that includes land use and transportation assumptions and policies through 2050 (SACOG 2019a). Because, as SACOG recognizes, it has "no authority to require or prohibit growth of any kind," there are no mandatory MTP/SCS policies that apply to the project. The policies are the responsibility of SACOG and its member cities and counties to implement (for example, pursuing new funding sources for mobility solutions), and the proposed project would not impact the ability of these policies to be implemented.

El Dorado County General Plan

California State law requires that each city and county adopt a general plan "for the physical development of the city and any land outside its boundaries which bears relation to its planning." Typically, a general plan is designed to address the issues facing a city or county for the next 15-20 years. The general plan expresses the community's development goals and incorporates public policies relative to the distribution of future public and private land uses. The County General Plan was adopted in 2004; the last amendment to the General Plan was December 10, 2019 (El Dorado County 2019).

The following goals, objectives, and policies related to land use are established in the Land Use Element, Housing Element and Economic Element of the General Plan and are applicable to the proposed project.

Land Use Element

Goal 2.1: Land Use. Protection and conservation of existing communities and rural centers; creation of new sustainable communities; curtailment of urban/suburban sprawl; location and intensity of future development consistent with the availability of adequate infrastructure; and mixed and balanced uses that promote use of alternate transportation systems.

Objective 2.1.1: The urban limit line establishes a line on the General Plan land use maps demarcating where the urban and suburban land uses will be developed. The Community Region boundaries as depicted on the General Plan land use map shall be the established urban limit line. Provide opportunities that allow for continued population growth and economic expansion while preserving the character and extent of existing rural centers and urban communities, emphasizing both the natural setting and built design elements which contribute to the quality of life and economic health of the County.

Policy 2.1.1.7: Development within Community Regions, as with development elsewhere in the County, may proceed only in accordance with all applicable General Plan Policies, including those regarding infrastructure availability as set forth in the Transportation and Circulation and the Public Services and Utilities Elements. Accordingly, development in Community Regions and elsewhere will be limited in some cases until such time as adequate roadways, utilities, and other public service infrastructure become available and wildfire hazards are mitigated as required by an approved Fire Safe Plan.

Goal 2.2: Land Use Designations. A set of land use designations which provide for the maintenance of the rural and open character of the County and maintenance of a high standard of environmental quality.

Objective 2.2.1: An appropriate range of land use designations that will distribute growth and development in a manner that maintains the rural character of the County, utilizes infrastructure in an efficient, cost-effective manner, and further the implementation of the Community Region, Rural Center, and Rural Region concept areas.

Policy 2.2.1.2: To provide for an appropriate range of land use types and densities within the County, the following General Plan land use designations are established and defined. Adopted Plan (AP): This land use category recognizes areas for which specific land use plans have been prepared and adopted. These plans (e.g., specific plan or community plan)

are accepted and incorporated by this reference, and the respective land use map associated with each such plan is hereby adopted as the General Plan map for each such area. The plans recognized by the AP category do not include the now-superseded Area Plans that comprised the County's General Plan prior to the adoption of this General Plan. The adopted plan for the Tahoe Basin is the Regional Plan for the Tahoe Basin and the Plan Area Statements, both adopted by the Tahoe Regional Planning Agency (TRPA), and the Meyers Area (Community) Plan, adopted by El Dorado County and TRPA.

Objective 2.2.5: General Policy Section

Policy 2.2.5.2: All applications for discretionary projects or permits including, but not limited to, General Plan amendments, zoning boundary amendments, tentative maps for major and minor land divisions, and special use permits shall be reviewed to determine consistency with the policies of the General Plan. No approvals shall be granted unless a finding is made that the project or permit is consistent with the General Plan. In the case of General Plan amendments, such amendments can be rendered consistent with the General Plan by modifying or deleting the General Plan provisions, including both the land use map and any relevant textual policies, with which the proposed amendments would be inconsistent.

Policy 2.2.5.3: The County shall evaluate future rezoning: (1) To be based on the General Plan's general direction as to minimum parcel size or maximum allowable density; and (2) To assess whether changes in conditions that would support a higher density or intensity zoning district. The specific criteria to be considered include, but are not limited to, the following:

1. Availability of an adequate public water source or an approved Capital Improvement Project to increase service for existing land use demands;
2. Availability and capacity of public treated water system;
3. Availability and capacity of public waste water treatment system;
4. Distance to and capacity of the serving elementary and high school;
5. Response time from nearest fire station handling structure fires;
6. Distance to nearest Community Region or Rural Center;
7. Erosion hazard;
8. Septic and leach field capability;
9. Groundwater capability to support wells;
10. Critical flora and fauna habitat areas;
11. Important timber production areas;
12. Important agricultural areas;
13. Important mineral resource areas;
14. Capacity of the transportation system serving the area;
15. Existing land use pattern;
16. Proximity to perennial water course;
17. Important historical/archeological sites; and
18. Seismic hazards and present of active faults.

Policy 2.2.5.21: Development projects shall be located and designed in a manner that avoids incompatibility with adjoining land uses that are permitted by the policies in effect at the time the development project is proposed. Development projects that are potentially incompatible with existing adjoining uses shall be designed in a manner that avoids any incompatibility or shall be located on a different site.

Goal 2.4: Maintain and enhance the character of existing rural and urban communities, emphasizing both the natural setting and built design elements which contribute to the quality of life, economic health, and community pride of County residents.

Objective 2.5.1: Provision for the visual and physical separation of communities from new development.

Policy 2.5.1.1: Low intensity land uses shall be incorporated into new development projects to provide for the physical and visual separation of communities. Low intensity land uses may include any one or a combination of the following: parks and natural open space areas, special setbacks, parkways, landscaped roadway buffers, natural landscape features, and transitional development densities.

Housing Element

Goal HO-1: To provide for housing that meets the needs of existing and future residents in all income categories.

Policy HO-1.1: When adopting or updating programs, procedures, or Specific Plans or other planning documents, the County shall ensure that the goals, policies, and implementation programs are developed with the consideration of achieving and maintaining the County's regional housing allocation.

Policy HO-1.24: The County shall encourage Accessory Dwelling Units to provide housing that is affordable to very low-, low- and moderate-income households.

Goal HO-2: To provide quality residential environments for all income levels.

Policy HO-2.6: The County shall encourage the enhancement of residential environments to include access to parks and trails.

Goal HO-5: To increase the efficiency of energy and water use in new and existing homes.

Policy HO-5.2: New land use development standards and review processes should encourage energy and water efficiency, to the extent feasible.

Goal HO-6: To assure equal access to sound, affordable housing for all persons regardless of age, race, religion, color, ancestry, national origin, sex, disability, familial status, or sexual orientation.

Policy HO-6.1: When considering proposed development projects and adopting or updating programs, procedures, Specific Plans, or other planning documents, the County shall endeavor to ensure that all persons have equal access to sound and affordable housing, regardless of race, religion, color, ancestry, national origin, sex, disability, familial status, or sexual orientation.

Economic Development Element

Goal 10.1: Cooperation. The County shall work with all levels of government and with the various economic development organizations including the business community to cooperatively identify and promote the County's positive opportunities and strength.

Objective 10.1.9: The County shall monitor the jobs-housing balance and emphasize employment creation.

Policy 10.1.9.2: Encourage specific plans and large planned developments in Community Regions and Rural Centers to include a broad mix of housing types and relate it to local wage structures to achieve balance with existing and forecasted resident household needs.

El Dorado County Zoning Ordinance

The zoning code of the County and each incorporated community within the county includes a set of detailed requirements that implement the General Plan land use designations and policies at the individual parcel level. The zoning code presents standards for different uses and identifies which uses are allowed in the various zoning districts of the jurisdiction. Since 1971, state law has required the city or county zoning code to be consistent with the jurisdiction's general plan, except in charter cities. The Zoning Ordinance classifies and regulates the uses of land and structures within the unincorporated county in order to implement the goals and policies of the General Plan. The Zoning Ordinance directly influences development by specifying the distances between buildings, the height of buildings, landscaping, parking, and other regulations that combine to create the desired environment.

The Zoning Ordinance also includes specific use regulations related to housing. The following sections of the Zoning Ordinance are applicable to the proposed project:

Secondary Dwellings (Section 130.40.300)

This section implements California Government Code Section 65852.150 et seq. requiring ministerial approval of secondary dwellings, or accessory dwelling units (ADUs), consistent with the standards established in state law. Development standards include requiring the maximum floor area for attached/detached secondary dwellings to be 600 square feet (sf) for dwellings up to 9,999 sf, 800 sf for dwellings 10,000-19,999 sf, 1,200 sf for dwellings 20,000 sf to less than 1 acre, and 1,600 sf for dwellings 1 acre or greater. A secondary dwelling must also conform to the setbacks, height limits, lot coverage, and other requirements of the zone in which it is located. Secondary dwellings may be connected to the power source, water supply, and sewage disposal system of the primary dwelling or may have separate connections that provide the same standards required of the primary dwelling, subject to the requirements of the applicable service providers.

Specific Plans (Chapter 130.56)

This chapter states that the County Board of Supervisors shall have review authority of original jurisdiction for specific plan applications, after review and recommendation by the Planning Commission in compliance with Chapters 130.50 (Application Filing and Processing) and 130.51 (General Application Procedures). The Board shall approve the proposed specific plan by resolution or by ordinance. The approval of a specific plan is a discretionary project pursuant to CEQA. The proposed specific plan must include site plans, identification and explanation of public and private infrastructure needed to support the proposed uses, development standards and criteria, a

statement of the relationship of the specific plan to the General Plan, and any required implementation measures including regulations and programs.

Creekside Village Specific Plan

The County may also provide additional specificity in land use planning beyond that identified in their respective General Plans by developing community or specific plans for smaller, more specific areas within their jurisdiction. These more localized plans provide for focused guidance for developing a specific area, with development standards tailored to the area as well as systematic implementation of the General Plan. Under state law specific plans are required to be consistent with the General Plan (Cal. Government Code Section 65454) and cannot be approved if it is inconsistent with the General Plan; therefore, the proposed project could not proceed if determined by the County's Board of Supervisors to be inconsistent with the General Plan. The CVSP includes additional land use and development standards which supersede the standards outlined in the County Code. The CVSP provides for new residential (CV-SFL and CV-SFM-PD), parks (CV-P), commercial (CV-NC) and open space (CV-OS-1 and CV-OS-2) land use designations to accommodate for a variety of uses within the project site. Residential development standards include maximum lot area, maximum building coverage, minimum yard setbacks, maximum building height, and parking requirements. The CV-P designation provides land for active and passive recreational opportunities and allows for accessory structures and utilities. The CV-OS-1 designation is intended reserve and protect sensitive natural features while the CV-OS-2 designation is for passive recreational activities that complement park uses. The CVSP also includes its own unique site development standards that customize the requirements contained in the County Design and Improvements Standards Manual, including street, trail, lot, and grading standards. Where conflicts exist between the CVSP and the County Code, the CVSP standards shall govern. Where the CVSP is silent, the County Code and Design Standards Manual shall take precedence.

3.9.3 Thresholds of Significance

Thresholds of significance are used to determine the significance of a project's environmental effects. Per Section 15064.7 of the CEQA Guidelines, a threshold is an identifiable quantitative, qualitative or performance level of particular environmental effect, non-compliance with which means the effect will normally be determined to be significant and compliance with normally means the effect will be determined to be less than significant. A significant impact would occur if development of the proposed project would do any of the following:

- Physically divide an established community.
- Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.
- Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure).
- Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere.

Significance Threshold Criteria Not Applicable to the Proposed Project

The project site is undeveloped; therefore, future development would not physically divide an established community nor displace people or housing and these topics are not discussed further in this Draft EIR.

3.9.4 Impacts and Mitigation Measures

Methodology

Land Use

The land use evaluation in this section is based on a qualitative comparison of existing and proposed uses on the site and their compatibility with existing and planned land uses, and policies that guide land use decisions as defined in the El Dorado County General Plan. The discussion differs from the impact discussions of other technical sections, in that only general land use plan or policy consistency issues are discussed, as opposed to a discussion of the physical impacts on the environment that could occur with implementation of the proposed project. An analysis of the physical impacts is included in the other technical sections included in Chapter 3 of this Draft EIR.

Consistency with Land Use Plans

CEQA Guidelines, Section 15125(d) (found in 14 CCR 15000 et seq.), states that an EIR must discuss "any inconsistencies between the proposed project and applicable general plans, specific plans, and regional plans." An inconsistency with a general plan or policy would not necessarily create an environmental impact. For example, certain general plan policies are intended to address housing availability, socioeconomics, or employment; impacts related to these topics are not considered impacts to the environment under CEQA (see above). Therefore, the significance determination for Impact 3.9-1 below is informed only by the proposed project's consistency with plans and policies adopted for the purpose of avoiding or mitigating an environmental effect pursuant to Appendix G of the CEQA Guidelines and the Thresholds of Significance (plans and policies that address environmental effects, but that do not guide land use decisions, are discussed in the applicable technical sections in Chapter 3 of this Draft EIR). Therefore, in accordance with CEQA Guidelines Section 15125(d), a brief discussion of the project's overall consistency with land use plans and policies adopted to avoid or mitigate environmental effects is included below.

El Dorado County General Plan

General plans provide long-term goals, policies and standards for development, and all development proposals must be substantially consistent with the overall land use guidance provided in a general plan. The County's General Plan guides land use planning in the unincorporated areas of the county. The General Plan includes several policies that apply to the proposed project (but are not necessarily adopted to avoid or mitigate an environmental effect). Policy 2.2.1.2 establishes the Adopted Plan (AP) land use category, which recognizes areas for which specific land use plans have been prepared and adopted. The proposed land use designation for the CVSP is AP, and the CVSP has developed a land use map for the area which would be adopted as part of the General Plan Land Use map. Policy 10.1.9.2 encourages specific plans to include a mix of housing types to meet existing and forecasted housing needs. The CVSP includes a CV-SFM-PD residential component which could consist of a mix of detached zero-lot-line lots, small lots, cluster lots, townhouses, and multi-unit residential structures (e.g., duplexes and triplexes).

The Housing Element contains policies intended to encourage housing that meets the needs of existing and future residents in all income categories. For example, Policy HO-1.24 states that the County shall encourage Accessory Dwelling Units (ADU) to provide housing that is affordable to very low-, low-, and moderate-income households. The CVSP allows for ADUs and junior accessory dwelling units (JADU) as permitted uses, as allowed by the state (Cal Gov't Code Sections 65852.2 and 65852.22), and therefore would not conflict with this policy. However, it should be noted that the project does not propose the construction of ADUs or JADUs and is not designed to facilitate or

encourage the addition of ADUs or JADUs; therefore, the development of ADUs or JADUs is not evaluated in this Draft EIR. The County's Zoning Ordinance and state law allow the addition of an ADU and/or JADU on lots zoned for single-family residential provided that the proposed ADU or JADU complies with objective criteria established in County Code and state law. Whether a future homeowner may seek to add an ADU or JADU at some point in the future is uncertain. The California Supreme Court has explained that "'where future development is unspecified and uncertain, no purpose can be served by requiring an EIR to engage in sheer speculation as to future environmental consequences.'" (*Laurel Heights Improvement Assn. v. Regents of University of California* (1988) 47 Cal.3d 376, 395 [quoting *Lake County Energy Council v. County of Lake* (1977) 70 Cal.App.3d 851, 854-855].) The Supreme Court has also held that analysis of a potential future expansion is required only if "(1) it is a reasonably foreseeable consequence of the initial project; and (2) the future expansion or action will be significant in that it will likely change the scope or nature of the initial project or its environmental effects." (Id. at p. 396.)

Here, a future homeowner's decision whether to apply for an ADU or JADU at some point in the future is not a reasonably foreseeable consequence of the project, especially when the project is not designed to accommodate ADUs or JADUs. Instead, any such decision would be based on the circumstances and goals of an unknown future homeowner and the state law at the time that decision is made, which are impossible to assess without pure speculation at this time. When state law currently requires ministerial review of ADUs and JADUs provided that they are consistent with objective criteria, the potential future addition of a secondary dwelling unit consistent with state law also could not change the scope or nature of the primarily residential project.

Overall, the proposed project is generally consistent with the County General Plan's guidance for land development while also satisfying the County's obligation to provide for sufficient and varied housing opportunities. Ultimately, it is within the County's decision makers' purview to decide if the proposed project is consistent with the General Plan. The information provided in this section is meant to inform that decision.

In addition, the Courts have recognized that, because general plans often contain numerous policies adopted to effect differing or competing legislative goals, a development project may be "consistent" with a general plan, taken as a whole, even though the project appears to be inconsistent or arguably inconsistent with some specific policies within a given general plan (*Sequoyah Hills Homeowners Association v. City of Oakland* (1993) 23 Cal.App.4th 704, 719). Furthermore, courts strive to "reconcile" or "harmonize" seemingly disparate general plan policies to the extent reasonably possible (*No Oil*, *supra*, 196 Cal.App.3d at p. 244). The ultimate determination of General Plan consistency for a proposed project often turns on whether the project is consistent with policies that are fundamental, mandatory, and specific. (*Families Unafraid to Uphold Rural El Dorado County v. El Dorado County Bd. of Supervisors* (1998) 62 Cal.App.4th 1332, 1341-1342.)

CEQA Impact Analysis

As previously discussed, the significance determination for Impact 3.9-1 below is informed only by the proposed project's consistency with plans and policies related to land use that were adopted for the purpose of avoiding or mitigating an environmental effect. Land use planning decisions can result in physical environmental impacts; for example, by planning for urban development that would require new infrastructure, the construction of which could impact the environment. The consistency analysis under Impact 3.9-1 provides the reader with a general overview of whether the project is in harmony with the overall intent of relevant goals and policies adopted for the purpose of avoiding or mitigating an environmental effect.

As described in Chapter 2, Project Description, the project includes two development options. The first option would be to convert the 1.8-acres of neighborhood commercial to park uses if neighborhood commercial is not adopted

as part of the Specific Plan. The second option proposes construction of up to 768 age-restricted units and 150 conventional homes. Where applicable, the impact analysis below indicates if a proposed option would result in a change in impact significance or require new mitigation.

Population and Housing

Changes in population (and housing) in and of themselves are generally characterized as social and economic effects and are not considered physical effects on the environment. CEQA provides that economic or social effects are not considered significant effects on the environment unless the social and/or economic changes are connected to physical environmental effects. A social or economic change related to a physical change may be considered in determining whether the physical change is significant (CEQA Guidelines Section 15382). The guidance for assessing economic and social effects is set forth in Section 15131(a) of the CEQA Guidelines:

> Economic or social effects of a project shall not be treated as significant effects on the environment. An EIR may trace a chain of cause and effect from a proposed decision on a project through anticipated economic or social changes resulting from the project to physical changes caused in turn by the economic or social changes. The intermediate economic or social changes need not be analyzed in any detail greater than necessary to trace the chain of cause and effect. The focus of the analysis shall be on physical changes.

While an increase in population resulting from new development does not necessarily cause direct adverse physical environmental effects, indirect physical environmental effects such as increased vehicle trips and associated increases in air pollutant emissions and noise could occur. The information in this section is used as a basis for the analysis of project impacts in the technical sections contained in Chapter 3 of this Draft EIR.

Project Impacts

Impact 3.9-1. The proposed project would not cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.

General Plan

The CVSP provides for the development of up to 918 dwelling units, including 668 CV-SFL dwelling units ranging from 4 to 8 dwelling units per acre (du/ac) on approximately 116 acres, and 250 CV-SFM-PD dwelling units on 21 acres with a density of 5-12 du/ac. The remainder of the project site is proposed to be parks, open space, a potential 1.8-acre neighborhood commercial center (which could be converted to parkland if not adopted as part of the CVSP) and roadway infrastructure. In Chapter 2, Project Description, Figure 2-3 illustrates proposed land uses within the project site and Table 2-1 shows a breakdown of each land use, along with the applicable CVSP land use designation.

Table 3.9-1 provides an evaluation of the project's consistency with the County General Plan. As shown in the table, the proposed project is generally consistent with policies adopted for the purpose of avoiding or mitigating an environmental effect. As noted above, a specific plan must be consistent with the General Plan (Cal. Government Code Section 65454) and cannot be approved by the County if it is inconsistent with the General Plan. The CVSP also includes an evaluation of the project's consistency with goals and policies included in the General Plan and no conflicts were identified.

SACOG MTP/SCS

In the MTP/SCS, the project is located within the Community Type of Established Communities (El Dorado Hills) as determined by SACOG in its land use forecast in Appendix C of the MTP/SCS. The MTP/SCS forecasts 8,010 new homes in the unincorporated portion of the county by 2040 (2020 MTP/SCS Appendix C, p. 5). Based on SACOG's forecast, much of this growth through 2040 (approximately 3,300 homes) is projected to occur in the Established Communities areas within the county and, of the anticipated growth in Established Communities, approximately 70% is anticipated in the El Dorado Hills community (2,330 new homes in the Established Communities area in the County by 2040). The anticipated 3,300 new homes in the Established Communities are in addition to the anticipated growth from the approved Bass Lake Hills, Carson Creek, and Valley View (Blackstone) specific plans, which are identified and accounted for in the MTP/SCS as Developing Communities. As proposed, the project would develop approximately 918 single-family homes and therefore is well within the forecast of 3,300 new homes in the Established Communities areas.

The MTP/SCS anticipates that "[n]ew housing growth in Established Communities [will] range from very low density to medium-high density." (2020 MTP/SCS Appendix D, p. 31.) The MTP/SCS defines "low density" as 4 to 8 units per acre, "medium density" as 9 to 12 units per acre, and medium-high density as 13 to 24 units per acre. (2020 MTP/SCS Appendix D, p. 29.) As proposed, the project would develop 918 single-family homes within 115.8 acres of single-family low-density residential with 4 to 8 units per acre and 20.8 acres of single-family medium-density residential with 5 to 12 units per acre. The proposed residential densities would provide a range of housing products consistent with the surrounding communities and the anticipated densities in the MTP/SCS. The project thus proposes general land use, densities, and intensities consistent with the anticipated growth in the MTP/SCS.

While not adopted yet, the project is within the Dorado Hills Established Communities in SACOG's draft 2025 Blueprint and the various scenarios under consideration for the 2025 Blueprint anticipate between 2.000 to 2,700 new housing units within the El Dorado Hills Established Communities by 2050.

Active Adult Option

The SACOG MTP/SCS includes conventional and active adult housing together when estimating anticipated growth, thus implementation of the Active Adult option would remain consistent with the MTP/SCS. The MTP/SCS also recognizes that, "[c]ompared to 2019, the region has 253,000 more over-65-year-olds, and within that group, 210,000 more over-75-year-olds" and that, "[g]enerally, the majority are working longer and want to age in place in their own homes and communities." The MTP/SCS further estimates that, "[b]y 2040, 22 percent of the region's population will be over 65." (SACOG 2019a). The change in type of housing unit would also be consistent with the County's General Plan. Therefore, this option is consistent with the County's General Plan and MTP/SCS and the impact would be less than significant, the same as the proposed project.

The proposed project would be consistent with the County's General Plan and MTP/SCS and impacts were determined to be **less than significant.**

Table 3.9-1. Land Use Policy Consistency

Policy Number	Policy	Consistency Determination
El Dorado County General Plan		
Policy 2.1.1.7	Development within Community Regions, as with development elsewhere in the County, may proceed only in accordance with all applicable General Plan Policies, including those regarding infrastructure availability as set forth in the Transportation and Circulation and the Public Services and Utilities Elements. Accordingly, development in Community Regions and elsewhere will be limited in some cases until such time as adequate roadways, utilities, and other public service infrastructure become available and wildfire hazards are mitigated as required by an approved Fire Safe Plan.	**Consistent.** The CVSP is located within the existing boundaries of the El Dorado Hills Community Region and is required to be consistent with all applicable General Plan policies while providing adequate roadways, utilities, and public service infrastructure to serve the development. See Sections 3.11, 3.12, 3.14, and 3.15 of this Draft EIR for an evaluation of specific General Plan policies related to public services, transportation, utilities, and wildfire hazards.
Policy 2.2.5.3	The County shall evaluate future rezoning: (1) To be based on the General Plan's general direction as to minimum parcel size or maximum allowable density; and (2) To assess whether changes in conditions that would support a higher density or intensity zoning district. The specific criteria to be considered include, but are not limited to, the following: 1. Availability of an adequate public water source or an approved Capital Improvement Project to increase service for existing land use demands; 2. Availability and capacity of public treated water system; 3. Availability and capacity of public waste water treatment system; 4. Distance to and capacity of the serving elementary and high school; 5. Response time from nearest fire station handling structure fires; 6. Distance to nearest Community Region or Rural Center; 7. Erosion hazard; 8. Septic and leach field capability; 9. Groundwater capability to support wells; 10. Critical flora and fauna habitat areas;	**Consistent.** As allowed by state law and the General Plan, the CVSP proposes land use designations and development standards that allow for unique lot sizes and areas different than those in the General Plan and the Zoning Ordinance. The County would review the CVSP to ensure consistency with the criteria listed in Policy 2.2.5.3. Some of these criteria are addressed in other technical sections in Chapter 3 of this Draft EIR, and where relevant, mitigation measures are proposed in order to minimize environmental impacts.

Table 3.9-1. Land Use Policy Consistency

Policy Number	Policy	Consistency Determination
	11. Important timber production areas; 12. Important agricultural areas; 13. Important mineral resource areas; 14. Capacity of the transportation system serving the area; 15. Existing land use pattern; 16. Proximity to perennial water course; 17. Important historical/archeological sites; and 18. Seismic hazards and present of active faults. 19. Consistency with existing Conditions, Covenants, and Restrictions.	
Policy 2.2.5.21	Development projects shall be located and designed in a manner that avoids incompatibility with adjoining land uses that are permitted by the policies in effect at the time the development project is proposed. Development projects that are potentially incompatible with existing adjoining uses shall be designed in a manner that avoids any incompatibility or shall be located on a different site.	**Consistent.** The CVSP is designed to avoid land use incompatibilities that could potentially result in physical environmental effects. For example, proposed CVSP residential uses located to the west of El Dorado Hills Business Park access road would be buffered by an extensive open space system that varies in width from approximately 150-feet to 300-feet. This would reduce the potential for operations of the Business Park, such as those involving truck noise, to impact sensitive receptors at the project site. Proposed CVSP residential uses located in the area between the access road and Latrobe Road are located adjacent to an existing 25-acre undeveloped parcel that is owned by the project applicant, and future development of this parcel would be strictly controlled by the project applicant and designed to minimize conflicts between the development and the CVSP. Additionally, an open space buffer is also located along the entire southern property line of the CVSP to ensure compatibility with existing rural residential and light industrial uses to the south.
Policy 2.5.1.1	Low intensity land uses shall be incorporated into new development projects to provide for the physical and visual separation of communities. Low intensity land uses may include any one or a combination of the following: parks and natural open space areas, special setbacks, parkways, landscaped	**Consistent.** The CVSP contains open space, parks, natural landscape features and low intensity land uses. The inclusion of these low intensity land uses is intended to reduce visual impacts of the proposed project (see Section 3.1, Aesthetics).

Table 3.9-1. Land Use Policy Consistency

Policy Number	Policy	Consistency Determination
	roadway buffers, natural landscape features, and transitional development densities.	
Policy 2.5.1.2	Greenbelts or other means of community separation shall be included within a specific plan and may include any of the following: preserved open space, parks, agricultural districts, wildlife habitat, rare plant preserves, riparian corridors, and designated Natural Resource areas.	**Consistent.** The CVSP contains parks, open space preserves, open space buffers, and riparian corridors. These components help to reduce visual impacts as well as impacts to biological resources (see Section 3.3, Biological Resources).

Source: El Dorado County 2019.

Mitigation Measures

No mitigation measures are required.

Impact 3.9-2. The proposed project would induce unplanned population growth but would not result in significant adverse effects on the environment.

The project is proposing development of up to 918 dwelling units and based on the County's current average of 2.52 persons per household (PPH), the project would generate a total of approximately 2,314 new residents at buildout. Relative to the County's population of 191,185 in 2020, this would be an approximate 1.2% increase in the County population. Relative to only the unincorporated county (e.g., not including the cities of Placerville or South Lake Tahoe) population of 159,108 in 2020, this would be an approximate 1.5% increase in the unincorporated county population. Considering that the proposed project would not be fully built out until 2030 or later, population growth from the project would occur gradually over the years as new homes are built on the site. According to the County's 2021-2029 Housing Element Update, it is anticipated that the County population will increase to 225,419 in 2040 (El Dorado County 2022), which would be an approximately 15.2% increase from the population in 2020. As the project includes only an approximately 1.2% increase in population, it is likely within the estimated population increase. That said, the General Plan did not anticipate the population growth at the project site given the R&D land use designation and zoning.

As discussed in more detail above, the project is within an Established Communities of the SACOG MTP/SCS and draft 2025 Blueprint and the additional housing units and associated population growth is consistent with the assumed population growth in the Established Communities of El Dorado Hills.

Active Adult Option

Given the restricted residency for age-restricted housing under state law, age-restricted homes generally have fewer residents per unit than conventional single-family and multi-family homes. Specifically, Civil Code Section 51.3 generally limits "qualifying residents" in a "senior citizen housing development" to individuals 55 years of age or older and provides narrow exceptions to this requirement, such as allowing a disabled child or grandchild to reside in the unit if necessary due to a disabling injury or illness and only while that disabling injury or illness remains. (Civ. Code, Section 51.3, subd. (b)(3).)

As discussed in Sections 3.11, Public Services, 3.12, Transportation, and 3.14, Utilities and Service Systems consistent with residency restrictions in state law, numerous public agencies impose reduced impact fees for age-restricted dwelling units due to the reduced impacts and needs resulting from the potential future residents. Age-restricted units generate fewer residents, fewer vehicle trips, and a corresponding reduction in demand for potable water, wastewater treatment and other public services and utilities.

Therefore, this Draft EIR assumes a population reduction of approximately 40% for active adult residential units. Assuming 2.52 residents per unit for 150 conventional units and a 40% reduction per unit for the remaining 768 units, the Active Adult option would have approximately 1,540 new residents.[1] As compared to the estimated 2,314 new residents with the proposed project that assumes all conventional units, the Active Adult option would likely have an overall approximately 33.5% reduction in new residents. It is also worth noting that the assumption conservatively uses the same number of dwelling units as the proposed project, although the Specific Plan allows

[1] 2.52 x 150 = 378; 2.52 x 768 x 0.6 = 1,162; 378 + 1,162 = 1,540.

for a reduction of up to approximately 15% of the units with the Active Adult option to accommodate slightly larger lot sizes for single story homes. Overall, while the Active Adult option would generate fewer residents than the proposed project, development of the Active Adult option would also result in no impact the same as the project.

As discussed in the Methodology section above, changes in population (and housing) in and of themselves are generally characterized as social and economic effects which are not considered physical effects on the environment. CEQA provides that economic or social effects are not considered significant effects on the environment unless the secondary social and/or economic changes are connected to physical environmental effects. Therefore, while an increase in population resulting from the proposed project does not necessarily cause direct adverse physical environmental effects, secondary or indirect physical environmental effects such as an increase in vehicle trips and associated increases in air pollutant emissions and noise could occur. This Draft EIR has evaluated indirect environmental effects of the proposed project in the various technical or resource sections included in Chapter 3. For example, Section 3.2, Air Quality evaluates the increase in air emissions due to an increase in vehicle trips; Section 3.10, Noise addresses the potential for an increase in ambient noise levels resulting from project traffic; while Section 3.12, Transportation addresses the project's increase in vehicle miles traveled (VMT), which incorporates VMT from new project occupants. Therefore, because these potential impacts indirectly resulting from increased population have already been addressed in the appropriate technical sections of this EIR, there would be **no impact** due to unplanned population growth that has not previously been addressed in this EIR.

Mitigation Measures

No mitigation measures are required.

Cumulative Impacts

The consistency analysis of applicable land use goals and policies and compatibility with existing adjacent uses is not an additive effect. Therefore, there are no significant land use consistency impacts where the project, in combination with impacts from other projects, could contribute to a cumulative land use impact. Potential cumulative issues related to proposed land uses, such as new residential development that could create an increase in noise, traffic, or air quality impacts, are addressed within the appropriate resource sections in Chapter 3 of this Draft EIR. Similar to the discussion above, an increase in population resulting from new development in the County would not necessarily cause direct adverse physical environmental effects. Instead, the primary concern is whether this increase in population from cumulative projects would result in indirect physical environmental effects which could combine to create a cumulative impact. Potential indirect cumulative impacts resulting from population increase in the County are adequately addressed in the resource or technical sections analysis of cumulative impacts in Chapter 3.

3.9.5 References

El Dorado County 2019. 2004 El Dorado County General Plan. Adopted July 19, 2004. Amended December 20, 2019.

El Dorado County 2022. 2021-2029 Housing Element. Adopted August 31, 2021. Amended March 22, 2022.

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3.10 Noise

This section describes the environmental and regulatory setting of the Creekside Village Specific Plan (proposed project or CVSP) project site (project site or plan area) and its surrounding vicinity with respect to noise and vibration and summarizes predicted noise and vibration impacts attributed to the proposed project.

Public comments received in response to the November 6, 2020, Notice of Preparation (NOP) included noise concerns that addressed noise along nearby roadways and the need for mitigation, which could involve erecting or upgrading walls. A second scoping meeting was held on September 26, 2023, and comments were accepted through October 12, 2023. The Latrobe School District requested that the EIR address noise impacts to schools, including increases in noise levels in the immediate vicinity of playing fields resulting from increased traffic. These concerns are addressed in this section.

The primary source referenced to prepare this section is the Environmental Noise and Vibration Assessment (ENVA) for the Creekside Village Specific Plan Development prepared by Bollard Acoustical Consultants, Inc. (Appendix G).

3.10.1 Environmental Setting

Fundamentals of Acoustics and Vibration

Glossary of Terms

Attachment A of the ENVA document (Appendix G) provides a glossary of noise and vibration terminology that are used to present and discuss the impact assessment. The key descriptors and metrics are summarized as follows:

- **Ambient Noise Level** – the composite of noise from all sources near and far. The normal or existing level of environmental noise at a given location.
- **decibel (dB)** – The unit for expressing sound pressure level (SPL) and is equal to ten times the logarithm (to the base 10, or common logarithm) of the ratio of the measured sound pressure squared to a reference pressure squared, which is 20 micropascals.
- **A-Weighted Sound Level (dBA)** – the sound pressure level (SPL) in decibels as measured on a sound level meter (SLM) using the A-weighted filter network. The A-weighting filter de-emphasizes the very low and very high frequency components of the measured sound in a manner similar to the frequency response of the average healthy human ear, and thus correlates well with assessment of environmental noise in a community setting where noise-sensitive receptors may be present.
- **Equivalent Sound Level (L_{eq})** – the value corresponding to a steady-state sound level containing the same total energy as a time-varying signal over a given sample period.
- **Community Noise Equivalent Level (CNEL)** – defined as the 24-hour energy average noise level, with noise occurring during evening hours (7 p.m. to 10 p.m.) weighted by +5 dB and nighttime hours (10 p.m. to 7 a.m.) weighted by +10 dB.
- **Day-night Sound Level (L_{dn})** – comparable to CNEL, but the evening hours (7 p.m. to 10 p.m.) are considered daytime and thus not weighted by +5 dB in the energy averaging calculation to arrive at the L_{dn} value.
- *Peak particle velocity (PPV)* – the maximum instantaneous positive or negative peak of a vibration wave. In this noise section, a PPV descriptor with units of inches per second [in/sec or ips] is used to evaluate construction-generated vibration velocity for building damage risk and human annoyance.

- *Vibration velocity decibel (VdB)* – is ten times the common logarithm of the ratio of the square of the amplitude of the root mean squared (RMS) vibration velocity to the square of the amplitude of the reference RMS vibration velocity. The reference velocity in the United States is one micro-inch per second.

Sound and Vibration Concepts

The Noise and Vibration Fundamentals section of the ENVA document provides background information on acoustical concepts, including an explanation of how airborne sound and ground-borne vibration propagate. Additional important concepts can be summarized in the following bullets.

- Sound is expressed with a decibel scale to make a very large range of audible sound pressures convenient to describe and discuss. Zero dB is not the absence of sound, but the lowest level (relative to a standard reference quantity) that an average healthy human ear can hear.
- Sound energy dissipates with increasing distance from a source. From a point source of sound emission, the rate of level attenuation is 6 dB per doubling of distance. From a line source, such as roadway traffic, the attenuation rate is 3 dB per doubling of distance. Additional attenuation due to acoustical absorption by the air through which sound travels, and over a nearby porous ground surface, also occur when the conditions are present.
- Ground-borne vibration energy dissipates with distance as it travels through soils and rock strata away from a source, and the attenuation rate varies with the encountered soil/strata composition.
- While a 3 dB increase in noise represents a doubling of sound energy, it would be considered barely perceptible to average healthy human hearing. A *perceived* doubling of noise (i.e., an observer hearing the change and remarking "that sounds twice as loud") would typically require a 10 dB increase.

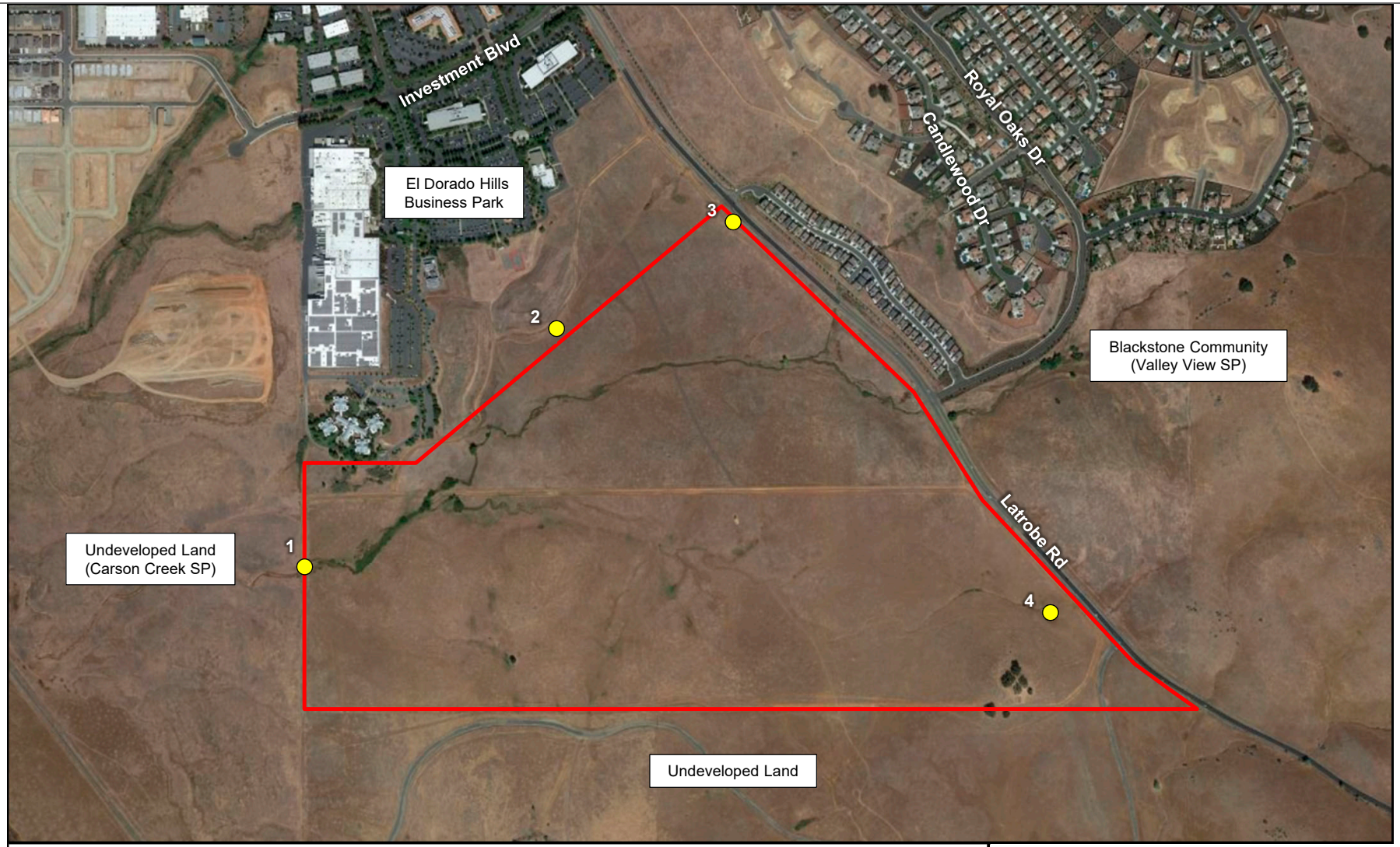
Figure 3 from the ENVA (see Appendix G, p. 5) illustrates sample outdoor and indoor sound sources and their corresponding typical levels with respect to a dB scale that resembles a thermometer and thus provides visual context on how such sample noise sources may rank with respect to magnitude and relate to reader experience.

Existing Ambient Noise and Vibration

Noise-sensitive Land Uses

Consistent with the County of El Dorado (County) General Plan, noise-sensitive land uses include hospitals, schools, churches, and residential uses. Section 130.37.040 from the County's noise standards with respect to sensitive receptors also includes "frequently inhabited outbuildings" for single and multi-family residences, rest homes, cemeteries, public libraries, and "other sensitive uses as determined by the Director" (El Dorado County 2023).

Existing noise-sensitive land uses within the project vicinity consist of residential uses to the east and northeast of the project site across Latrobe Road, residential uses under construction to the west of the project site and a public charter school located northwest of the project area (John Adams Academy). There is also a church located northwest of the project area (Live 58 Church), which is approximately 2,000 feet from the project site and there are multiple buildings between the project site and the church, including John Adams Academy and the Broadridge facility. Existing commercial and office land uses (i.e., El Dorado Hills Business Park) located north of the project site would not be considered noise sensitive. The project site and surrounding land uses are shown on Figure 3.10-1.



SOURCE: Bollard Acoustical Consultants 2020

FIGURE 3.10-1

Project Area and Survey Locations

Creekside Village Specific Plan EIR

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Existing Roadway Traffic Noise

Using estimates of hourly distribution for traffic over a typical 24-hour period, the Federal Highway Administration (FHWA) Traffic Noise Model (FHWA-RD-77-108) was used to predict distances at which incremental traffic-attributed L_{dn} values could be expected for a variety of roadway segments in the project vicinity, as shown in Table 3.10-1. Model input parameters for the existing conditions scenario relied upon the Transportation Impact Study (TIS) prepared by T. Kear Transportation Planning & Management, Inc. (2023).

Average daily traffic (ADT) volumes were conservatively estimated by multiplying the total of morning (AM) and afternoon (PM) peak hour conditions by five. Other inputs were obtained from observations and noise measurement data provided by the applicant's noise consultant, Bollard Acoustical Consultants, Inc. The existing traffic noise levels at the nearest noise-sensitive land uses to the project area roadways and distances from the centerlines of selected roadways to the 60 dBA, 65 dBA, and 70 dBA L_{dn} contours are summarized in Table 3.10-1. Attachment B-1 from the ENVA contains the FHWA model inputs used to predict the noise levels and distances shown in Table 3.10-1.

Table 3.10-1. Existing (2023) Traffic Noise Modeling Results

Roadway Segment #	Roadway Name	Segment Description	L_{dn} at Nearest Sensitive Receptor	Distance to Noise Contour (feet)		
				70 dBA L_{dn}	65 dBA L_{dn}	60 dBA L_{dn}
1	El Dorado Hills Blvd.	North of Serrano Pkwy.	68	82	176	380
2		Serrano Pkwy. To White Rock Rd.	62	88	189	408
3	Latrobe Rd.	White Rock Rd. to Golden Foothill Pkwy.	68	98	212	457
4		Golden Foothill Pkwy. To Investment Blvd.	53	8	16	35
5		Investment Blvd. to Avanta Dr./Q Dr.	51	13	29	62
6		Avanta Dr./Q Dr. to Project Commercial Entry	56	13	27	59
7		Project Commercial Entry to Royal Oaks Dr.	56	13	27	59
8		Royal Oaks Dr. to Wetsel Oviatt Rd.	50	11	25	53
9		Wetsel Oviatt Rd. to S. Shingle Rd.	62	38	81	175
10		South of S. Shingle Rd.	60	31	67	144
11	Lassen Ln.	West of El Dorado Hills Blvd.	54	9	18	40
12	Serrano Pkwy.	East of El Dorado Hills Blvd.	58	29	62	133
13	White Rock Rd.	West of Latrobe Rd.	58	17	37	81
14		East of Latrobe Rd.	64	30	66	141
15	Golden Foothill Pkwy.	West of Latrobe Rd.	57	11	24	52
16	Clubview Dr.	East of Latrobe Rd.	52	5	10	22
17	Investment Blvd.	Latrobe Rd. to Robert J. Mathews Pkwy.	36	2	5	11

Table 3.10-1. Existing (2023) Traffic Noise Modeling Results

Roadway Segment #	Roadway Name	Segment Description	L_{dn} at Nearest Sensitive Receptor	Distance to Noise Contour (feet)		
				70 dBA L_{dn}	65 dBA L_{dn}	60 dBA L_{dn}
18		West of Robert J. Mathews Pkwy.	47	5	10	21
19	Project Q Dr.	West of Latrobe Rd. (within project area)	—	—	—	—
20	Avanti Dr.	East of Latrobe Rd.	37	1	1	3
21	Project Commercial Entry	West of Latrobe Rd. (within project area)	—	—	—	—
22	Royal Oaks Dr.	West of Latrobe Rd. (within project area)	—	—	—	—
23		East of Latrobe Rd.	42	2	5	11
24	Wetsel Oviatt Rd.	West of Latrobe Rd.	19	1	2	4
25	S. Shingle Rd.	West of Latrobe Rd.	46	4	9	19
26		East of Latrobe Rd.	54	15	32	69
27	Robert J. Mathews Pkwy.	Investment Blvd. to Golden Foothill Pkwy.	51	16	35	76
28		South of Investment Blvd.	50	20	43	92
29	Palmdale Dr.	South of Carson Crossing Dr.	45	2	4	8
30	Carson Crossing Dr.	Palmdale Dr. to Four Seasons Dr.	51	4	8	17
31		Palmdale Dr. to Golden Foothill Pkwy.	51	4	8	18

Sources: FHWA-RD-77-108 with inputs from project traffic impact study. Appendix G (see Attachment B for FHWA model inputs).

Measured Existing Outdoor Ambient Sound

Table 3.10-2 displays the results of a measurement survey to quantify the existing ambient outdoor noise environment taken in October 2020, which is currently dominated by noise from traffic on Latrobe Road. The long-term noise survey locations are shown on Figure 3.10-1.

Table 3.10-2. Long-Term Noise Level Measurement Results – October 3-5, 2020

Site Description[1]	Date (mm/dd/yy)	L_{dn}	Average Measured Hourly Noise Levels, dBA			
			Daytime[2]		Nighttime[3]	
			L_{eq} (daytime)	L_{max}	L_{eq} (nighttime)	L_{max}
Site 1: Western project area boundary, approximately 800' from existing commercial / offices uses to north	10/3/20	52	45	59	46	54
	10/4/20	57	41	56	51	56
	10/5/20	50	44	60	43	50
	10/3/20	53	50	68	46	63

Table 3.10-2. Long-Term Noise Level Measurement Results – October 3-5, 2020

Site Description[1]	Date (mm/dd/yy)	L_{dn}	Average Measured Hourly Noise Levels, dBA			
			Daytime[2]		Nighttime[3]	
			L_{eq} (daytime)	L_{max}	L_{eq} (nighttime)	L_{max}
Site 2: Northwest project area boundary, approximately 800' from existing commercial / office uses to north	10/4/20	57	55	69	48	62
	10/5/20	54	54	69	45	61
Site 3: Northern project area boundary, approximately 50' from centerline of Latrobe Road	10/3/20	63	63	83	55	74
	10/4/20	61	60	80	52	74
	10/5/20	65	62	82	57	77
Site 4: Southeast project area boundary, approximately 200' from centerline of Latrobe Road	10/3/20	56	53	70	49	64
	10/4/20	54	51	68	47	65
	10/5/20	58	53	70	51	67

Source: Appendix G (see Attachments D and E).
Notes:
1 Long-term ambient noise monitoring locations are identified on Figure 3.10-1.
2 Daytime hours: 7:00 AM to 10:00 PM.
3 Nighttime hours: 10:00 PM to 7:00 AM.

Measured Existing Ground-borne Vibration

During the project site survey to measure existing outdoor ambient sound levels, vibration velocity levels were also sampled and found to be well below the threshold of perception, as shown in Table 3.10-3.

Table 3.10-3. Summary of Ambient Vibration Monitoring Results – October 2, 2020

Site	Time	Average Measured Vibration Velocity Level, PPV (in. sec)[1]
Site 1: Western project area boundary	12:06 p.m.	< 0.001
Site 2: Northwest project area boundary	12:59 p.m.	< 0.001
Site 3: Northern project area boundary	1:59 p.m.	< 0.001
Site 4: Southeast project area boundary	2:29 p.m.	< 0.001

Source: Appendix G (see Attachment C).
Note:
1 PPV = Peak Particle Velocity (inches/second)

3.10.2 Regulatory Setting

Federal Regulations

There are no federal noise or vibration related regulations that would apply to the assessment of noise attributed to the project.

State Regulations

California Department of Transportation (Caltrans) Guidance

In the absence of vibration assessment thresholds at the federal, or County level, vibration impact criteria developed by the California Department of Transportation (Caltrans), shown in Table 3.10-4 and Table 3.10-5, offer quantified criteria to evaluate potential building damage risk and occupant annoyance due to transient and continuous sources of vibration, such as construction activities.

Table 3.10-4. Guideline Vibration Damage Potential Threshold Criteria

Structure and Condition	Maximum PPV (inches/second)	
	Transient Sources	Continuous/Frequent Intermittent Sources
Extremely fragile historic buildings, ruins, ancient monuments	0.12	0.08
Fragile buildings	0.20	0.10
Historic and some old buildings	0.50	0.25
Older residential structures	0.50	0.30
New residential structures	1.00	0.50
Modern industrial/commercial buildings	2.00	0.50

Source: California Department of Transportation, Transportation and Construction Vibration Guidance Manual (2020).
Notes: Transient sources create a single isolated vibration event, such as blasting or drop balls. Continuous/frequent intermittent sources include pile drivers, pogo-stick compactors, crack-and-seat equipment, vibratory pile drivers, and vibratory compaction equipment.
PPV = Peak Particle Velocity

Table 3.10-5. Guideline Vibration Annoyance Potential Criteria

Structure and Condition	Maximum PPV (inches/second)	
	Transient Sources	Continuous/Frequent Intermittent Sources
Barely perceptible	0.04	0.01
Distinctly perceptible	0.25	0.04
Strongly perceptible	0.90	0.10
Severe	2.00	0.40

Source: California Department of Transportation, Transportation and Construction Vibration Guidance Manual (2020).
Notes: Transient sources create a single isolated vibration event, such as blasting or drop balls. Continuous/frequent intermittent sources include pile drivers, pogo-stick compactors, crack-and-seat equipment, vibratory pile drivers, and vibratory compaction equipment.
PPV = Peak Particle Velocity

Local Regulations

El Dorado County General Plan

The El Dorado County General Plan was adopted in 2004; the last amendment to the General Plan was December 10, 2019 (El Dorado County 2019). The following goals, objectives, and policies related to noise are established in the Public Health, Safety, and Noise Element of the General Plan and are applicable to the proposed project.

Public Health, Safety, and Noise Element

Goal 6.5: Ensure that County residents are not subjected to noise beyond acceptable levels.

Objective 6.5.1: Protect existing noise-sensitive developments (e.g., hospitals, schools, churches and residential) from new uses that would generate noise levels incompatible with those uses and, conversely, discourage noise-sensitive uses from locating near sources of high noise levels.

Policy 6.5.1.1: Where noise-sensitive land uses are proposed in areas exposed to existing or projected exterior noise levels exceeding the levels specified in Table HS-3 (re-printed as Table 3.10-6) or the performance standards of Table HS-4 (reprinted as Table 3.10-7), an acoustical analysis shall be required as part of the environmental review process so that noise mitigation may be included in the project design.

Policy 6.5.1.2: Where proposed non-residential land uses are likely to produce noise levels exceeding the performance standards of Table HS-4 (re-printed as Table 3.10-7) at existing or planned noise-sensitive uses, an acoustical analysis shall be required as part of the environmental review process so that noise mitigation may be included in the project design.

Policy 6.5.1.3: Where noise mitigation measures are required to achieve the standards of Table HS-3 (re-printed as Table 3.10-6) and Table HS-4 (re-printed as Table 3.10-7), the emphasis of such measures shall be placed upon site planning and project design. The use of noise barriers shall be considered a means of achieving the noise standards only after all other practical design-related noise mitigation measures have been integrated into the project and the noise barriers are not incompatible with the surroundings.

Policy 6.5.1.7: Noise created by new proposed non-transportation noise sources shall be mitigated so as not to exceed the noise level standards of Table HS-4 (re-printed as Table 3.10-7) for noise-sensitive uses.

Policy 6.5.1.8: New development of noise sensitive land uses will not be permitted in areas exposed to existing or projected levels of noise from transportation noise sources which exceed the levels specified in Table HS-3 (re-printed as Table 3.10-6) unless the project design includes effective mitigation measures to reduce exterior noise and noise levels in interior spaces to the levels specified in Table HS-3 (re-printed as Table 3.10-6).

Policy 6.5.1.9: Noise created by new transportation noise sources, excluding airport expansion but including roadway improvement projects, shall be mitigated so as not to exceed the levels specified in Table HS-3 (re-printed as Table 3.10-6) at existing noise-sensitive land uses.

Policy 6.5.1.11: The standards outlined in Table HS-5 (re-printed as Table 3.10-8), Table HS-6 (re-printed as Table 3.10-9) and Table HS-7 (re-printed as Table 3.10-10) shall not apply to those activities associated with actual construction of a project as long as such construction occurs between the hours of 7:00 a.m. and 7:00 p.m., Monday through Friday, and 8:00 a.m. and 5:00 p.m. on weekends, and on federally-recognized holidays. Further, the standards outlined in Tables HS-5 through HS-7 (re-printed as Tables 3.10-8 through 3.10-10) shall not apply to public projects to alleviate traffic congestion and safety hazards.

Policy 6.5.1.12: When determining the significance of impacts and appropriate mitigation for new development projects, the following criteria shall be taken into consideration:

a) where existing or projected future traffic noise levels are less than 60 dBA L_{dn} at the outdoor activity areas of residential uses, an increase of more than 5 dBA L_{dn} caused by a new transportation noise source will be considered significant;

b) where existing or projected future traffic noise levels range between 60 and 65 dBA L_{dn} at the outdoor activity areas of residential uses, an increase of more than 3 dBA L_{dn} caused by a new transportation noise source will be considered significant; and

c) where existing or projected future traffic noise levels are greater than 65 dBA L_{dn} at the outdoor activity areas of residential uses, an increase of more than 1.5 dBA L_{dn} caused by a new transportation noise source will be considered significant.

Policy 6.5.1.13: When determining the significance of impacts and appropriate mitigation for new development projects, the following criteria shall be taken into consideration:

a) in areas in which ambient noise levels are in accordance with the standards in Table HS-3 (reprinted as Table 3.10-7), increases in ambient noise levels caused by new non-transportation noise sources that exceed 5 dBA shall be considered significant; and

b) in areas in which ambient noise levels are not in accordance with the standards in Table HS-3 (reprinted as Table 3.10-7), increases in ambient noise levels caused by new non-transportation noise sources that exceed 3 dBA shall be considered significant.

Table 3.10-6. Maximum Allowable Noise Exposure for Transportation Noise Sources

Land Use	Outdoor Activity Areas[1] L_{dn}/CNEL, dBA	Interior Spaces	
		L_{dn}/CNEL, dBA	L_{eq} (1hr), dBA[2]
Residential	60[3]	45	—
Transient Lodging	60[3]	45	—
Hospitals, Nursing Homes	60[3]	45	—
Theaters, Auditoriums, Music Halls	—	—	35
Churches, Meeting Halls, Schools	60[3]	—	40
Office Buildings	—	—	45
Libraries, Museums	—	—	45
Playgrounds, Neighborhood Parks	70	—	—

Source: El Dorado County General Plan, Public Health & Safety Element, Table HS-3.

Notes:

1 In Community Regions and Rural Centers, where the location of outdoor activity areas is not clearly defined, the exterior noise level standard shall be applied to the property line of the receiving land use. For residential uses with front yards facing the identified noise source, an exterior noise level criterion of 65 dBA L_{dn} shall be applied at the building facade, in addition to a 60 dBA L_{dn} criterion at the outdoor activity area. In Rural Regions, an exterior noise level criterion of 60 dBA L_{dn} shall be applied at a 100-foot radius from the residence unless it is within Platted Lands where the underlying land use designation is consistent with Community Region densities in which case the 65 dBA L_{dn} may apply. The 100-foot radius applies to properties which are five acres and larger; the balance will fall under the property line requirement.

2 As determined for a typical worst-case hour during periods of use.

3 Where it is not possible to reduce noise in outdoor activity areas to 60 dBA L_{dn}/CNEL or less using a practical application of the best-available noise reduction measures, an exterior noise level of up to 65 dBA L_{dn}/CNEL may be allowed provided that available exterior noise level reduction measures have been implemented and interior noise levels are in compliance with this table.

Table 3.10-7. Noise Level Performance Protection Standards for Noise-Sensitive Land Uses Affected by Non-Transportation Sources (dBA)

Noise Level Descriptor	Daytime 7 am – 7 pm		Evening 7 pm – 10 pm		Nighttime 10 pm – 7 am	
	Community	Rural	Community	Rural	Community	Rural
Hourly, L_{eq}	55	50	50	45	45	40
Maximum, L_{max}	70	60	60	55	55	50

Source: El Dorado County General Plan, Public Health & Safety Element, Table HS-4.
Note:
Each of the noise levels specified above shall be lowered by five dB for simple tone noises, noises consisting primarily of speech or music, or for recurring impulsive noises. These noise level standards do not apply to residential units established in conjunction with industrial or commercial uses (e.g., caretaker dwellings). The County can impose noise level standards which are up to 5 dB less than those specified above based upon determination of existing low ambient noise levels in the vicinity of the project site. In Community Regions the exterior noise level standard shall be applied to the property line of the receiving property. In Rural Areas the exterior noise level standard shall be applied at a point 100' away from the residence. The above standards shall be measured only on property containing a noise-sensitive land use as defined in Objective 6.5.1.

Table 3.10-8. Maximum Allowable Noise Exposure for Non-Transportation Noise Sources in Community Regions and Adopted Plan Areas – Construction Noise

Land Use	Time Period	Noise Level (dBA)	
		L_{eq} (1 hr)	L_{max}
Higher-Density Residential (MFR, HDR, MDR)	7 am – 7 pm	55	75
	7 pm – 10 pm	50	65
	10 pm – 7 am	45	60
Commercial and Public Facilities (C, R&D, PF)	7 am – 7 pm	70	90
	10 pm – 7 am	65	75
Industrial (I)	anytime	80	90

Source: El Dorado County General Plan, Public Health & Safety Element, Table HS-5.
Note:
[1] Adopted Plan areas should refer to those land use designations that most closely correspond to the similar General Plan land use designations for similar development.

Table 3.10-9. Maximum Allowable Noise Exposure for Non-Transportation Noise Sources in Rural Centers – Construction Noise

Land Use	Time Period	Noise Level (dBA)	
		L_{eq} (1 hr)	L_{max}
All Residential (MFR, HDR, MDR)	7 am – 7 pm	55	75
	7 pm – 10 pm	50	65
	10 pm – 7 am	40	55
Commercial and Public Facilities (C, TR, PF)	7 am – 7 pm	65	75
	10 pm – 7 am	60	70
Industrial (I)	anytime	70	80
Open Space (OS)	7 am – 7 pm	55	75
	7 pm – 10 pm	50	65

Source: El Dorado County General Plan, Public Health & Safety Element, Table HS-6.

Table 3.10-10. Maximum Allowable Noise Exposure for Non-Transportation Noise Sources in Rural Regions and Adopted Plan Areas – Construction Noise

Land Use	Time Period	Noise Level (dBA)	
		L_{eq} (1 hr)	L_{max}
All Residential (LDR)	7 am – 7 pm	50	60
	7 pm – 10 pm	45	55
	10 pm – 7 am	40	50
Commercial and Public Facilities (C, TR, PF)	7 am – 7 pm	65	75
	10 pm – 7 am	60	70
Industrial (I)	anytime	70	80
Rural Land, Natural Resources, Open Space, Agricultural Lands (RR, NR, OS, AL)	7 am – 7 pm	65	75
	7 pm – 10 pm	60	70

Source: El Dorado County General Plan, Public Health & Safety Element, Table HS-7.

Per Figure LU-1 (Land Use Diagram) of the General Plan, the project site including offsite areas are located within a Community Region; therefore, the noise level thresholds provided in Tables 3.10-6, 3.10-7, and 3.10-8 would be appropriate for assessing the project's noise levels.

El Dorado County Ordinance Code

Chapter 9.16 within Title 9 of the County's Ordinance Code establishes prohibitions on particular sources of noise that would typically be considered nuisances but does not quantify dB thresholds to assess potential exceedances. Chapter 130.37 of the County's Code, on the other hand, is within the Zoning title and enumerates performance standards for noise, depending on type of land use, with respect to "all noise generating uses requiring discretionary review or ministerial permits, with the exception of existing and new single-unit residential dwellings on legal lots that are not within areas governed by an Airport Comprehensive Land Use Plan" (El Dorado County 2023). The noise standards under Section 130.37.060 correlate with those already discussed in the preceding section on the County's General Plan Noise Element, as bulleted below:

- Table 130.37.060.1 — Noise Level Performance Standards for Noise Sensitive Land Uses Affected by Non-Transportation Sources – *see Table 3.10-7.*
- Table 130.37.060.2 — Noise Level Standards for Noise-Sensitive Land Uses Affected by Transportation Noise Sources – *see Table 3.10-6.*

Section 130.37.020, "Exemptions", of the County Code contains a list of noise sources that are exempted from Chapter 130.37 standards. The following subsections are noise sources relevant to the project:

A. Activities conducted in public parks, public playgrounds, and public or private school grounds, including but not limited to school athletic and school entertainment events, providing an amplified sound system is not required or used.
D. Noise sources associated with property maintenance, such as lawn mowers, trimmers, snow blowers, power tools in good working order, and cutting of firewood for non-commercial personal use, provided that the activities take place between the hours of eight a.m. and nine p.m. on weekdays and nine a.m. to nine p.m. on weekends and federal holidays.

H. Traffic on public roadways, railroad line operations, aircraft in flight, and any other activity where regulation thereof has been preempted by state or federal law.
I. Construction (e.g., construction, alteration or repair activities) during daylight hours provided that all construction equipment shall be fitted with factory installed muffling devices and maintained in good working order.

Section 130.37.050, "Acoustic Analysis Requirements", of the County Code contains a list of operations and land uses that would require the preparation of an acoustic analysis as follows:

A. New noise-generating land uses likely to exceed the performance thresholds in the Tables in Section 130.37.060 (Noise Standards) below in this Chapter when proposed in areas adjacent to sensitive receptors. Noise sources may include industrial operations, outdoor recreation facilities, outdoor concerts and events utilizing amplified sound systems, commercial land uses, fixed sound sources, and other similar uses; or
B. New noise-sensitive land uses proposed in areas exposed to existing or projected exterior noise levels likely to exceed the thresholds in the Tables in Section 130.37.060 (Noise Standards) below in this Chapter.

Please see Appendix G for more details regarding information contained in the County Code.

Creekside Village Specific Plan

The CVSP does not contain any policies or design elements that would impose more or less stringent standards than the County Code. Since the CVSP does not impose unique standards, the County Code, including Chapter 130.37, Noise Standards, would apply to the project.

3.10.3 Thresholds of Significance

Thresholds of significance are used to determine the significance of a project's environmental effects. Per Section 15064.7 of the CEQA Guidelines, a threshold is an identifiable quantitative, qualitative or performance level of particular environmental effect, non-compliance with which means the effect will normally be determined to be significant and compliance with normally means the effect will be determined to be less than significant. A significant impact would occur if development of the proposed project would do any of the following:

- Result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the County's general plan or noise ordinance, or applicable standards of other agencies.
- Result in generation of excessive ground-borne vibration or ground-borne noise levels.
- For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, expose people residing or working in the project area to excessive noise levels.

These current CEQA "Appendix G" criteria for noise and vibration impact significance assessment can be recast with respect to Caltrans and County guidance and standards, respectively, to evaluate the significance of

environmental noise and vibration resulting from the project. A significant impact would occur if the project would do any of the following:

- Generate noise levels that exceed applicable noise standards from the El Dorado County General Plan or El Dorado County Code.
- Off-site traffic noise exposure or on-site activities would sufficiently increase noise levels at existing offsite noise-sensitive receptors in the project vicinity. Policies 6.5.1.12 (transportation noise sources) and 6.5.1.13 (non-transportation noise sources) from the County's General Plan Noise Element establish increase significance criteria.
- Construction activities or proposed onsite operations would expose offsite noise-sensitive receptors to excessive ground-borne vibration velocity levels that exceed appropriate Caltrans vibration impact thresholds guidance for building damage risk and occupant annoyance.

In *California Building Industry Association v. Bay Area Air Quality Management District*, the Supreme Court held that CEQA "generally does not require an analysis of how existing environmental conditions will impact a project's future users or residents." The Court distinguished "between requirements that consider the *environment's* effects on a project and those that contemplate the *project's* impacts on the existing environment" and concluded that only the latter are within the scope of CEQA review. Following that ruling, the above-listed CEQA significance threshold statements were revised to remove exposure of persons to *elevated noise levels* as an impact. However, while not studied with respect to CEQA impact significance assessment an analysis of existing community noise effects upon proposed future project occupants is provided at the end of the Impacts and Mitigation Measures section under 3.10-5.

Significance Threshold Criteria Not Applicable to the Proposed Project

The nearest public or public-use airport is Cameron Airpark. The project site is located approximately 5.6 miles southwest of Cameron Airpark. The project area is also outside of the airport influence area and is located more than two miles from the airport. There is no potential to expose people in the project site to excessive airport-related noise and there would be no impact; therefore, this issue is not discussed further.

3.10.4 Impacts and Mitigation Measures

Methodology

Project Operation Noise Effect Evaluation

Transportation

Off-site Impacts from the Project

With development of the project, traffic volumes on the local roadway network would increase. The increase in daily traffic volumes would result in a corresponding increase in traffic noise levels at existing uses located along those roadways. The FHWA Traffic Noise Model was used with traffic input data from the Transportation Report prepared by T. Kear Transportation Planning & Management, Inc. (Appendix H) to predict project traffic noise level increases relative to Existing (2023) and Cumulative 2040 with project and without project conditions.

The project includes an option to develop a majority of the units as age-restricted leaving up to 150 conventional homes with the remainder (up to 768 units) as age-restricted consistent with state law under the Active Adult option. The Transportation Report evaluated the change in units and where there is a difference from the proposed project it is discussed below in the impact analysis.

Off-site Impacts upon the Project

The California Supreme Court issued an opinion in *California Building Industry Association v. Bay Area Air Quality Management District (2015)* holding that CEQA is primarily concerned with the impacts of a project on the environment and generally does not require agencies to analyze the impact of existing conditions on a project's future users or residents. Nevertheless, the County has policies that address existing/future conditions affecting the proposed project, which are discussed in the impact analysis below.

Non-transportation

Stationary Sources

The proposed project consists of approximately 918 dwelling units, parks, and approximately 46-acres of open space, and a 1.8-acre commercial component. If the commercial component is not adopted as part of the Specific Plan there would be an option for converting to park uses, as described in Chapter 2, Project Description in addition to an option to develop a majority of the units as age-restricted leaving up to 150 conventional homes with the remainder (up to 768 units) as age-restricted. The primary noise sources associated with proposed uses of the development have been identified as park activities and commercial activities. Noise from these on-site park activities and commercial activities could exceed local standards at offsite noise-sensitive receptors. Using file data provided by the noise consultant, noise levels at existing noise-sensitive land uses were calculated by applying the logarithmic distance propagation decrease to the reference noise level for park or commercial activities.

Project Construction Noise Effect Evaluation

On-site Construction

Operation of heavy equipment would be involved in the grading, site preparation, building erection, architectural finishing, and paving phases of project construction and offsite utility/transportation infrastructure improvements. Aggregate noise emission levels associated with these activities would vary depending on the types, quantities, condition, and activity intensities of equipment used. Noise from these construction activities could exceed local standards at offsite noise-sensitive receptors. Using reference data from the 2018 Federal Transit Administration (FTA) Noise and Vibration Impact Assessment Manual, $L_{eq\,(1\,hr)}$ and L_{max} values were predicted at the closest existing offsite residences based on the aforementioned reference sound levels attenuated by distance (i.e., geometric divergence [a.k.a., 6 dB per doubling of distance from a point source]). Table 3.10-11 indicates noise associated with various types of construction equipment at a distance of 200 feet.

Table 3.10-11. Construction Equipment Reference Noise Levels and Predicted Noise at 200 Feet

Equipment Description	Maximum Noise Level at 50 Feet (dBA)	Predicted Maximum Noise Level at 200 feet (dBA)
Air compressor	80	68
Backhoe	80	68

Table 3.10-11. Construction Equipment Reference Noise Levels and Predicted Noise at 200 Feet

Equipment Description	Maximum Noise Level at 50 Feet (dBA)	Predicted Maximum Noise Level at 200 feet (dBA)
Ballast equalizer	82	70
Ballast tamper	83	71
Compactor	82	70
Concrete mixer	85	73
Concrete pump	82	70
Concrete vibrator	76	64
Crane, mobile	83	71
Dozer	85	73
Generator	82	70
Grader	85	73
Impact wrench	85	73
Loader	80	68
Paver	85	73
Pneumatic tool	85	73
Pump	77	65
Saw	76	64
Scarifier	83	71
Scraper	85	73
Shovel	82	70
Spike driver	77	65
Tie cutter	84	72
Tie handler	80	68
Tie inserter	85	73
Truck	84	72

Source: Federal Transit Administration Noise and Vibration Impact Assessment Manual, Table 7-1 (2018) or Appendix G – see Table 20.

Off-site Infrastructure Improvements

The project proposes off-site improvements associated with transportation and utility infrastructure. The overall area of potential effect (APE) for the improvements is presented in Attachment F-1 of the ENVA (Appendix G). Areas of potential effect associated with the individual work areas are shown in Attachments F-2 through F-5 in the ENVA (Appendix G).

Off-site infrastructure improvements include:

- Utility infrastructure improvements along Latrobe Road
- Transportation improvements at the intersection of Latrobe Road/Town Center Boulevard (turn lane extension, roadway re-paving and re-striping)
- Transportation improvements at Royal Oaks Drive/Latrobe Road and Avanti Drive/Latrobe Road intersections (intersection signalization and roadway re-striping)

- Utility infrastructure improvements at the intersection of Robert J. Mathews Parkway and future I Drive (Waterline Connection).

During the infrastructure improvements, noise from heavy equipment operations would add to the noise environment in the immediate project vicinity.

Project Vibration Effect Evaluation

Operation

As explained in the ENVA, the proposed residential and park uses do not typically have equipment that generates appreciable vibration. Further, the project does not propose equipment that would produce appreciable vibration.

Construction

During project construction, heavy equipment would be used for grading, excavation, paving, and building construction, which would generate localized vibration in the immediate vicinity of the construction. Project construction vibration levels were predicted at the nearest offsite noise-sensitive receptors using the FTA Transit Noise and Vibration Impact Assessment Manual and calculations prepared by the noise consultant. Table 3.10-12 indicates vibration levels for construction equipment at a distance of 25 feet and 215 feet.

Table 3.10-12. Vibration Source Levels for Construction Equipment and Predicted Levels at 215 Feet

Equipment Description	Maximum Vibration Level at 25 Feet (PPV)[1]	Predicted Maximum Vibration Level at 215 Feet (PPV)
Large bulldozer	0.089	0.004
Hoe ram	0.089	0.004
Caisson drilling	0.089	0.004
Loaded trucks	0.076	0.003
Backhoe	0.051	0.002
Excavator	0.051	0.002
Grader	0.051	0.002
Loader	0.051	0.002
Jackhammer	0.035	0.001
Small bulldozer	0.003	< 0.001

Source: 2018 FTA Transit Noise and Vibration Impact Assessment Manual and calculations contained in Appendix H.
Note:
1 PPV = Peak Particle Velocity

Project Impacts

Impact 3.10-1. The proposed project could result in an increase in temporary (construction) ambient noise levels in excess of County standards.

Construction Noise

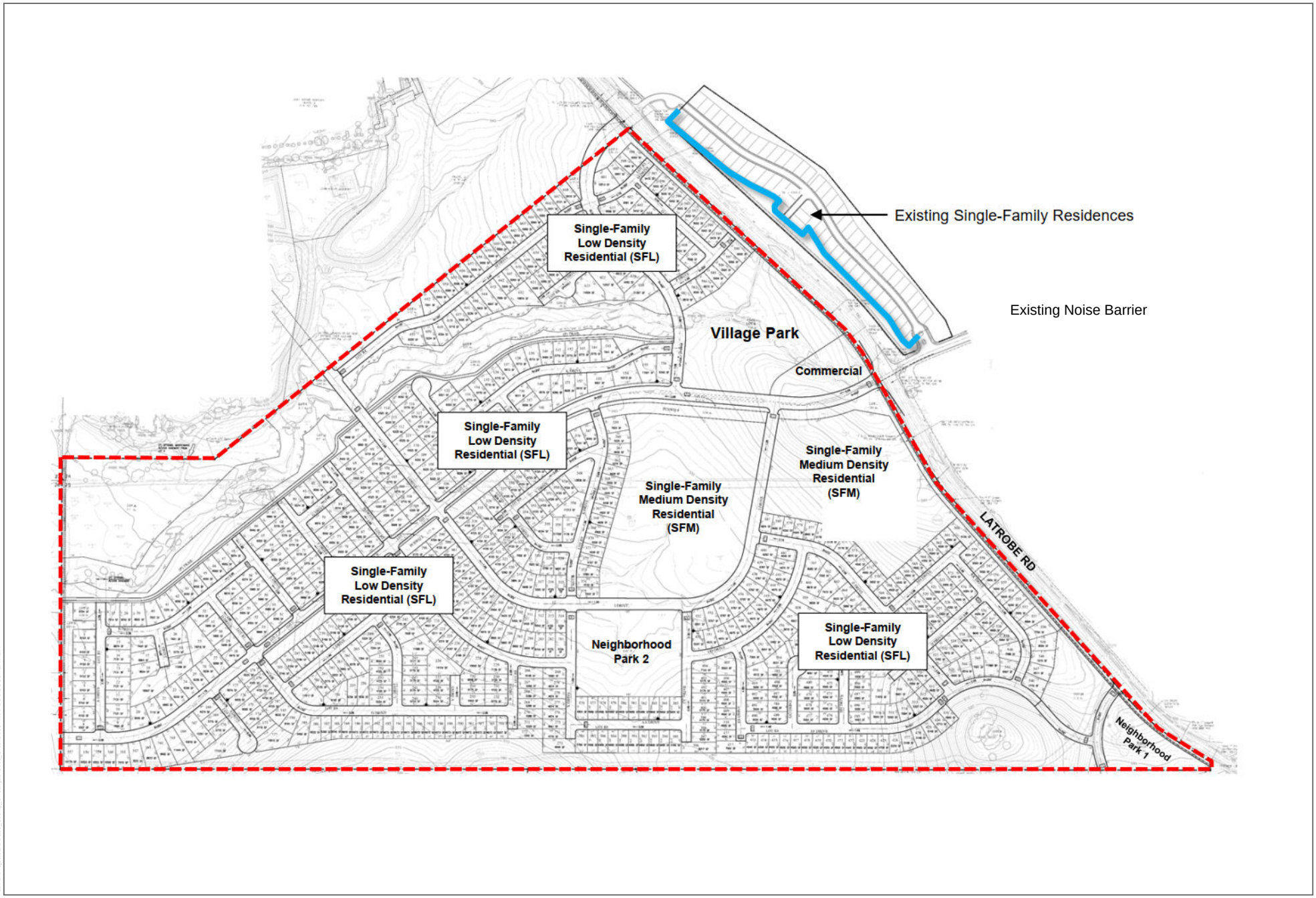
The nearest existing noise-sensitive receptors to the expected construction activity areas are residences that parallel the eastern side of Latrobe Road, which are as close as 200 feet. These nearest residences have existing property line noise walls to help reduce the noise levels received from project construction activities.

Table 3.10-11 displays the range of maximum noise levels for expected equipment associated with anticipated project construction activities, at full-power operation and at two horizontal distances between the source and a receptor position: 50 feet (reference) and 200 feet. Per Table 3.10-11, maximum noise levels at the nearest existing residential use 200 feet away are expected to range from approximately 64 to 73 dBA, which is less than the samples of outdoor ambient daytime maximum noise levels measured near those same residences (ambient measurement site 3). Furthermore, the property line walls along the western boundary of these residential uses parallel to Latrobe Road would likely reduce project construction noise levels at those locations—please refer to Figure 3.10-2 for a graphical depiction of these existing barrier extents. Nevertheless, under the right conditions project construction noise levels could exceed the applicable County General Plan noise level limits applicable to construction noise in community regions, which are identified in Table 3.10-8.

Policy 6.5.1.11 of the County's General Plan exempts noise sources associated with project on-site construction provided such activities take place between the hours of 7:00 a.m. and 7:00 p.m., Monday through Friday, and 8:00 a.m. and 8:00 p.m. on weekends, and on federally recognized holidays. So long as project construction activities occur during these hours and days, construction activities would be considered a less than significant impact. However, if construction activities were proposed during hours external to those allowed by Policy 6.5.1.11, construction noise levels could exceed maximum noise level standards shown in Table 3.10-8 at the nearest existing residential uses. Given that the Active Adult option would develop substantially the same land plan and footprint as the proposed project, it would not be expected to have significant differences in construction noise and noise impacts from construction would be the same as the project. Consequently, noise impacts associated with on-site construction activities are considered **potentially significant.**

Off-Site Infrastructure Construction Noise

The nearest existing noise-sensitive receptors to the expected infrastructure improvement work areas are residences that parallel the eastern side of Latrobe Road, which per the figure in Attachment F of the ENVA are as close as the edge of the 150-foot radius APE for off-site improvements. (See Appendix G). These nearest residences have existing property line noise walls to help reduce the noise levels received from construction activities at these work areas.



SOURCE: Bollard Acoustical Consultants 2020

FIGURE 3.10-2

Existing Noise Barrier

Creekside Village Specific Plan EIR

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Table 3.10-13 displays the range of maximum noise levels for common roadway improvement project construction equipment, at full-power operation and at three horizontal distances between the source and a receptor position: 50 feet (reference), 30 feet (the distance value used in the ENVA), and 150 feet (to the APE edge).

Table 3.10-13. Typical Construction Equipment Noise – Roadway Improvement Projects

Equipment Description	Typical Maximum Noise Level at 50 Feet (dBA)	Predicted Maximum Noise Level at 30 Feet (dBA)	Predicted Maximum Noise Level at 150 Feet (APE edge, dBA)
Concrete mixer truck	85	89	80
Concrete saw	90	94	85
Dump truck	84	88	79
Flatbed truck	84	88	79
Front end loader	80	84	75
Generator (more than 25 kVA)	82	86	77
Paver	85	89	80
Pickup truck	55	59	50

Source: Federal Transit Administration Noise and Vibration Impact Assessment Manual, Table 7-1 (2018) or Appendix G - Table 19.

With predicted equipment maximum noise levels ranging from 59 to 94 dBA at a distance of 30 feet, there is a potential for some infrastructure improvement activities to cause temporary short-term increases over ambient maximum noise levels at those nearby offsite residences. However, Policy 6.5.1.11 from the County's General Plan indicates that the thresholds appearing in Table 3.10-8 "shall not apply to those activities associated with actual construction of a project as long as such construction occurs between the hours of 7:00 a.m. and 7:00 p.m., Monday through Friday, and 8:00 a.m. and 5:00 p.m. on weekends, and on federally recognized holidays." Further, the standards outlined in Tables 3.10-8 through Table 3.10-10 shall not apply to public projects to "alleviate traffic congestion and safety hazards." If construction activities are proposed during the hours/days not exempted by the General Plan or County Code, noise levels generated by project roadway improvement construction activities could exceed the maximum noise level standards identified in Table 3.10-8 at the nearest existing residential uses. Consequently, short-term off-site construction noise is considered to be **potentially significant**.

Mitigation Measures

Compliance with mitigation measure NOI-1 would ensure construction activity noise, both onsite and offsite, would comply with the County's General Plan policies to help reduce construction noise levels experienced by nearby residences to reduce the impact to **less than significant**. This mitigation would also be required for the Active Adult option to ensure impacts would be reduced to less than significant.

NOI-1: Construction Noise Control Measures. To the maximum extent practical, the following construction-related measures shall be incorporated into on-site and off-site infrastructure improvement operations:

- Noise-generating infrastructure improvement construction activities shall only occur between the hours of 7:00 a.m. and 7:00 p.m., Monday through Friday, and 8:00 a.m. and 5:00 p.m. on weekends and on federal holidays.
- All noise-producing project equipment and vehicles using internal-combustion engines shall be equipped with manufacturers-recommended mufflers and be maintained in good working condition.
- All mobile or fixed noise-producing equipment used on the project site that are regulated for noise output by a federal, state, or local agency shall comply with such regulations while in the course of project activity.
- Electrically powered equipment shall be used instead of pneumatic or internal-combustion-powered equipment, where feasible.
- Material stockpiles and mobile equipment staging, parking, and maintenance areas shall be located as far as practicable from noise-sensitive uses.
- Nearby residences shall be notified of construction schedules so that arrangements can be made, if desired, to limit their exposure to short-term increases in ambient noise levels.

Impact 3.10-2. The proposed project could result in an increase in permanent (operation) ambient noise levels in excess of County standards.

Long-Term/Operational Noise

Traffic Noise at Off-site Existing Noise-Sensitive Receptors

Comparable to the prediction of existing traffic noise levels as described in Section 3.10.1, the total of AM and PM peak hour traffic volumes for an Existing and Existing Plus Project scenario from the Transportation Report were multiplied by five to arrive at the average daily trips (ADT), which were then used to estimate traffic noise levels for comparison with the predicted levels at distances representing the closest noise-sensitive land uses to the project area roadways, as shown in Table 3.10-1. Table 3.10-14 evaluates the dB increase in L_{dn} between these two scenarios (Existing [E] and Existing plus Project [E+P]) and concludes for each studied roadway segment if the increase represents a potential significant impact (i.e., the predicted increase at a noise-sensitive receptor along the studied roadway segment exceeds the significance threshold established in General Plan Policy 6.5.1.12). Attachments B-1 and B-2 from the ENVA contain the FHWA Traffic Noise Model inputs used in the analysis (Appendix G). The Active Adult option was not modeled because the proposed project represents the worst-case scenario.

Based on the analyses presented in Table 13.10-14, project-generated traffic noise level increases would not result in significant noise impacts at existing noise-sensitive receptors located along the project area roadway network relative to the increase significance criteria contained in Policy 6.5.1.12 of the County's General Plan. As a result, the impact is **less than significant**.

Table 3.10-14. Predicted Project-Related Traffic Noise Level Increases – Existing (2023) vs. Existing (2023) Plus Project Conditions

Roadway Segment #	Roadway Name	Segment Description	Predicted Traffic Noise Level at Nearest Noise-Sensitive Receptor (L_{dn}, dBA)			Significance Threshold[1]	Threshold Exceeded?	Sensitive Receptors Present?[2]	Significant Impact Identified?[3]
			E	E+P	Increase				
1	El Dorado Hills Blvd.	North of Serrano Pkwy.	67.8	67.9	0.1	1.5	No	Yes-Residence	No
2		Serrano Pkwy. To White Rock Rd.	62.0	62.4	0.4	3.0	No	Yes-Residence	No
3	Latrobe Rd.	White Rock Rd. to Golden Foothill Pkwy.	68.4	69.0	0.6	1.5	No	Yes-Residence	No
4		Golden Foothill Pkwy. To Investment Blvd.	52.6	54.7	2.1	5.0	No	Yes-Residence	No
5		Investment Blvd. to Avanta Dr./Q Dr.	50.9	53.6	2.7	5.0	No	Yes-Residence	No
6		Avanta Dr./Q Dr. to Project Commercial Entry	55.7	58.5	2.8	5.0	No	Yes-Residence	No
7		Project Commercial Entry to Royal Oaks Dr.	56.3	58.9	2.6	5.0	No	Yes-Residence	No
8		Royal Oaks Dr. to Wetsel Oviatt Rd.	49.7	50.6	0.9	5.0	No	Yes-Residence	No
9		Wetsel Oviatt Rd. to S. Shingle Rd.	61.9	62.5	0.6	3.0	No	Yes-Residence	No
10		South of S. Shingle Rd.	59.7	59.9	0.2	5.0	No	Yes-Residence	No
11	Lassen Ln.	West of El Dorado Hills Blvd.	53.7	53.7	0.0	5.0	No	Yes-Residence	No
12	Serrano Pkwy.	East of El Dorado Hills Blvd.	58.4	58.4	0.0	5.0	No	Yes-Residence	No

Table 3.10-14. Predicted Project-Related Traffic Noise Level Increases – Existing (2023) vs. Existing (2023) Plus Project Conditions

Roadway Segment #	Roadway Name	Segment Description	Predicted Traffic Noise Level at Nearest Noise-Sensitive Receptor (L_{dn}, dBA)			Significance Threshold[1]	Threshold Exceeded?	Sensitive Receptors Present?[2]	Significant Impact Identified?[3]
			E	E+P	Increase				
13	White Rock Rd.	West of Latrobe Rd.	58.3	58.2	-0.1	5.0	No	Yes-Residence	No
14		East of Latrobe Rd.	64.1	64.4	0.3	3.0	No	Yes-Residence	No
15	Golden Foothill Pkwy.	West of Latrobe Rd.	56.8	57.3	0.5	5.0	No	Yes-Residence	No
16	Clubview Dr.	East of Latrobe Rd.	52.0	52.4	0.4	5.0	No	Yes-Residence	No
17	Investment Blvd.	Latrobe Rd. to Robert J. Mathews Pkwy.	36.1	36.2	0.1	5.0	No	Yes-Residence	No
18		West of Robert J. Mathews Pkwy.	47.3	47.3	0.0	5.0	No	Yes-Church	No
19	Project Q Dr.	West of Latrobe Rd. (within project area)	56.0[4]	31.3	-24.7	5.0	No	Yes-Residence	No
20	Avanti Dr.	East of Latrobe Rd.	36.7	36.7	0.0	5.0	No	Yes-Residence	No
21	Project Commercial Entry	West of Latrobe Rd. (within project area)	56.0[4]	29.0	-27.0	5.0	No	Yes-Residence	No
22	Royal Oaks Dr.	West of Latrobe Rd. (within project area)	56.0[4]	45.5	-10.5	5.0	No	Yes-Residence	No
23		East of Latrobe Rd.	42.1	42.2	0.1	5.0	No	Yes-Residence	No
24	Wetsel Oviatt Rd.	West of Latrobe Rd.	19.4	22.1	2.7	5.0	No	Yes-Residence	No
25	S. Shingle Rd.	West of Latrobe Rd.	45.5	46.4	0.9	5.0	No	Yes-Residence	No
26		East of Latrobe Rd.	53.9	54.4	0.5	5.0	No	Yes-Residence	No
27	Robert J. Mathews Pkwy.	Investment Blvd. to Golden Foothill Pkwy.	51.4	51.5	0.1	5.0	No	Yes-Church	No

Table 3.10-14. Predicted Project-Related Traffic Noise Level Increases – Existing (2023) vs. Existing (2023) Plus Project Conditions

Roadway Segment #	Roadway Name	Segment Description	Predicted Traffic Noise Level at Nearest Noise-Sensitive Receptor (L_{dn}, dBA)			Significance Threshold[1]	Threshold Exceeded?	Sensitive Receptors Present?[2]	Significant Impact Identified?[3]
			E	E+P	Increase				
28		South of Investment Blvd.	50.2	50.2	0.0	5.0	No	Yes-School	No
29	Palmdale Dr.	South of Carson Crossing Dr.	45.4	45.4	0.0	5.0	No	Yes-Residence	No
30	Carson Crossing Dr.	Palmdale Dr. to Four Seasons Dr.	50.6	52.7	2.1	5.0	No	Yes-Residence	No
31		Palmdale Dr. to Golden Foothill Pkwy.	51.1	53.0	1.9	5.0	No	Yes-Residence	No

Sources: FHWA-RD-77-108 with inputs from project traffic impact study. Appendix G (see Attachments B-1 and B-2 for FHWA model inputs).

Notes:

1 Significance thresholds established in General Plan Policy 6.5.1.12.

2 Sensitive receptors identified as existing residential, school, or church uses.

3 A significant impact is identified only along segments where the project-related traffic noise level increase would exceed threshold AND where sensitive receptors are present along the roadway segment.

4 Project traffic study did not contain data for segments 19, 21 and 22, which are access points to the project property (located within the project area). For the purposes of this analysis, the measured ambient L_{dn} at site 4 was used, which is believed to be representative of the existing ambient noise level environment along those roadway segments.

Traffic Noise at Schools

As mentioned previously, traffic volumes on the local roadway network would increase with development of the project. Those increases in daily traffic volumes would result in a corresponding increase in traffic noise levels at existing uses located along those roadways, which would include the school closest to the project site John Adams Academy and the Latrobe Elementary School (Tk-3rd) and Miller's Hill School (4th-8th) located at 7680 South Shingle Road and 7900 South Shingle Road.

Existing increases in off-site traffic noise levels which would result from the project were evaluated in Impact 3.10-1. As indicated in Table 3.10-11, existing plus project increases in traffic noise levels at the outdoor area/playground of the nearest existing school along the project roadway network (John Adams Academy, roadway segment 28) were calculated to be less than 0.1 dBA L_{dn}. In addition, Table 3.10-11 data indicates that noise levels at the outdoor area/playground for the Latrobe Elementary School and Miller's Hill School (roadway segment 9) were calculated to be 0.6 dBA L_{dn}.

The threshold of perception of the human ear is approximately 3 to 5 dBA – a 5 dBA change is considered to be clearly noticeable. Further, a doubling of traffic volumes would result in a logarithmic increase of 3 dBA, and a doubling of traffic volumes is unlikely to occur with the local roadway network. The calculated range of project-generated increases in ambient noise levels at the closest schools within the project roadway network (0.1 dBA L_{dn} to 0.6 dBA L_{dn}) would be well below the threshold of human perception.

Based on the analysis provided in the ENVA and the information above, project-generated increases in traffic noise levels are not expected to result in significant increases in ambient noise levels at existing outdoor areas of schools within the local roadway network. As a result, the impact is **less than significant**.

El Dorado Business Park Operations

As indicated in Figure 3.10-1, existing commercial / office uses (El Dorado Business Park) are located north of the proposed project. As noted above, an analysis that evaluates the impacts of the existing environment on new land uses constructed by a project is not typically required, unless the project would exacerbate the existing environmental effect. Because the El Dorado Business Park is an existing use this analysis is included for informational purposes only; therefore, no significance finding is provided.

Primary noise sources associated with the adjacent commercial uses have been identified as mechanical equipment (HVAC), parking lot movements, and truck loading dock activities. According to ambient noise level data collected at the project site (Appendix G – see Attachments D and E), not including natural sounds (i.e. frogs, crickets, etc.), noise from the existing commercial operations to the north did not exceed the County's noise standards applicable to stationary noise sources and the impact is **less than significant**.

Non-Transportation Noise

Park Noise at Existing (off-site) Noise-Sensitive Uses

As shown in Figure 3.10-2, the project proposes three (3) parks: one large "Village Park" and two smaller neighborhood parks "Neighborhood Park 1" and "Neighborhood Park 2." The Public Facilities and Services Chapter of the Creekside Village Specific Plan notes that all three proposed parks would include both passive and active uses. As described in

the ENVA and supporting file data, parks consisting of active uses (playing fields/playgrounds) have reference noise levels of approximately 60 dBA $L_{eq\ (1\ hr)}$ and 70 dBA L_{max} at a distance of 50 feet (Appendix G).

Existing noise-sensitive uses nearest to the Village Park are existing single-family residences located parallel with the eastern side of Latrobe Road, as shown in Figure 3.10-2. Table 3.10-15 presents estimated $L_{eq\ (1\ hr)}$ and L_{max} values at the nearest of these existing offsite residences based on the reference sound levels attenuated by distance (i.e., geometric divergence [a.k.a., 6 dB per doubling of distance from a point source]).

Assuming allowable park attendance hours would be limited to daytime and evening hours, the more conservative County standard to compare with the park activity noise level would be an evening limit modified by a 5 dBA penalty to account for likely shouts, songs, cheers, and other loud speech that typify active park usage. Table 3.10-15 contrasts the predicted active park noise levels at the existing nearby Latrobe Road residences with the downwardly adjusted evening outdoor thresholds and demonstrates the latter would not be exceeded.

Table 3.10-15. Predicted Park Activity Noise Levels at Nearest Existing Noise-Sensitive Uses

Noise-Sensitive Use[1]	Nearest Park[2]	Distance (ft)[3]	Predicted Noise Levels (dBA)[4]	
			L_{eq} (1 hr)	L_{max}
Residences east of Latrobe Road	Village	450	33	43
Applicable General Plan Community Evening Noise Level Standards5			45	55

Source: Appendix G.
Notes:
1 Locations of existing residences are shown on Figure 3.10-2.
2 Locations of proposed park areas are shown on Figure 3.10-2.
3 Distances measured from effective noise center of nearest park to nearest residence.
4 Predicted park activity noise levels at the nearest existing residences include consideration of the shielding that would be provided by existing traffic noise barriers along the property lines of those residences, have been conservatively adjusted by -8 dBA. Figure 3.10-2 shows the location of the existing traffic noise barriers.
5 Adjusted by -5 dBA to account for human speech.

Furthermore, predicted park activity noise levels shown in Table 3.10-15 are less than the sample daytime and evening time period (7:00 a.m. to 10:00 p.m.) existing noise levels measured to the east of Village Park (ambient measurement site 3). Hence, increases in ambient daytime and evening noise levels at the nearest existing sensitive uses attributed to project park usage would not exceed criteria contained in General Plan Policy 6.5.1.13.

Based on the analysis provided in the EVNA and satisfying applicable County General Plan standards with respect to both fixed threshold and relative increase criteria, potential noise from the project's park activities is considered to be **less than significant**.

Park Noise (on-site) at Proposed Residential Uses

According to the project's site plan shown on Figure 3.10-2, parks are proposed to be located adjacent to residential uses within the proposed specific plan including under the Active Adult option as well. Park activities have been identified as a primary noise source that could impact nearby residential uses proposed within the project.

The data referenced in the ENVA (see Appendix G) indicate that parks consisting of active uses have noise levels of up to 60 dBA $L_{eq\ (1\ hr)}$ and 70 dBA L_{max} at a distance of 50 feet. Park activities would likely consist of human speech (i.e., shouting and cheering during activities), which would be subject to the County General Plan's more restrictive

daytime, evening, and nighttime noise level standards for community regions shown in Table 3.10-7. However, it is reasonable to assume that park hours would likely be restricted to daytime and evening hours only (7:00 a.m. to 10:00 p.m.). Satisfaction with the General Plan's more restrictive evening noise level standards would ensure compliance with the General Plan's less restrictive daytime noise level limits. Therefore, project park noise exposure at the nearest proposed residential uses was assessed relative to the applicable General Plan nighttime noise level standards for community regions shown in Table 3.10-7. Figure 3.10-3 depicts the location of project residences located near proposed parks that would be affected by park related noise activities.

Based on the reference noise levels presented above, and assuming standard spherical spreading loss (-6 dB per doubling of distance), park activity noise levels within 150 feet from a residential use is calculated to be 50 dBA $L_{eq\ (1\ hr)}$ and 60 dBA L_{max}. The predicted park activity noise levels of 50 dBA $L_{eq\ (1\ hr)}$ and 60 dBA L_{max} would exceed the County's General Plan nighttime noise level standards of 45 dBA $L_{eq\ (1\ hr)}$ and 55 dBA L_{max} for residential uses. As a result, this impact is **potentially significant**.

Commercial Noise (on-site) at Proposed Residential Uses

The project site plan includes a 1.8-acre commercial component (Neighborhood Commercial– NC) designed to provide neighborhood serving uses. As noted in Chapter 2, Project Description, a park would replace this use if it is not adopted as part of the Specific Plan. The location of the proposed commercial component is shown in Figure 3.10-2. A complete list of allowed commercial uses included within the Specific Plan for this land use is provided below:

Commercial Uses

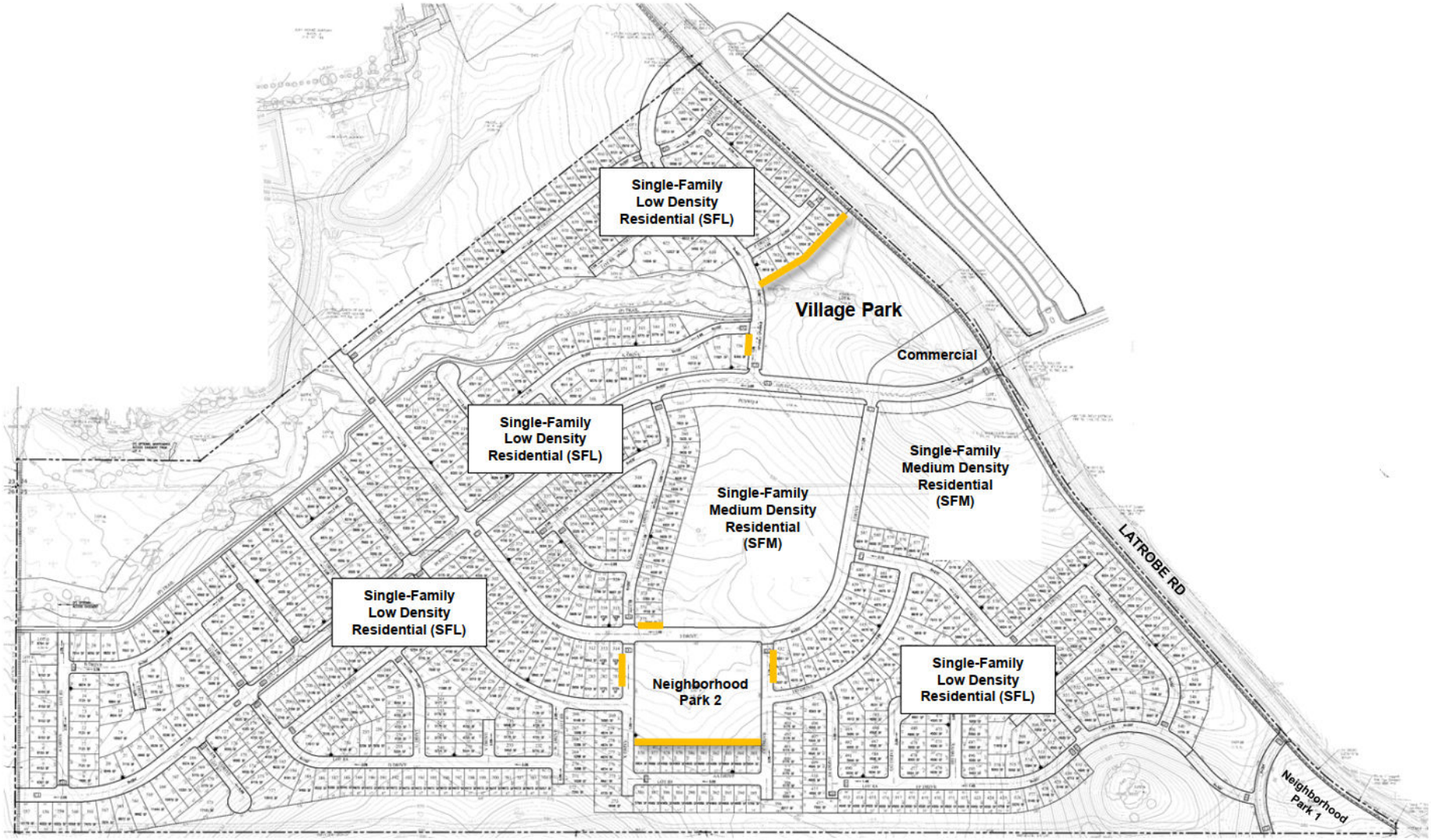
- Pet Grooming and Pet Stores
- Veterinary Clinic
- Banks and Financial Services
- Bars and Drinking Establishments
- Brewpub
- Micro-Brewery (CUP Required)
- Child Day Care Center
- Employer-Sponsored Child Day Care Center
- Restaurant
- Drive-Through Facility
- Automotive: Fuel Sales (CUP Required)
- Food and Beverage Retail Sale
- Building Supply Store
- Medical Services: Clinic
- Mixed Use Dwelling (DR Required)
- Nursery Commercial Retail
- Offices: Professional
- Offices: Medical
- Retail Sales & Services: Indoor Sales
- Retail Sales & Services: Personal Services
- Retail Sales & Services: Property Services
- Community Care Facility
- Research & Laboratory Services
- Specialized Education & Training
- Winery: Full-Service Facilities (CUP Required)

Recreation and Open Space

- Community Services: Minor
- Parks: Village, Neighborhood, Parklet

Transportation

- Parking Lot



SOURCE: Bollard Acoustical Consultants 2020

FIGURE 3.10-3

Residences Located Adjacent to Park Uses

Creekside Village Specific Plan EIR

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Utilities/Infrastructure

- Public Utility Service Facilities: Minor

As indicated above, the automotive (w/fuel sales), microbrewery, nursery/retail, and winery (full-service facilities) uses would trigger the need for a conditional use permit (CUP) and County Code section 130.37.030 requires specific noise studies for each of those uses as part of the County's CUP approval process if any of these uses were proposed. Based on this assumption, further consideration of noise sources associated with the automotive (w/fuel sales), microbrewery, nursery/retail, and winery uses within the proposed commercial component are not further evaluated. The primary noise sources associated with the remaining allowable commercial uses include parking movements, truck delivery activities, drive-through operations, childcare outdoor play area activities, building mechanical equipment (i.e., HVAC), forklift operations, and outdoor music.

Although the project's site plan contains the general location of the planned commercial component, detailed plans illustrating locations of specific uses have not yet been developed, County Code section 130.37.030 requires compliance with the County noise standards for all discretionary review or ministerial permits unless an enumerated exception applies. None of the exceptions apply to the commercial components and therefore demonstrated compliance with the County noise standards would be required. As a result, the following section provides a generalized analysis of noise associated with commercial operations that could occur at nearby existing noise-sensitive uses.

Parking Lot Movements

As a means of determining potential noise exposure due to the commercial component parking lot activities, the noise consultant used specific parking lot noise level measurements. Specifically, a series of individual noise measurements were conducted of multiple vehicle types arriving and departing a parking area, including engines starting and stopping, car doors opening and closing, and persons conversing as they entered and exited the vehicles. The results of those measurements revealed that individual parking lot movements generated mean noise levels of 65 dBA SEL and 65 dBA L_{max} at a reference distance of 50 feet.

For a conservative assessment of parking area noise generation, it was assumed that a parking area within the commercial component could accommodate up to 200 vehicles. This estimate of vehicle capacity was based on review of the land use plan and the use types of uses envisioned within the commercial component. It was also conservatively assumed that a parking area could fill or empty during any given peak hour of business operations. Using the parking lot noise measurement data and based on the operations assumptions above, noise exposure from an individual parking area having 200 vehicle stalls computes to approximately 52 dBA $L_{eq\ (1\ hr)}$ and 65 dBA L_{max} at a distance of 50 feet from the effective noise center of the area. Therefore, noise from parking lot activities would not exceed the County threshold and the impact is **less than significant.**

Truck Delivery Activities

Deliveries of product to commercial uses such as the ones allowed within the commercial component occur are typically done with medium-duty vendor trucks/vans. The primary noise sources associated with delivery activities are trucks stopping (air brakes), trucks backing into position (back-up alarms), and pulling away from the loading/unloading area (revving engines). The ENVA file data indicate that noise levels associated with medium-

duty truck deliveries (including side-step vans) are approximately 76 dBA SEL and 66 dBA L_{max} at a distance of 100 feet (see Appendix G).

For a conservative assessment of commercial component delivery truck noise generation, it was assumed that 5 medium duty trucks/vans would deliver products on a typical busy day. To compute delivery truck activity noise exposure relative to the county's hourly average ($L_{eq\ (1\ hr)}$) noise descriptor, it was assumed that 3 truck deliveries could occur within the same given hour. Using the noise measurement data and operations assumptions above, noise exposure from 3 truck deliveries computes to approximately 45 dBA $L_{eq\ (1\ hr)}$ at a distance of 100 feet (maximum noise level of 66 dBA L_{max}). Therefore, noise from delivery activities would not exceed the County threshold and the impact is **less than significant.**

Drive-Through Operations

The primary noise sources associated with drive-through operations are the amplified menu speaker board/post and low-speed vehicle passages and idling passenger vehicle engines queued up at the ordering, payment, and/or food reception stations. To quantify the noise emissions of drive-through operations, the noise consultant used noise measurement data collected for similar drive-through operations in the greater Sacramento area in recent years. The data indicates that drive-through speakers were measured to have average and maximum noise levels of approximately 60 dBA $L_{eq\ (1hr)}$ and 67 dBA L_{max} (respectively) at a distance of 10 feet. The data further indicates that vehicles within drive-throughs were measured to have average and maximum noise levels of 57 dBA $L_{eq\ (1\ hr)}$ and 70 dBA L_{max} (respectively) at a distance of 5 feet. Therefore, noise from drive-through operations would not exceed the County threshold and the impact is **less than significant.**

Playground Activities

It is reasonably assumed that childcare uses within the commercial component (should they be developed) would have an outdoor play area. For the assessment of play area noise impacts, noise level data collected by the noise consultant at various outdoor playgrounds in recent years was used. The primary noise source associated with play area use is shouting children. The data indicates that average and maximum noise levels are approximately 55 dBA $L_{eq\ (1\ hr)}$ and 75 dBA L_{max} at a distance of 50 feet from the focal point of the playground area. It is assumed any activities would not occur beyond 5:00 p.m. Therefore, noise from playground activities would not exceed the County threshold and the impact is **less than significant.**

HVAC Equipment

The HVAC systems within future buildings of the commercial component would likely consist of packaged rooftop air conditioning systems. Such HVAC units, which typically stand about 4-5 feet tall, would be shielded from view of nearby sensitive uses by the building parapets. As explained in the ENVA, such rooftop HVAC units frequently generate a noise level of approximately 45 dBA $L_{eq\ (1\ hr)}$ at a reference distance of 100 feet from the building facade, including shielding by the building parapet (estimated to provide approximately 10 dB of noise level reduction) (see Appendix G). Therefore, noise from HVAC equipment would not exceed the County threshold and the impact is **less than significant.**

Forklift Activities

According to the list of allowed commercial uses, it is expected that a building supply store and winery uses would have forklift operations for moving deliveries of product. To quantify the noise emissions of forklift activities, the

noise consultant used noise measurement data collected from commercial forklift operations. This data indicates that average and maximum noise levels for forklift loading/unloading operations can be expected to be approximately 67 dBA $L_{eq\ (1\ hr)}$ and 82 dBA L_{max} (respectively) at a distance of 10 feet from the operating forklift consistent with the County thresholds. Therefore, the impact is **less than significant.**

Outdoor Music

According to the list of allowed commercial uses, it is possible that a restaurant or brewpub may have an outdoor seating area with live and/or amplified music. To address this concern, Dudek's acousticians quantified the noise emissions of outdoor music using amplification, referencing speaker manufacturer data (LOUD Audio 2021). This data indicates that maximum noise levels for a single amplified speaker can be expected to be approximately 115 dBA L_{max} at an assumed distance of approximately 3 feet (one meter). To calculate an hourly L_{eq}, an acoustical usage factor can be applied to the L_{max} value. Assuming that the speaker could be operating at a magnitude of 115 dBA L_{max} for only 50% of the time, the calculated $L_{eq(1h)}$ at one meter is 112 dBA. Section 130.37.050 of the County Code requires an acoustic analysis be prepared prior to discretionary authorization or permit approval for events using amplified sound systems. This would be considered a **potentially significant impact.**

Predicted Commercial Operations Noise Levels at Existing (off-site) Noise-Sensitive Uses

Based on the reference noise level data and operations assumptions presented above, and assuming standard spherical spreading loss (-6 dB per doubling of distance), commercial operations noise exposure at the nearest existing noise-sensitive uses was estimated. The results of those calculations are presented in Tables 3.10-16 and 3.10-17. The nearest existing noise-sensitive uses to the commercial component have been identified as residences along Latrobe Road east of the project site.

Table 3.10-16. Predicted Commercial Noise Levels at Nearest Existing Noise-Sensitive Uses - Hourly L_{eq}

Receiver[1]	Predicted Noise Level ($L_{eq\ (1\ hr)}$, dBA) from Contributing Project Sources (at indicated distance to Receiver in feet)							
	Parking (250')	Truck Delivery (250')	Drive-Thru (200')	Playground (200')	HVAC (200')	Forklift (200')	Music (200')	Aggregate[4]
Residential – East (with music)	30	29	29	25	39	33	76	76
Residential – East (without music)	30	29	29	25	39	33	n/a	41

Source: Appendix G, Table 17.
Notes:
1 Locations of existing residences are shown in Figure 3.10-2.
2 Predicted noise level when projected from commercial component to nearest residential property line.
3 Predicted commercial noise levels at the nearest existing residences include consideration of the shielding that would be provided by existing 8' traffic noise barriers along the property lines of those residences and have been adjusted by -8 dB. Figure 3.10-2 shows the location of the existing traffic noise barriers.
4 Aggregate noise level exposure, or logarithmic sum of concurrent operations/activities.

Table 3.10-17. Predicted Commercial Noise Levels at Nearest Existing Noise-Sensitive Uses - L_{max}

Receiver[1]	Predicted Noise Level (L_{max}, dBA) from Contributing Project Sources (at indicated distance to Receiver in feet)							
	Parking (250')	Truck Delivery (250')	Drive-Thru (200')	Playground (200')	HVAC (200')	Forklift (200')	Music (200')	Highest Predicted[4]
Residential – East (with music)	43	50	33	46	39	48	79	79
Residential – East (without music)	43	50	33	46	39	48	n/a	50

Source: Appendix G, Table 18.
Notes:
1 Locations of existing residences are shown in Figure 3.10-2.
2 Predicted noise level when projected from commercial component to nearest residential property line.
3 Predicted commercial noise levels at the nearest existing residences include consideration of the shielding that would be provided by existing 8' traffic noise barriers along the property lines of those residences and have been adjusted by -8 dB. Figure 3.10-2 shows the location of the existing traffic noise barriers.
4 Highest predicted maximum noise level from analyzed commercial operations/activities, assuming no sources are generating their associated L_{max} values simultaneously.

As presented in Tables 3.10-16 and 3.10-17, aggregate commercial operations noise generated by the project is predicted to be higher than the County's General Plan daytime, evening, and nighttime hourly average (L_{eq}) and maximum (L_{max}) community noise level threshold at the nearest existing noise-sensitive uses (single-family residential uses to the east of the project) only during conditions when potential outdoor music at commercial establishments would occur.

Based on the analysis and results provided above, and under potential project conditions that include amplified music as studied herein, noise level exposure from the analyzed commercial operations is predicted to exceed the General Plan noise level standards at the nearest existing sensitive uses (residential). Further, increases in ambient noise levels from those operations at the nearest existing sensitive uses would be significant relative to applicable General Plan Policy 6.5.1.13 criteria. Therefore, this impact is considered **potentially significant**.

Active Adult Option

The primary source of operational noise is from project vehicles and, as explained in Section 3.12, Transportation, and the Active Adult option would generate approximately 45% fewer trips per day than the proposed project, which would correlate with reduced noise from vehicles. With the proposed project, Table 3.10-14 demonstrates that project-generated traffic noise would have a less-than-significant impact at existing noise-sensitive receptors located along the project area roadway network and, while the Active Adult option would generate less traffic and thereby less traffic noise there would be no increase in permanent (operation) ambient noise levels in excess of County standards and the impact would be **less than significant.**

Summary of Impacts

Based on the assumptions outlined within the impact analysis, implementation of the CVSP, including the Active Adult option has the potential to result in short-term and long-term operational and stationary-source noise levels that exceed the noise level standards outlined in the County's General Plan and County Code resulting in a **potentially significant impact**.

Mitigation Measures

Compliance with mitigation measure NOI-2 for on-site park-related noise requires six-foot high noise barriers to break the line-of-sight and reduce predicted park noise levels to 45 dBA $L_{eq\ (1\ hr)}$ and 55 dBA L_{max} or less at the nearest proposed residential land uses and would satisfy the General Plan 45 dBA $L_{eq\ (1\ hr)}$ and 55 dBA L_{max} nighttime noise level standards. With implementation of this mitigation measure, impacts due to park noise would comply with the County's General Plan and be **less than significant.** This mitigation would also be required for the Active Adult option to ensure impacts would be reduced to less than significant.

Compliance with mitigation measure NOI-3 would ensure the project, including the Active Adult option, complies with the County's General Plan 60 dBA L_{dn} exterior noise level standard at the single-family low and medium density residential outdoor activity areas to ensure noise from outdoor speaker systems, including live performances, at any commercial uses is reduced to **less than significant.**

NOI-2: Park Activity Noise. The tentative map submitted for building and/or grading shall include an acoustical analysis (noise study) that verifies and demonstrates applicable County noise standards shall be met. The analysis shall be provided to the County's Planning and Building Department for review. Solid noise barriers measuring a minimum of six feet in height (relative to backyard elevation) shall be constructed along residences proposed adjacent to the north and west sides of Village Park and the north, south, west and east sides of Neighborhood Park 2. The recommended noise barrier extension shall either be a solid masonry wall or wood fence. If a wood fence is selected as a barrier, the fence slats shall overlap by a minimum of two inches and screwed to the framing rather than nailed. The purpose of the overlapping slats and using screws rather than nails is to ensure that prolonged exposure to the elements does not result in visible gaps through the slats which would result in reduced noise barrier effectiveness. The final barrier design shall be reviewed by a qualified acoustical consultant prior to issuance of building permits.

NOI-3: Live or Amplified Music. An acoustic analysis prepared by a qualified acoustic specialist shall be required prior to discretionary authorization or permit approval by El Dorado County for any commercial activity featuring live or amplified music, pursuant to County Code Section 130.37.050.

Impact 3.10-3. The proposed project would not generate significant on-site or off-site construction vibration.

On-Site Construction Vibration

Table 3.10-12 presents two columns of ground-borne vibration levels: reference emission levels for the listed equipment types at a reference distance of 25 feet and predicted levels at a distance of 215 feet (the closest existing residential structure along the eastern side of Latrobe Road, and within which would be occupants).

According to Table 3.10-12, predicted ground-borne vibration propagating from the nearest on-site construction activities as received by the nearest existing residential structures is predicted to be well below the Caltrans recommended threshold for damage risk to residential structures (i.e., 0.50 in/sec PPV shown in Table 3.10-4) and its "barely perceptible" level (0.01 in/sec PPV, as listed in Table 3.10-5) with respect to continuous/ intermittent sources of vibration causing potential annoyance for building occupants. Therefore, on-site construction within the project area is not expected to result in excessive ground-borne vibration levels at nearby existing residential uses. Given that the Active Adult option would develop substantially the same land plan and footprint as the proposed project, it would not be expected to have significant differences in construction vibration and impacts from construction would be the same as the project. For these reasons, on-site construction vibration levels are expected to comply with applicable Caltrans ground-borne vibration velocity impact significance criteria; therefore, this impact is considered to be **less than significant**.

Off-Site Infrastructure Construction Vibration

Construction of the planned off-site transportation and utility (waterline and sewer force main) infrastructure improvements would involve heavy equipment and thereby generate localized ground-borne vibration in the vicinity of the occurring activity. As previously mentioned for Impact 3.10-4, the ENVA conservatively estimates that equipment could be located as close as 30 feet away (i.e., with respect to residential receptors near Abatement A-3, A-5, A-7) (Appendix G).

Per Table 3.10-12, vibration levels associated with typical construction equipment range from 0.003 to 0.089 in/sec PPV at a reference distance of 25 feet. Extrapolating these PPV values to reflect a horizontal distance of 30 feet between the vibration source and the receptor, the predicted vibration velocity range changes to 0.002 to 0.068 in/sec PPV, which are well below the 0.50 in/sec PPV guidance threshold for building damage risk to residential structures as shown in Table 3.10-4. Further, these predicted vibration levels are below the "barely perceptible" human response level of 0.01 in/sec PPV as presented in Table 3.10-5. For these reasons, construction vibration levels associated with off-site infrastructure improvements are expected to comply with applicable Caltrans ground-borne vibration velocity impact significance criteria; therefore, this impact is considered **less than significant**.

Mitigation Measures

No mitigation measures are required.

Cumulative Impacts

Future development within the County, including the proposed project, would affect the future (cumulative) ambient noise environment. While it is difficult to project exactly how the ambient noise conditions within the area would change, it is known that traffic noise levels would increase due to the additional traffic generated by the proposed project and other approved and reasonably foreseeable development in the county and the region. In the cumulative scenario, ongoing development in the county would be expected to increase the ambient noise environment in the area as a result of increased traffic volumes, increased residential population and commercial activities. Given that the Active Adult option would develop substantially the same land plan and footprint as the proposed project, although there would be a reduction in vehicle trips under this option; however, because the proposed project represents the worst-case scenario the cumulative analysis would also cover this option.

The primary factor for the cumulative noise impact analysis is the consideration of future traffic volumes. Non-transportation noise sources (e.g., project operation) and construction noise impacts are typically project-specific and highly localized. Construction activities associated with anticipated development within the area would contribute temporarily to the noise levels in the cumulative (2040) ambient noise environment, but in a highly localized and transient manner. As other development occurs in the area, noise from different types of uses (e.g., traffic, aircraft, fixed noise sources) would continue to combine, albeit on a localized basis, to cause increases in overall background noise conditions within the area. As a result, such sources do not significantly contribute to cumulative noise impacts at distant locations and are not evaluated on a cumulative level.

Impact 3.10-4. The proposed project would not increase cumulative traffic noise levels.

Comparable to the prediction of existing traffic noise levels as described in Section 3.10.1, the total of AM and PM peak hour traffic volumes for a Cumulative and Cumulative Plus Project scenario from the Transportation Report were multiplied by five to arrive at the project's ADT, which was then used to estimate traffic noise levels at distances representing the nearest noise-sensitive land uses to the project area roadways, as shown in Table 3.10-18. Table 3.10-18 also evaluates the dB increase in L_{dn} between these two scenarios (Cumulative [C] and Cumulative plus Project [C+P]) and concludes for each studied roadway segment if the increase represents a potential significant impact (i.e., the predicted increase at a noise-sensitive receptor along the studied roadway segment exceeds the significance threshold established in General Plan Policy 6.5.1.12). If a cumulative roadway noise impact is identified, it is further evaluated to assess whether the proposed project would make a cumulatively considerable contribution to the cumulative impact. This process is completed through a comparison of the roadway noise associated with the cumulative with project scenario against the cumulative no-project scenario, which is shown in Table 3.10-19. Attachments B-3 and B-4 from the ENVA contain the FHWA Traffic Noise Model inputs used in the analysis (see Appendix G).

As indicated in Table 3.10-18, project-generated traffic is calculated to exceed the applicable General Plan Policy 6.5.1.12 impact significance criterion along one roadway segment containing a noise-sensitive receptor (segment 29). However, the project-generated increase along that roadway segment is not calculated to have a cumulatively considerable contribution to the cumulative impact relative to the General Plan Policy 6.5.1.12 criterion (Table 3.10-15). Additionally, Table 3.10-18 data indicates that cumulative plus project increases in traffic noise levels at the outdoor area/playground of the closest existing school within project roadway network (John Adams Academy, roadway segment 28) were calculated to be 0.6 dBA L_{dn}. Table 3.10-18 data also indicates that cumulative plus project increase in traffic noise levels at the outdoor area/playgrounds for the Latrobe Elementary School and Miller's Hill School (roadway segment 9) were calculated to be 0.6 dBA L_{dn}.

Based on the analyses presented in Tables 3.10-18 and 3.10-19, project-generated (including the Active Adult option) traffic noise level increases would not result in a cumulative noise impact at existing noise-sensitive receptors located along the project area roadway network relative to the increase significance criteria contained in Policy 6.5.1.12 of the County's General Plan. As a result, this is a **less-than-significant cumulative impact**.

Mitigation Measures

No mitigation measures are required.

Table 3.10-18. Predicted Project-Related Traffic Noise Level Increases – Existing (2023) vs. Cumulative (2040) Plus Project Conditions

Roadway Segment #	Roadway Name	Segment Description	Predicted Traffic Noise Level at Nearest Noise-Sensitive Receptor (L_{dn}, dBA)			Significance Threshold[1]	Threshold Exceeded?	Sensitive Receptors Present?[2]	Significant Impact Identified?[3]
			E	C+P	Increase				
1	El Dorado Hills Blvd.	North of Serrano Pkwy.	67.8	68.2	0.4	1.5	No	Yes-Residence	No
2		Serrano Pkwy. To White Rock Rd.	62.0	62.8	0.8	3.0	No	Yes-Residence	No
3	Latrobe Rd.	White Rock Rd. to Golden Foothill Pkwy.	68.4	69.9	1.5	1.5	No	Yes-Residence	No
4		Golden Foothill Pkwy. To Investment Blvd.	52.6	55.2	2.6	5.0	No	Yes-Residence	No
5		Investment Blvd. to Avanta Dr./Q Dr.	50.9	53.9	3.0	5.0	No	Yes-Residence	No
6		Avanta Dr./Q Dr. to Project Commercial Entry	55.7	58.7	3.0	5.0	No	Yes-Residence	No
7		Project Commercial Entry to Royal Oaks Dr.	56.3	59.2	2.9	5.0	No	Yes-Residence	No
8		Royal Oaks Dr. to Wetsel Oviatt Rd.	49.7	50.8	1.1	5.0	No	Yes-Residence	No
9		Wetsel Oviatt Rd. to S. Shingle Rd.	61.9	62.7	0.8	3.0	No	Yes-Residence	No
10		South of S. Shingle Rd.	59.7	59.7	0.0	5.0	No	Yes-Residence	No
11	Lassen Ln.	West of El Dorado Hills Blvd.	53.7	55.2	1.5	5.0	No	Yes-Residence	No
12	Serrano Pkwy.	East of El Dorado Hills Blvd.	58.4	58.7	0.3	5.0	No	Yes-Residence	No
13	White Rock Rd.	West of Latrobe Rd.	58.3	59.7	1.4	5.0	No	Yes-Residence	No

Table 3.10-18. Predicted Project-Related Traffic Noise Level Increases – Existing (2023) vs. Cumulative (2040) Plus Project Conditions

Roadway Segment #	Roadway Name	Segment Description	Predicted Traffic Noise Level at Nearest Noise-Sensitive Receptor (L_{dn}, dBA)			Significance Threshold[1]	Threshold Exceeded?	Sensitive Receptors Present?[2]	Significant Impact Identified?[3]
			E	C+P	Increase				
14		East of Latrobe Rd.	64.1	66.1	2.0	3.0	No	Yes-Residence	No
15	Golden Foothill Pkwy.	West of Latrobe Rd.	56.8	58.4	1.6	5.0	No	Yes-Residence	No
16	Clubview Dr.	East of Latrobe Rd.	52.0	54.5	2.5	5.0	No	Yes-Residence	No
17	Investment Blvd.	Latrobe Rd. to Robert J. Mathews Pkwy.	36.1	37.7	1.6	5.0	No	Yes-Residence	No
18		West of Robert J. Mathews Pkwy.	47.3	49.5	2.2	5.0	No	Yes-Church	No
19	Project Q Dr.	West of Latrobe Rd. (within project area)	56.0[4]	30.2	-25.8	5.0	No	Yes-Residence	No
20	Avanti Dr.	East of Latrobe Rd.	36.7	36.7	0.0	5.0	No	Yes-Residence	No
21	Project Commercial Entry	West of Latrobe Rd. (within project area)	56.0[4]	28.5	-27.5	5.0	No	Yes-Residence	No
22	Royal Oaks Dr.	West of Latrobe Rd. (within project area)	56.0[4]	45.2	-10.8	5.0	No	Yes-Residence	No
23		East of Latrobe Rd.	42.1	43.8	1.7	5.0	No	Yes-Residence	No
24	Wetsel Oviatt Rd.	West of Latrobe Rd.	19.4	22.1	2.7	5.0	No	Yes-Residence	No
25	S. Shingle Rd.	West of Latrobe Rd.	45.5	47.1	1.6	5.0	No	Yes-Residence	No
26		East of Latrobe Rd.	53.9	54.8	0.9	5.0	No	Yes-Residence	No

Table 3.10-18. Predicted Project-Related Traffic Noise Level Increases – Existing (2023) vs. Cumulative (2040) Plus Project Conditions

Roadway Segment #	Roadway Name	Segment Description	Predicted Traffic Noise Level at Nearest Noise-Sensitive Receptor (L_{dn}, dBA)			Significance Threshold[1]	Threshold Exceeded?	Sensitive Receptors Present?[2]	Significant Impact Identified?[3]
			E	C+P	Increase				
27	Robert J. Mathews Pkwy.	Investment Blvd. to Golden Foothill Pkwy.	51.4	53.5	2.1	5.0	No	Yes-Church	No
28		South of Investment Blvd.	50.2	50.8	0.6	5.0	No	Yes-School	No
29	Palmdale Dr.	South of Carson Crossing Dr.	45.4	52.0	6.6	5.0	Yes	Yes-Residence	Yes
30	Carson Crossing Dr.	Palmdale Dr. to Four Seasons Dr.	50.6	54.6	4.0	5.0	No	Yes-Residence	No
31		Palmdale Dr. to Golden Foothill Pkwy.	51.1	55.2	4.1	5.0	No	Yes-Residence	No

Sources: FHWA-RD-77-108 with inputs from project traffic impact study. Appendix G (see Attachments B-3 and B-4 for FHWA model inputs).

Notes:

1 Significance thresholds established in General Plan Policy 6.5.1.12.

2 Sensitive receptors identified as existing residential, school, or church uses.

3 A significant impact is identified only along segments where the project-related traffic noise level increase would exceed threshold AND where sensitive receptors are present along the roadway segment.

4 Project traffic study did not contain data for segments 19, 21 and 22, which are access points to the project property (located within the project area). For the purposes of this analysis, the measured ambient L_{dn} at site 4 was used, which is believed to be representative of the existing ambient noise level environment along those roadway segments.

Table 3.10-19. Predicted Traffic Noise Level Increases at Existing Noise-Sensitive Receptors – Cumulative (2040) vs. Cumulative (2040) Plus Project Conditions

Roadway Segment #	Roadway Name	Segment Description	Predicted Traffic Noise Level at Nearest Noise-Sensitive Receptor (L_{dn}, dBA)			Significance Threshold[1]	Threshold Exceeded?	Sensitive Receptors Present?[2]	Significant Impact Identified?[3]
			C	C+P	Increase				
29	Palmdale Dr.	South of Carson Crossing Dr.	52.0	52.0	0.0	5.0	No	Yes-Residence	No

Sources: FHWA-RD-77-108 with inputs from project traffic impact study. Appendix G (see Attachments B-3 and B-4 for FHWA model inputs).
Notes:
1 Significance thresholds established in General Plan Policy 6.5.1.12.
2 Sensitive receptors identified as existing residential, school, or church uses.
3 A significant impact is identified only along segments where the project-related traffic noise level increase would exceed threshold AND where sensitive receptors are present along the roadway segment.

3.10.5 Additional Project Considerations

As noted above, the existing environment's effects on a project are not within the scope of CEQA review unless the project would exacerbate the existing environmental effect. Only the effects of the project on the environment are required to be evaluated. An assessment of the cumulative plus project noise conditions on proposed future project occupants is therefore provided for informational purposes only.

Cumulative plus Project Other Noise Considerations

Traffic Noise at Proposed (onsite) Residential and Park Uses (cumulative)

This analysis is included for informational purposes only; therefore, no significance finding is provided. The analysis below also covers the Active Adult option.

Table 3.10-20 provides planned on-site locations of occupied residences and outdoor use areas, along with the distances between these exterior facades or outdoor areas and future (cumulative 2040 plus project) Latrobe Road traffic, and the predicted L_{dn} values attributed to this roadway traffic at the indicated sample positions.

Table 3.10-20. Predicted Exterior (Cumulative 2040 plus Project) Latrobe Road Traffic Noise Levels at Proposed Residential Uses

Location[1]	Description	Distance from Roadway Centerline (feet)[2]	Future Exterior L_{dn} (dB)[3]
Park	Village Park	300	61
Park	Neighborhood Park 1	150	62
SFL Lots 588-598	Backyards	95	68
	First-Floor Facades	110	67
	Upper-Floor Facades	110	69
SFL Lots 550-560	Backyards	95	65
	First-Floor Facades	110	64
	Upper-Floor Facades	110	66
SFM Large Lot 2	Backyards	230	60
	First-Floor Facades	60	68
	Upper-Floor Facades	60	70

Source: Appendix G (see Attachment G).
Notes:
1 Locations of parks and lots are shown on Figure 3.10-2.
2 Distances scaled from effective noise center of proposed parks and residential lots to roadway centerline using provided site plans.
3 A +2 dB offset was applied to upper-floor facades for reduced ground absorption of sound at elevated locations.

As presented in Table 3.10-20, predicted Latrobe Road future traffic noise level exposures at Village Park and Neighborhood Park 1 would satisfy the applicable County General Plan exterior noise level threshold of 70 dBA L_{dn} for playgrounds and neighborhood park uses. At the nearest single-family low density residential (SFL) backyards; however, predicted future Latrobe Road traffic noise would exceed the County's residential use exterior noise level standard of 60 dBA L_{dn}.

Although locations of individual residences and their outdoor activity areas are not known at this time, the project site plans contain the general location information for the proposed single-family medium density residential large lot units. Further, Table 3.10-20 shows that future Latrobe Road exterior traffic noise levels are predicted to be 60 dBA L_{dn} at a distance of 230 feet from the centerline of the roadway. The project's increase in traffic noise would less than the significance thresholds shown in Table 3.10-14; therefore, it would not exacerbate interior traffic noise conditions under cumulative plus project conditions. In addition, as indicated in Table 3.10-18, project-generated traffic is calculated to exceed General Plan Policy 6.5.1.12 impact significance criterion along one roadway segment containing a noise-sensitive receptor (segment 29). However, the project-generated increase along that roadway segment is not calculated to have a cumulatively considerable contribution to the cumulative impact relative to the General Plan Policy 6.5.1.12 criterion (Table 3.10-15). However, for residences within 230 feet or closer, future Latrobe Road traffic noise exposure would exceed the County's General Plan standard of 60 dBA L_{dn}. Figure 3.10-4 depicts the location of those residences that would be affected by an increase in traffic noise along Latrobe Road. The project applicant has agreed to implement mitigation measure NOI-4 and construct noise barriers along segments of Latrobe Road, as shown on Figure 3.10-4.

Traffic Noise (interior) at Proposed (on-site) Residential Uses (cumulative)

As noted above, an analysis that evaluates the impacts of the existing environment on new land uses constructed by a project is not typically required, unless the project would exacerbate the existing environmental effect. This analysis is included for informational purposes only; therefore, no significance finding is provided.

The project's increase in traffic noise would be less than the significance thresholds shown in Table 3.10-14; therefore, it would not exacerbate interior traffic noise conditions under cumulative plus project conditions. Also, as noted above project-generated traffic is calculated to exceed the applicable General Plan Policy along one roadway segment containing a noise-sensitive receptor (segment 29). However, the project-generated increase along that roadway segment is not calculated to have a cumulatively considerable contribution to the cumulative impact relative to the General Plan Policy 6.5.1.12 criterion (Table 3.10-15). In order to satisfy the County's General Plan 45 dBA L_{dn} interior noise level standard, minimum noise reductions of 15 dBA and 24 dBA would be required of the first- and upper floor building facades (respectively) of the residences constructed adjacent to Latrobe Road.

According to Table 3.10-20, future exterior Latrobe Road traffic noise levels are predicted to be approximately 68 dBA L_{dn} at a distance of 60 feet from the roadway centerline. Due to reduced ground absorption at elevated positions (ground level receivers would experience more attenuation from ground effects than upper levels), upper-level traffic noise levels from Latrobe Road would approach 70 dBA L_{dn}. In order to satisfy the County's General Plan 45 dBA L_{dn} interior noise level standard within all floors of residences located closest to Latrobe Road, a minimum noise reduction of at least 25 dBA would be required of the building facades.

Standard building construction (stucco siding, STC-27 windows, door weather-stripping, exterior wall insulation, composition plywood roof), typically results in an exterior to interior noise reduction of approximately 25 dBA with windows closed and approximately 15 dBA with windows open. Therefore, standard construction would be adequate to reduce future Latrobe Road traffic noise levels within all floors of residences constructed adjacent to the roadway to 45 dBA L_{dn} or less. Nonetheless, mechanical ventilation (air conditioning) should be provided to allow the occupants to close doors and windows as desired for additional acoustical isolation.

Based on the information above, standard construction should be adequate to reduce future Latrobe Road traffic noise levels within all floors of residences constructed adjacent to the roadway, north of Village Park as shown in

Figure 3.10-5. However, future (cumulative 2040 plus project) traffic noise level exposure is calculated to be only 1 dB below the General Plan 45 dBA L_{dn} interior noise level standard.

Predicted future (cumulative 2040 plus project) Latrobe Road interior traffic noise levels within the single-family residences constructed at least 60 feet from the roadway centerline would satisfy the 45 dBA L_{dn} interior noise level standard. However, should residences within the single-family large lots be constructed within 60 feet from the centerline of Latrobe Road, future interior traffic noise levels from the roadway could exceed the General Plan 45 dBA L_{dn} interior noise level standard at the upper floors of those residences. The project applicant has agreed to implement mitigation measure NOI-5.

Mitigation Measures

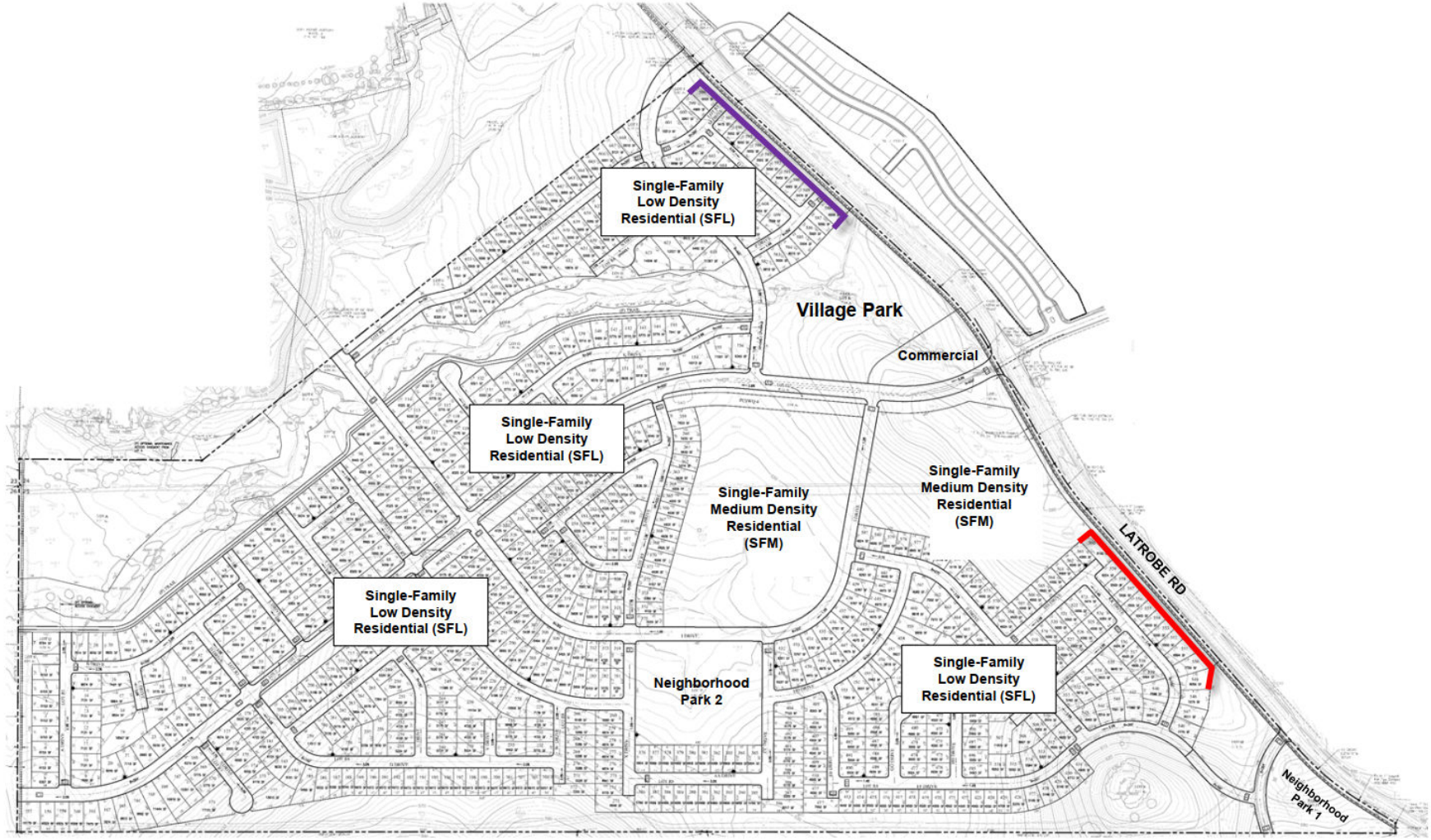
The project applicant has agreed to implement mitigation measures NOI-4, NOI-5 to ensure future development would comply with the County's General Plan 60 dBA L_{dn} exterior noise standard and 45 dBA L_{dn} interior noise standard at the single-family low and medium density residential outdoor activity areas proposed nearest to Latrobe Road. A conceptual cross section of the proposed noise barriers relative to Latrobe Road is shown in Figure 3.10-6.

Because age-restricted homes under the Active Adult option would be single story, second story windows with a minimum Sound Transmission Class Rate of 32 identified in mitigation measures NOI-5 would not be required for age-restricted homes but would still apply to conventional homes within the Active Adult option if developed along Latrobe Road.

NOI-4: Exterior Traffic Noise. The tentative map submitted for building and/or grading permits shall include an acoustical analysis (noise study) that verifies and demonstrates applicable County noise standards shall be met. The analysis shall be provided to the County's Planning and Building Department for review. To satisfy the General Plan 60 dBA L_{dn} exterior noise level standard at the backyards of the single-family residential lots proposed nearest to Latrobe Road (within 230 feet from the centerline of Latrobe Road), the construction of solid traffic noise barriers ranging from six to nine feet in height shall be required. Once site plans showing building pad elevations are available, a site-specific noise study shall be completed by a qualified noise consultant in order to determine the overall heights of barriers required at those locations.

It is recommended that the traffic noise barriers shall be either a masonry wall, earthen berm, or combination of the two. Other materials may be acceptable (i.e., wood or wood composite fence with overlapping slat construction) but shall be reviewed by a qualified acoustical consultant prior to receiving building permits.

NOI-5: Interior Traffic Noise. To achieve a greater margin of safety, the upper floor bedroom windows of the residential lots located north of Village Park adjacent to and visible from Latrobe Road or within 60 feet from the centerline of Latrobe Road and visible from Latrobe Road shall be upgraded to have a minimum Sound Transmission Class Rating of 32. Mechanical ventilation (air conditioning) shall also be provided for all residences to allow the occupants to close doors and windows to achieve compliance with the General Plan 45 dBA L_{dn} interior noise level standard.



SOURCE: Bollard Acoustical Consultants 2020

FIGURE 3.10-4

Proposed Noise Barriers Along Latrobe Road

Creekside Village Specific Plan EIR

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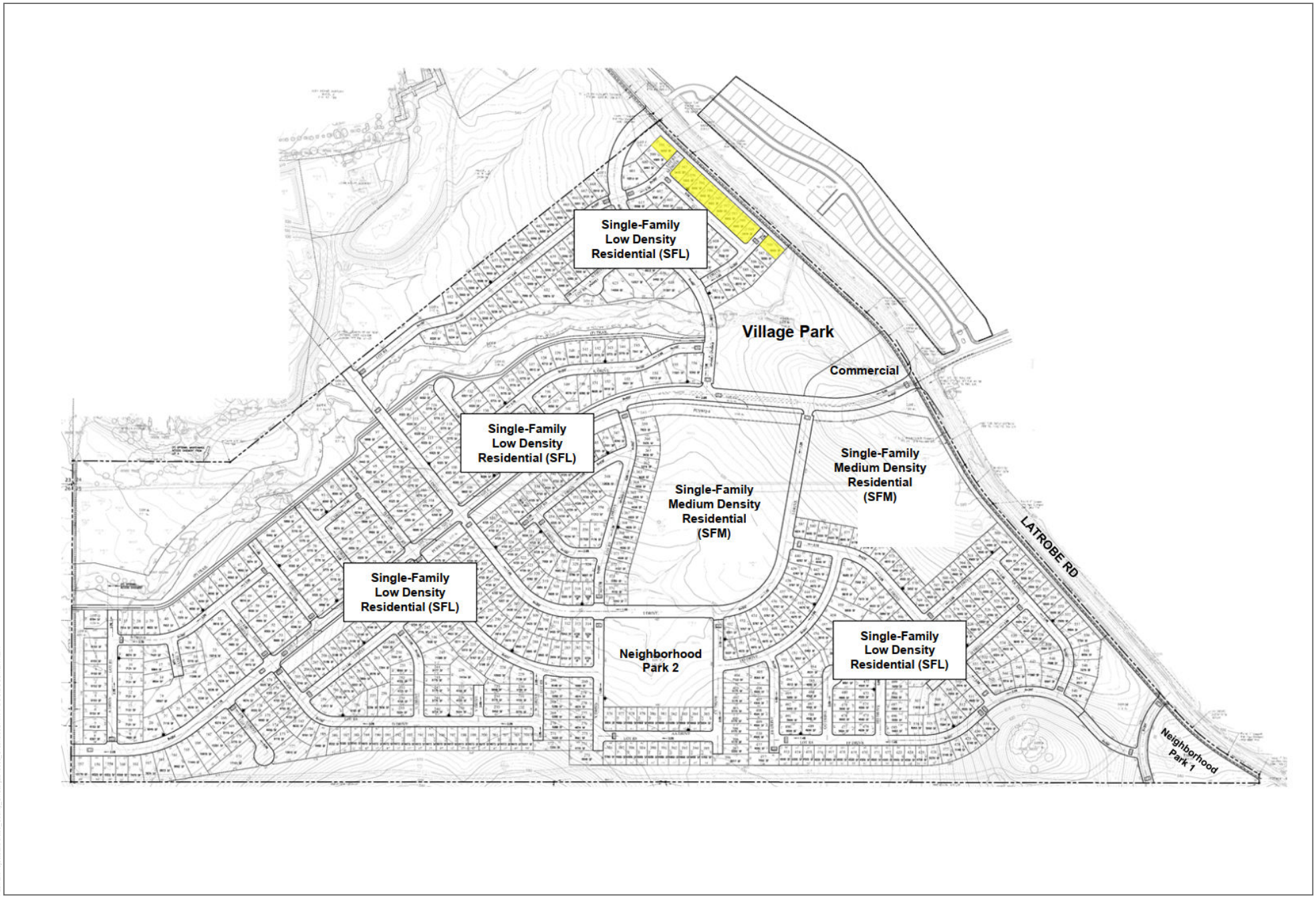

SOURCE: Bollard Acoustical Consultants 2020

FIGURE 3.10-5

Location of Residences Affected by Traffic Noise (Interior)

Creekside Village Specific Plan EIR

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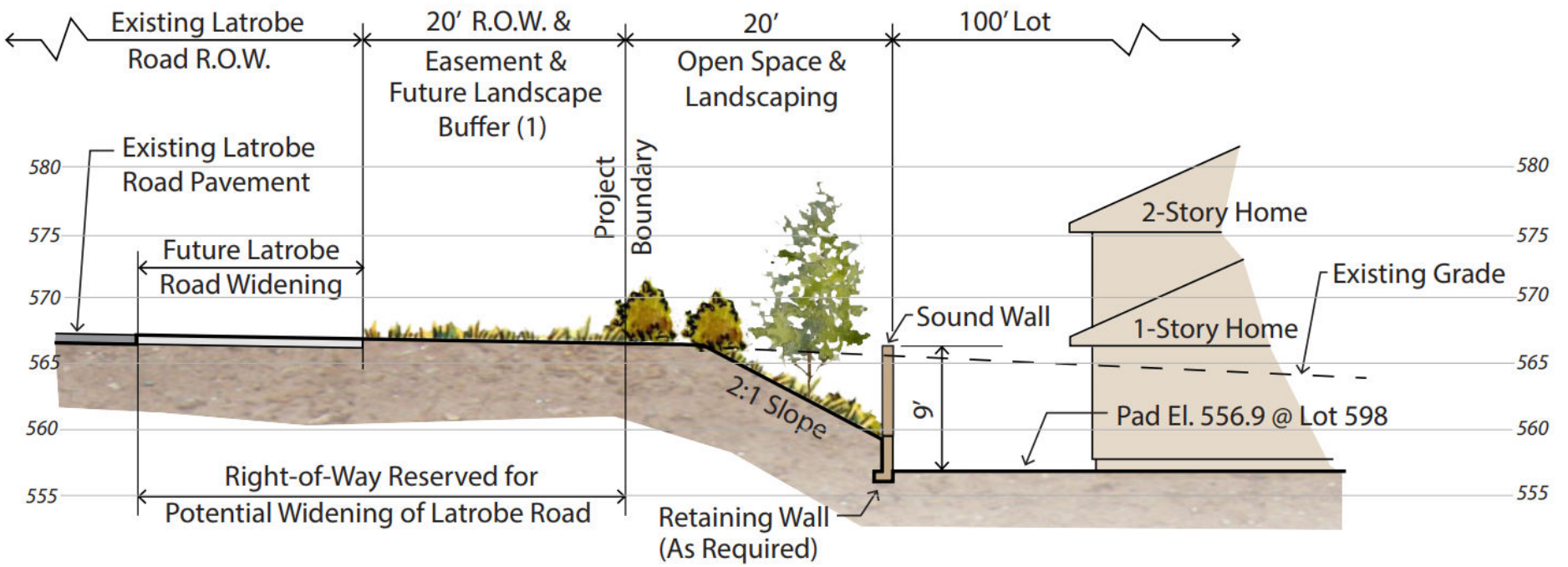

1. *Landscaping Shall be Consistent With Landscaping Standards as Described in Chapter 130.33 of the El Dorado County Code. Landscaping Shown Here for Conceptual Design Purposes Only.*

Conceptual Cross Section of Latrobe Road Adjacent to CVSP

Torrence Planning: 4-19-24

SOURCE: Torrence Planning 2024

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FIGURE 3.10-6
Latrobe Road Cross Section
Creekside Village Specific Plan EIR

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3.10.6 References

Caltrans (California Department of Transportation). 2013a. *Technical Noise Supplement to the Traffic Noise Analysis Protocol*. September.

Caltrans. 2020. *Transportation and Construction Vibration Guidance Manual*. Division of Environmental Analysis, Environmental Engineering, Hazardous Waste, Air, Noise, Paleontology Office. Sacramento, California. April.

FTA (Federal Transit Administration). 2018. *Transit Noise and Vibration Impact Assessment Manual*. FTA Report No. 0123. September.

LOUD Audio. 2021. *Mackie Thump Go Spec Sheet*.

The County of El Dorado. El Dorado County General Plan: Public Health, Safety, and Noise Element. August 2019. https://www.edcgov.us/government/planning/adoptedgeneralplan/documents/6_health-safety.pdf

The County of El Dorado. El Dorado County Code of Ordinances. December 2023. https://library.municode.com/ca/el_dorado_county/codes/code_of_ordinances

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3.11 Public Services and Recreation

The following describes the potential adverse physical impacts associated with the provision or need for new or physically altered governmental services (fire protection and emergency medical services, law enforcement, schools) or recreational facilities (parks) to meet acceptable response times, service ratios, or increase in usage of recreational facilities such that deterioration would occur from implementation of the Creekside Village Specific Plan (proposed project or CVSP).

Public comments received in response to the November 6, 2020, Notice of Preparation (NOP) included several comments related to funding of recreational facilities, capacity of existing schools, and impacts to public service levels. On September 26, 2023, a second scoping meeting was held to reintroduce the proposed project to the public and to receive any comments. A comment letter was received from the Latrobe School District requesting impacts to their schools be evaluated in the EIR. Comments received in response to the November 2020 NOP and the second scoping meeting are addressed in this section. Please see also the Executive Summary chapter for more information on what an EIR is required to evaluate specific to schools. Under CEQA, public service impacts relate to the environmental effects of providing expanded or new facilities which are required as a result of the project. A copy of the NOP and the second scoping meeting and comments received is included in Appendix A.

Sources reviewed to prepare this section include the El Dorado County General Plan, El Dorado County 2012 Parks and Trails Master Plan, El Dorado Hills Community Services District 2016 Park and Recreation Facilities Master Plan, Fire Safe Plan (Appendix J), and information from the County, the El Dorado Hills Fire Department, the County Sheriff's Office, Latrobe School District, and the El Dorado Union High School District.

3.11.1 Environmental Setting

Fire Protection and Emergency Medical Services

Fire protection services throughout El Dorado County (County) are provided by 13 separate fire districts, two city fire departments, the California Department of Forestry and Fire Protection (CAL FIRE), and the U.S. Forest Service (El Dorado County 2004b). The project site is within the service area of the El Dorado Hills Fire Department ("EDH Fire"). EDH Fire provides fire suppression, emergency medical services, special and technical rescue, hazardous materials mitigation, fire prevention, public education, disaster preparedness, and support to many programs. The EDH Fire service area is located near the eastern border of the County and encompasses nearly 78.8 square miles of the unincorporated community of El Dorado Hills, including the Latrobe area with a total population of approximately 52,500 residents (EDH Fire 2020). EDH Fire participates in joint dispatching with other fire districts in the County, in which the closest uncommitted unit responds to emergency calls, regardless of jurisdiction. Other fire districts surrounding EDH Fire include Cameron Park Fire Department, El Dorado County Fire District, and the Latrobe Fire Protection District. In addition, EDH Fire participates in the Master Mutual Aid System for the State of California, which provides staff and fire protection assistance throughout the state.

EDH Fire does not have adopted response times. The County's General Plan identifies minimum levels of service for fire districts (See Section 3.11.2). The service levels presented in the General Plan include an 8--minute response time to 80% of the population for Community Regions and a 15 to 45-minute response time for Rural Centers and Rural Regions (El Dorado County 2015).

EDH Fire serves the community from five stations (one housing the administration offices) with ten engines, one air/light support unit, two water tenders, one patrol, one ladder truck, one medic unit and one medic unit in reserve. EDH Fire is staffed with approximately 65 firefighters and paramedics and a total of approximately 83 personnel (including chief officers, fire prevention specialists, training officers, fleet maintenance personnel and administrative staff) and currently operates at a ratio of approximately 1.64 fire staff per 1,000 residents or approximately one fire station per 11,000 residents (Appendix J). In January 2008, the District's fourth fire station (Station 87), located at 4680 Golden Foothill Parkway in the El Dorado Hills Business Park, was opened. Station 87 is the closest station to the project site, located approximately 1.5 miles (driving distance) northeast. Station 87 houses a variety of equipment available for responses including two Type 1 engines, one Type 3 engine, one utility truck, one patrol truck, and a decontamination trailer (EDH Fire 2023).

EDF Fire also provides pre-hospital emergency medical and dispatch services in cooperation with the El Dorado County Regional Pre-Hospital Emergency Services Operations Authority, also known as West Slope Joint Powers Authority (JPA). EDH Fire provides emergency medical services including basic and advanced life support services at all five stations. EDH Fire has two medic units, both of which are housed at Station 85, approximately 4 miles north (driving distance) of the proposed project site. Likewise, the West Slope JPA owns a total of eight ambulances that are assigned to various districts or areas throughout the County and are relocated based on demand. The minimum level of service for emergency medical services for the urban region of the County is a 10-minute response time for 80% of the calls for service received and a 20-minute response time for 90% of the calls for service received in semirural and rural regions (El Dorado County 2004b). Calls for service generated by the proposed project would be subject to the standards for urban regions.

Law Enforcement

The El Dorado County Sheriff's Office ("County Sheriff") provides law enforcement services in the unincorporated county which includes 1,763 square miles (El Dorado County Sheriff's Office 2019). The County Sheriff has two offices in the county: one in Placerville and another in South Lake Tahoe. The County Sheriff Placerville location is considered the County Sheriff headquarters and is located at 200 Industrial Drive, approximately 20 miles east of the project site. In addition to these offices, the County Sheriff operates three substations located in El Dorado Hills, Georgetown, and Cameron Park, which recently opened in 2022. Out of the five County Sheriff locations, the nearest to the proposed project is the El Dorado Hills substation located at 4354 Town Center Drive approximately 3 miles from the project site. Although the County Sheriff has offices and jail facilities in the Town of Placerville and South Lake Tahoe, these incorporated cities each have their own independent police forces and facilities. As outlined in the County's General Plan EIR, the County Sheriff attempts to maintain a level of service standard of one deputy per 1,000 residents in the unincorporated areas of the County. The County Sheriff does not have an established countywide goal for response time for either rural or urban areas, because the ideal response time varies by priority and by the area of the call (El Dorado County 2004b).

Several Divisions, Units, or teams make up the County Sheriff including the Support Services Division, which includes many smaller units such as dispatch, information technologies, records, radio communications, and property, Training Unit, Coroner Services, Civil Unit, Concealed Carry Weapon Unit, Fiscal Division, Custody Division, Transportation Unit, and Operations Division. The County Sheriff also oversees two correctional facilities, the El Dorado County Jail - South Lake Tahoe Facility and the El Dorado County Jail - Placerville Facility.

The County Sheriff is also responsible for managing the County's Office of Emergency Services (OES), which is the emergency management agency for the County. OES provides services countywide, in cooperation with cities and special districts, such as the fire department and law enforcement agencies (El Dorado County OES 2018). The

County Sheriff also acts as the Public Safety Answering Point (PSAP) for the County and supports PSAP services for the Placerville and South Lake Tahoe Police offices if needed.

The Operations Division is the most visible to the public and consists of the Off-Highway Vehicle Unit, Canine Unit, Dive Team, Explosive Ordinance Disposal Unit, Gang Enforcement Unit, Homeless Outreach Team, SWAT Team, Psychiatric Emergency Response Team, Crisis Negotiation Team, Western El Dorado Narcotics Enforcement Team, Unmanned Aerial Systems Unit, County Sheriff Air Squadron, Search and Rescue, and Criminal Investigations.

The County Sheriff is currently staffed by 392 employees, 181 of which work in the Operations Division (El Dorado County 2021a). Patrol for the Operations Division is further divided into the West Slope and Lake Tahoe areas. The West Slope Patrol is responsible for the unincorporated area of the county from Strawberry west to the El Dorado/Sacramento County line and from the North Fork of the American River to the Highway 88/Consumes River border. The project site is located within the West Slope Patrol area. In 2019, the West Slope Patrol staff consisted of a total of 2 lieutenants, 9 sergeants, and 60 deputies (El Dorado County Sheriff's Office 2019). In 2022, the West Slope Patrol received over 82,000 calls for services, processed over 10,000 reports, and made over 2,500 arrests. Furthermore, over 2,171 traffic stops were conducted, and 365 arrests were made by the Criminal Investigations and Narcotics Enforcement Team in 2022 throughout the county.

Schools

The project site is located within the boundaries of the Latrobe School District (LSD) and the El Dorado Union High School District (EDUHSD). The LSD is a small, rural, K-8 school district that serves the southwest portion of the county. The LSD encompasses approximately 35 square miles and includes two schools: Latrobe Elementary School (grades TK-3) located at 7690 South Shingle Road and Miller's Hill School (grades 4-8) located at 7900 South Shingle Road (LSD 2023a). LSD had a total of 162 students during the 2022-2023 school year with 68 students at Latrobe Elementary School and 94 students at Miller's Hill School (LSD 2023b). There is no data available for projected enrollment or maximum capacity, but historical data shows that enrollment has ranged between 50 and 70 students at Latrobe Elementary School and between 75 and 100 at Miller's Hill School for the past 5 years (Ed-Data 2024). Latrobe Elementary School and Miller's Hill School are located approximately 5 miles south of the proposed project site.

The EDUHSD is located on the western slope of the county and encompasses approximately 1,250 square miles. EDUHSD serves the communities of Cameron Park, Camino, Diamond Springs, El Dorado, El Dorado Hills, Latrobe, Placerville, Pollock Pines, Rescue, Shingle Springs, Somerset, and many smaller rural areas in the County. The EDUHSD includes four comprehensive high schools, a continuation high school, and an alternative education high school. The EDUHSD serves grades 9 through 12 at the following schools: El Dorado High School, Oak Ridge High School, Ponderosa High School, Union Mine High School, The Virtual Academy at Shenandoah High School (Charter), and Independence Continuation High School. In addition, the Central Sierra Regional Occupation Program operates a variety of career/technical education courses on the EDUHSD's school sites, and the County Office of Education houses special education programs on some of the campuses (EDUHSD 2019). Students within the project site would attend Oak Ridge High School located at 1120 Harvard Way, approximately 4.5 miles north of the project site. During the 2022/23 school year, the enrollment at Oak Ridge High School was 2,517 students (EDUHSD 2022).

Students enter the EDUHSD from twelve feeder elementary school districts including the LSD. According to a Demographics and Enrollment Projections report published by EDUHSD in November 2022, the EDUHSD has experienced a generally stable enrollment over the past 10 years with an enrollment of 6,847 students during the 2013/14 school year and a current (2022-23) enrollment of 6,719 students (EDUHSD 2022). However, enrollment

within the district is projected to experience a 7.78% decline, or loss of 523 students within the next six years, with a projected enrollment of 6,196 students in the 2028/29 school year (EDUHSD 2022). See Table 3.11-1 for enrollment predictions by high schools throughout the District.

Table 3.11-1. EDUHSD Enrollment Predictions

School	School Year Enrollment						
	Current Enrollment (22/23)	23/24	24/25	25/26	26/27	27/28	28/29
El Dorado High	1224	1189	1159	1132	1169	1173	1188
Oak Ridge High	2517	2378	2276	2221	2118	2165	2143
Ponderosa High	1652	1655	1615	1616	1642	1637	1626
Union Mine High	1066	1067	1026	1029	1019	988	1001
Independence High	126	126	119	112	112	113	114
Pacific Crest Academy	99	97	92	90	90	91	92
Non-Public Schools	35	34	34	32	31	32	32
Totals	**6,719**	**6,546**	**6,321**	**6,323**	**6,181**	**6,199**	**6,196**

Source: EDUHSD 2022, pp. 15-26.

The Demographics and Enrollment Projections report notes that the information and projections presented have taken new housing development into consideration. In fact, City and County Planning Departments predicted that there would be a total of 1,702 new housing units developed out of the 11,665 planned units in the County over the next six years. This estimate assumed that a total of 72 housing units of the proposed project would be constructed in this six-year time frame. Based on the estimated construction rates, EDUHSD projects that planned new development within the EDUHSD service area would generate a total of 208 students in the next six years (EDUHSD 2022, p. 11). Table 3.11-2 below presents a breakdown of the distribution of new students to schools in the district.

Table 3.11-2. Projected EDUHSD Students due to New Development

School	Housing Units Per Year						Total (by school)
	23/24 (Year 1)	24/25 (Year 2)	25/26 (Year 3)	26/27 (Year 4)	27/28 (Year 5)	28/29 (Year 6)	
El Dorado High	2	2	87	87	51	62	291
Oak Ridge High	111	117	71	103	138	135	675
Ponderosa High	101	74	55	27	98	118	473
Union Mine High	0	0	58	59	42	104	263
Total (per year)	**214**	**193**	**271**	**276**	**329**	**419**	**1,702**

Source: EDUHSD 2022, page 11.

Calculations in the Demographics and Enrollment Projections report also concludes that based on current District loading standards and classroom space, EDUHSD has a net classroom capacity of 8,416 students, and a current

enrollment of 6,719 students. This represents a current utilization factor of 79.8% and a projected utilization factor of 73.6% in six years. At Oak Ridge High School specifically, there is a classroom capacity of 2,530 students. As previously stated, the student enrollment for Oak Ridge High School during the 2022/23 school year totaled 2,517 students, which leaves only 13 available seats. However, concurrent with the enrollment predictions District-wide, during the 2028/29 school year, Oak Ridge High school is projected to have an enrollment of 2,143, and 387 available seats. These estimates assume that loading standards remain constant, and no additional facilities are required to be constructed or removed.

In June 2008, EDUHSD voters approved Measure Q, a $66.3 million dollar school bond to improve student safety and the quality of education at every school by repairing, updating, constructing, furnishing, and equipping school facilities, including technology, job training, science and health facilities, roofs, electrical, plumbing, heating, and air conditioning systems (EDUHSD 2017).

Parks and Recreation Facilities

The El Dorado County Parks, Trails, and River Management Division plans, develops, and manages park and recreational facilities within the unincorporated county. Generally, community service districts (CSD) provide park and recreation services to more populated suburban communities within the county (El Dorado County 2012). The two largest CSDs are El Dorado Hills CSD and Cameron Park CSD. The El Dorado Hills CSD encompasses 28 square miles of the county, including 326 acres of developed park land and 81 acres of open space (El Dorado Hills CSD 2021). The Cameron Park CSD encompasses 8.3 square miles (Cameron Park CSD 2021). Rural community regions are served by the Rolling Hills CSD, Cosumnes River CSD, and Georgetown Divide Recreation District. The U.S. Forest Service, Bureau of Land Management, California Department of Parks and Recreation, California Tahoe Conservancy, and the El Dorado Irrigation District also owns and manages recreational opportunities within the county.

In 2012, the El Dorado County Parks, Trails, and River Management Division approved the El Dorado County Parks and Trails Master Plan (Master Plan) to provide guidance for County area parks and recreation, with consideration of existing and future parkland needs. The Master Plan contains a detailed inventory of all parklands within the county, assesses the condition of parks and recreation facilities, and determines community needs and potential opportunities for development projects. The Master Plan also outlines the variable population growth in the county between urban community regions and more rural areas and notes the distribution of park facilities should have some correlation to the population and needs of the residents intended to be served by the facilities (El Dorado County 2012).

The project site lies outside the boundaries, but within the sphere of influence, of the El Dorado Hills CSD. The closest public park to the project site is Valley View Sports Park owned by El Dorado Hills CSD, located approximately 1.5 miles northwest of the project site.

The County uses a standard of 1.5 acres per 1,000 residents for regional and community parks, and a standard of 2 acres per 1,000 residents for the acquisition and development of neighborhood parks and facilities.

Neighborhood Parks

Neighborhood parks provide recreation opportunities within a half mile of residential areas and typically include play fields, paved areas for court games (e.g., basketball), Americans with Disabilities (ADA) accessible walkways, sitting areas, and shaded picnic areas. According to the County General Plan, the desirable acreage for a

neighborhood park is approximately 2 to 10 acres in size and may include a playground, tot lot, turf areas, and picnic facilities. If adjacent to other parkland, natural areas, schools, or greenways, a smaller acreage may be acceptable. Bradford Park is the only County-operated neighborhood park and is located in Shingle Springs. However, El Dorado Hills CSD owns and operates 13 neighborhood parks in El Dorado Hills and has proposed an additional three new parks (El Dorado Hills CSD 2021).

Community Parks

Community parks provide opportunities for larger community-wide activities and facilities, with a balance between sports facilities/fields and community activity areas. They may include sports fields and courts, picnic facilities, play areas, a swimming pool, and a community center. Access to a community trail system is also desirable. According to the General Plan, the desirable acreage for a community park is between 10 and 44 or more acres. The County currently owns 99 acres of community park land but only 73 acres have been improved (El Dorado County 2012). However, the recently approved Diamond Springs Community Park Project will develop approximately 40 acres in the Diamond Springs area for a community park. El Dorado Hills CSD operates six community parks and has proposed one new community park, Valley View Specific Plan Community Park (El Dorado Hills CSD 2024).

Regional Parks

Regional parks and recreation facilities incorporate open space and typically have unique or special features that may attract visitation from outside of the county. Facilities may include all those found at neighborhood and community parks, as well as special use facilities such as amphitheaters, trails, campgrounds, and interpretive centers. The desirable acreage ranges from 30 to 10,000 acres with the preferred size being several hundred acres. There are 57 acres of developed regional parks in the county, and an additional 115 acres of undeveloped regional park land. El Dorado Hills CSD has an additional 207 acres of regional parks (El Dorado Hills CSD 2021). Notable regional parks within the vicinity of the project site include El Dorado Fairgrounds, Deer Creek Hills, Folsom Lake State Recreation Area, Bass Lake Regional Park, and El Dorado Hills Community Park.

Special Purpose Parks

Special purpose parks are intended to serve a more focused purpose or community need. These include festival areas, fairgrounds, dog parks, and horticulture centers. Because these parks vary greatly in service and nature, they do not have defined or ideal characteristics, and do not have an identified level of service.

3.11.2 Regulatory Setting

Federal Regulations

National Fire Protection Association

The National Fire Protection Association publishes a number of standards that are useful to the El Dorado County Fire Department and EDH Fire, including:

> **NFPA 1710:** Provides standards for response time; including a call processing time of 60 seconds; a personnel turnout time of 60 seconds for medical, and one minute twenty seconds for fires; and a travel time of 4 minutes (240 seconds). This equates to a 6 minute 20 second response time standard for fire calls.

State Regulations

There are no state law enforcement regulations or policies adopted by the County that would be applicable to the proposed project.

Fire Protection

Uniform Fire Code

The Uniform Fire Code (UFC) provides regulations relating to construction, maintenance, and use of buildings. Topics addressed in the UFC include fire department access, fire hydrants, automatic storage and use, provisions intended to protect and assist fire responders, industrial processes, and many other general and specialized fire-safety requirements for new and existing buildings and the surrounding premises. The code contains specialized technical regulations relation contains specialized technical regulations related to fire and life safety.

California Building Code

The State provides a minimum standard for building design through the California Building Code (CBC), which is in Part 2 of Title 24 of the California Code of Regulations. The CBC is based on the International Building Code but has been modified for California conditions. It is generally adopted on a jurisdiction-by-jurisdiction basis, subject to further modification based on local conditions. Commercial and residential buildings are plan checked by local building officials for compliance with the CBC. Typical fire safety requirements of the CBC include the installation of sprinklers in all commercial and residential buildings; the establishment of fire resistance standards for fire doors, building materials, and particular types of construction; and the clearance of debris and vegetation within a prescribed distance from occupied structures in wildfire hazard areas.

California Fire Code

California Code of Regulations, Title 24, Part 9, incorporates adoption of the 2015 International Fire Code of the International Code Council with necessary California amendments. The California Fire Code and Office of the State Fire Marshal provides regulations and guidance for local agencies in the development and enforcement of fire safety standards. The California Fire Code also establishes minimum requirements that would provide a reasonable degree of safety from fire, panic, and explosion. The California Fire Code applies to construction, alteration, movement, enlargement, replacement, repair, equipment, use and occupancy, location, maintenance, removal, and demolition of every building or structure within the State of California. The California Fire Code includes a mandate for automatic sprinkler systems in new buildings and structures, including floors of buildings where the fire area exceeds 5,000 square feet, has an occupant load of 100 or more, or is located on a floor other than the level of exit discharge[1] (Cal. Code Regs. tit. 24 Part 9).

California Health and Safety Code

State fire regulations are set forth in Sections 13000 et seq. of the California Health and Safety Code. This includes regulations for building standards (as also set forth in the California Building Code), fire protection and notification systems, fire protection devices such as extinguishers and smoke alarms, high-rise building and childcare facility standards, and fire suppression training.

[1] Exit discharge refers to the part of the exit route that leads directly outside.

California Residential Code

The California Residential Code (CRC) establishes minimum requirements to ensure the health, safety, and general welfare of the public. The CRC covers several aspects including structural strength, egress, stability, accessibility, lighting and ventilation, emergency response, and fire and hazard safety. Section R313.2 of the CRC specifically sets forth the requirement for automatic residential fire sprinkler systems in newly constructed one- and two-family dwellings. Development would be required to comply with CRC.

Emergency Response/Evacuation Plans

The state of California passed legislation authorizing the Office of Emergency Services (OES) to prepare a Standard Emergency Management System (SEMS) program, which sets forth measures by which a jurisdiction should handle emergency disasters. Non-compliance with SEMS could result in the state withholding disaster relief from the non-complying jurisdiction in the event of an emergency disaster. The County has Evacuation Plans that are currently not available for public review.

California Occupational Safety and Health Administration

In accordance with California Code of Regulations, Title 8, Sections 1270 "Fire Prevention" and 6773 "Fire Protection and Fire Equipment," the California Occupational Safety and Health Administration has established minimum standards for fire suppression and emergency medical services. The standards include guidelines on the handling of highly combustible materials, fire hose sizing requirements, restrictions on the use of compressed air, access roads, and the testing, maintenance and use of all firefighting and emergency medical equipment.

Schools

Leroy F. Greene School Facilities Act (SB 50)

According to California Government Code, a qualified agency, such as a local school district, may impose fees on new residential and commercial construction to compensate for the impact that a project will have on existing school facilities or services. The California Legislature passed Senate Bill (SB) 50 in 1998 to insert new language into Government Code Sections 65995.5-65985.7, which authorized school districts to impose fees on new residential and commercial construction in excess of mitigation fees authorized by Government Code Section 66000. The passage of SB 50 eliminated the ability of cities and counties to require full mitigation of school impacts and replaced it with the ability for school districts to assess fees directly to offset the costs associated with increasing school capacity as a result of new development. The old "Stirling" fees were incorporated into SB 50 and are referred to as Level 1 fees. School districts must meet a list of specific criteria, including the completion and annual update of a School Facility Needs Analysis, in order to impose additional fees under the Government Code. Under the terms of this statute, payment of statutory fees is considered to mitigate in full for the purposes of CEQA for any impacts to school facilities associated with a qualifying project. SB 50 thus limits the type of impacts analyzed in an EIR and excuses consideration of or mitigation for any adverse physical changes to the school grounds and school buildings and "any school-related consideration relating to a school district's ability to accommodate enrollment." These fees are currently capped at approximately $3.79 per square foot for new residential development and approximately $0.61 per square foot for commercial and industrial (nonresidential) development and age-restricted senior housing. Districts meeting certain criteria may collect Level 2 fees as an alternative to Level 1 fees.

Level 2 fees are calculated under a formula provided in SB 50. Level 3 fees are approximately double Level 2 fees and are implemented only when the State Allocation Board is not apportioning state bond funds. The passage of Proposition 1D on November 7, 2006, precludes the implementation of Level 3 fees for the foreseeable future. Although SB 50 states that payment of developer fees are "deemed to be complete and full mitigation" of the impacts of new development, fees and state funding do not necessarily fully fund new school facilities. Nonetheless, state law precludes imposition of mitigation to account for any actual or perceived shortfall. Both EDUHSD and LSD currently levy development impact fees on development within the district's boundaries consistent with SB 50. Currently, the fees collected by LSD are approximately $5.17 per square foot of residential space and $0.84 per square foot of commercial space (LSD 2024a). The EDUHSD fee is approximately $1.87 per square foot of residential and $0.30 per square foot of commercial (EDUHSD 2022).

Parks and Recreation

California Government Code Section 66477 (The Quimby Act)

Cities and counties have been authorized since the passage of the 1975 Quimby Act (California Government Code, Section 66477) to pass ordinances requiring that developers set aside land, donate conservation easements, or pay fees for park improvements. The goal of the Quimby Act is to require developers to help mitigate the impacts of property improvements. The Quimby Act preserves open space and parkland in urbanizing areas of the state by authorizing local governments to establish ordinances that require private developers of new subdivisions to dedicate land for parks, pay an in-lieu fee, or a combination of the two. Originally, the Quimby Act was designed to ensure "adequate" open space acreage in jurisdictions adopting Quimby Act standards (i.e., 3 to 5 acres per 1,000 residents). The Act requires that standards for recreational facilities be adopted in the local general plan recreation element if a parkland dedication/fee ordinance is to be enacted. The County has established through its General Plan a standard of 2 acres of neighborhood parkland, 1.5 acres of community parkland, and 1.5 acres of regional parks per 1,000 residents.

Local Regulations

El Dorado County Code

Chapter 8.08 (Fire Prevention) of the El Dorado County Code specifies limits on campfires, fireworks, smoking, and incinerators that would apply during project construction and operations. Chapter 8.09 (Vegetation Management and Defensible Space) of Title 8 of the County Code requires the removal or abatement of all hazardous vegetation and combustible material that constitutes a fire hazard which may endanger or damage neighboring property and describes the means of enforcement.

Sec. 8.09.070. - Duty to remove and abate hazardous vegetation and combustible material.

A. It shall be the duty of every owner, occupant, and person in control of any parcel of land or interest therein, which is located within the County to remove, or abate, all hazardous vegetation and combustible material, which constitutes a fire hazard and may endanger or damage neighboring property.
B. The owner, lessee or occupant of buildings, grounds, or lots within the County shall remove from such property and adjacent streets all waste, garbage, rubbish, weeds, hazardous vegetation or other combustible materials growing or accumulated thereon in accordance with the procedures and methods prescribed in this chapter and by the Enforcement Official.

D. Any home owners association (HOA), lighting and landscape district, subdivision development, special district, or other entity that has a developed and approved Wildland Fire Safe Plan in accordance with the County's General Plan requirement and CFC Chapter 49, shall be granted a reasonable amount of time to comply with this ordinance not to exceed five years from the date which this ordinance was approved and ratified by the Board of Supervisors (May 30, 2019).

E. Prior to the close of any real estate sales transaction within the County, the requirements for property owners to comply with the Vegetation Management Ordinance shall be disclosed to all potential property owners.

F. All improved parcels, shall comply with the following requirements including: the maintenance of defensible space of 100 feet from each side and from the front and rear of the structure, but not beyond the property line, minimization of erosion, written consent by adjacent landowners for clearance on adjacent property, removal of tree portions that extend within ten feet of chimney outlets or stovepipes, maintenance of trees, shrubs, or other plants adjacent to or overhanging a building free of dead or dying wood. Also stated is that a person is not required under this section to manage fuels on land if that person does not have the legal right to manage fuels and the public and entities should be aware of rare plants areas, riparian areas, and raptor nesting trees on the property and try to avoid these sites. Furthermore, cultivated and useful grasses and pastures shall not be considered a public nuisance. However, if the County's Enforcement Official determines it necessary to protect adjacent improved property from fire exposure, an adequate firebreak may be required.

El Dorado County General Plan

The following goals, objectives, and policies in the El Dorado County General Plan (last amended 2019) related to public services and parks and recreation are included in the Public Services and Utilities Element of the General Plan (El Dorado County 2019) and are applicable to the proposed project.

Goal 5.1: Provide and maintain a system of safe, adequate, and cost-effective public utilities and services; maintain an adequate level of service to existing development while allowing for additional growth in an efficient manner; and, ensure a safe and adequate water supply, wastewater disposal, and appropriate public services for rural areas.

Objective 5.1.2: Ensure through consultation with responsible service and utility purveyors that adequate public services and utilities, including water supply, wastewater treatment and disposal, solid waste disposal capacity, storm drainage, fire protection, police protection, and ambulance service are provided concurrent with discretionary development or through other mitigation measures provided, and ensure that adequate school facilities are provided concurrent with discretionary development to the maximum extent permitted by State law. It shall be the policy of the County to cooperate with responsible service and utility purveyors in ensuring the adequate provision of service. Absent evidence beyond a reasonable doubt, the County will rely on the information received from such purveyors and shall not substitute its judgment for that of the responsible purveyors on questions of capacity or levels of service.

Policy 5.1.2.1: Prior to the approval of any discretionary development, the approving authority shall make a determination of the adequacy of the public services and utilities to be impacted by that development. Where, according to the purveyor responsible for the service or utility as provided in Table 5-1 (renumbered as Table 3.11-3), demand is determined to exceed capacity, the approval of the development shall be conditioned to

require expansion of the impacted facility or service to be available concurrent with the demand, mitigated, or a finding made that a CIP project is funded and authorized which will increase service capacity.

Table 3.11-3. Minimum Levels of Service

	Community Region	Rural Center and Rural Region
Public water source	As determined by purveyor	As determined by purveyor, when applicable
Private wells	Environmental Management	Environmental Management
Public sewer treatment capacity	As determined by purveyor	As determined by purveyor
Public sewer treatment capacity	As determined by purveyor	As determined by purveyor
On-site sewage disposal	Environmental Management	Environmental Management
Storm Drainage	Department of Transportation	Department of Transportation
Solid Waste	Environmental Management	Environmental Management
County and State road circulation system	LOS E	LOS D
Schools	As determined appropriate by the school districts	As determined appropriate by the school districts
Parks	Specific plan for new communities or Quimby Fee/dedication program for tentative maps	Quimby Fee/dedication program for tentative maps
Fire district response	8-minute response to 80% of the population	15 to 45-minute response
Sheriff	8-minute response to 80% of the population	No standard
Ambulance	10-minute response to 80% of the population	20-minute response in Rural Regions and “as quickly as possible” in wilderness areas*

* In accordance with State standards

Policy 5.1.2.2: Provision of public services to new discretionary development shall not result in a reduction of service below minimum established standards to current users, pursuant to Table 5-1.

Policy 5.1.2.3: New development shall be required to pay its proportionate share of the costs of infrastructure improvements required to serve the project to the extent permitted by State law. Lack of available public or private services or adequate infrastructure to serve the project which cannot be satisfactorily mitigated shall be grounds for denial of any project or cause for the reduction of size, density, and/or intensity otherwise indicated on the General Plan land use map to the extent allowed by State law.

Policy 5.1.2.4: Service standards for public services and emergency services in Rural Centers and Rural Regions are different than in Community Regions based on lower intensity and density of land use.

Goal 5.7: Adequate and comprehensive emergency services, including fire protection, law enforcement, and emergency medical services.

Objective 5.7.1: Ensure sufficient emergency water supply, storage, and conveyance facilities are available, and that adequate access is provided for, concurrent with development.

Policy 5.7.1.1: Prior to approval of new development, the applicant will be required to demonstrate that adequate emergency water supply, storage, conveyance facilities, and access for fire protection either are or will be provided concurrent with development.

Objective 5.7.2: Sufficient emergency water supply, storage, and conveyance facilities for fire protection, together with adequate access are available, or are provided for, concurrent with development.

Policy 5.7.2.1: Prior to approval of new development, the responsible fire protection district shall be requested to review all applications to determine the ability of the district to provide protection services. The ability to provide fire protection to existing development shall not be reduced below acceptable levels as a consequence of new development. Recommendations such as the need for additional equipment, facilities, and adequate access may be incorporated as conditions of approval.

Objective 5.7.3: An adequate, comprehensive, coordinated law enforcement system consistent with the needs of the community.

Policy 5.7.3.1: Prior to approval of new development, the Sheriff's Department shall be requested to review all applications to determine the ability of the department to provide protection services. The ability to provide protection to existing development shall not be reduced below acceptable levels as a consequence of new development. Recommendations such as the need for additional equipment, facilities, and adequate access may be incorporated as conditions of approval.

Objective 5.7.4: Adequate medical emergency services available to serve existing and new development recognizing that levels of service may differ between Community Regions, and Rural Centers and Regions.

Policy 5.7.4.1: Prior to approval of new development, the applicant shall be required to demonstrate that adequate medical emergency services are available and that adequate emergency vehicle access will be provided concurrent with development.

Policy 5.7.4.2: Prior to approval of new development, the Emergency Medical Services Agency shall be requested to review all applications to determine the ability of the department to provide protection services. The ability to provide protection to existing development shall not be reduced below acceptable levels as a consequence of new development. Recommendations such as the need for additional equipment, facilities, and adequate access may be incorporated as conditions of approval.

Goal 9.1: Provide adequate recreation opportunities and facilities including developed regional and community parks, trails, and resource-based recreation areas for the health and welfare of all residents and visitors of El Dorado County.

Objective 9.1.1: The County shall assume primary responsibility for the acquisition and development of regional parks and assist in the acquisition and development of neighborhood and community parks to serve County residents and visitors.

Policy 9.1.1.1: The County shall assist in the development of regional, community, and neighborhood parks, ensure a diverse range of recreational opportunities at a regional, community, and neighborhood level, and provide park design guidelines and development standards for park development. The following national standards in the table below shall be used as guidelines for the acquisition and development of park facilities. The parkland dedication/in-lieu fees shall be directed towards the purchase and funding of neighborhood and community parks.

Policy 9.1.1.2: Neighborhood parks shall be primarily focused on serving walk-to or bike to recreation needs. When possible, neighborhood parks should be adjacent to schools. Neighborhood parks are generally 2 to 10 acres in size and may include a playground, tot lot, turf areas, and picnic facilities.

Policy 9.1.1.3: Community parks and recreation facilities shall provide a focal point and gathering place for the larger community. Community parks are generally 10 to 44 acres in size, are for use by all sectors and age groups, and may include multi-purpose fields, ball fields, group picnic areas, playground, tot lot, multi-purpose hardcourts, swimming pool, tennis courts, and a community center.

Policy 9.1.1.4: Regional parks and recreation facilities shall incorporate natural resources such as lakes and creeks and serve a region involving more than one community. Regional parks generally range in size from 30 to 10,000 acres with the preferred size being several hundred acres. Facilities may include multi-purpose fields, ball fields, group picnic areas, playgrounds, swimming facilities, amphitheaters, tennis courts, multi-purpose hardcourts, shooting sports facilities, concessionaire facilities, trails, nature interpretive centers, campgrounds, natural or historic points of interest, and community multi-purpose centers.

Policy 9.1.1.5: Parkland dedicated under the Quimby Act must be suitable for active recreation uses and:

a) Shall have a maximum average slope of 10 percent;
b) Shall have sufficient access for a community or neighborhood park; and
c) Shall not contain significant constraints that would render the site unsuitable for development.

Objective 9.1.2: Provide for a County-wide, non-motorized, multi-purpose trail system and trail linkages to existing and proposed local, State, and Federal trail systems. The County will actively seek to establish trail linkages between schools, parks, residential, commercial, and industrial uses and to coordinate this non-motorized system with the vehicular circulation system.

Policy 9.1.2.5: All discretionary applications may be conditioned to provide an irrevocable offer of a trail easement dedication and construction of trails as designated on the Trails Master Plan provided it can be shown that such trails will serve as loops and/or links to designated or existing trails, existing or proposed schools, public parks and open space areas, and existing or proposed public transit nodes (e.g., bus stops, park and ride lots). Parkland dedication credit shall be given where applicable for provision of land and trail improvements that aid in implementing the Trails Master Plan.

Objective 9.1.3: Incorporate parks and non-motorized trails into urban and rural areas to promote the scenic, economic, and social importance of recreation and open space areas.

Policy 9.1.3.3: Coordinate with Federal, State, other agencies, and private landholders to provide public access to recreational resources, including rivers, lakes, and public lands.

Objective 9.2.2: Land dedicated to the County under the Quimby Act and Quimby in-lieu fees shall continue to be used primarily to meet neighborhood park needs but may assist in meeting the community park standards as well.

El Dorado County School Impact Fees

The LSD and the EDUHSD collect development fees to mitigate the impact of new development on school facilities. The LSD fee is approximately $5.17 per square foot of residential and $0.84 per square foot of commercial (LSD 2024a). The EDUHSD fee is approximately $1.87 per square foot of residential and $0.30 per square foot of commercial (EDUHSD 2022).

El Dorado County Local Hazard Mitigation Plan

The El Dorado County Sheriff Office of Emergency Services develop the Local Hazard Mitigation Plan, which provides guidance and protocols for the County's response to extraordinary large-scale emergency situations, including wildland fire. Numerous local, state, and federal agencies, as well as private businesses and nonprofit organizations, would be involved in the response to wildland fires, including the local fire protection districts, CAL FIRE, U.S. Forest Service, and law enforcement agencies.

El Dorado Hills Fire Department Development Fees

EDH Fire collects development fees to mitigate the impact of new development on fire services and associated facility and equipment needs. This fee is approximately $1.18 per square foot of residential single family, $1.93 per square foot of residential multi-family, and $1.99 per square foot of retail/commercial building area (Resolution No. 171-2022; El Dorado County 2021b).

3.11.3 Thresholds of Significance

Thresholds of significance are used to determine the significance of a project's environmental effects. Per Section 15064.7 of the CEQA Guidelines, a threshold is an identifiable quantitative, qualitative or performance level of particular environmental effect, non-compliance with which means the effect will normally be determined to be significant and compliance with normally means the effect will be determined to be less than significant. A significant impact would occur if development of the proposed project would do any of the following:

- Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or need for new or physically altered governmental facilities, the construction of which would cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:
  - Fire protection
  - Police protection
  - Schools
  - Parks
  - Other Public Facilities
- 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.
- Include recreational facilities or require the construction or expansion of recreation facilities which might have an adverse physical effect on the environment.

3.11.4 Impacts and Mitigation Measures

Methodology

Evaluation of potential impacts to public services and recreation are based on a review of studies pertaining to the project site and/or to specific services, including annual reports and current data from EDH Fire and the County Sheriff and the El Dorado County General Plan. The need for new or expanded public services or recreation facilities, and the potential for degradation of existing recreational resources, and the related physical impacts that could occur are analyzed qualitatively. The analysis also assumes that the proposed project would be consistent with the County's General Plan goals and policies, emergency evacuation plans, the California Fire Code, the Leroy F. Greene School Facilities Act, and other applicable regulations; therefore, compliance with policies and regulations would not specifically be identified as mitigation but are discussed in the impact analysis below.

As described in Chapter 2, Project Description, the project includes two development options. The first option would be to convert the 1,8-acres of neighborhood commercial to park uses if neighborhood commercial is not adopted as part of the Specific Plan. The second option proposes construction of up to 768 age-restricted units and 150 conventional homes. Where applicable, the impact analysis below indicates if a proposed option would result in a change in impact significance or require new mitigation. Under the Active Adult option there would be a reduction in the number of conventional homes which would reduce the number of students and need for parkland, as discussed below. It is anticipated impacts to other services would be the same or similar to the proposed project.

Schools

To determine the proposed project's impact on school facilities, student yield rates for TK through third grade and grades 4 through 8 were obtained from the LSD 2024 Student Generation Rate Analysis (LSD 2024b), high school students were obtained from the EDUHSD Demographic and Enrollment Projections report (2022-2023), shown in Table 3.11-4. Based on these generation rates and the proposed 918 residential units, this analysis estimates that the proposed project would generate approximately 191 elementary school students (TK-3), 295 middle school students (4-8), and 117 high school students (9-12) at full buildout (see Table 3.11-5). This would result in a total of 603 students. Under the Active Adult option this would be reduced to a total of 99 students.

Table 3.11-4. Student Yield/Generation Rates

School Level	Yield Rate Per Housing Unit
Elementary School (TK-3)	0.208
Junior High School (4-8)	0.321
EDUHSD (9-12)	0.1279

Source: EDUHSD 2022; LSD 2024b.
Note: The yield rate used for new construction eligibility determination in the state building program is 0.20 students per home for 9-12 districts. The yield rate in the El Dorado Union High School District is lower than the state average.

Table 3.11-5. Student Generation

School Level	Proposed Project Student Generation	Active Adult Student Generation
Elementary School (TK-3)	191	31
Junior High School (4-8)	295	48
High School (9-12)	117	19
Total	**603**	**99**

Source: Data compiled by Dudek in 2023.

Under SB 50, new residential development must pay fees toward school facilities, and the Legislature has mandated that payment of applicable development fees is adequate to result in a less-than-significant impact on schools, even if the collected fees are not adequate to fully fund school facilities.

Parks and Recreation

To determine potential impacts to parks, the County has established through its General Plan a standard of 5 acres of parkland per 1,000 residents, divided into 2 acres of neighborhood parks, 1.5 acres of community parks, and 1.5 acres of regional parks. El Dorado County Code Section 120.12.090 provides the population density of 2.8 persons per household (PPH) for determining the parkland dedication requirements. Using the 2.8 PPH established by the County, the project would include a total of 2,570 new residents at buildout applicable to land dedication. Using the County's ratio of 5 acres of parkland per 1,000 residents, the proposed project would require a total of 12.9 acres of parks.

Project Impacts

Impact 3.11-1. The proposed project would not result in impacts associated with the construction of new or expanded fire or police facilities.

Fire Protection

At full buildout it is estimated the proposed project would generate a population of approximately 2,314 people resulting in an increase in demand for fire protection services, including emergency medical services. No new fire protection facilities or emergency medical response services are proposed within the project site. The project site is served by EDH Fire and the nearest station, Fire Station 87, is within 1.5 miles of the project site. This station is staffed with 20 fire personnel and 7 pieces of equipment, including three engines, one utility truck, and one patrol truck. The General Plan includes Policy 5.1.2.1 which establishes a response time goal of responding to calls within 8 minutes. Due to the proximity of Fire Station 87 to the project site fire personnel would be able to access the site

within the 8-minute General Plan response time and 6-minute NFPA standard. In the event additional fire protection resources are required fire stations 85, 86 and 91 are within 6 miles of the project site. In addition, mutual aid agreements and shared service agreements are in place between the Fire Department and neighboring fire protection districts which would allow these districts to respond to calls within EDH Fire's service area, including the proposed project site. Although any fire protection district in the county is able to respond to calls for service in EDH Fire's service area, the neighboring Rescue Fire Protection District and the Latrobe Fire Protection District would be most likely to aid EDH Fire in the event their services are needed.

The proposed project would be designed in accordance to state and local fire and building requirements, which include site plan review by EDH Fire, payment of county development fees to mitigate fire facility and equipment impacts from new development, and state fire codes that require smoke detectors, sprinklers, building and emergency access, and hydrant sizing, pressure and siting. Fire protection services are funded through revenue from development fees and property taxes and the EDH Fire impact fees are adopted and the fees set to fund the construction or purchase of public facilities and equipment necessary to mitigate the impacts of development on EDH Fire's ability to provide public services (El Dorado County 2021b Resolution No. 171-2022; EDH Fire 2017).

Active Adult Option

While the Active Adult option would primarily have residents 55 years of age and older, it is unlikely the residents would have an increased need for emergency services as compared to more elderly, non-ambulatory residents unable to live independently. In contrast to an assisted living situation, the Active Adult option is anticipated to attract residents who are still working or in early retirement looking for an active, independent living community. Even assuming increased calls for emergency services may be required as the community residents age, as discussed in Section 3.9, Land Use, Population and Housing, the Active Adult option would result in approximately 33.5% fewer residents than the proposed project. The reduced population would likely correlate with a reduced demand for emergency, fire and police services and account for any perceived increase in services related to the age of the residents. Overall, the Active Adult option would have fewer residents than the proposed project and would not serve a non-ambulatory population that would be likely to require greater emergency services.

The proposed project as well as the Active Adult option would not require the expansion of Fire Station 87 or the need to construct a new fire station to serve the increase in demand for fire protection services because adequate fire personnel and equipment is available to serve the project. Should an emergency or large-scale fire event occur on the proposed project site that would require resources beyond what EDH Fire is able to provide, the shared service agreements maintained with neighboring fire protection districts would ensure that the site receives supplemental personnel and resources to assist. Thus, impacts would be **less than significant** related to adverse physical impacts associated with the need to construct new or physically altered fire protection facilities.

Law Enforcement

According to the State of California Department of Finance population estimates, approximately 74,357 residents lived within the unincorporated areas of the county in January 2023 (DOF 2023). In 2020-2021, the County Sheriff had a total of 392 staff members. As noted in the General Plan EIR, the County Sheriff attempts to maintain a staffing ratio of one deputy per 1,000 residents in the unincorporated areas of the county (El Dorado County 2004b). There are 181 sworn deputies in the Operations Division of the County Sheriff, thereby meeting a staffing goal of one deputy per 1,000 residents (El Dorado County 2021a). The El Dorado Hills substation, located 2.5 miles north, would serve the project site.

At project buildout, the proposed project would include approximately 2,314 new residents. This would be reduced to approximately 1,540 residents under the Active Adult option. According to the County's staffing goal of one deputy per 1,000 residents, the project would require 3 deputies to serve the project and 1.5 deputies under the Active Adult option. The County Sheriff staffing levels indicate that the County has a current ratio of 2.43 deputies per 1,000 residents. The addition of 2,314 new residences at project buildout would slightly lower the County ratio to 2.34 deputies per 1,000 residents. As such, the County Sheriff would not need to hire additional staff to maintain their staffing goal of one deputy per 1,000 residents. Staffing trends and facility needs are analyzed annually in the County Sheriff Annual Report and El Dorado County Recommended Budget and Workplan (El Dorado County 2021c). If necessary, construction of new facilities would be funded through impact fees and property taxes, subject to the provisions of the CBC and other regulations and would undergo CEQA review, if necessary, although construction of new facilities is not anticipated as necessary to serve the project. The revenues and taxes generated from project development would contribute to funding for future facilities and services identified by the County Sheriff as needed for services in the future. While additional patrols may be required to serve the project, it is anticipated that the existing Sheriff's Office facilities are sufficient to serve the proposed project as well as the Active Adult option and the project is not anticipated to require development of new or expanded facilities. Thus, impacts would be **less than significant** related to adverse physical impacts associated with the need to construct new or physically altered law enforcement facilities.

Mitigation Measures

No mitigation measures are required.

Impact 3.11-2. The proposed project would not result in impacts associated with construction of new or expanded schools.

The proposed project would provide for new housing, which would be occupied by families with school-age children. Full buildout of the proposed project is expected in 2030 or later and would include a total of 918 single-family residences. Based on the student generation rates, the proposed project would result in approximately 191 new elementary school students, 295 new middle school students, and 117 new high school students for a total of approximately 603 new students (see Table 3.11-5). Elementary, middle, and high school students generated by the proposed project would likely enroll in the schools incrementally in five phases, concurrent with project development. As shown in Table 3.11-5, the number of students would decrease to a total of approximately 99 under the Active Adult option.

The LSD currently has two schools and has a combined enrollment of 162 students (LSD 2023b). As of the 2022-2023 school year, enrollment in the LSD consisted of 68 students at Latrobe Elementary School and 94 students at Miller's Hill School. No specific information is currently available on the projected enrollment or maximum capacities of the two schools within the LSD. However, given the historical enrollment at these two schools and the LSD's written concerns, it is assumed that the two LSD schools would not be able to fully accommodate new elementary and middle school students from the proposed project, which would generate approximately 191 elementary school students and 295 middle school students upon full buildout. Assuming a 6-year buildout, the project would generate an average of 32 elementary school students and 49 middle school students per year.[2] The addition of 486 new elementary and middle school students would triple the current enrollment at LSD for

[2] The total number of project-generated elementary students and middle school students per year were rounded up (25.5 middle school students per year was rounded to 26 middle school students per year and 10.5 elementary students per year was rounded to 11 elementary school student per year). These totals do not coincide with the number of project-generated students estimated at full buildout.

the 2022-2023 school year. Therefore, it is anticipated that the proposed project would contribute to the need for new or expanded elementary and middle schools, the construction of which could result in impacts to the environment, and any such impacts would be analyzed at the time any such new or expanded elementary or middle school is planned.

Currently, EDUHSD has an enrollment of 6,719 high school students and a maximum capacity of 8,416 students across four comprehensive high schools, a continuation high school, an alternative education high school, and a regional occupation program (EDUHSD 2022). The project site is within the Oak Ridge High School service area which has a maximum capacity of 2,530 students. Oak Ridge High School enrolled 2,517 total students in the 2022-2023 school year. Based on the enrollment data of feeder schools, it is anticipated that enrollment at Oak Ridge High would decrease every year, resulting in 2,143 students by the 2028-2029 school year (EDUHSD 2022). This would result in 387 available classroom seats in the 2028-2029 school year. Thus, it is reasonably anticipated that the addition of 117 high school students from the project at full buildout by 2030 or later would not necessitate any new or expanded school facilities at either Oak Ridge High School or within the EDUHSD. As previously discussed, it is likely that students generated by the proposed project would enroll in schools incrementally as project phases are built out. Assuming a 6-year buildout, the project would generate an average of approximately 19 high school students per year. Given the estimate of 152 available classroom seats in the 2023-2024 school year and an increase in available seats each year thereafter, the incremental increase of high school students from the project would also not require new or expanded school facilities. The 2018 Facilities Master Plan notes that planning for a new high school should begin once the enrollment for the four comprehensive high schools reaches 7,000 students and additional growth is anticipated (EDUHSD 2018). The EDUHSD currently owns two future school sites in the western portion of the district, and one of those parcels is adjacent to the project site. Although the projections indicate a new high school is not needed in the next 10 years, the Master Plan recommends considering student enrollment, existing facilities, and operational costs to determine a feasible projected timeline for construction of the next high school based on current projections and assumptions (EDUHSD 2018).

School districts impose fees on new residential and commercial development to compensate for the impact that a project would have on existing school facilities or services. SB 50, known as the Leroy F. Greene School Facilities Act of 1998, revised Government Code Section 65996(a) to state:

> Notwithstanding Section 65858, or Division 13 (commencing with Section 21000) of the Public Resources Code, or any other provision of state or local law, the following provisions shall be the exclusive methods of considering and mitigating impacts on school facilities that occur or might occur as a result of any legislative or adjudicative act, or both, by any state or local agency involving, but not limited to, the planning, use, or development of real property or any change of governmental organization or reorganization, as defined in Section 56021 or 56073.

Pursuant to SB 50, the project applicant would be required to pay school impact fees, and the Legislature has mandated that payment of applicable development fees is adequate to result in a less-than-significant impact on schools, even if the collected fees are not adequate to fully fund school facilities. Currently, the school development fees are split between EDUHSD and the elementary school districts; 61% of the fees are allocated for elementary school needs and 39% go towards the EDUHSD (LSD 2023a). The district collects Level 1 fees on commercial/industrial projects, senior housing projects, and residential additions consisting of more than 500 square feet. The maximum fee is approximately $5.17 per square foot for residential development and new additions, and $0.84 per square foot of commercial/industrial development (LSD 2024a).

For purposes of CEQA, the proposed project and the Active Adult option would not have an impact associated with the construction of new or expanded school facilities based on Government Code section 65996(a). Nonetheless, the Active Adult option was added in response to capacity concerns from LSD even though those concerns do not constitute an environmental impact under CEQA. The Active Adult option would address LSD's non-CEQA capacity concerns and allow only up to 150 conventional homes to significantly reduce the number of students generated, as shown in Table 3.11-5. Payment of school impact fees would provide funding for new school construction, improvements, and expansion to existing schools. Therefore, even though the proposed project (and the Active Adult option) would contribute to the need for new or expanded elementary and middle schools, payment of the required school impact fees would ensure satisfaction of the Proposition 1A/SB 50 statutory requirements and the impact would be **less than significant**.

Mitigation Measures

No mitigation measures are required.

Impact 3.11-3. The proposed project would not increase the use of existing neighborhood or regional parks, or other recreational facilities requiring the construction of new parks.

The County has a standard of 5 acres of parkland per 1,000 residents. However, as of the 2012 approval of the County's Parks and Trails Master Plan, County facilities alone did not meet the established parkland standards. The County owns a total of 274 acres of parkland; to meet the parkland standard, the County needs an additional 84 acres of parkland. The El Dorado County Parks and Trails Master Plan contains recommendations to meet existing and future parks/recreation needs, divided by neighborhood, community, and regional parks. However, the Master Plan also notes that a meaningful evaluation of park land deficits does not look just at acres, but also takes into account the location of existing parks, the types of facilities at each park, the area served by the park, and the recreation preferences of the residents who use the park (El Dorado County 2012). While the fact that existing conditions (i.e., existing park acreage) does not meet a Countywide parkland standard does not result in an environmental impact for a proposed project, it does indicate that additional park and recreation facilities may be needed throughout the County to meet the Countywide standard. The project site is also within the Sphere of Influence of the El Dorado Hills CSD. The El Dorado Hills CSD has a separate level of service requirement of 5.0 acres of parks per 1,000 residents. As of the 2021 Parks and Recreation Facilities Master Plan, the El Dorado Hills CSD provided 9.9 acres of parks per 1,000 residents, exceeding the level of service requirement (El Dorado Hills CSD 2021). While the County is below its level of service standard for parks, the area surrounding the project site exceeds the level of service for parks.

The project is providing sufficient parks to meet the County standard and will fulfill its Quimby parkland dedication requirements. Park acreage for the project is included within the project site and thus environmental impacts from development of this park acreage are analyzed in this document. Development projects are also required to pay development impact fees for park facilities on behalf of the County in order to fund the acquisition and development of parks and recreational facilities needed as a result of new development (General Plan Objective 9.2.2).

The proposed project would include 918 single family dwelling units and approximately 2,314 residents. The project includes 13.6 acres of village and neighborhood parks that would provide basic recreational facilities. The project also includes 9.1 acres of open space preserve with approximately 3 acres of public-access trails; and 35.7 acres of open space buffer throughout the project site. The project includes an option to redesignate the 1.8 acres in neighborhood commercial uses to parkland if the County decides neighborhood commercial is not appropriate for the CVSP. If that were to occur the amount of parkland would increase to 15.4 acres.

Based on the County parkland dedication requirements, the project's service population of 2,570 residents and the County's ratio of 5 acres of parkland per 1,000 residents, the project would require 12.9 acres of parks. The project includes 13.6 acres of parkland and 3 acres of publicly accessible trails, exceeding this standard. The total amount of parkland would increase to 15.4 acres if the neighborhood commercial use is not included. Thus, development of the proposed project would accommodate the project's demand for parks and recreational facilities and would not necessitate the construction of new or expanded parks within the County. As noted above, the area surrounding the project site is not deficient in parks even though the County is not meeting its level of service in other areas within the County.

Active Adult Option

With respect to park facilities, the El Dorado Hills CSD Park and Recreation Development Impact Fee Justification Study (EDHCSD 2017) recognizes that age-restricted developments have a reduced population and thus a corresponding reduction in the need for additional park facilities. If annexed into the El Dorado Hills CSD and the Active Adult option is developed, park impact fees would be determined based on the reduced resident-per-unit factor of 1.80 for age-restricted residential units as compared to 3.08 for conventional single family residential units and 2.88 for conventional multi-family residential units. County Code section 120.12.090(A)(9) establishes the population density used to calculate parkland dedication requirements. The County has not adopted a reduced population density to determine Quimby parkland dedication obligations for age-restricted projects and thus parkland dedication requirements would likely be the same as the proposed project if the Active Adult option is developed unless a reduced standard is adopted consistent with the El Dorado Hills CSD park impact fees.

The increase in population associated with the project (or the Active Adult option) would not create a significant impact on County parks outside of the project site such that there would be substantial deterioration or a need for new or expanded parks, as the new parks would be highly accessible for all project residents. With consideration of the above, impacts would be **less than significant**.

Mitigation Measures

No mitigation measures are required.

Cumulative Impacts

The cumulative context included in the scope of the cumulative analysis consists of buildout of El Dorado County as discussed in the County's General Plan (El Dorado County 2004) and other cumulative projects described in Chapter 3, Environmental Analysis. The cumulative impact to service providers is further analyzed within the geographic service areas of the Fire Department, County Sheriff, LSD, and EDUHSD. This includes the existing commitments made by service providers in conjunction with past, present, and reasonably foreseeable projects which could contribute to the impacts of the proposed project and create cumulative impacts.

Impact 3.11-4. The proposed project would not result in a cumulatively considerable increase in demand for fire services, police services, schools, or other public facilities resulting in the need to construct new facilities.

Fire Protection

The geographic context of this impact includes the service area boundary of EDH Fire. Cumulative growth within the service area boundaries could result in a need for additional fire protection services to serve new development. Future development in this portion of the county, such as commercial, residential, or industrial projects, would require fire protection services from EDH Fire. The General Plan EIR Impact 5.7-2 noted that in order to meet the response-time goals of fire protection and emergency medical agencies, new facilities would be required, which could result in potential incompatibilities with adjacent land uses (El Dorado County 2004b). However, with the implementation of Mitigation Measures 5.7-2(a) and 5.7-2(b), which restate General Plan policies for designing and locating new facilities in a manner that avoids land use incompatibilities, it was determined that impacts related to new fire facilities would be less than significant. In relation to this impact, Station 87 opened in 2008, which expanded fire protection within the service area. Since adoption of the General Plan, there have been a number of planned projects that would contribute to the need for fire services. As shown in Chapter 3, these additional cumulative projects would result in 5,107 residential units and 60 acres of commercial and industrial uses, which would require fire services. Some of these projects have not yet been approved by the County. Although these projects were not evaluated in the General Plan EIR, they would also be required to comply with General Plan policies, including Policies 2.2.5.21 and 2.2.5.22 restated in Mitigation Measures 5.7-2(a) and 5.7-2(b) to avoid any potential land use compatibilities. Additionally, in accordance with General Plan Policies 5.7.1.1, 5.7.3.1, and 5.7.4.1, the project applicant must obtain review and approval of development plans by emergency service providers to ensure adequate levels of service and access. It should also be noted that fire services are regional and the same stations that would serve the proposed project (Station 87) would not serve all other projects unless additional assistance is needed. Therefore, because all new development in the County must comply with the General Plan policies and because multiple existing facilities serve the existing and project population, there would be **no existing cumulative impact** to which the project could contribute. The project would comply with the applicable General Plan policies and no mitigation measures would be required.

Police Protection

The geographic context of this impact includes the service area boundary of the County Sheriff. Cumulative growth in the County Sheriff service area boundary from buildout of the General Plan and additional cumulative projects (see Chapter 3) would include new residential, commercial, or other projects requiring police protection services. This would incrementally increase the need for new police personnel and new or expanded facilities. The County's General Plan EIR concluded that there would be potential land use incompatibilities resulting from the construction of new police facilities required to serve buildout of the General Plan. However, with the implementation of Mitigation Measures 5.7-2(a) and 5.7-2(b), which restate General Plan policies for designing and locating new facilities in a manner that avoids land use incompatibilities, it was determined that impacts related to new police facilities would be less than significant. Since adoption of the General Plan, there have been a number of planned projects that would contribute to the need for police services. As previously discussed, although these projects were not evaluated in the General Plan EIR, they would also be required to comply with General Plan policies, including Policies 2.2.5.21 and 2.2.5.22 (restated in Mitigation Measures 5.7-2(a) and 5.7-2(b)) to avoid any potential land use compatibilities. Additionally, General Plan Policies 5.1.2.1 through 5.1.2.3 requires new development to contribute its fair share to the cost of police services, ensuring that adequate level of service would be maintained for the new developments. Police services also go through an annual budgeting process during which service levels, staffing trends, and facility needs are analyzed, and funding for additional law enforcement services are then provided through impact fees and property taxes (El Dorado County 2021c). Therefore, because it is assumed that all new projects (including the proposed project and those cumulative projects not included in the General Plan)

would be required to comply with General Plan policies and contribute a fair share to the cost of police services, there is **no existing cumulative impact** to which the project could contribute. The project would comply with the applicable General Plan policies and no mitigation measures would be required.

Schools

The geographic context of this impact includes the service area boundaries of LSD and EDUHSD. The General Plan EIR determined that the projected growth in population under the General Plan would generate the need for new and physically altered school facilities, which could result in a potential incompatibility with adjacent land uses from noise, traffic, access, and other issues, which cannot be fully addressed by General Plan policies. The General Plan EIR therefore concluded that there would be a significant and unavoidable impact resulting from the need for new and expanded schools. Additionally, since adoption of the General Plan there have been several planned projects which would contribute a total of 5,107 new dwelling units in the County. These projects would also contribute to the need for new and expanded schools. Therefore, there is an existing significant cumulative impact regarding the need for new school facilities and the environmental impacts of their construction.

As previously discussed, the project applicant would be required to pay school impact fees, which are considered to be adequate mitigation to address the need for new or expanded school facilities. However, these impact fees do not mitigate a project's indirect environmental impacts related to schools. This Draft EIR has evaluated indirect environmental effects of the proposed project in the various topical sections of Chapter 3. For example, Section 3.10 (Noise) addresses the potential for significant increases in ambient noise levels at existing outdoor areas of schools resulting from project traffic. Section 3.12 (Transportation) addresses project vehicle miles traveled (VMT), which incorporates VMT from new students' trips to and from schools. Therefore, it is assumed that the proposed project's contribution would be less than cumulatively considerable and would result in a **less-than-significant cumulative impact** associated with the provision of new or expanded schools.

Separate from this project, any significant expansion of school facilities or development of new school facilities may result in site-specific impacts (for example, fugitive dust or noise resulting from new school construction) but would be required to comply with applicable regulations, including limiting construction hours in accordance with General Plan Policy 6.5.1.11 and following air district rules for construction. New schools would also be required to comply with Policies 2.2.5.21 and 2.2.5.22 to avoid any potential land use compatibilities.

Mitigation Measures

No mitigation measures are required.

Impact 3.11-5. The proposed project would not result in a cumulatively considerable increase in the use of existing parks or recreational facilities such that substantial deterioration would occur or new/expanded facilities would be required.

The geographic context of this impact includes the County, which is served by the County Parks, Trails, and River Management Division and various CSDs. Cumulative growth in the County from buildout of the General Plan and additional cumulative projects (see Chapter 3) would include new residential developments and other growth-inducing projects that would be served by parks and recreational facilities in the County. This would incrementally increase the use of existing parks and facilities and the need for new or expanded parks and facilities to serve the population. The General Plan EIR determined that compliance with General Plan policies would ensure that the County is able to meet future recreational needs and there is no cumulative impact. The General Plan EIR includes

Mitigation Measure 5.7-5 which restates Policy 9.1.1.8 requiring the County to maintain a Parks Master Plan and Capital Improvement Program, Policy 9.2.2.2 requiring new development projects to provide mechanisms for park maintenance and new facilities, and Policy 9.2.2.5 establishing a development fee program to fund improvements and parkland acquisitions. Additionally, Mitigation Measures 5.7-6(a) and 5.7-6(b) (which restate Policies 2.2.5.21 and 2.2.5.22) would mitigate impacts relating to the potential for land use incompatibilities arising from new or expanded park or recreation facilities. Since adoption of the General Plan, there have been a number of planned projects that would contribute to the demand for parks and recreational facilities. As shown in Chapter 3, these additional cumulative projects would result in 5,107 new residential units which would be served by County parks and recreational facilities. Although these projects were not evaluated in the General Plan EIR, they would also be required to comply with applicable General Plan policies, such as through the payment of development fees. The proposed project includes 13.6 acres of new parks (or 15.4 acres if the 1.8 acres of neighborhood commercial is not adopted as part of the CVSP) which would be maintained by the homeowners' association in compliance with Policy 9.2.2.2, and the project applicant would pay development fees described in Policy 9.2.2.5. Therefore, there is **no existing cumulative impact** to which the project could contribute. The project would comply with the applicable General Plan policies and no mitigation measures would be required.

Mitigation Measures

No mitigation measures are required.

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3.12 Transportation

The following analysis identifies potential impacts related to transportation due to implementation of the proposed Creekside Village Specific Plan (proposed project or CVSP). This section describes the applicable federal, state, and local regulations and policies related to transportation and circulation; discusses the existing roadway network and transportation facilities in the project's study area; and analyzes the potential impacts from implementation of the project on transportation.

Public comments received in response to the November 6, 2020, Notice of Preparation (NOP) are regarding concerns with increased traffic compared to the capacity of Latrobe Road, White Rock Road, Town Center Road and other roadways in the vicinity of the project; a potential increase in school trips; an increase in cumulative traffic due to other projects; potential for an increase in traffic accidents; inadequate pedestrian facilities along Latrobe Road; and a comparison of the project's traffic from residential development to the traffic generation from the site's existing zoning. No additional comments were received at the second scoping meeting held on September 26, 2023. A copy of the NOP and comment letters received are included in Appendix A of this EIR.

The main sources referenced to prepare this section include the Transportation Impact Study (TIS) prepared by T. Kear Transportation Planning & Management, Inc. (February 22, 2024) and the Creekside Village Project Active Adult (Age-Restricted) Housing Option, CEQA VMT Addendum also prepared by T. Kear Transportation Planning & Management, Inc. (June 4, 2024) included as Appendix H. The analysis contained in the TIS was conducted consistent with the California Environmental Quality Act (CEQA) requirements per Senate Bill (SB) 743 and used the metric of vehicle miles traveled (VMT), while an operational or level of service (LOS) analysis was conducted per El Dorado County's (County) General Plan policy and consistency requirements. Other documents used in the preparation of the TIS include the Governor's Office of Planning and Research's[1] (OPR) Technical Advisory on Evaluating Transportation Impacts in CEQA (2018), and the County's guidelines included in Resolution 141-2020 and 2014 El Dorado County Transportation Impact Study Guidelines (2014). The scope of work for the transportation analysis was prepared in consultation with the County's Public Works Department staff.

Pursuant to Public Resources Code (PRC) Section 21099(b)(2) and CEQA Guidelines Section 15064.3(a), a project's effect on automobile delay and traffic LOS is not considered a significant environmental impact, therefore, further discussion of LOS is not required. Consistency with General Plan policies adopted for the purpose of avoiding or mitigating an environmental effect pursuant to Appendix G of the CEQA Guidelines is required to be evaluated in CEQA documents. Because LOS is not considered an environmental impact under CEQA, consistency with General Plan policies that address LOS are not required to be evaluated. However, a detailed operational analysis of roadway facilities (roadway segments, intersections, and freeway segments) is included in the project's TIS (Appendix H) for informational purposes and General Plan consistency evaluated outside of CEQA.

3.12.1 Environmental Setting

This section provides a summary of the existing street network, including the major roadways serving the project site, the existing transit service, and bicycle and pedestrian facilities in the study area.

[1] Recently renamed to the Governor's Office of Land Use and Climate Innovation.

Vehicle Miles Traveled and Traffic Analysis Zone

CEQA Section 15064.3(a), Purpose, established VMT as the most appropriate measure of evaluating transportation impacts. Subdivision (a) defines VMT as "the amount and distance of automobile travel attributable to a project." The term "automobile" refers to on-road passenger vehicles, specifically cars and light trucks. The traffic analysis zones (TAZ) are the spatial unit (or geographical area) within which travel behavior and traffic generation are estimated in a travel demand model. The County uses the El Dorado County travel demand model (TDM). Figure 3.12-1 depicts the TAZs near the CVSP from the County's TDM that have been used in the VMT analysis of the project as discussed in the TIS and summarized below.

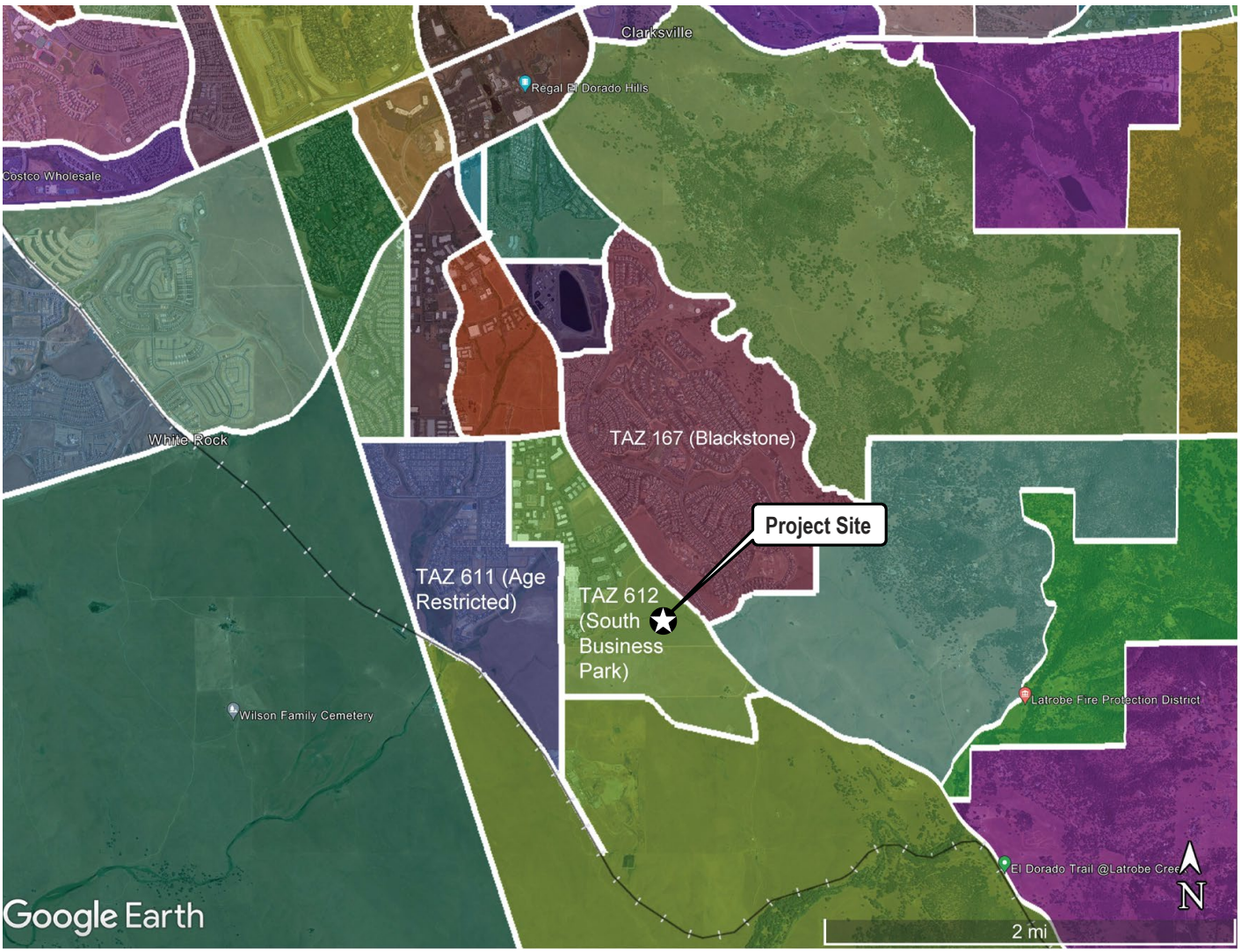
Roadway Network

Regional access to the proposed project would be via U.S. Highway 50 (Highway 50) which is the primary transportation corridor traveling in an east-west direction through the county and serves major population centers, including Sacramento, Folsom, El Dorado Hills, Placerville, and South Lake Tahoe. In the project vicinity, Highway 50 has three lanes in the westbound direction and four lanes in the eastbound with interchanges at El Dorado Boulevard and Silva Valley Parkway. The main arterial, collector, and local roadway network is described below. Figure 3.12-2 illustrates the roadway network and traffic study area analyzed in the project's TIS.

El Dorado Hills Boulevard is a north-south arterial roadway that extends from Green Valley Road on the north side of the town of El Dorado Hills to Highway 50 on the south where it continues as Latrobe Road. North of Green Valley Road it continues as Salmon Falls Road. Between Highway 50 and Saratoga Way, El Dorado Hills Boulevard is a six-lane urban arterial; between Saratoga Way and Serrano Parkway it is a five-lane urban arterial; north of Serrano Parkway it continues as a four-lane urban arterial until Governor Drive, where it transitions to a two-lane urban arterial northward to Green Valley Road. Just north of Highway 50, El Dorado Hills Boulevard carries approximately 28,000 vehicles per day.

Latrobe Road is a north-south arterial roadway that provides a primary connection to Highway 50 for western El Dorado County. It extends from Highway 50, where it continues as El Dorado Hills Boulevard, to State Route 16 (SR-16). Latrobe Road is a six-lane urban arterial road between Highway 50 and White Rock Road, and a four-lane urban arterial road between White Rock Road and Golden Foothill Parkway (south). From Golden Foothill Parkway (south) to Investment Boulevard, it is a two-lane urban road, and then a two-lane rural road south of Investment Boulevard. North of White Rock Road, Latrobe Road carries approximately 32,500 vehicles per day with three through travel lanes in the southbound direction and up to Town Center Boulevard, four northbound lanes in the northbound direction.

Silva Valley Parkway is a north-south roadway that generally runs parallel and to the east of El Dorado Hills Boulevard north of Highway 50. The El Dorado County General Plan identifies Silva Valley Parkway as a four-lane divided road. There is an interchange with Highway 50 at Silva Valley/White Rock Road where Silva Valley Parkway extends north of Highway 50 and White Rock Road extends south of Highway 50. The interchange is located east of Clarksville Road which is a two-lane undivided roadway with bike and pedestrian access. Silva Valley Parkway serves about 17,000 vehicles per day north of Highway 50.



SOURCE: T. Kear Inc. 2024

FIGURE 3.12-1

Traffic Analysis Zone Layout near CVSP

Creekside Village Specific Plan EIR

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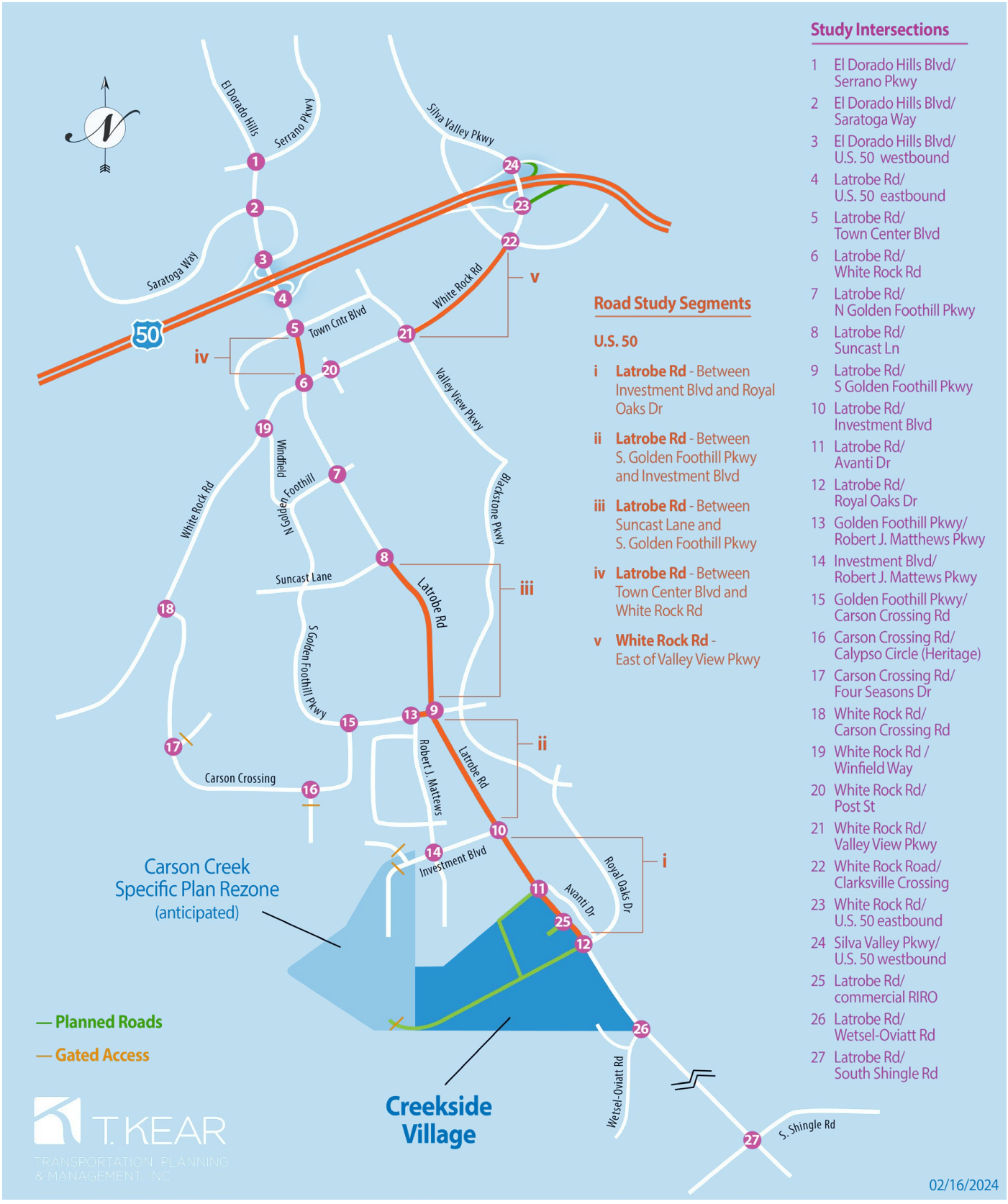

SOURCE: T. Kear Inc. 2024

FIGURE 3.12-2

Roadway Network near CVSP

Creekside Village Specific Plan EIR

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White Rock Road is an east-west arterial that extends through several jurisdictions from Silva Valley Parkway in the County to International Drive in Rancho Cordova. Within the County, it is a two-lane urban arterial road from the Sacramento County – El Dorado County line to Manchester Drive, a four-lane urban arterial between Manchester Drive and Post Street, and a two-lane urban arterial road between Post Street and Silva Valley Parkway. White Rock Road carries approximately 8,000 vehicles per day at the Sacramento County – El Dorado County line and 17,000 vehicles per day just west (south) of the Silva Valley Parkway Interchange.

Investment Boulevard is a two-lane local road, running east-west within the El Dorado Hills Business Park. It connects the eastern edge of the CVSP to Robert J. Mathews Parkway and Latrobe Road. Curb and gutter are provided. There are no bike lanes or sidewalks. Lane widths on Investment Boulevard within the business park are 25 feet.

Robert J. Mathews Parkway is a two-lane local road, running north-south within the El Dorado Hills Business Park. It connects Investment Boulevard to Golden Foothill Parkway on the north. Curb and gutter are provided. There are no bike lanes or sidewalks on either side of the roadway. Lane widths on Robert J. Mathews Parkway within the business park are also 25 feet. The project includes an access connecting to Robert J. Mathews Parkway, to encourage residents to walk and bike to the adjacent schools, gyms, service and retail businesses, employment opportunities, and to minimize local traffic from using Latrobe Road.

Royal Oaks Drive is a two-lane collector road within the Blackstone neighborhood of the Valley View Specific Plan. It provides the southernmost access for Blackstone to Latrobe Road. Royal Oaks Drive includes Class II bike lanes, curb and gutter, and sidewalks fronting developed parcels.

Transit Service

El Dorado Transit is the primary public transit service provider in the County and provides local transit services within and between community areas of the county including Placerville and Cameron Park. Near the proposed project site, El Dorado Transit provides commuter service connecting a park-and-ride lot, located at the intersection of Latrobe Road and White Rock Road, with downtown Sacramento employment centers, and several locations in Folsom including the Iron Point Light Rail Station, Ingersoll Way and Parker Drive, Intel, Kaiser Permanente, and Folsom Lake College. Dial-a-ride services are also provided within many portions of the county, including El Dorado Hills.

Bicycle and Pedestrian Facilities

As described in the El Dorado County Active Transportation Plan (ATP) (2020), the following classes are used to identify bicycle facilities per the California Department of Transportation (Caltrans):

Class I Shared Use Paths are hard-surface routes within an exclusive right-of-way physically separated from vehicular roadways and intended specifically for non-motorized use.

Class II Bike Lanes are marked bicycle lanes within roadways adjacent to the curb lane, delineated by appropriate striping and signage.

Class III Bike Routes are marked by a series of signs designating a preferred route between destinations such as residential neighborhoods and shopping areas. These routes share the right-of-way with on-road vehicles.

Class IV Separated Bikeways are on-street bicycle facilities that are physically separated from motor vehicle traffic by a vertical element or barrier such as a curb, bollards, or parking aisle. They can allow for one- or two-way bicycle travel on one or both sides of the roadway.

There are existing Class II bike lanes along White Rock Road, Silva Valley Parkway, Latrobe Road, Valley View Parkway, and Blackstone Parkway. A Class I bike trail fronts the east side of Latrobe Road within the Valley View Specific Plan area between Royal Oaks Drive and the El Dorado Irrigation water treatment plant (4625 Latrobe Road). A short section of a Class I trail also connects the Carson Crossing Specific Plan area to the El Dorado Hills Business Park.

Because of the rural nature of the county, pedestrian improvements (i.e., sidewalks) are focused near activity centers or in areas with higher volumes of pedestrian activity or within planned developments. Currently, there are no pedestrian facilities along Latrobe Road in the project vicinity with the exception of the Class I bike trail on the east side of the roadway.

Figure 3.12-2 illustrates the existing and proposed bike and pedestrian facilities near the project site.

Accident Summary

A review of collision data along Latrobe Road was performed to disclose the collision history in the vicinity of the project site in response to a concern raised in a NOP comment. Five years of data, from 2018 to 2023, was reviewed from the Statewide Integrated Traffic Records System (SWITRS) GIS Map available from the Transportation Injury Mapping System website. Five accidents were reported in this period near the project site along Latrobe Road between Larkstone Place and Wetsel-Oviatt Road which included vehicles but no pedestrians or bicyclists. The accidents caused non-fatal injuries due to head-on, sideswipe, or broadside collisions due to unsafe speeds and maneuvers.

3.12.2 Regulatory Setting

Federal

There are no federal regulations related to transportation that are directly applicable to the proposed project.

State

California Department of Transportation

Caltrans manages the state's highway facilities and is responsible for constructing, enhancing, and maintaining the state highway and interstate freeway systems. Any change to the state roadway system requires an encroachment permit from Caltrans.

Caltrans Transportation Impact Study Guide, May 20, 2020, provides that Caltrans' primary review focus is VMT, replacing LOS as the metric used in CEQA transportation analyses (Caltrans 2020a). Caltrans recommends use of OPR's recommended thresholds and guidance on methods of VMT assessment found in OPR's Technical Advisory (OPR 2018) for land use projects. In addition to VMT, the 2020 Transportation Impact Study Guide states that it may request a targeted operational and safety analysis to address a specific geometric or operational issue related to the state highway system and connections with the state highway system.

Senate Bill 743

On September 27, 2013, SB 743 was signed into law, which created a process to change the way transportation impacts are analyzed under CEQA. SB 743 required OPR to amend the CEQA Guidelines to provide an alternative to LOS as the metric for evaluating transportation/traffic impacts. Under the new transportation guidelines, LOS or vehicle delay is no longer considered an environmental impact under CEQA. Amendments to the CEQA Guidelines required under SB 743 were approved on December 28, 2018, and were implemented July 1, 2020, and Section 15064.3 was added to the CEQA Guidelines that identifies VMT as the most appropriate measure of analyzing transportation impacts under CEQA. Related legislation, SB 32 (2016) requires California to reduce greenhouse gas emissions 40% below 1990 levels by 2030. The California Air Resources Board has determined that it is not possible to achieve this goal without reducing VMT growth, and specifically, California needs to reduce per capita VMT across all economic sectors. SB 743 is primarily focused on passenger cars and the reduction in per capita VMT as it relates to individual trips.

The OPR Technical Advisory (OPR 2018) provides guidance and tools to properly carry out the principles within SB 743 and how to evaluate transportation impacts in CEQA. The County has adopted VMT thresholds as described in Section 3.12.3.

Local

El Dorado County Resolution 141-2020

In accordance with SB 743, the County Board of Supervisors adopted Resolution No 141-2020 which adopts thresholds of significance for land use projects for the purposes of analyzing transportation impacts under CEQA (El Dorado County 2020); the VMT analysis prepared for the project follows these guidelines for SB 743 compliance. Per the County's guidelines, projects shall analyze VMT metrics when exemption criteria are not met. The County's guidelines and accompanying thresholds are consistent with and rely on the assumptions made within the OPR Technical Advisory guidelines.

CEQA Guidelines Section 15064.3 (b)(1) Criteria for Analyzing Transportation Impacts includes presumptions that certain projects (including residential, retail, office, and mixed-use projects) proposed within one-half mile of an existing major transit stop or along a high-quality transit corridor will have a less-than-significant impact on VMT. If the specified presumption does not apply, VMT should be analyzed through a qualitative or quantitative analysis. The CEQA Guidelines are accompanied by the OPR Technical Advisory, which includes specifications for how to estimate and forecast VMT.

El Dorado County General Plan

The Transportation and Circulation Element of the County's General Plan provides the framework for decisions in the county concerning the countywide transportation system. The system includes facilities for various transportation modes, including roads, transit, non-motorized, rail, and aviation. The Transportation and Circulation Element reflects the urban and rural diversity of the unincorporated areas of the County and establishes standards that guide development of the transportation system, including access to the road and highway system required by new development (El Dorado County 2019). The following goals and policies relevant to the proposed project are identified below.

Transportation and Circulation Element

Goal TC-1: To plan for and provide a unified, coordinated, and cost-efficient countywide road and highway system that ensures the safe, orderly, and efficient movement of people and goods.

Policy TC-1p: The County shall encourage street designs for interior streets within new subdivisions that minimize the intrusion of through traffic on pedestrians and residential uses while providing efficient connections between neighborhoods and communities.

Policy TC-1w: New streets and improvements to existing rural roads necessitated by new development shall be designed to minimize visual impacts, preserve rural character, and ensure neighborhood quality to the extent possible consistent with the needs of emergency access, on street parking, and vehicular and pedestrian safety.

Goal TC-2: To promote a safe and efficient transit system that provides service to all residents, including senior citizens, youths, the disabled, and those without access to automobiles that also helps to reduce congestion, and improves the environment.

Policy TC-2b: The County shall promote transit services where population and employment densities are sufficient to support those transit services, particularly within the western portion of the county and along existing transit corridors in the rural areas.

Policy TC-3d: The County shall encourage new development within Community Regions and Rural Centers to provide appropriate on-site facilities that encourage employees to use alternative transportation modes. The type of facilities may include bicycle parking, shower and locker facilities, and convenient access to transit, depending on the development size and location.

Goal TC-4: To provide a safe, continuous, and easily accessible non-motorized transportation system that facilitates the use of the viable alternative transportation modes.

Policy TC-4a: The County shall implement a system of recreational, commuter, and inter-community bicycle routes in accordance with the County's Bicycle Transportation Plan. The plan should designate bikeways connecting residential areas to retail, entertainment, and employment centers and near major traffic generators such as recreational areas, parks of regional significance, schools, and other major public facilities, and along recreational routes.

Policy TC-4c: The County shall give priority to bikeways that will serve population centers and destinations of greatest demand and to bikeways that close gaps in the existing bikeway system.

Policy TC-4e: The County shall require that rights-of-way or easements be provided for bikeways or trails designated in adopted master plans, as a condition of land development when necessary to mitigate project impact.

Policy TC-4g: The County shall support development of facilities that help link bicycling with other modes of transportation.

Policy TC-4i: Within Community Regions and Rural Centers, all development shall include pedestrian/bike paths connecting to adjacent development and to schools, parks, commercial areas and other facilities where feasible. In Rural Regions, pedestrian/bike paths shall be considered as appropriate.

Goal TC-5: To provide safe, continuous, and accessible sidewalks and pedestrian facilities as a viable alternative transportation mode.

Policy TC-5a: Sidewalks and curbs shall be required throughout residential subdivisions, including land divisions created through the parcel map process, where any residential lot or parcel size is 10,000 square feet or less.

Policy TC-5c: Roads adjacent to schools or parks shall have curbs and sidewalks.

Goal TC-9: To support the development of complete streets where new or substantially improved roadways shall safely accommodate all users, including bicyclist, pedestrians, transit riders, children, older people, and disabled people, as well as motorist.

Policy TC-9a: Incorporate circulation concepts that accommodate all users in new developments as appropriate.

El Dorado County 2040 Regional Transportation Plan

The El Dorado County 2020-2040 Regional Transportation Plan (RTP) was developed under the direction of the El Dorado County Transportation Commission (EDCTC). The RTP is designed to be a guide for the systematic development of a balanced, comprehensive, multi-modal transportation system. This system includes but is not limited to highways, streets and interregional roadways, public transit, aviation, freight/goods movement, active transportation (bikeways and pedestrian facilities), transportation systems management, and intelligent transportation systems. The RTP is action-oriented and pragmatic, considering both the short-term (up to 10 years) and long-term (10 to 20 year) periods. The El Dorado County RTP also serves as the El Dorado County portion of the Sacramento Area Council of Governments (SACOG) Metropolitan Transportation Plan (MTP) (EDCTC 2020a).

The goals of the RTP embody a general set of strategies by which EDCTC, working as part of a regional context comprised of the interests of public citizens, local governments, non-profit organizations, and the business community, help the region achieve the desired future. The RTP includes the following relevant goals to the proposed project:

Goal 1: Integrated Land Use, Air Quality, And Transportation Planning. Integrate local and regional land use, air quality, and transportation planning to create a transportation system which supports the needs of the system user, enhances the economy, preserves the environment, and protects the community character.

Goal 2: Sustainability. Encourage sustainable transportation options, embrace new technologies and develop climate adaptation and resiliency strategies.

Goal 3: Highways, Streets, And Regional/Inter-Regional Roadways. Optimize the existing local, interregional and regionally significant roadway system to support improved maintenance, increased throughput, improved safety and multi-modal mobility.

Goal 4: Public Transit. Promote a convenient, desirable, and reliable regional and interregional public transit system for residents and visitors travelling within, to, and beyond the County.

Goal 6: Active Transportation. Promote a safe, convenient, and efficient active transportation system for all users.

El Dorado County Active Transportation Plan

The El Dorado County Active Transportation Plan (ATP) was adopted by the County on February 6, 2020 (EDCTC 2020b). The plan serves as the update to the County's Bicycle Transportation Plan. The ATP outlines the existing conditions and proposed development of a bicycle transportation system in the county, as well as improvements to pedestrian facilities. Planned improvements in the project vicinity include a pedestrian overcrossing of Highway 50 connecting Class 1 bike and pedestrian trails through the Town Center shopping district with bike and pedestrian trails adjacent to the Raley's shopping center north of Highway 50. There are also plans for a Class 1 shared use path along the Placerville & Sacramento Valley Railroad rail line running to the southeast from the City of Folsom and skirting the southwestern edge of the Carson Creek Specific Plan area. The plan demonstrates compliance with the California Streets and Highway Code, enabling the County to be eligible for State Bicycle Transportation Account Funds.

El Dorado County Transportation Impact Fee (TIF) Program

The County uses its Capital Improvement Program (CIP) to identify and prioritize future transportation investments to meet the County's existing and future transportation needs. CIP projects can include roadways, intersections, sidewalks, bicycle lanes, traffic calming treatments, transit service improvement projects, and ongoing administrative costs for transportation monitoring programs, including traffic model update costs, traffic study guideline updates, and updates to the Transportation and Circulation Element to the County's General Plan. Funding for most CIP projects is provided from a variety of sources including state and/or federal grants, and the County's Traffic Impact Fee (TIF) Program. This program is required by General Plan Policy TC-Xb and General Plan policies addressing roadway capacity and levels of service, which are evaluated outside of CEQA. The TIF Program is used to fund needed improvements including roadway widening, new roadways, roadway intersection improvements, and transit to deal with future growth during a defined period of time.

Major updates to the CIP and TIF Program are made by the County at least every five years as required by state law and General Plan policies. The most recent major update to the Western Slope Roadway CIP and TIF Program was completed and certified by the County Board of Supervisors in 2020. The current TIF Program is based on 20 years of growth and TIF Program-funded improvements are part of the CIP. Annual updates have been approved by the Board of Supervisors since 2020 to address inflationary adjustments to project costs based on cost indices as published by the Engineering News Record.

3.12.3 Thresholds of Significance

Thresholds of significance are used to determine the significance of a project's environmental effects. Per Section 15064.7 of the CEQA Guidelines, a threshold is an identifiable quantitative, qualitative or performance level of particular environmental effect, non-compliance with which means the effect will normally be determined to be significant and compliance with normally means the effect will be determined to be less than significant. A significant impact would occur if development of the proposed project would do any of the following:

- Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities.

- Conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b).
- Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).
- Result in inadequate emergency access.

The programs, plans, ordinances, and policies listed in Section 3.12.2 are analyzed for their applicability to the proposed project under the first threshold.

VMT Impact Thresholds

The following are the County's thresholds of significance for use as part of the environmental review process under CEQA. Land use specific thresholds have been adopted as follows:

- Residential: 15% below baseline unincorporated countywide VMT per capita.
- Office: 15% below baseline unincorporated countywide VMT per capita.
- Regional Retail: no net increase in VMT.

As noted by the OPR Technical Advisory, adding local-serving retail into the urban fabric improves retail destination proximity. Local-serving retail development tends to shorten trips and reduce VMT. Thus, lead agencies may presume such development creates a less-than-significant impact.

OPR advises lead agencies to evaluate each component of a mixed-use project independently and apply the significance threshold for each project type included (e.g., residential and retail). Alternatively, a lead agency may consider only the project's dominant use. In the analysis of each use, a project should take credit for internal capture. Combining different land uses and applying one threshold to those land uses may result in an inaccurate impact assessment.

For the proposed project, the residential portion is evaluated based on the 15% reduction from the countywide baseline threshold. The retail portion of the project is considered local-serving retail and presumed to have a less-than-significant impact on VMT.

Hazardous Features (Project Access and Caltrans Facilities Analysis)

Project Access

The project's effect on proposed site access points and on-site circulation is required to be analyzed as part of the CEQA analysis. The project would cause a significant impact if it adds demand to existing roadway facilities that do not meet applicable design standards and creates a potential for a hazardous condition to occur (i.e., impaired sight distance or vehicular queuing).

Caltrans Facilities

Caltrans' Traffic Safety Bulletin 20-02-R1: Interim Local Development Intergovernmental Review Safety Review Practitioners Guidance, December 2020, applies to proposed land use projects and plans affecting the state highway system (Caltrans 2020b). The intent of the Interim Safety Review is to provide an outline for when queuing should be reviewed for traffic safety impacts. A review does not necessitate the need for traffic safety mitigation

but evaluates whether a significant safety impact based on speed differential would occur, and then the significance of that traffic safety impact by the project must be determined on a case-by-case basis.

The Interim Safety Review Guidance realizes the fluid nature of freeway exit ramp queuing, and the difficulty in developing a nexus to any one project. Therefore, no methodology for fair share mitigation, as it relates to freeway exit ramp queuing is provided in the current guidelines.

Emergency Access

The emergency access analysis evaluates whether the project would comply with County's emergency access and/or evacuation requirements including those imposed by the local Fire Department.

Methodology

This section summarizes the methodologies used to perform the project's VMT analysis as required by CEQA. The methodologies described are consistent with OPRs Technical Advisory (OPR 2018), the County's guidelines included in Resolution 141-2020, and the El Dorado County Transportation Impact Study Guidelines (2014).

Project Trip Generation

The project is proposing 918 single family homes which would include 668 low-density residential units and 250 medium-density residential units, and 5,400 square feet of neighborhood commercial uses. The project is proposing 1.8 acres of neighborhood commercial, although there is an option to convert this land to park use as part of the adjacent proposed park if not adopted as part of the CVSP. For the purposes of the transportation analysis and because the neighborhood commercial component would generate greater traffic, development of neighborhood commercial is assumed unless noted. In addition, as described in Chapter 2, Project Description, the project includes a second option that proposes construction of up to 768 age-restricted units and 150 conventional homes. Traffic impacts associated with the Active Adult option were analyzed in the June 4, 2024, *Creekside Village Project Active Adult (Age-Restricted) Housing Option, CEQA VMT Addendum* ("Active Adult Addendum" provided in Appendix H). Where applicable, the impact analysis below indicates if this option would result in a change in impact significance or require new mitigation.

Project trip generation is based on Institute of Transportation Engineers (ITE) Trip Generation Manual, 11th Edition (2021). Traffic generated by the project reflects both trips generated by the project itself, and, avoided trips[2] in 2033 and 2040 from the research and development land uses that the County's TDM assumes would take place on the project site. Avoided trips are additional peak hour trips that the TDM assumes in the future from growth within the project's TAZ.

[2] Avoided trips are additional peak hour trips that the TDM assumes in the future from growth within the project's TAZ. These avoided trips were estimated by running the TDM with and without assumed 2020 through 2040 employment growth for the affected portion of the project's transportation analysis zone (TAZ 612). The project replaces 62% of the available land in TAZ 612, therefore 62% of the employment growth was eliminated from TAZ 612 when estimating the number of avoided trips using the TDM.

Table 3.12-1. Project Trip Generation

Land Use	Quantity	Metric	Daily	AM Peak Hour			PM Peak Hour		
				Total	Inbound	Outbound	Total	Inbound	Outbound
Single Family Detached Housing (ITE Use 210)	918 DU[1]	Notes	Average Rate	Average Rate for Peak Hour of Generator			Average Rate for Peak Hour of Generator		
		Rate	9.43	0.75	26%	74%	0.99	64%	36%
		Trips	8657	689	179	510	909	580	327
Coffee/Donut Shop with Drive-Thru Window (ITE Use 937)	2.4 ksf[2]	Notes	Average Rate	Average Rate for Peak Hour of Generator			Average Rate for Peak Hour of Generator		
		Rate	9.43	0.75	26%	74%	0.99	64%	36%
		Trips	8657	689	179	510	909	580	327
		Pass-by[3]	0	-110	-55	-55	-70	-35	-35
Fast Casual Restaurant (ITE Use 930)	1.5 ksf[2]	Notes	Average Rate	Average Rate for Peak Hour of Generator			Average Rate for Peak Hour of Generator		
		Rate	97.14	5.71	63%	37%	18.57	62%	38%
		Trips	146	9	5	4	28	17	11
		Pass-by[4]	0	0	0	0	-12	-6	-6
High-Turnover (Sit-Down) Restaurant (ITE Use 932)	1.5 ksf[2]	Notes	Average Rate	Average Rate for Peak Hour of Generator			Average Rate for Peak Hour of Generator		
		Rate	107.2	13.68	57%	43%	16.35	51%	49%
		Trips	161	21	12	9	25	13	12
		Pass-by[4]	0	0	0	0	-10	-5	-5
Total Residential Trips			8657	689	179	510	909	582	327
Less 2% Internalization Based on Travel Demand Model			-173	-14	-4	-10	-18	-12	-7
Net New Residential Trips to Assign			*8484*	*675*	*175*	*500*	*891*	*570*	*321*
Total Commercial Trips			1588	163	84	79	66	36	30
Less 2% Internalization Based on Travel Demand Model			-32	-4	-2	-2	-2	-1	-1
Net New Commercial Trips to Assign			*1556*	*159*	*82*	*77*	*64*	*35*	*29*
Total New Project Trips			**10040**	**834**	**257**	**577**	**955**	**605**	**350**
Commercial Pass-by Trips from Latrobe Road (for assignment to commercial driveways)			*0*	*110*	*55*	*55*	*92*	*46*	*46*

Source: Appendix H.

Notes:

1 DU= Dwelling Unit

2 ksf = 1,000 square feet

3 Pass-by trips based on Land Use 934 (Fast Food with Drive-Thru) which has an average 45.4% pass-by rate in the AM and 68% in the PM.

4 Pass-by trips based on Land Use 932 (High-Turnover [Sit-Down] Restaurant) which has an average 43% pass-by rate.

Table 3.12-2. TDM Employment Assumptions and Avoided Trips

Employment	2020	2040 Without Project	2040 With Project	Notes
Retail	224	433	304	Creekside Village is 62% of remaining land in TAZ 612. Housing is assumed to replace 62% of employment growth. (With Project there are 2097 fewer employees.)
Non-Retail	2,115	5,355	3,387	
Total	2,339	5,788	3,691	

Trips	AM	PM	Daily
Avoided Trips			
In	526	311	4,735
Out	207	518	4,680
Total	733	829	9,415
Project Trips			
Total	834	955	10,040
Net New Trips (Project – Avoided)	**101**	**126**	**625**

Source: Appendix H.

As shown in Table 3.12-1, the project's 918 dwelling units and 5,400 square feet (SF) of neighborhood commercial space would generate 10,040 daily trips, 834 AM peak hour trips, and 955 PM peak hour trips. Those trips are largely offset by 2040 through buildout of the El Dorado Hills Business Park and project site with research and development uses consistent with the existing land use designation on the project site which the TDM anticipated would have generated 9,415 daily trips, 733 AM peak hour trips, and 829 PM peak hour trips. Therefore, the project would add 625 net new daily trips, 101 net new AM peak hour trips, and 126 net new PM peak hour trips, in addition to what was assumed in the TDM horizon year of 2040.

Under the Active Adult option age-restricted households generate fewer trips than traditional households. The number of vehicle trips under this option would be reduced to 6,186 daily trips, 526 AM peak hour trips, and 504 PM peak hour trips (Appendix H).

Vehicle Miles Traveled

CEQA Guidelines, Section 15064.3 states that "generally, vehicle miles traveled (VMT) is the most appropriate measure of transportation impacts" and defines VMT as "the amount and distance of automobile travel attributable to a project." "[A]utomobile" refers to on-road passenger vehicles, specifically cars and light trucks. OPR has clarified in the Technical Advisory on Evaluating Transportation Impacts in CEQA (OPR 2018) and recent informational presentations that heavy-duty truck VMT is not required to be included in the estimation of a project's VMT. Other relevant considerations may include the effects of the project on transit and non-motorized travel.

VMT Analysis Approach

Per the County's adopted VMT guidelines, the following projects can screen out of conducting a detailed VMT analysis and are presumed to result in a less-than-significant VMT impact:

A. Projects that generate or attract less than 100 trips per day, consistent with OPR's determination of projects that generate or attract fewer than 110 trips per day and further reduced to 100 to remain consistent with the existing threshold in General Plan Policy TC-Xe[3];
B. Projects that are within one-half mile of either a major transit stop, as defined in Public Resources Code Section 21064.3, or a high-quality transit corridor, as defined in PRC Section 21155; and
C. 100% affordable residential development, including moderate, low, and very low categories as defined in the Regional Housing Needs Assessment (RHNA), consistent with OPR's conclusions in its Technical Advisory.

For projects that do not screen out of conducting a detailed analysis, the County's TDM is used. The County uses the countywide VMT average as the measure of transportation impacts for CEQA compliance.

The project's residential use would not screen out; hence, the County's TDM is used to evaluate the project's VMT. Therefore, the project's VMT was analyzed based on extracting information from an unmodified version of the County's TDM. The TDM is a traditional trip based four-step travel demand model (trip generation, distribution, mode choice and assignment) with a 2018 base year and 2040 horizon year. Trip productions and attractions are estimated at the TAZ level. Within developed portions of the county, TAZs are roughly neighborhood size areas for which population socioeconomic data is tabulated.

There are 674 TAZs in the model and the project is located within TAZ 612. Figure 3.12-2 shows TAZs near the project site, with TAZ 612 (where the CVSP is located) and adjacent residential TAZs which are predominantly residential (i.e., TAZ 167 and TAZ 611). A three-step process for the baseline and cumulative analysis years was used to estimate the proposed project's per capita home based VMT. The details of modeling are included in the Appendix H.

Active Transportation and Transit Review

A review of active transportation and transit facilities was conducted to determine if the project would conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decreases the performance or safety of such facilities.

[3] Policy TC-Xe: For the purposes of this Transportation and Circulation Element, "worsen" is defined as any of the following number of project trips using a road facility at the time of issuance of a use and occupancy permit for the development project:
A. 2 percent increase in traffic during the a.m. peak hour, p.m. peak hour, or daily, or
B. The addition of 100 or more daily trips, or
C. The addition of 10 or more trips during the a.m. peak hour or the p.m. peak hour.

3.12.4 Impacts and Mitigation Measures

Methodology

Project Impacts

Impact 3.12-1. The proposed project would not conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities.

General Plan Consistency

The project site is currently designated as Research and Development (R&D) in the County's General Plan and zoned accordingly. The project is proposing a General Plan Amendment and rezone to accommodate the proposed residential uses. Project development would be guided by the CVSP, and Section 3.9, Land use, Population and Housing, provides an evaluation of the project's consistency with the County's General Plan and notes that a specific plan must be consistent with the General Plan (Cal. Government Code Section 65454) and cannot be approved by the County if it is inconsistent with the General Plan.

A detailed analysis of roadway facilities (roadway segments, intersections, and freeway segments) is included in the traffic analysis provided in the project's TIS (Appendix H). The TIS provides an analysis of the project's potential effects relative to General Plan consistency with LOS standards (per General Plan Circulation Policies TC-Xd[4] and TC-Xf) used by the County per their Transportation Impact Study Guidelines. Pursuant to PRC Section 21099(b)(2) and CEQA Guidelines Section 15064.3(a), a project's effect on automobile delay is not considered a significant environmental effect; therefore, no further discussion is required or provided in this analysis, and information related to LOS is included in Appendix H for informational purposes only.

Bike, Pedestrian and Transit Facilities

The County's Active Transportation Plan calls for a pedestrian overcrossing of Highway 50 connecting Class I bike and pedestrian trails through the Town Center shopping district with the bike and pedestrian trails adjacent to the Raley's shopping center north of Highway 50. There are also plans for a Class I shared use path along the Placerville and Sacramento Valley Railroad rail line running to the southeast from the City of Folsom and skirting the southwestern edge of the Carson Creek Specific Plan area.

[4] Policy TC-Xd: Level of Service (LOS) for County-maintained roads and state highways within the unincorporated areas of the county shall not be worse than LOS E in the Community Regions or LOS D in the Rural Centers and Rural Regions except as specified in Table TC-2 or, after December 31, 2008, Table TC-3. The volume to capacity ratio of the roadway segments listed in Tables TC-2 and TC-3 as applicable shall not exceed the ratio specified in that table. Level of Service will be as defined in the latest edition of the Highway Capacity Manual (Transportation Research Board, National Research Council) and calculated using the methodologies contained in that manual. Analysis periods shall be based on the professional judgment of the Department of Transportation which shall consider periods including, but not limited to, Weekday Average Daily Traffic (ADT), AM Peak Hour, and PM Peak hour traffic volumes.

The project would enhance bicycle and pedestrian access to the El Dorado Hills Business Park, as shown on Figure 3.12-3 and would not interfere with existing or planned bicycle and pedestrian facilities. The project includes a variety of bike and pedestrian amenities providing connections both within the planned community and externally to the existing bike and pedestrian facilities along Latrobe Road and Royal Oaks Drive, including the following:

- Project entrance would be constructed as the west leg of the Royal Oaks Drive and Latrobe Road intersection and would include Class II bike lanes from this intersection.
- Project features include a complete system of paved and unpaved trails located in the open space buffer areas and landscape corridors. The trails would be destination-oriented and link the various residential neighborhoods, parks, and the adjacent business park.
- The majority of CVSP streets would include attached or separated sidewalks on both sides of the street. All sidewalks would comply with Americans with Disabilities Act (ADA) standards and be a minimum of 4-feet in width.

The proposed bike lanes and routes within the project's internal streets would connect to the existing Class II bike lane along Latrobe Road and Royal Oaks Drive. The proposed Class I trail in the CVSP would connect to the existing Latrobe trail and the trail encircling the Heritage development and would also connect to the proposed El Dorado Trail. The project would add sidewalks to all internal streets which would connect to Latrobe Road and Royal Oaks Drive. By adding these facilities, the project would enhance bicycle and pedestrian access to roadway networks near the CVSP, to various parks and to the El Dorado Hills Business Park and would not interfere with existing or planned bicycle and pedestrian facilities. Therefore, the project would result in a less-than-significant impact on bicycle and pedestrian facilities.

There are no transit stops or routes in the immediate vicinity of the proposed project. Sacramento Commuter and Route 50X provides bus service from the park-and-ride lot at the intersection of Latrobe Road and White Rock Road and is located approximately three miles north of the proposed project. The project would not conflict with existing or proposed transit service and would result in a less-than-significant impact on transit.

Regional Transportation Plan

The project proposes residential land uses and a small neighborhood commercial site if is adopted as part of the CVSP, otherwise it would be converted to park uses. The neighborhood commercial site would improve housing and jobs balance in the community of El Dorado Hills. The project would optimize use of the existing regional and local roadway system as the project would use Highway 50, Latrobe Road, El Dorado Hills Boulevard and Silva Valley Parkway. As shown in the project's TIS, the project would support improved maintenance, increased throughput, and improved safety by constructing roadway improvements and/or paying the applicable fees per the County's TIF program. The project would also improve multi-modal mobility by constructing active transportation facilities along Royal Oaks Drive and internal project streets which would connect to existing and proposed facilities in the area, as described above. As such, the project would not conflict with the goals and policies of the County's Regional Transportation Plan.

Active Adult Option

The Active Adult option would not change the proposed project's site plan, only the type of residential units. Therefore, under this option there would be no change in the analysis of potential conflicts with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities. The impact would be the same as the proposed project, less than significant.

Therefore, as shown in the proposed project's consistency analysis (see Appendix H) with all the applicable regional and local plans addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities, the project's impact as well as the Active Adult option would be **less than significant**.

Mitigation Measures

No mitigation measures are required.

Impact 3.12-2. The proposed project would not conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b).

The following discusses the proposed project's VMT screening, analysis and impact determination and its consistency with CEQA Guidelines Section 15064.3(b).

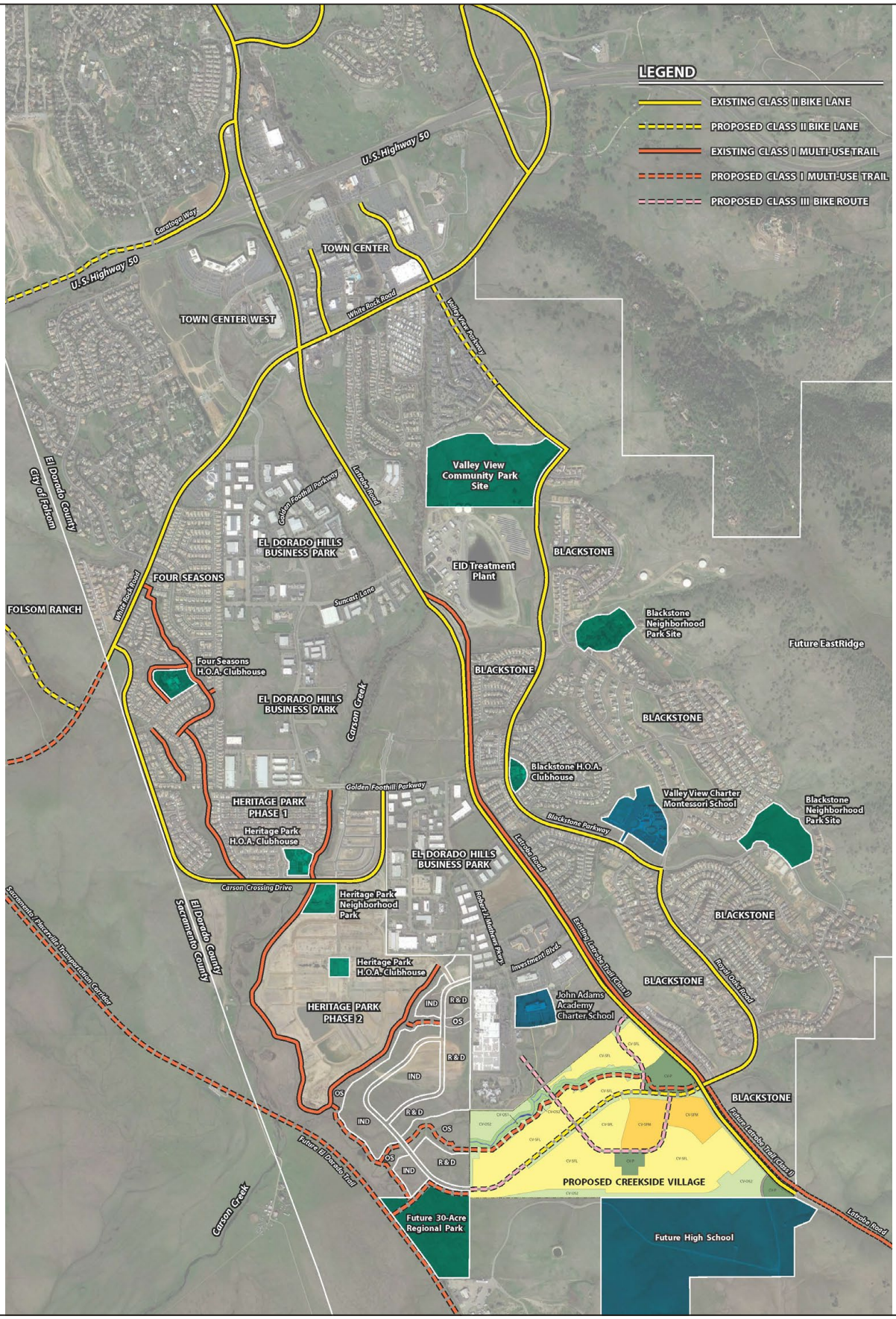
VMT Screening Analysis: Residential Component

The unincorporated countywide VMT per capita for determining the significance of residential projects is estimated using the County's TDM. For this analysis, the 2018 baseline model results were used as the baseline, and the 15% reduction threshold as adopted by the County in Resolution 141-2020. The project's VMT is shown in Table 3.12-3. The 2018 baseline VMT per capita for the County is 20.4. The significance threshold determined by this calculation is 17.3 VMT per capita (i.e., 15% below the existing countywide 20.4 VMT per capita). The residential component of the project is anticipated to generate 13.6 VMT per capita based on 2018 land uses included in the County's model. As explained above, under the Active Adult option vehicle trips would be reduced as compared to the proposed project which would correlate to a lower VMT per capita. Therefore, because the project's VMT per capita under Existing with Project (i.e., 13.6 VMT per capita) conditions would not exceed the existing Countywide per capita VMT threshold (i.e., 17.3 VMT per capita), the project as well as the Active Adult option would result in a less-than-significant VMT impact under existing conditions. As discussed under Impact 3.12-5, the project would also result in a less-than-significant VMT impact under cumulative (2040) conditions shown in Table 3.12-3.

Table 3.12-3. Project VMT Analysis – Residential Component

	El Dorado County		Project (Based on TAZ 167)	
	2018	2040	2018	2040
Home-based VMT	2,813,221	3,158,464	39,441	45,417
Population	137,989	162,164	2,904	3,478
VMT per Capita	20.4	19.5	13.6	13.1
VMT Threshold with 15% Reduction	17.3	n/a	n/a	n/a
Potentially Significant Impact?			**No**	**No**

Source: Appendix H.



SOURCE: T. Kear Inc. 2024

FIGURE 3.12-3

Bike and Pedestrian Facilities

Creekside Village Specific Plan EIR

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VMT Screening Analysis: Local Serving Retail Component

The project includes 5,400 SF of neighborhood commercial/local serving retail, which could include a coffee shop and small café opportunities within walking distance of project residents and the neighboring Blackstone and Heritage communities, in addition to vehicles passing by on Latrobe Road. Per OPR guidance, retail projects of 50,000 SF or larger are generally regional rather than local serving. The proposed neighborhood commercial/local serving retail component is under the OPR threshold. Therefore, this component of the project (if adopted as part of the CVSP) can be presumed to result in a less-than-significant VMT impact.

If the neighborhood commercial component is not developed, it would be constructed as a park use as part of the proposed adjacent park, which would screen out of conducting a VMT analysis because parks are considered local-serving public uses.

Active Adult Option

As explained in the Active Adult Addendum (see Appendix H), there is limited information published on how travel characteristics of age-restricted housing and conventional housing differ. Available data, however, indicates that age-restricted households generate fewer trips, which correlates to a reduction in VMT. The Active Adult Addendum concludes that the Active Adult option would reduce daily project trips by approximately 38.4% (reduced from approximately 10,040 daily new residential trips with the proposed project to 6,186 daily new residential trips with the Active Adult option). The National Household Travel Survey also estimates Person Miles of Travel (PMT) and has concluded that individuals 65 years and older have a 19% less PMT which resulted in 5% fewer trips than a population as a whole, which also demonstrates that the Active Adult option would result in a lower VMT than the proposed project. Therefore, with implementation of the Active Adult option, traffic impacts would remain less than significant.

As shown above, per the County's VMT significance criteria for impact determination, the proposed project as well as the Active Adult option would have a less-than-significant VMT impact under existing and cumulative conditions. Therefore, the project would not conflict with CEQA Guidelines Section 15064.3(b) related to the VMT threshold and impacts would be **less than significant**.

Mitigation Measures

No mitigation measures are required.

Impact 3.12-3. The proposed project would not substantially increase hazards due to sharp curves or dangerous intersections or incompatible uses.

Project Access

The potential for increased hazards could result from a geometric design feature of the project and/or as a result of the addition of project traffic to a Caltrans facility. The proposed project's roadway network and design would remain the same under the Active Adult option; therefore, there would be no change from the proposed project under this option. Vehicular access to the project site would be provided by three roadways and a commercial driveway (see Figure 2-3 in Chapter 2, Project Description):

- Primary project access would be from Latrobe Road via an extension of Royal Oaks Drive. The intersection of Latrobe Road/Royal Oaks Drive is proposed to remain as full access. This intersection has an existing

two-way-stop-control, and a signal-control is recommended as an improvement to maintain an acceptable level-of-service.

- The first secondary access road from Latrobe Road is an extension of Avanti Drive. The intersection is proposed as full access with stop control on the side-street.
- The second secondary access is via a connection to Wetsel-Oviatt Road.
- A right-in/right-out (RIRO) commercial driveway is proposed providing the neighborhood commercial site with direct access to southbound Latrobe Road. The commercial driveway would be located just north of the existing Latrobe Road/Royal Oaks Drive intersection.
- An approximately 650-foot-long emergency access road would connect the project site to the adjacent business park, located northwest of the site. This emergency access road would be closed to through traffic with emergency access gates (approved by the Fire Department) that would be opened to traffic only during an emergency. The road would also function as a Class 1 bike path.

Sight distance at each internal project access would be reviewed with respect to County's sight distance standards at the time of preparation of final grading, landscape, and street improvement plans. The project would be subject to all applicable County road standards and all internal and external roadways would be improved or constructed consistent with all safety requirements pertaining to ingress and egress onto the overall circulation system, ensuring the project would not create sharp curves or dangerous intersections.

A level of service/queuing analysis was conducted to evaluate the ability of the project to accommodate the anticipated traffic levels at the study area intersections for Existing 2023, Existing Plus Approved Projects 2023 and cumulative 2040 conditions, which is evaluated for General Plan consistency outside of the CEQA context. In addition, a signal warrant analysis was conducted at unsignalized intersections to see if they would trigger the need for a traffic signal using the peak hour volumes per California Manual on Uniform Traffic Control Devices (CA MUTCD) methodology. General Plan LOS and queue length findings and recommended improvements such as roadway widening, intersection storage capacity and signalization have been included in Section 13.3 of Appendix H, which would ensure the roadways and intersections in the area do not present a danger or hazard related to intersection geometry and operations. The General Plan LOS consistency analysis is not required to be addressed in an EIR; therefore, it is included in Appendix H for informational purposes only.

Caltrans Facilities

The proposed project would add trips to Highway 50 and its ramp intersections at El Dorado Boulevard and Silva Valley Parkway; therefore, an evaluation of the project's potential impacts on queuing at Caltrans intersections was prepared in the project's TIS (Appendix H) in order to determine if the project would cause, or contribute towards, slowing or stopped traffic on freeway mainline travel lanes, off-ramps, and state highway lanes that could result in unsafe speed differentials between adjacent lanes.

For Caltrans facilities, vehicle LOS is provided for informational purposes only and queues were assessed at the Highway 50 ramps at El Dorado Boulevard and Silva Valley Boulevard intersections.

- El Dorado Hills Blvd/Highway 50 Westbound Ramps (Intersection No. 3)
- El Dorado Hills Blvd/Highway 50 Eastbound Ramps (Intersection No. 4)
- Silva Valley Parkway/Highway 50 Eastbound Ramps (Intersection No. 23)
- Silva Valley Parkway/Highway 50 Westbound Ramps (Intersection No. 24)

Additionally, freeway facility density and LOS analysis is provided for informational purposes only was conducted for westbound and eastbound Highway 50 freeway segments between Bass Lake Road and the county line.

As shown in the project's TIS (Appendix H), analysis of Caltrans facilities under Existing and Existing Plus Approved Projects, the project would not contribute to operational deficiency at any Caltrans facility except at the El Dorado Hills Boulevard/Highway 50 Westbound Ramps intersection. The project would be responsible for payment of its fair share of signal timing adjustment at this intersection and would be required to pay applicable fees under the County's TIF program.

The project as well as the Active Adult option would not add incompatible uses to the project site and based on the analysis would not increase hazards due to a geometric design feature or incompatible uses and the impact would be **less than significant**.

Mitigation Measures

No mitigation measures are required.

Impact 3.12-4. The proposed project would not result in inadequate emergency access.

The project proposes development which would require construction of internal roadways, as well as improvements to existing intersections. All internal roadways would be built to meet all minimum fire apparatus access requirements of the El Dorado Hills Fire Department and California Fire Code. Consistent with the County's Engineering Standards, the project's roadways would be required to meet all access requirements such as roadway widths, all-weather surface requirements, length of streets, turning requirements, grade restrictions, maintenance requirements, and parking restrictions. Specific fire and safety requirements would be addressed at the building permit phase when architectural plans are submitted for County review and approval. Adequate emergency access and compliance with emergency access and design standards would be ensured through this review by the County and responsible emergency service agencies throughout project implementation. There are four other fire stations that serve the community, with Station 87 being the closest fire station to the project site located approximately 1.5 miles to the northeast. As mentioned in Section 3.15, Wildfire, Latrobe Road is an existing two-lane arterial road that provides direct regional access from Highway 50 south past the project site to SR-16, which could serve as a potential evacuation route to access larger roadways. New roads constructed within the CVSP would connect to Latrobe Road at its intersection with Royal Oaks Drive and Avanti Drive in addition to Wetsel-Oviatt Road. As mentioned above, the project includes an emergency access road that would connect the project site to the adjacent business park, located northwest of the site. This emergency access road would be closed to through traffic with emergency access gates (approved by the Fire Department) that would be opened to traffic only during an emergency. The road would also function as a Class 1 bike path. Emergency access would remain the same as the project under the Active Adult option.

Any project construction activities that could potentially impact Latrobe Road, and thereby interfere with emergency access, would be subject to the County's Department of Transportation permit requirements for encroachment permits and temporary road closures. These requirements address applicable temporary traffic controls for all construction activities within the public rights-of-way. This would include compliance with the latest California MUTCD and compliance with the requirement that emergency access to all nearby properties be maintained at all times. Compliance with the County's requirements would ensure adequate emergency access is maintained throughout project construction.

Therefore, construction and operation of the project as well as the Active Adult option would not result in inadequate emergency access and the impact would be **less than significant**.

Mitigation Measures

No mitigation measures are required.

Cumulative Impacts

Where a lead agency concludes that the cumulative effects of a project, taken together with the impacts of other closely related past, present, and reasonably foreseeable future projects are significant, the lead agency then must determine whether the project's incremental contribution to such significant cumulative impact is "cumulatively considerable" (and thus significant in and of itself).

The project's TIS evaluated the cumulative scenario using cumulative projects in the area and the socio-economic data included in the County's TDM. The cumulative analysis considers the year 2040 conditions. The year 2040 conditions include development per the County's General Plan and land use forecasts and therefore includes probable future projects.

Impacts related to hazards due to a geometric design feature, inadequate emergency access and conflicts with transit, bicycle or pedestrian transportation would not be considered additive and would be identical to Impacts 3.12-1 and 3.12-3, 3.12-4, above, and would remain less than significant.

Impact 3.12-5. The proposed project would not conflict or be inconsistent with CEQA Guidelines section 15064.3(b) under cumulative conditions.

As discussed under Impact 3.12-2, the project's VMT analysis was conducted for the residential component only. The neighborhood commercial component of the project would screen out of conducting a VMT analysis because of its local serving nature and therefore would not have the potential to contribute to a cumulative VMT impact. Per the County's TDM and as shown in Table 3.12-3, the baseline VMT per capita under cumulative conditions is 19.4 VMT per capita in 2040. The significance threshold is 17.3 VMT per capita (i.e., 15% below the existing countywide 20.4 VMT per capita). The residential component of the project is anticipated to generate 13.1 VMT per capita by 2040 and would be less under the Active Adult option. Because the project's VMT per capita under Cumulative with Project (i.e., 13.1 VMT per capita) conditions would not exceed the existing countywide per capita VMT threshold (i.e., 17.3 VMT per capita), the project, as well as the Active Adult option would result in a **less-than-significant VMT impact under cumulative conditions**.

Mitigation Measures

No mitigation measures are required.

3.12.5 References

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3.13 Tribal Cultural Resources

This section assesses potential effects on tribal cultural resources (TCRs) that may be impacted as a result of development of the Creekside Village Specific Plan (CVSP or proposed project). This section generally describes the existing TCR conditions of the project site and vicinity, identifies associated regulatory requirements, evaluates potential impacts, and identifies mitigation measures related to implementation of the proposed project while respecting the confidentiality of TCRs. TCRs are defined as sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that is listed or determined to be eligible for listing in the national or state register of historical resources or listed in a local register of historic resources.

One public comment related to TCRs was received in response to the to the November 6, 2020, Notice of Preparation (NOP). The Native American Heritage Commission (NAHC) submitted a letter regarding Assembly Bill (AB) 52 and Senate Bill (SB) 18 consultation methods and consistency. This is a standard letter submitted by the NAHC and does not raise any site-specific concerns. No additional comments were received at the second scoping meeting held on September 26, 2023. A copy of the NOP and comments received is included in Appendix A.

The primary sources used to assess the potential effects on TCRs are the record of tribal consultation and confidential appendix for the proposed project. The appendix containing such information is confidential because the California Environmental Quality Act (CEQA) and CEQA Guidelines prohibit lead agencies from including any information from a California Native American tribe about TCRs (e.g., the location) in the environmental document or otherwise disclosing it without prior consent from the tribe that provided the information (Public Resources Code [PRC] Section 21082.3[c] and CEQA Guidelines Section 15120[d]). The California Public Records Act authorizes agencies to exclude from public disclosure archaeological site information; records of Native American graves, cemeteries, and sacred places; and records of Native American places, features, and objects (California Government Code Sections 7927.000 and 7927.005.). In addition, California's open meeting laws (the Brown Act, California Government Code Section 54950 et seq.) protect the confidentiality of Native American cultural place information. During the consultation process with Native American tribes described in more detail below, Native American tribal governments also requested the confidential treatment of TCRs.

As described in Section 3.13.1, El Dorado County (County) staff and the project applicant have attended two on-site meetings with representatives from the Wilton Rancheria and the United Auburn Indian Community (UAIC) tribes, one in-office meeting with Wilton Rancheria, and are engaged in ongoing consultation pursuant to AB 52 and SB 18 requirements. Furthermore, County staff and UAIC has had one direct Government-to-Government meeting regarding the project. The confidential appendix includes the May 2019 Cultural Resources Inventory and Evaluation, the January 2021 Creekside Village Determination of Site Boundaries, and the March 2021 Off-site Utilities Cultural Resources Assessment all prepared by Windmiller Consulting. In addition, a follow up records search from the North Central Information Center (NCIC) was requested in August 2023 with the results documented in a Memorandum prepared by Environmental Science Associates (also included in the confidential appendix). Additional sources include the El Dorado County General Plan Conservation and Open Space Element (El Dorado County 2017) and Google Earth aerial imagery.

3.13.1 Environmental Setting

A detailed overview of the precontact, ethnohistoric, and historic contexts are provided in Section 3.4, Cultural Resources of this draft environmental impact report (EIR) starting on page 3.4-1. Therefore, this information is not repeated in this section.

While historic context is important, UAIC has explained that some archaeologists focus on past Native American culture while current Native American culture can often be overlooked. This approach is not sufficient to provide a context or set of values maintained by the current Native American community related to their history and the landscape. Tribes view themselves as contemporary stewards of their culture and the landscape, representing a continuum from the past to the present. They are resilient, vibrant, and active in the community. Tribes maintain their connection to their history and ongoing culture by practicing traditional ceremonies, engaging in traditional practices (e.g., basketry), and conducting public education and interpretation. The acknowledgment of Native American history and the persistence of tribes cannot be overlooked and should be recognized.

Defining TCRs thus involves the knowledge and expertise of living California Native Americans. As the embodiment of a continuous connection between tribal history and the landscape, they are uniquely qualified to act as the interpreters and stewards of their culture, including the ability to define the significance of the material remains and landscapes of their ancestor's lifeways.

The project site is located on land traditionally culturally associated with the Nisenan (Maidu) and Miwok. Boundaries defining areas of indigenous use and tribal cultural value have varied over time and were often fluid and overlapping. Many descendants of Nisenan and Miwok tribes still reside on lands once inhabited by their ancestors or on lands set aside for tribal communities by the federal government in California which may or may not be traditionally inhabited by their ancestors. Contemporary Californian Native American tribes with ancestral connections to the project area and Valley Nisenan heritage include the United Auburn Indian Community (UAIC), Shingle Springs Band of Miwok Indians (SSBMI), Ione Band of Miwok, and Wilton Rancheria.

These tribes today maintain connection to their history and culture in a multitude of ways, including through ceremony, language and traditional knowledge instruction, community service, and tribal governance. For example, it has been explained by UAIC that a "Big Time" is typically celebrated every September to mark the start of autumn and acorn gathering time at Chaw'se Grinding Rock State Park in Pine Grove. This celebration includes serving traditional foods, traditional dancing, healing rituals, and worship in the roundhouse. Language and traditional skill classes are offered by most of the tribes, including by the SSBMI which has a Traditional Ecological Knowledge (TEK) department to assist members with learning about respectful and traditional uses of plants and animals, and the UAIC which has a pre-K through 8th grade school where key aspects of Indian culture and critical thinking are taught to prepare tribal members to face future challenges.

Governance on tribal lands is typically outlined by tribally prepared constitutions, codes and/or ordinances, and are carried out by tribal departments which are in turn typically overseen by the tribal council. This includes the office of Tribal Historic Preservation Officer. Because tribes retain inherent sovereign powers over their members and territory, SSBMI and the Wilton Rancheria also have tribal Courts which serve as culturally-sensitive, independent judicial forums where tribal cultural values are held at the forefront of dispute resolutions. It should be noted that UAIC, Wilton Rancheria, SSBMI, and Ione Band of Miwok are all also federally recognized Tribes. The tribes have deep spiritual, cultural, and physical ties to their ancestral land and are contemporary stewards of their culture and landscapes.

Project Region

The proposed project is located in the western portion of unincorporated County in the community of El Dorado Hills. Two miles north of the project is the historic town of Clarksville. Three miles southeast lies the historic town of Latrobe. As described above, the proposed project is located on land traditionally inhabited by or otherwise traditionally culturally associated with the Nisenan and Miwok Tribes.

Project Site

The proposed project is a specific plan featuring a mix of single-family homes, parks, open space, and neighborhood commercial located on the west side of Latrobe Road approximately two miles south of the Latrobe Road and White Rock Road intersection and approximately two and a half miles southeast of Highway 50. The project site currently consists of undeveloped rolling grasslands.

Resources Identified within the Project Site APE

In addition to the information about TCRs gained from tribal consultation summarized below, a confidential Cultural Resources Inventory and Evaluation report (Cultural report) prepared for the project in May 2019 used a geographic area of potential effects (APE) of 240 acres including areas bordering the El Dorado Hills Business Park to the north. The proposed project site consists of 208 acres not including the 32 acres of land bordering the El Dorado Hills Business Park that is not part of the proposed project.

Since 2021, some of the off-site transportation required improvements have changed; however, the Cultural report evaluates those areas that have not been previously evaluated including construction of an emergency access road and extensions of water and sewer lines outside of the project boundaries. The APE for these off-site improvements is included in Figure 2-9, Off-site Improvements, provided in Chapter 2, Project Description.

Within the project APE, which includes the project site and the offsite area there are a number of precontact and historic-period archaeological resources that have been identified as part of numerous surveys conducted. The Cultural report identified 12 previously recorded cultural resources within the project's APE. These included five precontact resources (four sites and one isolate) and seven historic resources. Of these resources, the three precontact archeological resources (P-09-006004; P-09-006011; P-09-006012) were recommended eligible to be listed on the National Register of Historic Places (NRHP) and the California Register of Historical Resources (CRHR). While one precontact resource identified in the Cultural report was not initially relocated, Tribal Government Representatives were aware of this resource as it had previously been surveyed (P-09-000157). In September 2023, an updated records request was completed and stated that there have been no newly recorded resources or updated resources identified since the May 2019 report. Consulting Tribes, UAIC and Wilton Rancheria, consider the precontact resources to be TCRs and the County agreed to recognize the resources as TCRs. While one precontact resource identified in the Cultural report was not initially relocated, Tribal Government Representatives were able to locate it on a second site visit (P-09-000157).

Resources Identified with the Off-site Improvements APE

As described in Chapter 2, Project Description, the project requires extending water and sewer lines as well as connections to electric and natural gas services, roadway improvements, and construction of an additional emergency access road. All of the utility work would be within the existing right-of-way along Latrobe Road. An approximately 650-foot-long access road that would be also used as a class 1 bike path would connect the project site to the adjacent business park, located northwest of the site (see Figure 2-9 in Chapter 2, Project Description). A cultural resources assessment of the off-site improvements APE was conducted by Windmiller Consulting in 2021.

The March 2021, Creekside Village Off-Site Utilities Cultural Resources Assessment identified one precontact resource (P-09-000168). The precontact component of this resource was recommended as eligible at one time for the NRHP under Criterion D and the CRHR under Criterion 4. The historic component including the dredging remnants and other features have not been determined eligible.

Native American Consultation

Pre-Project Coordination Methods and Results

Pre-project coordination with Native American tribes was carried out by the County in anticipation of consultation. While this coordination did not constitute compliance with SB 18 or AB 52, it was necessary to inform the TCR inventory.

On October 8, 2018, the NAHC responded to a request for a sacred lands file search and list of Native American Contacts for the proposed project. Sacred and ceremonial sites are places that may be considered sacred due to their role in oral traditions, spiritual practices, or historical events and may not include tangible elements.

The NAHC's response to the request for a sacred lands file search was negative; having no documented resources on file within search area. The NAHC recommended contacting each of the nine traditionally culturally affiliated contacts listed below:

- Pamela Cubbler, Treasurer, Colfax-Todds Valley Consolidated Tribe;
- Clyde Prout Chairman, Colfax-Todds Valley Consolidated Tribe.
- Sara Dutschke Setchwaelo, Chairperson, Ione Band of Miwok Indians;
- Cosme A. Valdez, Chairperson, Nashville Enterprise Miwok-Maidu Nishinam Tribe;
- Regina Cuellar Chairperson Shingle Springs Band of Miwok Indians;
- Grayson Coney, Cultural Director Tsi-Akim Maidu;
- Don Ryberg, Chairperson Tsi-Akim Maidu;
- Gene Whitehouse, Chairperson, United Auburn Indian Community (UAIC) of the Auburn Rancheria;
- Darrel Cruz, Cultural Resource Department, THPO, Washoe Tribe of Nevada and California.

A letter dated October 11, 2018, along with a location map was mailed to each of the above contacts. The letter described the project and asked for volunteered information on the location of any sacred or other sites of importance to Native American tribal groups.

In a letter dated November 8, 2018, Mr. Gene Whitehouse, Chairman, UAIC of the Auburn Rancheria responded to the request. The response made the following requests: copies of any archaeological reports completed for the project; copies of environmental documents; request that UAIC tribal representatives observe and participate in all cultural resource surveys; set up a meeting or site visit and begin consulting on the project. The letter also recommended the presence of a tribal monitor during any ground disturbing activities.

Senate Bill 18 Consultation

On August 18, 2020, the County requested a Tribal Consultation List Request from the NAHC and a Sacred Lands File search in compliance with SB 18. On August 25, 2020, the County received the SB 18 consultation list for tribes with traditional lands or cultural places located within the county and the NAHC provided a negative result to the Sacred Lands File conducted.

Following the response from the NAHC, the County prepared letters including the results of the Sacred Lands File check from the NAHC, purpose of the letters, a project description, entitlements being requested, detailed map of the project and location, contact information and a deadline to respond. On December 2, 2020, the County sent

these formal consultation request letters to the tribes listed below. The tribes had 90 days to respond to request consultation. The response window closed on March 2, 2021.

- United Auburn Indian Community of the Auburn Rancheria
- Tsi Akim Maidu
- Shingle Springs Band of Miwok Indians
- Colfax-Todds Valley Consolidated Tribe

On October 26, 2021, the project applicant requested the County place the processing of the CVSP project on hold. Then on July 19, 2023, the project applicant formally requested the CVSP project be re-initiated with the County.

On August 22, 2023, the County sent out formal consultation request letters notifying the tribes that the CVSP project was being re-instated and processed by the County. These letters were sent to the tribes listed below. The tribes had 90 days to respond to request consultation. The response window closed on November 20, 2023.

- United Auburn Indian Community of the Auburn Rancheria
- Tsi Akim Maidu
- Shingle Springs Band of Miwok Indians
- Colfax-Todds Valley Consolidated Tribe
- Chicken Ranch Rancheria of Me-Wuk Indians
- Wilton Rancheria
- Washoe Tribe of Nevada & California
- Ione Band of Miwok Indians
- Nashville Enterprise Miwok-Maidu-Nishinam Tribe

Assembly Bill 52 Consultation

On December 2, 2020, the County sent formal consultation request letters including a project description, project location map, contact information and a deadline to respond to the following tribes below. The list of tribes was provided by the NAHC. The tribes had 30 days to respond to request consultation. The response window closed on January 1, 2021.

- United Auburn Indian Community of the Auburn Rancheria
- Tsi Akim Maidu
- Shingle Springs Band of Miwok Indians
- Colfax-Todds Valley Consolidated Tribe
- Washoe Tribe of Nevada & California
- Nashville Enterprise Miwok-Maidu-Nishinam Tribe
- Ione Band of Miwok Indians

On October 26, 2021, the project applicant requested the County place the processing of the CVSP on hold. On July 19, 2023, the project applicant formally requested the CVSP project be re-initiated with the County.

On August 22, 2023, the County sent out formal consultation request letters[1] notifying the tribes that the CVSP project was being re-instated and processed by the County. These letters were sent to the tribes listed below. The tribes had 30 days to respond to request consultation. The response window closed on September 21, 2023.

- United Auburn Indian Community of the Auburn Rancheria
- Tsi Akim Maidu
- Shingle Springs Band of Miwok Indians
- Washoe Tribe of Nevada & California
- Nashville Enterprise Miwok-Maidu-Nishinam Tribe
- Ione Band of Miwok Indians
- Wilton Rancheria

Consultation Results under SB 18 and AB 52

Following is a summary of the tribal consultation between the County and consulting Tribes under SB 18 and AB 52. Confidential information provided by the Tribes has been excluded from this EIR.

United Auburn Indian Community of the Auburn Rancheria

On January 22, 2021, the County received a formal consultation request from the UAIC.

On September 11, 2023, after the project resumed, the project applicant provided the County with an updated site plan that proposed avoiding certain resources at the project site. This updated site plan was shared with UAIC.

September 25, 2023, UAIC requested to officially consult under AB 52 and SB 18 after receiving formal notification from the County. UAIC stated that they had identified the project area as sensitive for TCRs, with known culturally significant sites and Tribal Cultural Landscape present. During consultation UAIC requested that the resources be officially recognized by the County as TCRs. In consultation with UAIC, as well as other consulting tribes, the County recognizes the resources (P-09-006004, P-09-006011, P-09-006012, and P-09-000157) on the site as TCRs.

On November 9, 2023, the County contacted the UAIC regarding a change in project managers for the County and provided new contact information with an invitation to a future project site visit. UAIC declined a site visit but requested the resources be completely avoided and protected. UAIC also requested to review the project site plan.

On December 22, 2023, the County contacted UAIC regarding meeting with the Tribe to discuss the project and potential alternatives or mitigation to reduce impacts to TCRs. The UAIC requested a meeting in early January and requested a revised site plan that completely avoided all TCRs including a buffer of at least 100 feet.

On February 9, 2024, UAIC requested a meeting with the County regarding resources at the project site.

On March 15, 2024, the County, project applicant, and members of UAIC met at the project site to walk the property, visit the known TCRs, and discuss the project.

[1] The Colfax-Todds Valley Consolidated Tribe did not request consultation when AB 52 letters were sent in 2020; therefore, the County did not send a notification letter in 2023.

On March 21, 2024, UAIC sent a consultation letter to the County requesting a project redesign alternative that avoids and protects all resources onsite and also requested a no project alternative be provided.

On May 31, 2024, the project applicant submitted a cultural avoidance alternative that avoided a majority of the TCRs onsite with the exception of the proposed relocation of one resource, as requested by UAIC and the County.

On July 18, 2024, the County and members of UAIC met at the offices of UAIC to discuss the project proposal.

While outside of formal consultation, the project applicant met with representatives from UAIC to discuss the cultural avoidance alternative, including a visit to the project site on December 6, 2024, and made revisions as a result of those discussions that led to the Reduced Impact Alternative analyzed in Chapter 5, Project Alternatives.

Tsi Akim Maidu

The Tsi Akim Maidu did not request consultation under SB 18 or AB 52. Therefore, the County had no further obligations and considered consultation efforts with the Tribe concluded pursuant to Section 21082.3(d)(3) of the California PRC and the implementing procedures for SB 18 in the 2005 Tribal Consultation Guidelines: Supplement to General Plan Guidelines.

Shingle Springs Band of Miwok Indians

On January 13, 2021, the County received a formal consultation request from the Shingle Springs Band of Miwok Indians. Shingle Springs was contacted by County staff regarding the re-initiation of the CVSP project with the letter dated August 22, 2023. The County invited Shingle Springs Band of Miwok Indians to attend the December 1, 2023, site visit, but never received a response. The County invited Shingle Springs Band of Miwok Indians to attend the March 15, 2024, site visit, but Shingle Springs was not able to attend. No further communications from Shingle Springs Bank of Miwok Indians has been received as of this writing.

Washoe Tribe of Nevada and California

The Washoe Tribe of Nevada and California did not request consultation under SB 18 or AB 52. Therefore, the County had no further obligations and considered consultation efforts with the Tribe concluded pursuant to Section 21082.3(d)(3) of the California PRC and the implementing procedures for SB 18 in the 2005 Tribal Consultation Guidelines: Supplement to General Plan Guidelines.

Nashville Enterprise Miwok-Maidu-Nishinam Tribe

The Nashville Enterprise Miwok-Maidu-Nishinam Tribe did not request consultation under SB 18 or AB 52. Therefore, the County had no further obligations and considered consultation efforts with the Tribe concluded pursuant to Section 21082.3(d)(3) of the California PRC and the implementing procedures for SB 18 in the 2005 Tribal Consultation Guidelines: Supplement to General Plan Guidelines.

Ione Band of Miwok Indians

The Ione Band of Miwok Indians did not request consultation under SB 18 or AB 52. Therefore, the County had no further obligations and considered consultation efforts with the Tribe concluded pursuant to Section 21082.3(d)(3) of the California PRC and the implementing procedures for SB 18 in the 2005 Tribal Consultation Guidelines: Supplement to General Plan Guidelines.

Wilton Rancheria

On September 8, 2023, the County received a formal consultation request from the Wilton Rancheria for the project.

On September 11, 2023, the project applicant provided the County with an updated site plan that proposed avoiding certain resources at the project site. The updated site plan was shared with the Tribe.

On October 18, 2023, the County informed the project applicant that Wilton Rancheria requested a site visit to tour the site.

On December 1, 2023, the County, project applicant, and members of Wilton Rancheria met at the project site to walk the site and discuss the project.

On December 19, 2023, the County received a formal comment letter from the Tribe proposing recommendations for the project and potential mitigation measures.

On February 9, 2024, the County, project applicant, and members of the Tribe participated in a call to discuss the project and potential mitigation measures.

On March 15, 2024, the County, project applicant, and members of the Wilton Rancheria met at the project site to walk the property and discuss the project.

On April 4, 2024, the County received comments from the Tribe requesting a project redesign alternative of the project that avoids impacts to all resources and also requested a no project alternative be provided.

While outside of formal consultation, the project applicant met with representatives from Wilton Rancheria to discuss the cultural avoidance alternative, including a site visit to the project site on December 6, 2024, and made revisions as a result of those discussions that led to the Reduced Impact Alternative analyzed in Chapter 5, Project Alternatives.

Colfax-Todds Valley Consolidated Tribe

The Colfax-Todds Valley Consolidated Tribe did not request consultation under SB 18 or AB 52. Therefore, the County had no further obligations and considered consultation efforts with the Tribe concluded pursuant to Section 21082.3(d)(3) of the California PRC and the implementing procedures for SB 18 in the 2005 Tribal Consultation Guidelines: Supplement to General Plan Guidelines.

Chicken Ranch Rancheria of Me-wuk Indians

The Chicken Ranch Rancheria of Me-wuk Indians did not request consultation under SB 18. Therefore, the County had no further obligations and considered consultation efforts with the Tribe concluded pursuant to Section 21082.3(d)(3) of the California PRC and the implementing procedures for SB 18 in the 2005 Tribal Consultation Guidelines: Supplement to General Plan Guidelines.

3.13.2 Regulatory Setting

Federal, state, and local governments have developed laws and regulations designed to protect and preserve significant cultural resources that may be affected by actions that they undertake or regulate. The National Historic

Preservation Act (NHPA) and CEQA are the basic federal and state laws governing the preservation of TCRs of national, regional, state, and/or local or tribal significance within the state.

Federal

American Indian Religious Freedom Act

The American Indian Religious Freedom Act recognizes that Native American religious practices, sacred sites, and sacred objects have not been properly protected under other statutes. It establishes as national policy that traditional practices and beliefs, sites (including right of access), and the use of sacred objects shall be protected and preserved.

Native American Graves Protection and Repatriation Act

The Native American Graves Protection and Repatriation Act (NAGPRA) requires federal agencies and institutions that receive federal funds, including museums, universities, state agencies, and local governments, to repatriate or transfer Native American human remains and other cultural items to the appropriate parties upon request of a culturally affiliated lineal descendant, Indian tribe, or Native Hawaiian organization (43 Code of Federal Regulations [CFR] Section 10.10). Federal NAGPRA regulations (43 CFR Part 10) provide the process for determining the rights of culturally affiliated lineal descendants, Native American tribes, and Native Hawaiian organizations to certain Native American human remains, funerary objects, sacred objects, or objects of cultural patrimony, which are indigenous to Alaska, Hawaii, and the continental United States but not to territories of the United States, that are (i) in federal possession or control, (ii) in the possession or control of any institution or state or local government receiving federal funds, or (iii) excavated intentionally or discovered inadvertently on federal or tribal lands.

National Historic Preservation Act

The National Historic Preservation Act (NHPA) established the National Register of Historic Places (NRHP) and the President's Advisory Council on Historic Preservation (ACHP), and provided that states may establish State Historic Preservation Officers to carry out some of the functions of the NHPA. The NRHP is the United States' official list of districts, sites, buildings, structures, and objects worthy of preservation. Overseen by the National Park Service, under the U.S. Department of the Interior, the NRHP was authorized under the National Historic Preservation Act, as amended. Its listings encompass all National Historic Landmarks, as well as historic areas administered by the National Park Service.

The NHPA (54 U.S.C. Section 300101 et seq.) created the NRHP and the list of National Historic Landmarks. Section 106 of the NHPA requires federal agencies to consider the impact of their actions on historic and archeological properties and provide the Advisory Council on Historic Preservation with an opportunity to comment on projects before implementation (Section 306108). The NRHP and federal guidelines related to the treatment of traditional cultural properties are relevant for the purposes of determining whether significant TCRs, as defined under CEQA, are present and guiding the treatment of such resources.

NRHP guidelines for the evaluation of historic significance were developed to be flexible and to recognize the accomplishments of all who have made significant contributions to the nation's history and heritage. Its criteria are designed to guide state and local governments, federal agencies, and others in evaluating potential entries in the NRHP.

Most significantly for federal agencies responsible for managing cultural resources, Section 106 of the NHPA directs the following:

> [t]he head of any Federal agency having direct or indirect jurisdiction over a proposed Federal or federally assisted undertaking in any State and the head of any Federal department or independent agency having authority to license any undertaking shall, prior to the approval of the expenditure of any Federal funds on the undertaking or prior to the issuance of any license, as the case may be, take into account the effect of the undertaking on any district, site, building, structure, or object that is included in or eligible for inclusion in the NRHP.

Title 36 of the Code of Federal Regulations, Part 800 (36 CFR 800) implements Section 106 of the NHPA. It defines the steps necessary to identify historic properties (those cultural resources listed in or eligible for listing in the NRHP), including consultation with federally recognized Native American tribes to identify resources with important cultural values; to determine whether they may be adversely affected by a proposed undertaking; and the process for eliminating, reducing, or mitigating the adverse effects.

The content of Title 36 of the Code of Federal Regulations, Section 60.4, defines criteria for determining eligibility for listing in the NRHP. The significance of cultural resources identified during an inventory must be formally evaluated for historic significance in consultation with the ACHP and the California State Historic Preservation Officer to determine if the resources are eligible for inclusion in the NRHP. Cultural resources may be considered eligible for listing if they possess integrity of location, design, setting, materials, workmanship, feeling, and association.

Regarding criteria A through D of Section 106, the quality of significance in American history, architecture, archaeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association, and

A. That are associated with events that have made a significant contribution to the broad patterns of our history; or
B. That are associated with the lives of persons significant in our past; or
C. That embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
D. That have yielded, or may be likely to yield, information important in prehistory or history.

Integrity is defined in NRHP guidance, How to Apply the National Register Criteria, as “the ability of a property to convey its significance. To be listed in the NRHP, a property must not only be shown to be significant under the NRHP criteria, but it also must have integrity” (NPS 1997). NRHP guidance further asserts that properties be completed at least 50 years ago to be considered for eligibility. Properties completed fewer than 50 years before evaluation must be proven to be “exceptionally important” (consideration criteria G) to be considered for listing.

A historic property is defined as “any prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion in, the NRHP maintained by the Secretary of the Interior. This term includes artifacts, records, and remains that are related to and located within such properties. The term includes properties of traditional religious and cultural importance to an Indian tribe or Native Hawaiian organization and that meet the NRHP criteria” (Title 36 Code of Federal Regulations Sections 800.16[i][1]).

State

Native American Historic Resource Protection Act (AB 52)

The Native American Historic Resource Protection Act (AB 52), which went into effect July 1, 2015, establishes that TCRs must be considered under CEQA and defines a lead agency's requirements for notification and consultation with California Native American tribes.

PRC Section 21074 states:

a) "Tribal cultural resources" are either of the following:
   1) Sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are either of the following:
      A) Included or determined to be eligible for inclusion in the California Register of Historical Resources.
      B) Included in a local register of historical resources as defined in subdivision (k) of Section 5020.1.
   2) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Section 5024.1. In applying the criteria set forth in subdivision (c) of Section 5024.1 for the purposes of this paragraph, the lead agency shall consider the significance of the resource to a California Native American tribe.

b) A cultural landscape that meets the criteria of subdivision (a) is a tribal cultural resource to the extent that the landscape is geographically defined in terms of the size and scope of the landscape.

c) A historical resource described in PRC Section 21084.1, a unique archaeological resource as defined in subdivision (g) of PRC Section 21083.2, or a "nonunique archaeological resource" as defined in subdivision (h) of PRC Section 21083.2 may also be a tribal cultural resource if it conforms with the criteria of subdivision (a).

Tribes often characterize a Tribal Cultural Landscape as a geographic area (including both cultural and natural resources, and the wildlife therein), associated with a historic event, activity, or person, or exhibiting other cultural or aesthetic values. Unanticipated Native American human remains could also be considered a TCR.

Under AB 52, lead agencies must notify all California Native American tribes that are traditionally and culturally affiliated with the project area and that have requested formal notification. The notification requirement extends to tribes that are not federally recognized, and notification must occur when a project application is considered complete or the lead agency decides to undertake a project. After notification, tribes may request to engage in consultation with the lead agency. If it is determined that a substantial adverse change to a TCR would result from a project, the tribal consultation can include development of mitigation measures and/or project alternatives that could reduce or avoid those impacts.

Senate Bill 18

SB 18 (Government Code, Sections 65352.3, 65352.4) requires that, prior to the adoption or amendment of a general plan or specific plan proposed on or after March 1, 2005, a city or county must consult with Native American tribes with respect to the possible preservation of, or the mitigation of impacts to, specified Native American places, features, and objects located within that jurisdiction. The County has complied with this requirement, as described earlier.

Senate Bill 297

SB 297 addresses the disposition of Native American burials in archaeological sites and protects such remains from disturbance, vandalism, or inadvertent destruction; establishes procedures to be implemented if Native American skeletal remains are discovered during construction; and establishes the NAHC to resolve disputes regarding the disposition of such remains. The provisions of SB 297 have been incorporated into Section 15064.5(e) of the CEQA Guidelines.

California Native American Graves Protection and Repatriation Act

The California Native American Graves Protection and Repatriation Act of 2001, as amended, requires all state agencies and state-funded museums that have possession or control over collections of California Native American human remains or cultural items to provide a process for the identification, inventory, and repatriation of these items to the appropriate tribes. Lineal descendants of human remains or cultural items may file a claim for the return of the materials by demonstrating the relationship between the lineal descendent and the materials

California Environmental Quality Act

As discussed above, the Native American Historic Resource Protection Act amended CEQA to require public agencies to consider the effects of their actions on TCRs. CEQA also requires that public agencies avoid damaging effects to any TCR, when feasible. If the lead agency determines that a project may cause a substantial adverse change in a TCR, and measures are not otherwise identified in the consultation process, state law provides mitigation measures that may be considered to avoid or minimize the significant adverse impacts. These include:

- Avoidance and preservation in place, including incorporation of the resource into open spaces, parks, or green spaces;
- Treating the resource with appropriate dignity, including protecting the cultural character and integrity of the resource, protecting the traditional use of the resource, and protecting the confidentiality of the resource;
- Establishing conservation easements or other interests in real property with culturally appropriate management criteria for purposes of preserving or utilizing the resource in place; or
- Otherwise protecting the resource.

CEQA Guidelines Section 15064.5(e), requires that excavation activities be stopped whenever human remains are uncovered, and the county coroner be called in to assess the remains. If the county coroner determines that the remains are those of Native Americans, the NAHC must be contacted within 24 hours. At that time, the lead agency must consult with the appropriate Native Americans, if any, as identified in a timely manner by the NAHC. Section 15064.5 of the CEQA Guidelines directs the lead agency (or applicant), under certain circumstances, to develop an agreement with the Native Americans for the treatment and disposition of the remains.

State Laws Pertaining to Human Remains

California law protects Native American burials, skeletal remains, and associated grave goods, regardless of their antiquity, and provides for the sensitive treatment and disposition of those remains. California Health and Safety Code Section 7050.5 requires that if human remains are discovered in any place other than a dedicated cemetery, no further disturbance or excavation of the site or nearby area reasonably suspected to contain human remains shall occur until the county coroner has examined the remains and determined whether they are subject to the coroner's authority. If the human remains are determined to be of Native American origin, the county coroner must contact the California NAHC within 24 hours of this identification. An NAHC representative will then identify a Native

American Most Likely Descendant to inspect the site and provide recommendations for the proper treatment of the remains and associated grave goods. In addition, PRC Section 5097.98 and CEQA Guidelines Section 15064.5 specify the procedures to be followed in case of the discovery of human remains on non-federal land. The disposition of Native American burials falls within the jurisdiction of the NAHC.

Local

El Dorado County General Plan

The County General Plan contains the following goals, objectives, and policies related to TCRs in the Conservation and Open Space Element that are relevant to the proposed project. Note, the County has not yet adopted a Cultural Resources Ordinance identified under Policy 7.5.1.1.

Goal 7.5: Cultural Resources: Ensure the preservation of the County's important cultural resources.

Objective 7.5.1: Protection of Cultural Heritage: Creation of an identification and preservation program for the County's cultural resources.

Policy 7.5.1.1: The County shall establish a Cultural Resources Ordinance. This ordinance shall provide a broad regulatory framework for the mitigation of impacts on cultural resources (including historic, prehistoric and paleontological resources) by discretionary projects. This Ordinance should include (but not be limited to) and provide for the following:

A. Appropriate (as per guidance from the Native American Heritage Commission) Native American monitors to be notified regarding projects involving significant ground-disturbing activities that could affect significant resources.
B. A 100-foot development setback in sensitive areas as a study threshold when deemed appropriate.
C. Identification of appropriate buffers, given the nature of the resources within which ground-disturbing activities should be limited.
D. A definition of cultural resources that are significant to the County. This definition shall conform to (but not necessarily be limited to) the significance criteria used for the National Register of Historic Places (NRHP) and the California Register of Historical Resources (CRHR) and Society of Vertebrate Paleontology.
E. Formulation of project review guidelines for all development projects.
F. Development of a cultural resources sensitivity map of the County.

3.13.3 Thresholds of Significance and Methodology

Thresholds of Significance

Thresholds of significance are used to determine the significance of a project's environmental effects. Per Section 15064.7 of the CEQA Guidelines, a threshold is an identifiable quantitative, qualitative or performance level of particular environmental effect, non-compliance with which means the effect will normally be determined to be significant and compliance with normally means the effect will be determined to be less than significant. A significant impact would occur if development of the proposed project would do any of the following:

- Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:
  - Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k).
  - A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

Methodology

For the identification of TCRs in the project area, in additional to Tribal surveys, UAIC conducted background research which included a review of pertinent literature, historic maps, and a records search using UAIC's Tribal Historic Information System (THRIS). UAIC's THRIS database is composed of UAIC's areas of oral history, ethnographic history, and places of cultural and religious significance, including UAIC's Sacred Lands that are submitted to the NAHC. The THRIS resources shown in this region also include previously recorded indigenous resources identified through the California Historic Resources Information System Center (CHRIS) as well as historic resources and survey data. This data is obtained from the THPO Access Agreement with the National Park Service, which allows THPO Tribes to access all manner of cultural resource data housed at the regional Information Centers (ICs) of the CHRIS.

Following the background research, Tribal surveys were conducted by Wilton Rancheria representatives on December 1, 2023, and UAIC and Wilton Rancheria on March 15, 2024. No new TCRs were identified, and four TCRs were relocated and assessed for tribal significance. All four sites are considered TCRs and are therefore eligible for the California Register of Historical Resources.

As described in Chapter 2, Project Description, the project includes two development options. The first option would be to convert the 1.8-acres of neighborhood commercial to park uses if neighborhood commercial is not adopted as part of the Specific Plan. The second option proposes construction of up to 768 age-restricted units and 150 conventional homes. The potential impacts to TCRs and/or precontact archaeological resources are not expected to be different with implementation of either option because the development footprint, intensity, and disturbed area would remain the same as under the proposed project. Therefore, the impact analysis below would be the same under both options as the proposed project.

3.13.4 Impacts Analysis

Project Impacts

Impact 3.13-1. The proposed project could cause a substantial adverse change in the significance of a tribal cultural resource that is listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources or is a resource determined by the County to be significant.

As previously noted, a TCR is defined under Native American Historic Resource Protection Act (AB 52) as a site, feature, sacred place, cultural landscape that is geographically defined in terms of size and scope, or object with cultural value to a California Native American tribe that are either included or eligible for inclusion in the CRHR or included in a local register of historical resources, or if the County, acting as the lead agency, supported by substantial evidence, chooses at its discretion to treat the resource as a TCR.

Development of the proposed project could cause substantial adverse changes in the significance of a TCR (site, feature, place, cultural landscape, sacred place, or object) with cultural value to a California Native American tribe. A review of the NAHC Sacred Lands File was conducted in October 2018 as part of the cultural survey conducted for the project and the search "failed to indicate the presence of Native American cultural resources in the immediate project area." The proposed project is also subject to compliance with AB 52 to ensure that consultation with tribes is conducted by the lead agency and tribes are allowed the opportunity to provide comments, monitor, and preserve any known TCRs, or any found during construction. As discussed above, in compliance with AB 52, the County provided formal notification of the proposed project to all tribes listed on the NAHC official SB 18 California Tribal Consultation List that have requested notification of projects subject to CEQA review. The County provided notification to these tribes in March 2020 and stated that tribes had 30 days to request consultation, in accordance with the timelines established in AB 52 and SB 18. The County did not receive any responses to the AB 52 notifications from the tribes notified in 2020. The NAHC submitted a letter in response to the NOP regarding AB 52 and SB 18 consultation methods and consistency. This is a standard letter submitted by the NAHC and does not raise any site-specific concerns. As described under "Native American Consultation" the project was temporarily put on hold in 2021 and restarted in 2023. At that time, the County sent new notification letters to those interested tribes. Wilton Rancheria and UAIC have subsequently contacted the County and requested to be included in consultation for this project

As summarized above under "Native American Consultation," the County has met with representatives of Wilton Rancheria and UAIC on December 1, 2023, January 29, 2024, and March 15, 2024. After a joint site visit with UAIC, Wilton Rancheria, County staff, and the project applicant representatives in March 2024, Wilton Rancheria submitted a written response to County staff with recommendations on April 4, 2024, and UAIC submitted a written response with recommendations on March 21, 2024. In addition to the on-site meetings with the Tribes the County has also participated in phone calls with Tribal representatives. UAIC and Wilton Rancheria have indicated the previously recorded precontact archaeological resources are TCRs and that the site may contain additional unknown TCRs that could be impacted by the project.

Government to government consultation initiated by the County, acting in good faith and after a reasonable effort, has resulted in the identification of TCRs within the project site. Based on this information, the County has determined that the project would cause a substantial adverse change in the significance of a TCR with cultural value to a California Native American tribe that was determined by the County, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of PRC Section 5024.1. Further,

archaeological studies resulted in the identification of three precontact archaeological sites (P-09-006004; P-09-006011; P-09-006012) within the project APE, all of which have been recommended eligible for NRHP/CRHR listing. A fourth precontact archeological resource (P-09-000157) identified in the Cultural report was not initially relocated, but Tribal Government Representatives located the resource during their tribal survey.

The potential impacts to TCRs vary based on if the proposed project or an alternative to the proposed project is selected. Because of the significant impacts associated with the proposed project, the Reduced Impact Alternative (RIA) was developed and is evaluated and further analyzed in Chapter 5, Alternatives. As designed, the proposed project would avoid P-09-006004 and is proposing to relocate P-09-006011 and P-09-006012 to the open space preserve in the same vicinity as P-09-006004. The proposed project would not avoid P-09-000157. Therefore, in addition to impacts to the integrity of the site, including location, setting, feeling, and association, the project would impact a TCR resulting in a **significant impact**.

If the proposed project is approved by the County, then the project would not avoid P-09-000157, P-09-006011, and P-09-006012. These three TCRs would experience direct, indirect, and cumulative impacts that would cause substantial adverse changes to their significance. As stated below, these impacts would be significant and potentially unavoidable even with mitigation provided. If the proposed project is selected rather than the RIA, then mitigation measure TCR-6 identifies and describes the process to ensure impacts to TCRs are addressed to avoid, minimize, reduce, and compensate for these impacts.

Based on analysis completed at this time, County staff intends to recommend the RIA for approval because it avoids impacts to TCRs, reduces other environmental impacts, and is the land use plan preferred by the Tribes. The project applicant has committed to the Tribes, County staff, and members of the community that it will support approval of the RIA because it is environmentally superior and addresses the concerns of numerous stakeholders.

Off-site Improvements

The March 2021, Creekside Village Off-Site Utilities Cultural Resources Assessment identified one precontact resource (P-09-000168). The precontact component of this resource was recommended as eligible at one time for NRHP listing. Based on information provided by the Tribes, a known TCR has been identified within an area proposed for off-site improvements that would be impacted by the proposed project and the area is considered to have the potential to contain unanticipated TCRs. As analyzed here, P-09-000168 would be directly impacted by the project. Therefore, the project would impact a significant archaeological resource and known TCRs and, as such, the impact is **significant**.

Mitigation Measures

Mitigation measure TCR-1 requires all construction crew members, consultants, and other personnel involved in project implementation to receive project-specific TCR awareness training prior to initiating construction. in the event potential TCRs are discovered. Mitigation measure TCR-2 requires tribal monitoring during ground disturbing activities and Mitigation measure TCR-3 sets forth the protocol to follow in the event unanticipated TCRs are identified. Mitigation measure TCR-4 includes protocol to follow if human remains are discovered during ground-disturbing construction work. Mitigation measure TCR-5 requires all TCRs within an area of potential ground disturbance be subject to appropriate archaeological and Tribal documentation and relocated to a location with identified TCRs that shall not be impacted by grading or other site disturbing activities. This includes preparing a TCR Relocation Plan and testing plan prior to relocation. However, there is a risk that the TCRs could be impacted during relocation and the relocation would alter the location of the TCRs as they exist today. The Tribes have expressed the

importance of certain TCRs remaining in their current location, but the grading plan for the project would not allow those TCRs to remain in the current location or be buried in place. Mitigation measure TCR-6 requires the County to continue to consult with the UAIC to avoid impacting TCRs. Therefore, because TCRs would be relocated even though they would be preserved in a new location, even with incorporation of mitigation measures TCR-1 through TCR-5, and consultation for avoiding impacts to TCRs under mitigation measure TCR-6 would be ongoing, impacts remain **significant and unavoidable**.

TCR-1: Tribal Cultural Resource (TCR) Awareness Training. The following language shall be noted on project Improvement Plans subject to review and approval by the El Dorado County Planning and Building Department: Prior to the initiation of construction, all construction crew members, consultants, and other personnel involved in project implementation shall receive project-specific Tribal Cultural Resource (TCR) Awareness Training. The training may be conducted in coordination with qualified cultural resource specialists and representatives from culturally affiliated Native American Tribes. The training shall emphasize the requirement for confidentiality and culturally appropriate, respectful treatment of any finds of significance to culturally affiliated Native American Tribes. All personnel required to receive the training shall also be required to sign a form that acknowledges receipt of the training, which shall be submitted to the El Dorado County Planning and Building Department. As a component of the training, a brochure shall be distributed to all personnel associated with the project implementation. At a minimum the brochure shall discuss the following topics in clear and straightforward language:

- Field indicators of potential archaeological or tribal cultural resources (i.e., what to look for, for example: archaeological artifacts, exotic or non-native rock, unusually large amounts of shell or bone, significant soil color variations, etc.).
- Regulations governing archeological resources and tribal cultural resources.
- Consequences of disregarding or violating laws protecting archeological or tribal cultural resources.
- Steps to take if a worker encounters a possible resource. The training shall include project specific guidance for on-site personnel including protocols for resource avoidance, when to stop work, and who to contact if potential archeological or TCRs are identified. The training shall also address the stoppage of work if potentially significant cultural resources are discovered during ground disturbing activities, and in the case of possible human remains the proper course of action requiring immediate contact with the County Coroner and the Native American Heritage Commission.

TCR-2: Tribal Monitoring. The project applicant or their construction contractor shall comply with the following measure to assist with identification of any unknown tribal cultural resources (TCRs) at the earliest possible time during project-related earthmoving activities. These measures shall be included as notes on the project improvements plans prior to their approval by the County.

- The project applicant shall contact the United Auburn Indian Community (UAIC) Tribal Historic Preservation Officer (THPO) (thpo@auburnrancheria.com) at least two weeks prior to project ground-disturbing activities within the areas identified for monitoring in the confidential Creekside Village Sites and Creek Monitoring Map prepared by UAIC and within 200 feet of P-09-000168 (collectively, "Monitoring Area") to retain the services of a UAIC Certified Tribal Monitor ("Tribal Monitor"). The duration of the construction schedule and Tribal Monitoring shall be determined at this time.

- A contracted Tribal Monitor shall monitor the vegetation grubbing, stripping, grading, trenching, and other ground disturbing activities within the Monitoring Area. All ground-disturbing activities within such areas shall be subject to Tribal Monitoring unless otherwise determined unnecessary by UAIC. A contracted UAIC certified Tribal Monitor shall spot check up to 16 hours per month the ground-disturbing activities within all other areas of the project site.
- The Tribal Monitor or UAIC Tribal Representatives shall have the authority to direct that work be temporarily paused, diverted, or slowed within 100 feet of the immediate impact area if sites, cultural soils, or objects of potential significance are identified. The temporary pause/diversion shall provide up to 48 hours for UAIC Tribal Government Representatives to examine the resource.
- If unanticipated TCRs (i.e., sites, features, or artifacts) are exposed during construction activities, Mitigation Measure TCR-3 shall be implemented.
- To track the implementation of this measure, the Tribal Monitor shall document field-monitoring activities on a Tribal Monitor log.
- The Tribal Monitor shall wear the appropriate safety equipment while on the construction site.
- The Tribal Monitor, in consultation with the UAIC THPO and the project applicant, shall determine a mutual end or reduction to the on-site monitoring if/when construction activities have a low potential for impacting TCRs.
- In the event the Tribal Monitor does not report to the job site at the scheduled time after receiving 24-hour business day notice, construction activities may proceed without Tribal Monitoring. At no time, regardless or absence of a Tribal Monitor, shall suspected TCRs be mishandled or disrespected.

TCR-3: Unanticipated Discovery of a Tribal Cultural Resource (TCR). If unanticipated TCRs (i.e., sites, features, or artifacts including but not limited to cultural features, midden/cultural soils, artifacts, exotic rock [non-native], shell, bone, shaped stones, or ash/charcoal) are exposed during construction activities, all construction work occurring within 100 feet of the find shall immediately stop to provide up to 48 hours for the Tribal Monitor and/or United Auburn Indian Community (UAIC) Tribal Government Representatives to evaluate the significance of the find and determine whether or not additional study is warranted. Temporary flagging or staking shall be required around the resource to avoid any disturbance from construction equipment if the Tribal Monitor determines that temporary flagging is necessary to protect the resource. The work exclusion buffer may be reduced based on the recommendation of the Tribal Monitor. If the unanticipated TCRs appear to be human remains, Mitigation Measure TCR-4 shall be implemented.

If the Tribal Monitor or UAIC Tribal Government Representatives determine that the potential resource appears to be a TCR (as defined by Public Resources Code Section 21074), treatment shall be consistent with the following:

- If the TCR is within an Open Space area that was not approved for grading or other disturbance, preservation in place shall occur, if recommended by the Tribal Representative. Alternatively, the Tribal Historic Preservation Officer (THPO) may determine that one of the other treatment strategies identified below is preferred for the particular TCR, in which case that treatment strategy shall be implemented.
- If the TCR is within an area planned for residential lots, road and infrastructure improvements, grading, park improvements, or other development activity approved as part of the project, the

THPO and/or UAIC Tribal Government Representative shall direct whether the treatment of the TCR is one or more of the following: (1) recordation of the resource; (2) recovery and reburial in or relocation to an Open Space preserve area within the Specific Plan, in which case the UAIC Tribal Government Representatives shall identify the placement of the reburial or relocated area; (3) preservation in place through burial if feasible given the final elevation of the area and intended development; or (4) removal and provided to UAIC. Prior to the relocation, burial, or removal of a TCR, UAIC shall record the resources according to UAIC Preservation Department Recommendations for Respectful and Accurate Recordation of Tribal Cultural Resources (TCR) and Cultural Significance/Integrity on Department of Recreation Form (DPR) 523 Forms.

- The applicant shall document the TCR through pictures that remain confidential and are provided to the Tribal Government Representatives. The photographs and management strategies recommended by the Tribal Government Representatives or THPO and carried out by the Tribal Monitor shall remain confidential and be provided to the County in writing and approved by the El Dorado County Director of Planning and Building. The project contractor shall adhere to the management strategies approved by the Tribal Government Representatives or THPO and County. Ground-disturbing activities may resume once the management strategies have been implemented to the satisfaction of the Tribal Monitor and County's Director of Planning and Building.
- The construction contractor(s) shall provide secure, on-site storage for culturally sensitive soils or objects that are components of TCRs that are found or recovered during construction. Only Tribal Government Representatives, THPO, and Tribal Monitors shall have access to the storage. Storage size shall be determined by the nature of the TCR and can range from a small lock box to a conex box (shipping container). A secure (locked), fenced area can also provide adequate on-site storage if larger amounts of material must be stored.

TCR-4: Discovery of Native American Human Remains. If human remains are discovered during ground-disturbing construction work, all construction within 100 feet of the remains shall be halted immediately, and the El Dorado County coroner shall be notified immediately. If the remains are found to be non-Native American or the result of a crime scene, then the procedures in state law and Mitigation Measure CUL-1 shall be followed.

If the remains are determined by the County coroner to be Native American, the Native American Heritage Commission (NAHC), United Auburn Indian Community (UAIC), and Wilton Rancheria shall be notified within 24 hours, and the guidelines of the NAHC shall be adhered to in the treatment and disposition of the remains. Development activity within the buffer area shall not resume until the landowner has discussed and conferred, as prescribed in Section 5097.98 of the Public Resources Code, with the most likely descendants regarding their recommendations as provided for in Section 5097.98 to ensure that the remains are treated with appropriate dignity. As provided for in subsection 5097.98(a), the descendants shall complete their inspection and make their recommendation within 48 hours of being granted access to the site. If no likely descendants are located or recommendations are not made, the applicant shall comply with Section 5097.98, including but not limited to Section 5097.98(e).

The County shall be responsible for confirming compliance with Section 5097.98 and CEQA Guidelines Section 15064.5(e) and the resumption of ground-disturbing activities within 100 feet

of the boundaries of the sensitive area defined by the investigation where the remains were discovered shall not occur until compliance with those standards is demonstrated in writing.

TCR-5: Documentation and Relocation of TCRs. All tribal cultural resources (TCRs) within an area of potential ground disturbance as determined by the grading plan for the proposed project shall be subject to appropriate archaeological and Tribal documentation prior to ground disturbing activity and relocated to a location with identified TCRs that shall not be impacted by grading or other site disturbing activities.

The project applicant shall do the following:

- Obtain written United Auburn Indian Community (UAIC) Tribal Historic Preservation Officer (THPO) approval prior to flagging any TCRs for relocation. Approval shall include any restrictions or requirements related to the relocation, such as type of equipment to use, orientation of the TCR, location for the TCR to be moved to, etc.
- Send a Tribal notification and confirm the details for relocation at least 48 hours prior to any relocation work.
- Update the Tribal Monitoring map to identify any TCRs that are scheduled for relocation.
- Provide financial and logistical support for the protection, intact transport, and relocation of bedrock features or other elements of the TCR.
- Update the California Historic Resources Information System Center (CHRIS) Department of Parks and Recreation (DPR) forms to reflect the relocation work. Updates shall be consistent with Tribal preference for documenting TCRs. Tribes shall have final review authority on the DPR form(s) and shall be copied on submission to the CHRIS. DPR forms shall be prepared for Tribal review within two weeks of relocation work being completed and shall be submitted to the CHRIS within two weeks of Tribal approval.

TCR-6: If the Reduced Impact Alternative (RIA) is not Selected the Following is Required. Mitigation measures TCR-1 through TCR-5 are applicable to the proposed project and the project alternatives, including the RIA and Zoning Consistent Alternative. If the RIA is not selected, project approval shall be contingent upon revisions to the Mitigation Monitoring and Reporting Program (MMRP) to address impacts to TCRs associated with the proposed project through continued tribal consultation. The contingent project approval shall return to the Board of Supervisors for final approval in conjunction with adoption of the revised MMRP. Consideration of TCR avoidance, minimization, rectification, reduction, and compensation shall be based on Tribal consultation. Further measures may include redesign of the site plan to remove lots, capping (or covering) TCRs in place, or providing compensation for the loss of TCRs to avoid or minimize impacts.

Cumulative Impacts

Cumulative impacts on TCRs consider whether impacts of the proposed project together with other projects in the County and the larger region, when taken as a whole, substantially diminish the number of such resources within the same or similar context or type. The cumulative impact to these non-renewable resources is generally considered in terms of their cultural and/or informational value based on their resource type, context and relationships to the surrounding landscape and/or tribal histories.

Impact 3.13-2. The proposed project, in combination with past, present and reasonably foreseeable development, could make a cumulatively considerable contribution to a significant cumulative impact related to tribal cultural resources, including Native American human remains.

As discussed previously, known TCRs, including Native American human remains have either been identified on the project site and the area is considered to be of high potential to contain unanticipated TCRs as well as Native American human remains. The project as presently designed would directly impact a known TCR. Given past, present and future development in the County and because all significant TCRs are unique and non-renewable, all adverse effects or negative impacts contribute to a dwindling resource base, this is considered a significant cumulative impact.

As discussed in the regulatory setting, numerous laws, regulations, and statutes, on both the federal and state levels, seek to protect TCRs and the unanticipated discovery of Native American human remains. Future projects within the region would also be subject to the same requirements as the proposed project. Technical studies and consultation would be required as part of the due diligence process and would result in the documentation and appropriate consideration of any resources that may be present. Regulations in the region for management of TCRs would apply to development within the County. Cumulative projects may require extensive excavation in culturally sensitive areas and thus may result in adverse effects to known or previously unknown, inadvertently discovered TCRs or Native American human remains. There is the potential for accidental discovery of other TCRs by the proposed project as well as by cumulative projects.

The project's incremental contribution to the cumulative loss of TCRs is considerable. Compliance with existing laws and implementation of project-level mitigation measures TCR-1 through TCR-4, would require investigation and handling by a qualified archaeologist in the event that an unknown resource is encountered. However, because a known TCR would be directly impacted by the project and compliance with mitigation would not reduce the significance of the impact it would be significant and unavoidable. The proposed project would contribute to an existing cumulative impact to TCRs and Native American human remains and the project's cumulative contribution would be considerable resulting in a **significant cumulative contribution**.

Mitigation Measures

See Mitigation Measures TCR-1, TCR-2, TCR-3, and TCR-4. Compliance with these mitigation measures would ensure cumulative impacts to TCRs and Native American human remains would be reduced; however, because TCRs would be relocated even though they would be preserved in a new location, even with incorporation of mitigation measures impacts to TCRs would remain **significant and unavoidable cumulative impact**.

TCR-7: Implement mitigation measures TCR-1 through TCR-4.

3.13.5 References

El Dorado County. 2017. *El Dorado County General Plan Conservation and Open Space Element*. Adopted July 19, 2004, amended October 2017. Available online at: https://edcgov.us/government/planning/adoptedgeneralplan/documents/7_conservation.pdf

ESA. 2024. Alternatives and Recommendations for P-09-006011 (CA-ELD-3109) and P-09-006012 (CA-ELD-3110) *Confidential* Memorandum for the Creekside Village Project, El Dorado County, California. January 2024.

ESA. 2025. Off-site Improvements – Supplemental Records Search. *Confidential* Memorandum for the Creekside Village Project, El Dorado County, California. January 2025.

Windmiller Consulting. 2019. Cultural Resources Inventory and Evaluation Report for the Creekside Village Project *(Confidential)*, El Dorado County, California. May 2019.

Windmiller Consulting. 2021. Off-Site Utilities Cultural Resources Assessment for the Creekside Village Project *(Confidential)*, El Dorado County, California. January 2021.

Windmiller Consulting. 2021. Determination of Site Boundaries for the Creekside Village Project *(Confidential),* El Dorado County, California. March 2021.

3.14 Utilities and Service Systems

The following analysis identifies potential impacts due to the utilities and service systems required to serve the proposed Creekside Village Specific Plan (CVSP or proposed project). These utilities include water supply, treatment, and conveyance; wastewater treatment and conveyance; electricity and natural gas services; telecommunication utilities; and solid waste disposal. This section summarizes relevant federal, state, and regional regulatory considerations; and evaluates the potential impacts of the project related to these utilities.

Public comments related to utilities and service systems received in response to the November 6, 2020, Notice of Preparation (NOP) included letters from community members that raised concerns about possible impacts relating to utility demands and specifically, utility usage at schools. No additional comments were received at the second scoping meeting held on September 26, 2023. A copy of the NOP and comments received is included in Appendix A.

Main sources referenced in this section include the 2020 El Dorado Irrigation District (EID) Urban Water Management Plan (EID 2021a), the 2021 EID Sewer System Management Plan (EID 2021b), the EID Integrated Water Resources Master Plan (EID 2013a), the EID Wastewater Facilities Master Plan (EID 2013b), the 2012 El Dorado County Solid Waste Management Plan (El Dorado County 2012), the El Dorado County General Plan (El Dorado County 2004), and the Water Supply Assessment prepared for the project (Appendix I).

3.14.1 Environmental Setting

Water Supply

The EID or the "District" is the largest of five water purveyors in El Dorado County (County) and provides water services to the communities of Bass Lake, El Dorado Hills (including the project area), Lotus/Coloma, Cameron Park, Shingle Springs, Logtown, El Dorado and Diamond Springs, Swansboro, Camino and Fruitridge, Pleasant Valley, Sly Park, Pollock Pines, Outingdale, Strawberry, North Placerville, and South Placerville, all of which are located in unincorporated El Dorado County (County). EID was originally formed to supply farming irrigation water but has become more urbanized over time as a result of population growth and demand. The EID service area has grown to cover approximately 220 square miles and provides both municipal and agricultural services to approximately 110,00 people. Within EID's 2020 Urban Water Management Plan (UWMP), communities are organized into 16 district service zones. The project site is located within the El Dorado Hills Region service zone 2 (EID 2021a).

EID's primary water supply is derived from natural rainfall and snowpack that falls upon the Sierra Nevada mountains. More specifically, the water supply system draws its water from Jenkinson Lake, the upper South Fork American River, and the Folsom Reservoir. EID does not use groundwater as a supply but does capture and treat wastewater from several of the local communities to produce recycled water for irrigation and supplement potable supplies (EID 2021a).

There are three main water treatment plants (WTP) in the EID system: Reservoir 1 WTP, Reservoir A WTP, and the El Dorado Hills WTP. The El Dorado Hills WTP serves the project area and treated an average of 6.1 million gallons per day (mgd) in 2008 with a maximum production capacity of 26 mgd as of 2013 (EID 2013a). Water treated at the El Dorado Hills WTP is pumped and distributed via transmission mains which convey water to tanks and to customers throughout the El Dorado Hills area (EID 2013a). The EID 2013 Integrated Water Resources Master Plan indicates that the El Dorado Hills WTP would have a capacity deficit of 45 mgd in 2030 and 51 mgd upon full

buildout of the County General Plan and adopted specific plans (Bass Lake Hills, Carson Creek, El Dorado Hills, Northwest El Dorado Hills, Promontory and Valley View) known at the time of document preparation. At the time of preparation of the Integrated Water Resources Master Plan, the proposed project was not anticipated, but buildout of the General Plan assumed buildout of the El Dorado Hills Business Park, including the project site.

According to the 2020 UWMP, EID has historically received water supplies that are more than sufficient to support water demands throughout the service area (EID 2021a). As of 2020, the total water demand within the EID service area was 26,240 acre-feet (EID 2021a). Table 3.13-1 below shows EID's current and planned water supplies in normal, dry, and multiple dry years. In normal years, EID's water supply assets total 70,794 acre-feet per year. In a single dry year, water supplies secured by the District total 63,379 acre-feet per year. Water supply is further reduced to 55,328 acre-feet per year by the fifth multi-year drought. The UWMP notes that the planned Central Valley Project Fazio Water assets[1] are anticipated to be available for use by EID in 2035. Although this addition to the EID's assets is not needed to meet demands in any scenario that is examined in the UWMP, it will further improve supply reliability above existing levels.

Table 3.14-1. Water Supply Summary 2020-2045 (values in acre-feet)

Supply Sources	Maximum Water Assets Available	Normal Year	Single Dry Year	Multiple Dry Years				
				Year 1	Year 2	Year 3	Year 4	Year 5
Surface Water	77,694	67,294	59,879	59,879	55,868	51,828	51,828	51,828
Recycled Water	3,500	3,500	3,500	3,500	3,500	3,500	3,500	3,500
Ground Water	—	0	0	0	0	0	0	0
Subtotal Existing Supplies	*81,194*	*70,794*	*63,379*	*63,379*	*59,368*	*55,328*	*55,328*	*55,328*
Planned Supplies (Central Valley Project Fazio Water entitlement)	7,500	7,500	3,750	3,750	3,750	1,235	1,235	1,235
Totals	**88,694**	**78,294**	**67,129**	**67,129**	**63,118**	**56,563**	**56,563**	**56,563**

Source: EID 2021a, Table 3-5.

Wastewater

Wastewater treatment and collection for the project site is provided by EID. EID uses two types of systems to treat wastewater, including Wastewater Treatment Plants (WWTPs) and onsite wastewater treatment systems (OWTS). WWTPs connect to a collection system consisting of pipelines and lift stations, whereas OWTS connect to individual residences or nonresidential buildings for areas not served by the EID collection system. Areas that use OWTS rely on septic tanks or onsite disposal by way of underground leach field and other soil absorption systems.

EID has four permitted wastewater collection systems and WWTPs: El Dorado Hills, Deer Creek, Camino Heights, and Gold Ridge Forest. The project site is served by the El Dorado Hills collection system and WWTP. The collection

[1] The Fazio Central Valley Project water supply is an identified planned water supply that could be pursued by EID in the future. The 2020 UWMP notes that in 2019, the El Dorado Water Agency executed a contract with the United States Bureau of Reclamation for up to 15,000 acre-feet of CVP water, of which at least 7,500 acre-feet would be made available to EID by subcontracts with El Dorado Water Agency. Diversions by the EID would occur at its existing intake in Folsom Reservoir, conveyed to the El Dorado Hills Water Treatment Plant, and delivered to a specific place of use location in El Dorado Hills and Cameron Park areas (EID 2021a).

system is comprised of 34 lift stations and 285 miles of pipeline ranging between 2- and 36-inches in diameter. Through 2012, there were approximately 12,000 sewer connections within the system. Based on a 10-year, 24-hour design storm event, the EID Wastewater Facilities Master Plan recommends replacement of 5,000 linear feet of pipelines and two lift station pumps to reduce the potential for sanitary sewer overflows. These projects were included in the EID 2014-2018 Capital Improvement Plan (CIP) and are assumed to be completed (no information is available online regarding the status of these projects). The El Dorado Hills collection system conveys wastewater to the El Dorado Hills WWTP which has an existing capacity of 4.0 mgd (EID 2013b). Treated effluent is discharged to Carson Creek or recycled for beneficial use in the District's recycled water system (EID 2013b). Currently, the average dry weather flow (ADWF) at El Dorado Hills WWTP is 2.65 mgd. Table 3.14-2 displays the future flow projections during an average dry weather flow year based on buildout of the 2004 County General Plan and development of specific plans known at the time of preparation of the 2013 Wastewater Facilities Master Plan (EID 2013b). The El Dorado Hills WWTP is expected to reach its current rated capacity in 2025. To accommodate future growth, the EID Wastewater Facilities Master Plan recommends that the El Dorado Hills WWTP expands to 5.45 mgd by 2026 (EID 2013b).

Table 3.14-2. Future Flow Projections

	El Dorado Hills WWTP (mgd)
Existing ADWF[1]	2.65
Future Unplanned Density ADWF[2]	0.88
Future Planned Density[2]	1.92
Total Projected ADWF	**5.45**

Source: EID 2013b, Table 4-6.
Notes:
1 Equal to arithmetic average of 2006 through 2009 ADWFs.
2 The 2013 Wastewater Facilities Master Plan defines future planned density as the planned connections associated with specific plan developments that were known at the time of the preparation. The specific plans identified include: the communities of Bass Lake Hills, Carson Creek, El Dorado Hills, Northwest El Dorado Hills, Promontory and Valley View. Future unplanned density is based on the County's General Plan Land Use designations that were combined with the District's wastewater generation rates to project future flows.

Existing wastewater infrastructure surrounding the project site consists of local sewer pressurized mains, sewer gravity mains, an existing EID lift station (Business Park No. 1), and directly northeast of the project site is the El Dorado Hills WWTP. The nearby pressurized mains border the western portion of the project site, and the sewer gravity mains are directly south of the project site (EID 2021b).

Stormwater

There is no existing storm drain infrastructure on or within the project site. Refer to Section 3.8, Hydrology and Water Quality, for information regarding stormwater drainage.

Energy Supply

Electricity and Natural Gas

Pioneer Community Energy and Pacific Gas & Electric (PG&E) provide electricity services in the incorporated county. PG&E also provides natural gas service. PG&E provides electric services to 5.5 million customers, including 106,681 circuit miles of electric distribution lines and 18,466 circuit miles of interconnected transmission lines over a 70,000-square-mile service area in northern and central California (PG&E 2024a). Existing overhead

electrical lines are located along the eastern boundary of the project site adjacent to Latrobe Road. There are no existing overhead lines that traverse the project site. To reduce the risk of wildfires, in 2023 PG&E began operations to underground approximately 350 miles of distribution lines across their service areas within the county. Approximately 16 miles of line were forecasted to be undergrounded in 2023, with an additional 13 miles in 2024 and 276 miles in 2025-2026 (PG&E 2023).

Pioneer Community Energy began providing electricity to most of the unincorporated county in 2022 and currently serves 166,000 customers and provides 100% renewable energy to its customers, if requested (Pioneer Energy 2024).

PG&E also provides natural gas to numerous counties in northern and central California, including the county. Within their entire service area, PG&E maintains approximately 6,500 miles of gas transmission pipelines and 42,000 distribution pipelines (PG&E 2024a). PG&E also owns and operates three underground storage fields and 116 wells (PG&E 2024b). Electrical services and gas services, if included, to the project site would be conveyed via underground facilities as determined necessary by PG&E.

Telecommunications

There are several telecommunications services in the project area such as telephone, cable television, and Internet services within the county. There is no current telecommunication infrastructure on the project site.

Solid Waste

The project site is located within the El Dorado Disposal service area. El Dorado Disposal provides residential and commercial trash, recycling, and organics collection services, as well as construction and demolition debris collection and recycling for the cities and unincorporated communities within the county (El Dorado County 2012). As previously described, the project site consists of vacant, undeveloped land. Thus, there are no existing solid waste services provided to the site.

The County prepared a Countywide Integrated Waste Management Plan (CIWMP) in 1995, in accordance with Assembly Bill 939. In 2012, the County also adopted the El Dorado County Solid Waste Management Plan, which supports the goals presented in the CIWMP. The 2012 Solid Waste Management Plan notes that there are three Material Recovery Facilities (MRFs) that serve customers in the county, the Western El Dorado Recovery Systems MRF, South Tahoe Refuse Transfer Station, and Eastern Regional Transfer Station in Placer County (El Dorado County 2012). The Western El Dorado MRF serves the project area and is located approximately 19 miles northeast of the project site. The Western El Dorado MRF works to fulfill waste diversion goals set forth by the County through the implementation of source reduction, composting, and recycling programs.

As of 2009, the unincorporated areas of the county were disposing 100,150 tons into landfills per year (El Dorado County 2012). Waste is first brought to the Western El Dorado MRF to sort out recyclable materials from the waste stream and then the remaining waste is then transferred to the Potrero Hills Landfill in Solano County. The Potrero Hills Landfill accepts a variety of wastes including industrial, mixed municipal, construction and demolition, agricultural, ash, sludge, and tires. The Potrero Hills landfill accepts a maximum of 4,330 cubic yards of disposal material per day. As displayed in Table 3.14-3, the permitted capacity of the landfill is 83.1 million cubic yards. As of 2006, there was a remaining capacity of 13.9 million cubic yards, which is 16.7% of the landfill's overall capacity (CalRecycle 2019a). The Potrero landfill is expected to cease operations in 2048 (CalRecycle 2019a).

Table 3.14-3. Potrero Hills Landfill Capacities

Facility	Daily Permitted Capacity (cubic yards)	Maximum Permitted Capacity (cubic yards)	Remaining Capacity (cubic yards)
Potrero Hills Landfill	4,330	83,100,000	13,900,000

Source: CalRecycle 2019a.

3.14.2 Regulatory Setting

Federal Regulations

Clean Water Act

The federal Clean Water Act (CWA) establishes the basic structure for regulating discharges of pollutants into the waters of the U.S. The CWA made it unlawful for any person to discharge any pollutant from a point source into navigable waters unless a permit was obtained under its provisions. The CWA assists in the development and implementation of waste treatment management plans and practices by requiring provisions for treatment of waste using best management practices (BMP) technology before there is any discharge of pollutants into receiving waters, as well as the confined disposal of pollution, so that it will not migrate to cause water or other environmental pollution. Additionally, CWA funds the construction of sewage treatment plants under the construction grants program.

National Pollutant Discharge Elimination System

The Water Permits Division within the U.S. EPA Office of Wastewater Management leads and manages the National Pollutant Discharge Elimination System (NPDES) permit program. As authorized by the federal CWA, the NPDES permit program controls water pollution by regulating point sources that discharge pollutants into waters of the U.S. The NPDES permit program oversees stormwater management and sewer and sanitary sewer overflows.

Resource Conservation and Recovery Act

The Resource Conservation and Recovery Act (40 CFR 268, Subpart D), contains regulations for municipal solid waste landfills and requires states to implement their own permitting programs that include federal landfill criteria. The federal regulations address the location, operation, design, and closure of landfills, as well as groundwater monitoring requirements.

State Regulations

Urban Water Management Planning Act

The Urban Water Management Planning Act was established in Division 6, Part 2.6 of the California Water Code. The act was developed due to concerns for potential water supply shortages throughout the state. It requires information on water supply reliability and water use efficiency measures. Urban water suppliers are required as part of the act to develop and implement UWMPs to describe their efforts to promote efficient use and management of water resources. UWMPs are required to be updated every five years. EID has complied with the Urban Water Management Planning Act through the adoption of its 2020 UWMP.

Senate Bill 610

Senate Bill (SB) 610, enacted in 2001, amended the California Public Resources Code (PRC) and the Water Code to expand requirements for documentation of available water supply in connection with land development approvals. Specifically, SB 610 requires land use agencies with authority over large development projects to document the availability of an adequate supply of potable water and to include this documentation in the California Environmental Quality Act (CEQA) document required for a project. The required documentation is a Water Supply Assessment (WSA), which is to be prepared by the "public water system" that would serve the project area (or, where there is no such public water system separate from the city or county lead agency that provides its own water service). The WSA evaluates the adequacy of the total projected water supplies of the public water system, including existing water supplies and future planned water supplies, to meet the existing and projected future water demands, including future water demands associated with a project. This evaluation is conducted under three hydrologic conditions: a normal precipitation year, a single dry year, and multiple dry years. The WSA requirements apply to projects involving more than 500 residential units (or an amount that is equivalent to a 500 residential unit development), commercial projects employing more than 1,000 persons or having more than 500,000 square feet of floor area, and industrial projects employing more than 1,000 persons, occupying more than 40 acres of land or having more than 650,000 square feet of floor area. The proposed project meets the criteria and has prepared a WSA (Appendix I).

California Water Code Sections 10910-10915 requires that the land use agency request preparation of the WSA from the responsible public water system. WSAs may rely on relevant information from approved UWMPs. For the proposed project, a WSA was prepared by Tully and Young and can be found in Appendix I.

General Waste Discharge Requirements for Sanitary Sewer Systems

The General Waste Discharge Requirements (WDRs) for Sanitary Sewer Systems were adopted by the State Water Resources Control Board (SWRCB) in May 2006. These WDRs require local jurisdictions to develop a sewer system management plan (SSMP) that addresses the necessary operation and emergency response plans to reduce sanitary sewer overflows (SWRCB 2006). The WDRs require that the local jurisdiction approve the SSMP. The most recent SSMP for the County was adopted in 2019 and then audited in 2021.

California Green Building Standards Code

The state's current 2022 Green Building Standards Code applies to all newly constructed structures. The code addresses the five divisions of building construction: planning and design, energy efficiency, water efficiency and conservation, material conservation and resource efficiency, and environmental quality in order to improve public health, safety, and general welfare.

California Waste Management Act

The California Waste Management Act of 1989 requires state, county, and local governments to substantially decrease the volume of waste disposed at landfills by the year 2000 and beyond. The act requires each County to submit an Integrated Waste Management Plan to the California Integrated Waste Management Board that includes an adopted Source Reduction and Recycling Element from each of its cities as well as a County-prepared Source Reeducation and Recycling Element for unincorporated areas. The element identifies existing and future quantities and types of solid waste, an inventory of existing disposal sites, a determination of the plan's economic feasibility, enforcement programs, and implementation schedule.

In addition to reduction and recycling elements to reduce solid waste, the act also requires a County's Integrated Waste Management Plan to estimate and plan for the County's solid waste capacity needs for a minimum of 15 years, including "[t]he identification of an area or areas for the location of new solid waste transformation or disposal facilities, or the expansion of existing facilities, that are consistent with the applicable city or county general plan, if the county determines that existing capacity will be exhausted within 15 years or additional capacity is desired." (PRC Sections 41750, 41701, subd. (d).) An Integrated Waste Management Plan is reviewed and approved by the Department of Resources Recycling and Recovery.

Solid Waste Regulations

The California Integrated Waste Management Act (AB 939), enacted in 1989 and subsequently amended, required local jurisdictions to divert at least 50% of their solid waste from landfills by 2000. More recent legislation, AB 341, increased the recycling requirement to 75% of solid waste by 2020. Beginning April 1, 2016, the state's Mandatory Organic Waste Recycling law (AB 1826) phased in requirements for including multifamily properties of five (5) or more units, based on the amount and type of waste the business produces weekly, with full implementation in 2019.

Senate Bill 1383

SB 1383 requires all businesses, residents, and multifamily properties to separate organic materials (such as plant debris, food waste, food soiled papers, untreated wood waste) and recyclable materials from refuse, and either subscribe to the required collection services or self-haul to an appropriate facility for diversion. The law mandates that every jurisdiction provide organic waste collection services to all residents and businesses. Organic waste includes food, green material, landscape and pruning waste, organic textiles and carpets, lumber, wood, paper products, printing and writing paper, manure, biosolids, digestate, and sludges. Jurisdictions can select from a variety of organic waste collection services to match their unique communities and local infrastructure and must educate all residents and businesses about collection requirements, including what materials to put in curbside bins. Organic waste collection serves are available in the county.

Local Regulations

El Dorado County Construction and Demolition Debris Recycling Ordinance

Chapter 8.43 of the El Dorado County Code (Construction and Demolition Debris Recycling within the County) establishes a program for the recycling and salvage of construction and demolition debris. The ordinance requires at least 50% of the debris from construction and demolition projects with structure footprints exceeding 5,000 square feet to be diverted from landfills through recycling practices. Before the issuance of a permit, the project applicant must file a Debris Recycling Acknowledgment (DRA) with the County's Environmental Management Division. A Debris Recycling Report (demonstrating compliance with the 50% diversion goal) must be filed within 60 days after final and/or occupancy approval.

El Dorado County Integrated Waste Management Pan

The El Dorado County Integrated Waste Management Plan was prepared pursuant to the California Integrated Waste Management Act (AB 939), which requires counties to prepare a Countywide Integrated Waste Management Plan. The El Dorado County Integrated Waste Management Plan was last adopted in 1995 and includes an overview of solid waste management practices and presents goals and objectives to ensure an integrated waste management system throughout the county. Goals presented in the Plan are primarily focused on the

implementation of source reduction, recycling, and composting, as well as safe and effective household hazardous waste disposal.

El Dorado County Solid Waste Management Plan

The El Dorado County Solid Waste Management Plan was adopted on January 31, 2012. The Plan is designed to assist the County in reaching a future 75% landfill diversion goal in the most cost-effective, systematic, cohesive, and strategic manner. The Plan provides a strategic roadmap to use in planning for: coordinated, countywide, and jurisdiction cooperation and initiating near, intermediate and long-term program and infrastructure strategies. The Plan includes the estimated potential diversion gains for each strategy and methods to track strategy progress. The Plan also includes estimated costs and funding methods for the program and infrastructure strategies. The Plan also analyzes potential avenues to ensure adequate landfill and disposal capacity and the potential for in-County facilities to reduce the County's "dependence on out-of-County landfills."

El Dorado County General Plan

The following goals, objectives, and policies in the El Dorado County General Plan (last amended 2019) related to utilities and service systems are included in the Public Services and Utilities Element of the General Plan (El Dorado County 2019) and are applicable to the proposed project.

Public Services and Utilities Element

Goal 5.1: Provide and maintain a system of safe, adequate, and cost-effective public utilities and services; maintain an adequate level of service to existing development while allowing for additional growth in an efficient manner; and ensure a safe and adequate water supply, wastewater disposal, and appropriate public services for rural areas.

Objective 5.1.2: Ensure through consultation with responsible service and utility purveyors that adequate public services and utilities, including water supply, wastewater treatment and disposal, solid waste disposal capacity, storm drainage, fire protection, police protection, and ambulance service are provided concurrent with discretionary development or through other mitigation measures provided, and ensure that adequate school facilities are provided concurrent with discretionary development to the maximum extent permitted by State law. It shall be the policy of the County to cooperate with responsible service and utility purveyors in ensuring the adequate provision of service. Absent evidence beyond a reasonable doubt, the County will rely on the information received from such purveyors and shall not substitute its judgment for that of the responsible purveyors on questions of capacity or levels of service.

Policy 5.1.2.3: New development shall be required to pay its proportionate share of the costs of infrastructure improvements required to serve the project to the extent permitted by State law. Lack of available public or private services or adequate infrastructure to serve the project which cannot be satisfactorily mitigated shall be grounds for denial of any project or cause for the reduction of size, density, and/or intensity otherwise indicated on the General Plan land use map to the extent allowed by State law.

Goal 5.2: The development or acquisition of an adequate water supply consistent with the geographical distribution or location of future land uses and planned developments.

Policy 5.2.1.2: An adequate quantity and quality of water for all uses, including fire protection, shall be provided for with discretionary development.

Policy 5.2.1.10: The County shall support water conservation and recycling programs and projects that can reduce future water demand consistent with the policies of the general plan. The County will develop and implement a water use efficiency program for existing and new residential, commercial/industrial, and agricultural uses. The County will also work with each of the County's water purveyors to develop a list of the type of uses that must utilize reclaimed water if feasible. The feasibility of using reclaimed water will be defined with specific criteria developed with public input and with the assistance of EID and will be coordinated with their ongoing reclaimed water (also referred to as recycled water) planning and implementation process. The County shall encourage all water purveyors to implement the water conservation-related Best Management Practices already implemented by EID and in compliance with the related criteria established by U.S. Bureau of Reclamation.

Policy 5.2.1.11: The County shall direct new development to areas where public water service already exists. In Community Regions, all new development shall connect to a public water system. In Rural Centers, all new development shall connect either to a public water system or to an approved private water system.

Goal 5.3: An adequate and safe system of wastewater collection, treatment, and disposal to serve current and future County residents.

Policy 5.3.1.1: High-density and multifamily residential, commercial, and industrial projects shall be required to connect to public wastewater collection facilities as a condition of approval except in Rural Centers and areas designated as Platted Lands (- PL). In the Community Region of Camino/Pollock Pines, the long-term development of public sewer service shall be encouraged; however, development projects will not be required to connect to wastewater collection facilities where such connection is infeasible, based on the scale of the project. (Res. No. 298-98; 12/8/98)

Policy 5.3.1.7: In Community Regions, all new development shall connect to public wastewater treatment facilities. In Community Regions where public wastewater collection facilities do not exist, project applicants must demonstrate that the proposed wastewater disposal system can accommodate the highest possible demand of the project.

Goal 5.5: A safe, effective and efficient system for the collection and processing of recyclable and transformable materials and for the disposal of residual solid wastes which cannot otherwise be recycled or transformed.

Objective 5.5.2: Ensure that there is adequate capacity for solid waste processing, recycling, transformation, and disposal to serve existing and future users in the County.

Policy 5.5.2.1: Concurrent with the approval of new development, evidence will be required that capacity exists within the solid waste system for the processing, recycling, transformation, and disposal of solid waste.

Goal 5.6: Sufficient utility service availability consistent with the needs of a growing community.

Policy 5.6.1.1: Promote and coordinate efforts with utilities for the undergrounding of existing and new utility distribution lines in accordance with current rules and regulations of the California Public Utility Commission and existing overhead power lines within scenic areas and existing Community Regions and Rural Centers.

Policy 5.6.1.2: Reserve adequate rights-of-way to facilitate expansion of services in a timely manner.

3.14.3 Thresholds of Significance

Thresholds of significance are used to determine the significance of a project's environmental effects. Per Section 15064.7 of the CEQA Guidelines, a threshold is an identifiable quantitative, qualitative or performance level of particular environmental effect, non-compliance with which means the effect will normally be determined to be significant and compliance with normally means the effect will be determined to be less than significant. A significant impact would occur if development of the proposed project would do any of the following:

- Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects.
- Not have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years.
- Result in a determination by the wastewater treatment provider which serves or may serve the project that it does not have adequate capacity to serve the project's projected demand in addition to the provider's existing commitments.
- Generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals.
- Not comply with federal, state, and local management and reduction statues and regulations related to solid waste.

Significance Threshold Criteria Not Applicable to the Proposed Project

Stormwater runoff and proposed drainage infrastructure is addressed in Section 3.8, Hydrology, and Water Quality. Please refer to this section for a discussion on impacts associated with stormwater.

3.14.4 Impacts and Mitigation Measures

Methodology

Potential project impacts on water, wastewater, solid waste disposal and electric power, natural gas, or telecommunications facilities were evaluated based on the adequacy of existing and planned infrastructure and the capacity to meet additional demand for these services resulting from project implementation. Sources reviewed to prepare the analysis include the County's General Plan (El Dorado County 2004), the 2020 EID UWMP (EID 2021a), the 2021 EID Sewer System Management Plan (EID 2021b), and the project's WSA (Appendix I).

As described in Chapter 2, Project Description, the project includes two development options. The first option would be to convert the 1.8-acres of neighborhood commercial to park uses if neighborhood commercial is not adopted as part of the Specific Plan. The second option proposes construction of up to 768 age-restricted units and 150 conventional homes. Where applicable, the impact analysis below indicates if a proposed option would result in a change in impact significance or require new mitigation.

Water

A WSA was prepared for the proposed project by Tully & Young in January 2021 (Appendix I). The WSA estimates the proposed project's water demand through build-out, presents and discusses the availability of water sources identified to meet that demand, and assesses whether expected water sources and supplies would be sufficient to meet the projected water demand of the project during normal, single dry, and multiple dry year conditions. The WSA was prepared prior to several minor changes made to the project description but still adequately evaluates the project's increase in water demand. The changes to the project description include a decrease of 8 housing units, a new land use designation (Neighborhood Commercial) of 1.8 acres, a decrease in park acreage (13.6 acres proposed compared to 14.4 acres analyzed in the WSA), and analysis of the two options. These project changes are reflected in the analysis provided herein. The calculations presented in this section may differ slightly than those presented in the WSA (Appendix I). However, the same methodologies described in the WSA were used to create updated calculations for the project, as presented in Table 3.14-4.

The project's estimated water demand represents the total demand from all of the land uses proposed on site. The WSA (Appendix I) for the project defines project land uses by residential, non-residential, and other miscellaneous uses to estimate water demand. The Neighborhood Commercial land use has been added to this list of land uses proposed by the project. The 918 proposed housing units were further divided by densities: low density residential (668 units) and medium density residential (250 units). Non-residential uses consist of park uses and roadway landscaping and other miscellaneous uses including short-term increase in construction water. Table 3.14-4 displays the project's anticipated water demands by land use including any distribution system losses. Although distribution system losses from newly constructed infrastructure would be expected to be minimal, it is conservatively assumed the proposed project would be consistent with the estimated system losses identified in the 2020 UWMP (17.6%). The total annual water demand at buildout in 2035 would be 481 AFY. This assumes development of the 918 residential units and Neighborhood Commercial if adopted as part of the CVSP. Otherwise, the 1.8-acres of Neighborhood Commercial would be used as a park which may slightly increase the project's water demand by approximately 6 AFY for a total of 487 AFY. The reduction in the total number of residential units to 768 age-restricted units and 150 conventional homes under the Active Adult option would further reduce the project's water demand. Age-restricted units generate approximately 40% less demand for utilities and services due to fewer persons per household. However, for the purposes of the analysis buildout of 918 conventional units is assumed to capture the maximum water demand.

EID also reviewed the project's water demand and issued a Facilities Improvement Letter that indicates that, as of January 1, 2022, there were approximately 16,910 equivalent dwelling units (EDUs) of water supply available in the El Dorado Hills Water Supply Region and the project as proposed would require 968 EDUs of water supply (EID 2024).

As discussed in Chapter 2, Project Description, the plan area would be developed in five phases with full build-out expected in 2030 or later. For the purposes of this analysis, it is assumed that the proposed project is anticipated to reach build-out by 2035.

Table 3.14-4. Proposed Project's Annual Water Demand

Category	Dwelling Units or Acres					Demand Factor[1] (af/du or af/ac)		Acre-feet per Year[2]				
	2025	2030	2035	2040	2045			2025	2030	2035	2040	2045
Residential												
Low Density Residential (du)	81	165	668	668	668	0.18	(indoor)	15	30	120	120	120
						0.25	(outdoor)	20	41	167	167	167
Medium Density Residential (du)	0	0	250	250	250	0.18	(indoor)	0	0	45	45	45
						0.08	(outdoor)	0	0	20	20	20
DU Total	**81**	**165**	**918**	**918**	**918**							
						Indoor Subtotal		*15*	*30*	*165*	*165*	*165*
						Outdoor Subtotal		*20*	*41*	*187*	*187*	*187*
Neighborhood Commercial[1]												
Commercial/Industrial (ac)	0	0	1.68	1.68	1.68	1.0	(indoor and outdoor)	0	0	2	2	2
Commercial Landscape (ac)			0.12	0.12	0.12							
Non-Residential												
Park	4	7	13.6	13.6	13.6	3.70		15	26	50	50	50
Roadway Landscaping	5	11.1	11.1	11.1	11.1	0.45		2	5	5	5	5
						Subtotal		*17*	*31*	*55*	*55*	*55*
Other Miscellaneous Uses												
Construction Water	1	1	0	0	0	5.0		5	5	0	0	0
						Total		**57**	**107**	**409**	**409**	**409**
						Outdoor Non-revenue water		**10**	**19**	**72**	**72**	**72**
						Total Project Demand		**67**	**126**	**481**	**481**	**481**

Source: (Appendix I; EID 2016, EID 2021a).

Notes: The average system loss was updated from 13% in the 2015 UWMP to 17.6% in the 2020 UWMP.

1 Since the WSA was prepared prior to the circulation of the EID 2020 UWMP, the WSA uses the demand factors from EID's 2015 UWMP. The demand factors used are based on EID's 2015 UWMP demand factor rates, with the exception of the Neighborhood Commercial land use demand factor(s), which are identified in the 2020 UWMP (Appendix I; EID 2016; EID 2021a). Commercial/Industrial and Commercial Landscape acreage was estimated based on the maximum floor area ratio of 0.69 specified in the CVSP.

2 Totals are rounded to the nearest whole number.

Wastewater

The analysis of impacts to wastewater treatment services is based on wastewater treatment demand generated by the project compared to the thresholds of significance listed below. Wastewater demand for the proposed project was quantified based on the following assumptions: (1) a single-family low-density residential unit produces 34 gallons per dwelling unit (DU) per day of wastewater, (2) a single-family medium-density residential unit produces 120 gallons per DU per day of wastewater, and (3) neighborhood commercial land uses produce 500 gallons of wastewater per acre (EID 2013b). The project's total wastewater generation is calculated in Table 3.14-5, below. There would be no change in the number of single-family low density and single-family medium density units under the Active Adult option. The only change would be in the type of housing; 758 age-restricted and 150 conventional housing units. As noted above, age-restricted units generate approximately 40% less demand for utilities due to fewer persons per household. Therefore, under the Active Adult option approximately 34,567 gpd or 0.035 mgd would be generated.

Table 3.14-5. Summary of Estimated Annual Project Wastewater Generation

Land Use[1]	Unit	Wastewater Generation Rate	Wastewater Generation
Proposed Project			
Residential: Single Family Low Density	668 du	34 gpd/du	22,712 gpd
Residential: Single Family Medium Density	250 du	120 gpd/du	30,000 gpd
Neighborhood Commercial	1.8 acres	500 gpd/acre	900 gpd
		Total (gpd)	**53,612**
		Total (mgd)	**0.054**

Source: EID 2013b.
Notes:
1 Parks and open space land uses would not generate wastewater, as such the land uses are not included.
gpd= gallons per day; du = dwelling units; mgd = million gallons per day

As shown in Table 3.14-5, the project's total wastewater generation would be 53,612 gpd or approximately 0.054 mgd average dry weather flows (ADWF). If Neighborhood Commercial is not adopted as part of the CVSP, this land would be developed as parkland which would slightly reduce the project's overall demand for wastewater services. The Active Adult option would reduce the amount wastewater generated to approximately 32,168 gpd/acre or 0.032 mgd.

Solid Waste

The analysis of impacts to landfill capacity is based on the amount of solid waste that would be generated by operation of the proposed project compared to the thresholds of significance listed below. The project's total solid waste generation is calculated in Table 3.14-6 below. At the project buildout an estimated 2,064 cubic yards of operational solid waste would be generated prior to recycling. If Neighborhood Commercial is not adopted as part of the CVSP this land would be developed as parkland which would slightly reduce the project's overall generation of solid waste. The same as above, there would be no change in the number of single-family low density and single-family medium density units under the Active Adult option. The only change would be in the type of housing; 758 age-restricted and 150 conventional housing units. Because age-restricted units generate approximately 40% less demand for utilities due to fewer persons per household. The amount of solid waste generated under the Active Adult option would be reduced to 1,238 cubic yards/year.

Table 3.14-6. Operational Solid Waste Generation

Land Use	Units	Waste Generation Rate	Waste Generation (tons/year)	Waste Generation (cubic yards/year)
Proposed Project				
Residential: Single Family Low Density	668 DU	10 lbs/du/day	1,219	1,707
Residential: Single Family Medium Density	250 DU	4 lbs/du/day	183	256
Neighborhood Commercial	1.8 acres	5 lbs/1000 sf/day	72	101
		Total Peak Amount	**1,474**	**2,064**

Source: CalRecycle 2019b.
Notes: 1 ton= 2,000 pounds and 1.4 cubic yards
1 acre = 43,560 square feet

Project Impacts

Impact 3.14-1. The proposed project would not result in environmental impacts from the construction of new water, wastewater treatment, electric power, natural gas, or telecommunications facilities.

Water Supply and Treatment

The provision of expanded water service to the project site would require the expansion and development of new water infrastructure that would connect to EID's existing water infrastructure. The proposed water system includes a connection to two existing off-site water transmission mains located in Latrobe Road and one water transmission main located near John Adams Academy, just north of the project site. The project, including both options, would construct 12- and 8-inch on-site distribution mains creating a looped system to provide water to serve new onsite land uses. New water infrastructure proposed by the project was designed in accordance with EID's Design and Construction Standards (1999) to ensure adequate water conveyance to the site. The direct and indirect impacts associated with the construction of water infrastructure to serve the proposed project including air emissions associated with construction equipment, potential loss of biological and cultural resources, for example, are evaluated in other sections of this Draft EIR. Project construction would occur in accordance with all applicable state and local regulatory requirements.

As discussed in the Environmental Setting above, the El Dorado Hills WTP has identified future capacity deficits in existing water treatment infrastructure as new projects requiring water service are developed in the area. While the proposed project was not known in 2013 when EID prepared the Integrated Water Resources Master Plan (EID 2013a), the General Plan assumed buildout of the El Dorado Hills Business Park, including buildout of the Business Park at the project site. It is likely that R&D uses would generally require less water treatment use than residential uses, therefore, the project's water demand is additive to the identified future water service deficits related to water treatment. EID reviewed the project and notes as of January 1, 2022, there were approximately 16,910 EDUs of water supply available and the project would require 968 EDUs (EID 2024). The project, including either option, is not anticipated to require the construction of new or expanded water infrastructure besides those improvements already identified as part of the project.

The proposed project would comply with General Plan Policy 5.1.2.3 requiring new developments to pay a proportionate share of the costs of infrastructure improvements needed to serve a project. EID identifies necessary infrastructure improvements in a CIP which is updated annually. As a public agency, EID is required to comply with

CEQA when approving projects that may have a physical effect on the environment. Many EID projects are also subject to federal agency approval and must conduct National Environmental Policy Act (NEPA) review as well. Future environmental review would identify, and mitigate to the extent feasible, any significant adverse effects on the environment resulting from new infrastructure improvement projects. While the project would be required to pay fees that may be used on a future EID CIP project, there are no new or expanded water treatment facilities required to ensure water is provided to serve the project.

Additionally, Objective 5.1.2 in the County General Plan states the County's policy to cooperate with utility purveyors to ensure that adequate services are provided concurrent with discretionary development. The project is anticipated to be built out in several phases and therefore the need for water services would occur incrementally. As such, impacts associated with the relocation or construction of new or expanded water infrastructure would be **less than significant.**

Wastewater

The proposed project would require the expansion and development of new on-site wastewater infrastructure that would connect to EID's existing wastewater infrastructure. The project's proposed wastewater system, including either option, would consist of gravity sewer mains, localized collector lines, and individual laterals. Due to the topography of the project site, wastewater would generally flow from east to west through gravity mains to a proposed lift station to be located at the western end of the site. The proposed lift station would pump wastewater through a proposed new force main placed in or adjacent to Latrobe Road that would connect to the El Dorado Hills WWTP. Wastewater would flow to the El Dorado Hills WWTP for treatment and disposal. The proposed on-site wastewater infrastructure was designed in accordance with EID's Design and Construction Standards and was sized to accommodate peak wet weather flows under build-out conditions within the area.

Based on available information from 2013, the El Dorado Hills WWP had an ADWF of 2.65 mgd with a maximum capacity of 4 mgd. As outlined in Table 3.14-5, the project's total wastewater demand would be 53,613 gpd or approximately 0.054 mgd ADWF (if the Neighborhood Commercial component is not developed, this would decrease by 900 gpd to approximately 0.053 mgd). The addition of 0.054 mgd would represent an approximate 2.04% increase from average daily flows in 2013. However, the project's increase in demand for wastewater treatment would not exceed the 4 mgd capacity of the El Dorado Hills WWTP and would not necessitate expansion of the El Dorado Hills WWTP beyond what is already planned. The Active Adult option would result in a reduction in residents per unit resulting in a corresponding reduction in wastewater demand. It is estimated the amount of wastewater generated would be approximately 34,567 gpd or 0.035 mgd, this would further reduce average daily flows. As noted above, the direct and indirect impacts associated with the construction of infrastructure to serve the project are evaluated in other sections of this Draft EIR. Therefore, buildout of the proposed project or the Active Adult option would not require the construction of new infrastructure beyond what has been identified and evaluated in this Draft EIR. Impacts regarding the relocation or construction of new or expanded wastewater facilities would be **less than significant.**

Electric Power, Natural Gas, and Telecommunications

The project site does not include any existing natural gas or electric utilities or telecommunications infrastructure. Natural gas and electricity would be provided by PG&E. PG&E is required by the California Public Utilities Commission (CPUC) to update its existing systems to meet any additional demand (CPUC 2021). Per CPUC Rule 20, additional electrical and natural gas infrastructure and facilities added on site would be co-located with other utilities underground within roadway rights-of-way as phases of the project are developed (CPUC 2021).

Several existing natural gas distribution and transmission facilities are located north, west, and east of the project site and would be extended to provide natural gas service to the project, if used. If provided for the project, natural gas would be distributed to the project site by a network of 8-inch, 6-inch and 4-inch feeder mains. Distribution lines and services would be extended off the feeder mains and would be sized based upon the anticipated gas loads to the various parcels. Residential neighborhoods would likely be sized with 2-inch distribution mains. The infrastructure related to electrical power would be designed in accordance with Title 24, California's Energy Efficiency Standards for Residential and Nonresidential Buildings. As noted above, the direct and indirect impacts associated with the construction of infrastructure to serve the project, including under either option are evaluated in other sections of this Draft EIR. Impacts related to the expansion of electrical and natural gas infrastructure would be **less than significant.**

There are several purveyors providing telecommunications services such as telephone service, cable television, and Internet services within the county that would serve the project site. AT&T would be the primary provider of telephone service to the project site. Mobile communication service providers would provide project residents with wireless communications service. These telecommunications services have the capacity to increase demand and the construction of telecommunications infrastructure would be installed in conjunction with other utilities. Project construction would occur in accordance with all applicable state and local regulatory requirements. As such, impacts associated with the relocation or construction of new or expanded telecommunications infrastructure would be **less than significant.**

Offsite Improvements

The proposed project, including both options, would involve off-site infrastructure improvements that would be required to implement the CVSP. This includes connection to dry utilities, off-site water connections, and construction of a new force sewer main. The CVSP proposes connection to electric and natural gas as well as telephone and cable television within joint trenches (within existing roadway rights-of-way), three points of connection to EID for potable water, and connection to EID for wastewater services via a new force main along Latrobe Road. Impacts associated with the construction of both on-site and off-site infrastructure are evaluated throughout the technical sections of this Draft EIR. Other off-site improvements, including intersection improvements on local roadways, would not result in additional demands on utilities services. In addition to this, the project applicant would coordinate with the County and secure any necessary permits prior to ground disturbance activities to reduce the potential of damaging or rerouting existing utilities infrastructure. Given these precautions and the project design, impacts related to utilities infrastructure and service as a result of the project would be **less than significant**.

Mitigation Measures

No mitigation measures are required.

Impact 3.14-2. The proposed project would be adequately served by available water supply during normal, dry, and multiple dry years.

EID maintains and operates water systems in the county and would serve the proposed project site. As noted in the Environmental Setting, the total average water demand for EID's service area in 2020 was 26,240 acre-feet. As shown in Table 3.14-4, the annual water demand at buildout of the project would be 481 AFY. The 2020 UWMP notes that the project's water needs were included in the water system reliability assessment, included as Chapter 5 to the 2020 UWMP (EID 2021a). The UWMP anticipated 928 Equivalent Dwelling Units (EDU), which represents

the number of residential dwelling units that the project would reflect, regardless of whether the project includes residential or non-residential land uses. The UWMP forecasts water use based on the addition of more EDUs than represented by proposed developments so that they are adequately included in the representations of water service reliability. A more accurate calculation of the proposed project's water demands is provided in Table 3.14-4. The project's water demand would be approximately 481 AFY without the Neighborhood Commercial component or 487 AFY with the Neighborhood Commercial component, approximately 1.8-1.9% of the water demand within the EID service area. EID also issued a Facilities Improvement Letter for the project on January 8, 2024, that indicates that, as of January 1, 2022, there were approximately 16,910 EDUs of water supply available in the El Dorado Hills Water Supply Region and the project proposed would require 968 EDUs of water supply (EID 2024).

Additionally, the project would comply with existing regulations that would further reduce water demand. For example, water usage for landscaping would also be reduced with the requirement to comply with the County's Water Conservation in Landscaping Act: Model Water Efficient Landscape ("MWELO") Ordinance, including the requirement of a Water Efficient Landscape Plan in compliance with the Landscaping and Irrigation Standards. (Code Section 130.33.010 to 130.33.020.)

The conclusions made in the 2020 UWMP indicate that EID has sufficient water supplies to meet future demands of the project during normal, dry, and multiple dry years. More specifically, EID concludes sufficient water supplies are available through 2045 for all existing and planned uses, including the proposed project. This is consistent with the conclusions in the project's WSA (Appendix I). Given this determination, it is anticipated that EID would have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years. Impacts related to water supplies would be **less than significant**.

Active Adult Option

In 2021, EID compared two years of data from an age-restricted development with a similarly sized conventional development within the county and determined that the conventional units used approximately 40% more water than the age-restricted units (email from M, Brink [EID] to B. Mueller [Lennar] February 23, 2021). The reduced residents per dwelling unit is likely the primary factor resulting in reduced water usage. Therefore, if the Active Adult option is developed, it is likely that water use would be reduced by approximately 40% per age-restricted unit. While a private clubhouse for an active adult community would require water services, the Specific Plan allows private clubhouse facilities with the proposed project as well; therefore, the use is not expected to change with the Active Adult option. Therefore, development of the Active Adult option would likely reduce demand for water as compared to the proposed project and the impact would be **less than significant**.

Mitigation Measures

No mitigation measures are required.

Impact 3.14-3. The proposed project would not generate an increase in wastewater demand that exceeds the capacity of the treatment plant.

The El Dorado Hills WWTP would provide wastewater treatment to serve buildout of the proposed project. As previously discussed in Impact 3.14-1, the project's increase in demand for wastewater treatment, including the Active Adult option, would not exceed the 4 mgd capacity of the El Dorado Hills WWTP and would not necessitate expansion of the El Dorado Hills WWTP beyond what is already planned. As such, impacts relating to wastewater treatment capacity would be **less than significant**.

Mitigation Measures

No mitigation measures are required.

Impact 3.14-4. The proposed project would not generate solid waste in excess of standards, or capacity of local infrastructure, or impair the attainment of solid waste reduction goals.

The Potrero Hills Landfill has a permitted capacity of approximately 83.1 million cubic yards and a remaining capacity of 13.9 million cubic yards (CalRecycle 2019a). The project site is undeveloped; therefore, the project would not generate demolition debris associated with removal of any buildings. The project would generate construction waste during buildout of the site but would be required to comply with Chapter 8.43 of the El Dorado County Code, which requires at least 50% of debris from construction be diverted from landfills through recycling practices. This would help reduce the project's construction waste and contribution to the landfill.

Operation of the proposed project would generate an estimated 2,064 cubic yards per year of solid waste associated with residential and neighborhood commercial uses, as shown in Table 3.14-7. If the Neighborhood Commercial is not approved by the County this 1.8-acre parcel would be developed as a park further reducing the generation of solid waste. The project's estimated operational waste generation represents 0.015% of the available capacity at the Potrero Hills Landfill. The values displayed in the table are not adjusted for recycling and waste reduction activities that would divert waste from the landfill, such as efforts to reach a 75% landfill diversion goal specified in the County Solid Waste Management Plan. Even taking this into consideration, adequate landfill capacity is available to meet the needs of the project at full buildout, and the County is required to continue to estimate and plan for solid waste capacity in its Integrated Waste Management Plan well in advance of the Potrero Hills Landfill reaching capacity in approximately 24 years.

The Active Adult option would generate fewer residents as discussed above that would correlate to a reduction in the amount of solid waste generated. The amount generated would be approximately 1,238 cubic yards per year of solid waste, or 825 cubic yards less than the proposed project.

Construction and operation of the proposed project would be required to comply with all applicable County and state solid waste diversion, reduction, and recycling mandates, including Chapter 8.43 of the County Code. Therefore, project impacts would be **less than significant.**

Mitigation Measures

No mitigation measures are required.

Cumulative Impacts

The geographic context for cumulative utilities impacts includes buildout of the specific service area for each utility. This includes projected buildout of the County's General Plan and additional approved and reasonably foreseeable developments (see Chapter 3) within the boundaries of the EID service area for water and wastewater, the El Dorado Disposal service area for solid waste, and the PG&E service area for energy and natural gas. Implementation of either of the options would result in impacts similar to the proposed project; therefore, the analysis of cumulative impacts below would not change if one of the options were adopted.

Impact 3.14-5. The proposed project would not result in cumulatively considerable impacts related to construction of water, wastewater, or solid waste facilities or exceed water supply.

Water Treatment

The geographic context includes the service area boundary of EID. As discussed under Impact 3.14-1, the El Dorado Hills WTP has identified future water treatment capacity deficits as new projects requiring water service are developed in the area. EID's 2013 Integrated Water Resources Master Plan only evaluated buildout of the General Plan including the specific plans approved under the General Plan. While this would have included buildout of the El Dorado Hills Business Park, R&D uses can generally be assumed to require less water treatment than residential uses. Even without considering the projects identified since adoption of the General Plan (including the proposed project), there is an existing significant cumulative impact related to water treatment capacity. The service demands from the cumulative projects identified since adoption of the General Plan assuming development of the proposed project would all contribute to the need for EID infrastructure improvements that have not been identified in current plans.

The primary issue, as it relates to CEQA, is whether the construction of new or expanded facilities or infrastructure would be needed to serve new development that would cause a significant adverse physical environmental effect. The additional service demands from the project in combination with the cumulative projects would indirectly require EID to construct new or expanded facilities to ensure adequate water treatment capacity, and the project would contribute its fair share to those facilities with payment of fees. As previously discussed, EID is a public agency that is required to comply with CEQA (and NEPA if subject to federal agency approval) when approving projects that may have an adverse effect on the environment. Future environmental review of EID projects would identify, and mitigate to the extent feasible, any significant adverse effects of the environment resulting from new infrastructure improvement projects. Therefore, it is assumed that the proposed project's contribution would be less than cumulatively considerable and would result in a **less-than-significant cumulative impact** associated with the environmental effects of new or expanded facilities construction.

Water Supply

The geographic context for water supply includes the service area boundary of EID. EID's 2020 UWMP provides current and projected water demands for the County through 2045 based on the buildout of the General Plan as well as larger development projects known at the time of preparation. This list of additional development projects assumed in the 2020 UWMP totals 5,961 EDUs, which is similar to the cumulative scenario identified for this EIR (5,107 units approved since adoption of the General Plan in conjunction with the 918 units from the proposed project). It should be noted that the 2020 UWMP assumed development of 1,000 units for the Central El Dorado Hills Specific Plan, but that project has since been withdrawn and part of the previously proposed planned area transferred to the EDH CSD. The 2020 UWMP also includes a supply and drought risk assessment to evaluate

projected growth with available water supplies through normal and 5-year drought periods. The assessment demonstrates that EID does not expect any water supply shortages in future years, even in a drought and a five consecutive dry year period (EID 2021a). Therefore, there is **no existing cumulative impact** related to water supply to which the project would contribute.

Wastewater

The geographic context for wastewater treatment and conveyance includes the service area boundary of EID. The 2013 EID Wastewater Facilities Master Plan determined that at full buildout of the General Plan, the ADWF at the El Dorado Hills WWTP is estimated to be 5.45 mgd, which would exceed the current capacity of 4 mgd. EID has plans to expand the capacity of El Dorado Hills WWTP from 4.0 mgd to 5.45 mgd by 2026 and proposes additional improvements to collection systems to accommodate projected growth. This projected growth only includes buildout of the General Plan including the specific plans approved under the General Plan. Therefore, the service demands from projects identified since adoption of the General Plan as well as from the proposed project would contribute to the need for EID wastewater infrastructure improvements above what is currently planned, causing a significant cumulative impact.

As previously discussed, EID is required to comply with CEQA (and NEPA if subject to federal agency approval) when approving projects that may have an adverse effect on the environment. Future environmental review of EID projects would identify, and mitigate to the extent feasible, any significant adverse effects of the environment resulting from new infrastructure improvement projects. Therefore, it is assumed that the proposed project's contribution would be less than cumulatively considerable and would result in a **less-than-significant cumulative impact** associated with the environmental effects of new or expanded facilities construction.

Solid Waste

The geographic context includes the area served by El Dorado Disposal. The County General Plan EIR determined that there would be adequate landfill capacity to serve projected buildout under the General Plan and therefore concluded that impacts would be less than significant with no mitigation required. Since adoption of the General Plan there have been several planned projects which would contribute a total of 5,107 new dwelling units in the County. The construction and operation of these projects as well as the proposed project would generate solid waste that was not included within the General Plan EIR analysis. As previously stated, El Dorado Disposal would provide solid waste collection, disposal, and recycling services for the proposed project. Solid waste is first hauled to the Western El Dorado Recovery Systems MRF, which is currently permitted to receive up to 400 tons per day. Following processing of solid waste and recyclable material, non-recyclable materials are sent to the Potrero Hills Landfill, which has an estimated remaining capacity of approximately 13.9 million cubic yards and is estimated to remain in operation until 2048. As it has been described, both the Western El Dorado Recovery Systems MRF Transfer Station and Potrero Hills Landfill are accepting waste significantly below their available capacity level. Therefore, the addition of solid waste from the project and additional cumulative projects is not anticipated to result in exceedances of solid waste capacity facilities and there is no cumulative impact. All projects would also be subject to comply with applicable County and state solid waste diversion, reduction, and recycling mandates. Therefore, there is **no existing cumulative impact** that the project could contribute to.

Energy and Natural Gas

Future development would increase the demand for electricity within PG&E's service area. Typically, upgrades to electric utility networks fall under the jurisdiction of CPUC and would be subject to environmental review as electrical

projects are proposed. As a result of this process and long-term planning efforts by PG&E, there would be adequate electrical service to the County with anticipated future growth.

Given the nature of telecommunication and gas lines (which are not typically subject to the constraints of existing facilities), beyond local connections to existing infrastructure, no additional telecommunication or gas line construction is anticipated to be required for most cumulative construction. Additionally, cumulative development would be subject to review on a case-by-case basis. Should the applicable service provider determine that upgrades or extensions of infrastructure would be required, any such upgrades would be included within each project's environmental review. Therefore, there is **no existing cumulative impact** that the project could contribute to.

Mitigation Measures

No mitigation measures are required.

3.14.5 References

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3.15 Wildfire

This section describes the existing wildfire setting on and near the proposed Creekside Village Specific Plan (proposed project or CVSP) project site; discusses the relevant federal, state, and regional regulatory considerations; evaluates wildfire impacts resulting from construction and operation of the proposed project; and identifies mitigation measures related to implementation of the proposed project. Fire protection services are addressed in Section 3.11, Public Services and Recreation, of this Draft EIR.

In response to the Notice of Preparation (NOP) issued on November 6, 2020, one comment raised concerns that wildfire evacuation would be challenging with the additional number of cars from the project site attempting to evacuate using Latrobe Road, which is the main access road for the project site. While an increased number of people and vehicles presents a potential evacuation concern, the Fire Safe Plan included as Appendix J illustrates which emergency vehicle access and public roads may serve the project site in the event of an emergency. No additional comments were received concerning wildfire at the follow up second scoping meeting held on September 26, 2023. A copy of the NOP and comments received is included in Appendix A.

The primary sources referenced to prepare this section include the Fire Safe Plan (April 2025) prepared for the project (Appendix J), as well as publicly accessible data sources from the California Department of Forestry and Fire Protection (CAL FIRE) and El Dorado County (County). The Fire Safe Plan has been reviewed and approved by CAL FIRE and the El Dorado Hills County Water District (El Dorado Hills Fire Department) ("EDH Fire").

3.15.1 Environmental Setting

Local Wildfire Hazard

Fire environments are dynamic systems and are influenced by many types of environmental factors and site characteristics. Fires can occur in any environment where conditions are conducive to ignition and fire movement. The three major components of fire environments are vegetation (fuels), climate, and topography. The state of each of these components and their interactions with each other determines the potential characteristics and behavior of a wildfire. In addition, the type, location, and intensity of a wildfire can affect wildlife, vegetation, air quality, water quality, and slope stability to varying degrees, as discussed below.

A wildfire is a nonstructural fire that can occur in undeveloped areas and spread to urban areas where the landscape and buildings are receptive to ignition. Understanding the fire environment on and adjacent to the proposed project site is necessary to understand the potential for fire within and around the project site. The Wildland Urban Interface Area (WUI) is a zone of transition between wildland (undeveloped/unoccupied/"natural" land) and urban development. Communities in or adjacent to WUI areas are at a higher risk for wildfire occurrence. The project site is within a designated WUI area, identified by the federal government as being at risk from a large wildfire (Appendix J). The Fire Safe Plan prepared for the project determined the project site has a low wildfire risk (Appendix J).

Fire Hazard Severity Zones

The California Board of Forestry identifies those lands where the California Department of Forestry and Fire Protection (CAL FIRE) has mapped areas of significant fire hazards in the state through its Fire and Resources Assessment Program (FRAP). The CAL FIRE FRAP mapbs classify land into fire hazard severity zones (FHSZ) of

Moderate, High, and Very High. The FHSZ are based on a hazard scoring system using subjective criteria for fuels, fire history, terrain influences, housing density, and occurrence of severe fire weather. The FHSZ designations can be attributed to a variety of factors including highly flammable, dense, drought-adapted vegetation; seasonal, strong winds; and a Mediterranean climate that results in vegetation drying during the summer and fall months. CAL FIRE also maps and ranks areas of fire threat, which indicates the level of risk based on the potential fire behavior (fuel rank) and expected fire frequency (fire rotation) at a given location (CAL FIRE 2005).

Areas where CAL FIRE is responsible for wildland fire protection include lands owned or managed by the state or where the state is financially responsible for the prevention and suppression of wildfires, classified as a State Responsibility Area (SRA). A SRA is defined in Public Resources Code (PRC) Section 4102 as "areas of the state in which the financial responsibility of preventing and suppressing fires has been determined by the board pursuant to Section 4125, to be primarily the responsibility of the state" and is thus based on responsibility, not fire risk. In areas where local fire protection agencies are responsible for wildfire protection, the land is classified as a Local Responsibility Area (LRA), and federal agencies are responsible for wildfire protection in land classified as Federal Responsibility Areas (FRA).

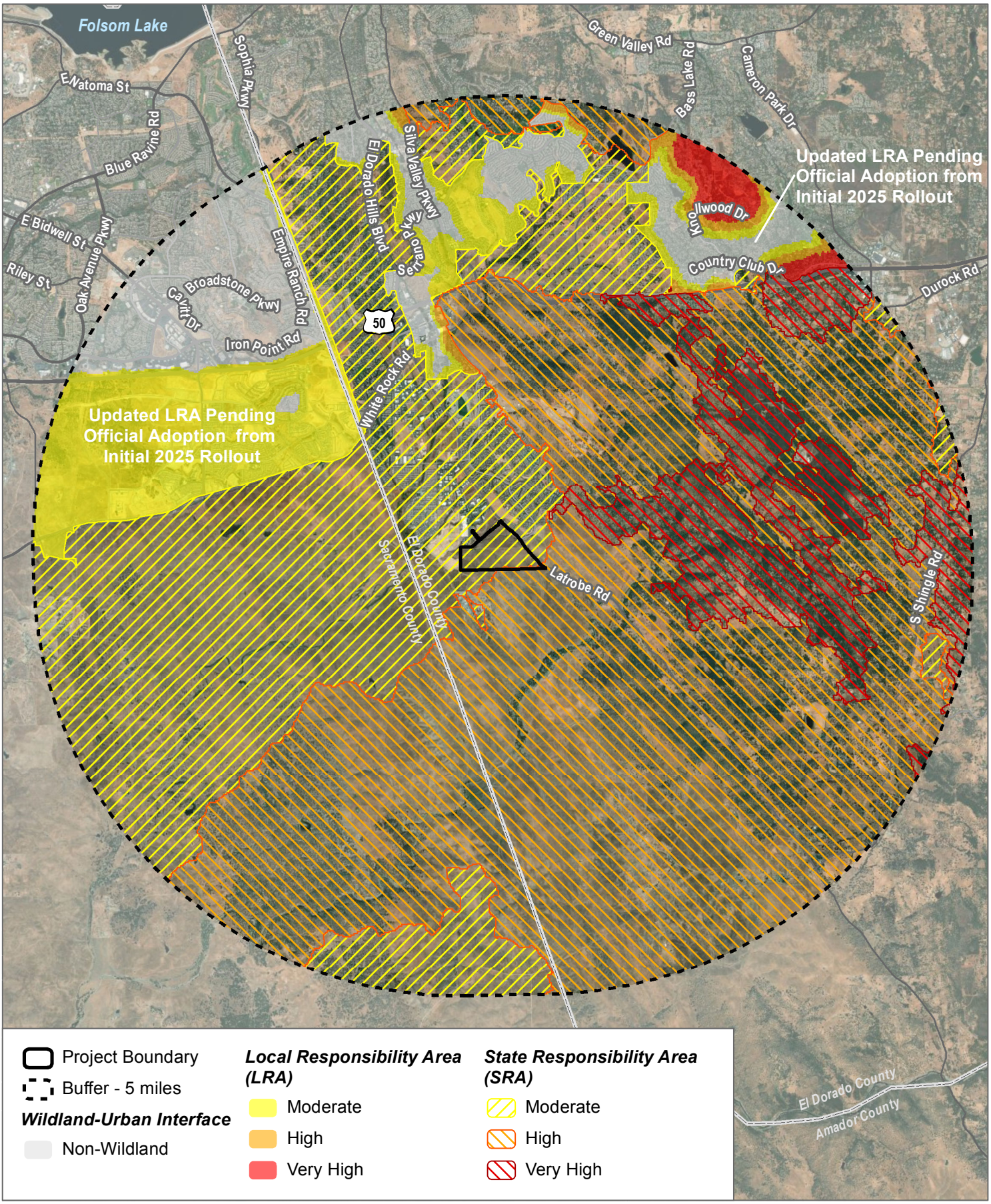
As shown in Figure 3.15-1, Fire Hazard Severity Zones, the project site has been identified as a Moderate FHSZ, with a small area located in the southeast portion of the project site designated as a High FHSZ. Areas designated as High FHSZ within the SRA extend to the south, and a Very High FHSZ is located approximately 0.50 miles to the east adjacent to and southeast of the existing Blackstone community (CAL FIRE 2024). The nearest LRA FHSZ areas are mapped in Figure 3.15-1, and are approximately 4-5 miles northeast of the project site. The initial rollout for updated LRA FHSZ data was released from February to March 2025, and are pending official adoption from local agencies after 120 days per California Government Code 51179 (a). The nearest FRA lands are located over 5 miles to the northeast and over 8 miles to the northwest (CAL FIRE 2023).

Ignition Sources

Existing potential sources of ignition in the project area include vehicles, human activity, and powerlines along Latrobe Road and within nearby developed areas. There are no overhead electrical transmission lines present within the project site, but overhead electrical lines are located along Latrobe Road. The project site consists primarily of grassland, including areas near existing powerlines. Damaged or downed power lines or equipment may come into contact with combustible materials, such as vegetation, as a result of high wind events or other damaging events.

Vegetation/Fuels

Variations in vegetative cover type and species composition have a direct effect on fire behavior. Some plant communities and their associated plant species have increased flammability based on plant physiology (resin content), biological function (flowering, retention of dead plant material), physical structure (bark thickness, leaf size, branching patterns), and overall fuel loading. For example, grass-dominated plant communities become seasonally prone to ignition and produce lower intensity, higher spread rate fires. The County General Plan EIR explains that while grasslands have the lightest fire fuel load and can burn easily, this fuel source is the easiest to control (General Plan EIR p. 5.8-108). As described in Chapter 2, Project Description, and Section 3.3, Biological Resources, the vegetation on the project site primarily consists of annual grasslands. Vegetation communities and land covers found on the project site include annual grasslands (201.6 acres), aquatic habitats (5.23 acres), blue oak woodland (0.75 acres) and developed (0.54 acres). Table 1 in the Fire Safe Plan (Appendix J) and Table 3-2 in Section 3.3 provides further details regarding species, vegetation communities, and land covers found on the project site.



SOURCE: ESRI Imagery 2023; CalFire 2025; Open Street Map 2019

DUDEK

0 0.75 1.5 Miles

FIGURE 3.15-1

Fire Hazard Severity Zones

Creekside Village Specific Plan EIR

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Climate and Weather

Climate change is expected to influence existing fire-related hazards and vulnerabilities. Consequences of a changing climate include changing precipitation patterns, reduced water supply, and increased hazards such as heat waves and wildfire. According to the Center for Climate and Energy Solutions, drier vegetation and drought conditions have contributed to a doubling of large fires in the western states between 1984 and 2015, with projections indicating that a 1 degree increase in temperature could result in a substantial increase in fires due to warmer temperatures and drier conditions that help fires spread and make them harder to extinguish (CES 2020).

Predominant local weather patterns in the project area are characterized by warm, dry summers and cool, wet winters. Dry conditions traditionally begin around the beginning of May and last into late October. An average summer day is 95°- 105° Fahrenheit, with prevailing winds blowing from the southwest at 0 to 10 miles per hour (mph), and relative humidity levels in the 15-25% range. Summer lightning storms are infrequent in the area.

Within the larger region, the average hourly wind speed in the El Dorado Hills area experiences mild seasonal variation over the course of the year. The windier part of the year occurs from November to April, with average wind speeds of more than 5.8 mph. The windiest month of the year is typically February, with an average hourly wind speed of 6.4 mph. The calmer time of year lasts for 7.5 months, from April to November. The calmest month of the year is typically October, with an average hourly wind speed of 5.3 mph (Weather Spark 2023).

While average winds in the El Dorado Hills area do not present extreme fire weather, winds exceeding 20 mph throughout the local fire season period are frequent (Appendix J). Fire weather in the county is typically dominated by three general weather phenomena: the Delta push influence[1], north wind events[2], and east foehn winds[3] caused by high pressure development in the Great Basin (CAL FIRE 2023a). All three weather conditions cause potential increases in fire intensity and size. The Delta influence is the most common and occurs frequently throughout the summer. The summer months present hot and dry conditions over much of the region. As these systems develop, they tend to originate near the Delta and Sacramento areas bringing the marine influence to the area. This is generally considered a beneficial condition for fire behavior due to slightly cooler afternoon temperatures and increases in relative humidity. However, the downside is the strong winds that typically accompany these patterns, which can override any benefit that may come from cool, moist marine air. This type of wind generally subsides after sundown causing fire behavior to drop off dramatically.

The other critical wind patterns that are difficult to predict for the county are the northerly and easterly winds. They are relatively rare, and often are forecasted only the day before. Northerly or easterly winds are typically warmer and drier than most other wind patterns due to air compression. These conditions provide the perfect environment for increased fire intensity and large fire growth.

1 The Delta push influence refers to a meteorological effect related to the Sacramento-San Joaquin Delta in California. When high-pressure systems develop over the Great Basin (east of the Sierra Nevada), they push air westward toward the coast. As this air encounters the coastal mountain ranges, including the Sierra Nevada, it gets funneled through gaps and canyons. This process, known as the Delta push, leads to increased winds and can influence local weather patterns, especially in areas near the delta.

2 North wind events, also called Diablo winds, are hot, dry downslope winds that originate from the northeast and typically affect parts of California's coastal ranges and the western slopes of Sierra Nevada. North wind events can contribute to wildfire risk, especially in the coastal mountains north and east of San Francisco and along the western slopes of the Sierra Nevada (LA Times 2019).

3 East Foehn Winds, also known as Föhn winds, are dry, relatively warm, downslope winds that occur in the lee (downwind side) of a mountain range. The descending air becomes warmer and can raise temperatures significantly in a matter of hours (Elvidge et. al. 2016).

Fire growth is typically wind driven, however as these winds subside, fire immediately returns to fuel/topography driven in opposing directions to the wind driven direction. This type of wind event is commonly referred to as a Foehn wind in the Sierra/Cascade Region (Appendix J).

Topography

Topography influences fire risk by affecting fire spread rates. Typically, steep terrain results in faster fire spread up slope and slower spread down slope. Terrain that forms a funneling effect—such as chimneys, chutes, or saddles—on the landscape can result in especially intense fire behavior, including faster spread and higher intensity. Conversely, flat terrain tends to have little effect on fire spread, resulting in fires that are driven by vegetation and wind.

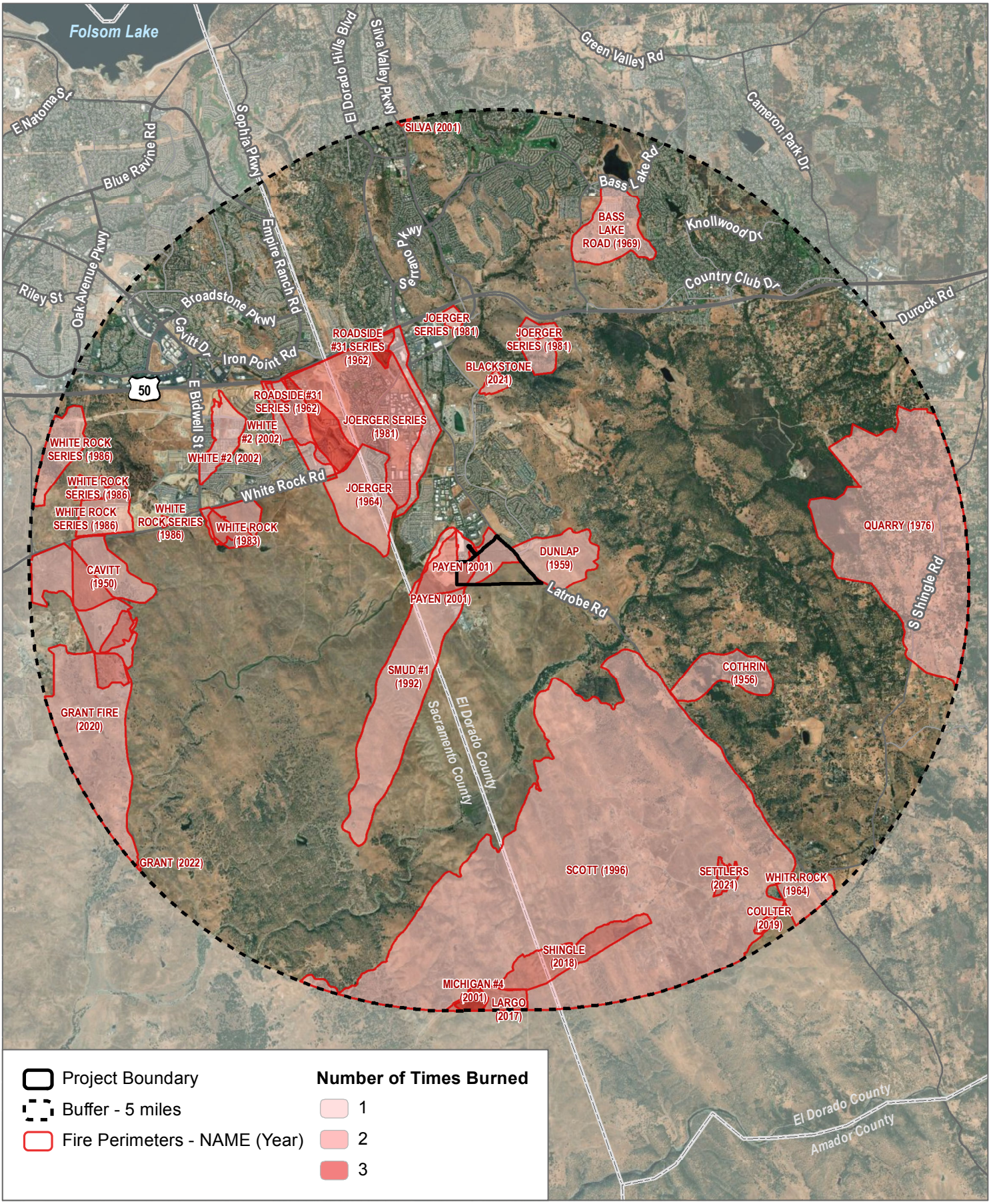
The project site is located in the western foothills of the Sierra Nevada Mountain Range. The project site and surrounding areas are characterized as gently sloping or rolling hills with broad valleys. Elevations at the project site range from approximately 470 feet above mean sea level along the western boundary of the site to 640 feet above mean sea level along the southeastern corner. As described in Section 3.6, Geology, Soils and Paleontology, approximately 80% of the project site contains slopes of less than 10%; 16% of the project site contains slopes of between 11% and 20%; 3% are slopes of between 21% and 29%; and the remaining 1% contains slopes of 30% or greater (CTA Engineering & Surveying Undated). An isolated 100-foot hillside is located within the southeast corner and rises above the project site (Appendix J).

Fire History

Fire history data can provide an understanding of fire frequency, fire type, burn severity, significant ignition sources, and other information relevant to understanding the fire and fuels environment in an area. There have been numerous recorded wildfires in the western portion of the county. Fire history data was obtained from the CAL FIRE FRAP. FRAP summarizes fire perimeter data dating as far back as the late 1800s, but this data is incomplete because it includes only fires over 10 acres in size, and has incomplete perimeter data, especially for the first half of the 20th century (Syphard and Keeley 2016). The FRAP map of fire perimeters from fires that occurred between 1950 and 2018 shows that 30 recorded fires have occurred within 5 miles of the project site since the 1950s, which indicates that wildfires are also likely to occur in the future (CAL FIRE 2018). Figure 3.15-2, Fire History and Burn Frequency, shows a map of wildfires that have occurred within 5 miles of the project site, including fires in both El Dorado County and Sacramento County. Three fires have burned onto portions of the project site: 1959 Dunlap Fire (299 acres, unknown cause); 1992 SMUD #1 Fire (1,178 acres, caused by a downed powerline); and 2001 Payen Fire (302 acres, unknown cause).

Adjacent Land Uses

Adjacent land uses include the existing El Dorado Hills Business Park and the John Adams Academy Charter school approximately 950 feet to the north, separated by undeveloped land immediately north of the project site; the Blackstone residential community within the Valley View Specific Plan to the east across Latrobe Road; undeveloped land designated for rural residential, a vacant site owned by the El Dorado Union High School District immediately to the south, and industrial uses approximately 0.3-mile to the south; and land designated for residential, open space and park uses within the Carson Creek Specific Plan immediately to the west, as shown on Figure 2-2 in Chapter 2, Project Description.



SOURCE: ESRI Imagery 2023; CalFire 2023; Open Street Map 2019

DUDEK

0 0.75 1.5 Miles

FIGURE 3.15-2

Fire History and Burn Frequency

Creekside Village Specific Plan EIR

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Fire Protection

In addition to CAL FIRE and the U.S. Fire Service, 13 local fire protection districts serve the county. There are mutual aid agreements between most of the agencies to ensure that adequate manpower and equipment can be provided when a fire occurs (El Dorado County 2003). The project site is within the service area of EDH Fire (L. Hobert, pers. comms. 2023). EDH Fire provides fire suppression, emergency medical services, special and technical rescue, hazardous materials mitigation, fire prevention, public education, disaster preparedness, and support to many programs within the communities of El Dorado Hills, Rescue, and Latrobe. In addition to these areas, EDH Fire has a shared service agreement with the Rescue Fire Protection District. This equates to a total of 112.2 square miles and a population of 49,000 protected by EDH Fire (EDHFD 2022). EDH Fire participates in the Master Mutual Aid System for the State of California, which provides staff and mechanical assistance throughout the state when needed.

EDH Fire does not have adopted response times. The County General Plan identifies minimum levels of service for fire districts (see Section 3.11.2). The service levels presented in the General Plan include an 8-minute response time to 80% of the population for Community Regions and a 15 to 45-minute response time for Rural Centers and Rural Regions (El Dorado County 2015). The project site is located within a Community Region and is designated for Research & Development (R&D) in the County's General Plan (El Dorado County 2015). A review of historical Google Earth aerial imagery indicates that the project site has never been developed. The area surrounding the project site consists of a mix of single-family subdivisions, research and development business park, and vacant land. Surrounding zoning and General Plan land use designations include land zoned and designated R&D for the El Dorado Hills Business Park to the north; land zoned for the Valley View Specific Plan and designated Adopted Plan (AP) for the Blackstone residential community to the east; land zoned Carson Creek Specific Plan and designated AP to the west; land zoned Estate Residential (RE-10) and designated Rural Residential (RR) for land uses to the southwest; and land zoned and designated Industrial to the south (El Dorado County 2015).

EDH Fire serves the community from five stations (one housing the administration offices) with ten engines, one air/light support unit, two water tenders, one ladder truck, and two medic units. EDH Fire is staffed with approximately 65 firefighters and paramedics and a total of approximately 83 personnel (including chief officers, fire prevention specialists, training officers, fleet maintenance personnel and administrative staff) and currently operates at a ratio of approximately 1.64 fire staff per 1,000 residents or approximately one fire station per 11,000 residents (Appendix J). In January 2008, EDH Fire opened its fourth fire station (Station 87) located at 4680 Golden Foothill Parkway in the El Dorado Hills Business Park (Winn Communities 2023). Station 87 is the closest fire station to the project site and would likely be the first to respond in the event of an emergency. The project site is located approximately 1.5 miles southeast of Station 87 and is within the response area of Station 87. The next closest fire station is Station 85 (1050 Wilson Blvd), located approximately 4 miles north of the project site. All fire stations, including Station 87, are staffed with firefighter / paramedic personnel 24 hours a day, 7 days a week. Station 87 houses a variety of equipment available for responses including two Type 1 engines, one Type 3 engine, one utility truck, one patrol truck, and a decontamination trailer (EDHFD 2023).

The EDH Fire service area is located near the western border of the county and encompasses nearly 78.8 square miles of the unincorporated community of El Dorado Hills, including the Latrobe area, with a total population of approximately 52,500 residents (EDHFD 2020).

3.15.2 Regulatory Setting

Federal Regulations

National Fire Protection Association Codes, Standards, Practices, and Guides

National Fire Protection Association (NFPA) codes, standards, recommended practices, and guides ("NFPA Documents") are developed through a consensus standards development process approved by the American National Standards Institute. This process brings together professionals representing varied viewpoints and interests to achieve consensus on fire and other safety issues. NFPA standards are recommended guidelines and nationally accepted good practices in fire protection but are not law or "codes" unless adopted as such or referenced as such by the California Fire Code or the Local Fire Agency.

The 2022 California Code has adopted specific NFPA codes; therefore, the County follows state codes (see below) unless otherwise specified as an exclusion.

International Fire Code

The International Fire Code (IFC) addresses a wide array of conditions hazardous to life and property including fire, explosions, and hazardous materials handling or usage (although not a federal regulation, but rather the product of the International Code Council). The IFC places an emphasis on prescriptive and performance-based approaches to fire prevention and fire protection systems. Updated every 3 years, the IFC uses a hazards classification system to determine the appropriate measures to be incorporated in order to protect life and property (often times these measures include construction standards and specialized equipment). The IFC uses a permit system (based on hazard classification) to ensure that required measures are instituted. The current version of the IFC is 2021.

State Regulations

California Government Code

California Government Code Sections 51175 through 51189 provide guidance for classifying lands in California as fire hazard areas and requirements for management of property within those lands. CAL FIRE is responsible for classifying FHSZs based on statewide criteria and makes the information available for public review. Local agencies must designate, by ordinance, Very High FHSZs within their jurisdiction based on the recommendations of CAL FIRE.

Section 51182 sets forth requirements for maintaining property within fire hazard areas, such as defensible space, vegetative fuels management, building materials and standards. Defensible space consisting of 100 feet of fuel modification on all sides of a structure, but not beyond the property line (unless findings conclude that additional fuel modification is necessary to reduce risk) is required for all habitable structures in an SRA or Very High FHSZs. Clearance on adjacent property shall only be conducted following written consent by the adjacent owner. Further, trees must be trimmed from within 10 feet of the outlet of a chimney or stovepipe, vegetation near buildings must be maintained, and roofs of structures must be cleared of vegetative materials. Exemptions may apply for buildings with an exterior constructed entirely of nonflammable materials.

California Code of Regulations

Title 14, Division 1.5, Chapter 7, Subchapter 3, Fire Hazard, in the California Code of Regulations (CCR) also sets forth requirements for defensible space if the distances specified above cannot be met. For example, options that have similar practical effects include noncombustible block walls or fences, 5 feet of noncombustible material horizontally around the structure, installing hardscape landscaping or reducing exposed windows on the side of the structure with a less-than-30-foot setback, or additional structure hardening such as those required in the California Building Code (CBC), CCR Title 24, Part 2, Chapter 7A.

California Building Code

The CBC is contained within Title 24, Parts 1-12 of the CCR. Chapter 7A of the CBC applies to building materials, systems and/or assemblies used in the exterior design and construction of new buildings located within a FHSZ or WUI area. The purpose of this chapter is to establish minimum standards for the protection of life and property by increasing the ability of a building located in any FHSZ within the SRA or any WUI area to resist the intrusion of flames or burning embers projected by a vegetation fire to help reduce loss of property. New buildings located in such areas shall comply with the ignition-resistant construction standards outlined in Chapter 7A, which include 704A Ignition-Resistant Construction, 705A Roofing, 706A Vents, 707A Exterior Covering, 708A Exterior Windows, Skylights and Doors, 709A Decking, and 710A Accessory Structures.

California Fire Code

The California Fire Code (CFC) is contained within Title 24, Chapter 9 of the CCR. Based on the IFC, the CFC establishes the minimum requirements consistent with nationally recognized good practices to safeguard the public health, safety and general welfare from the hazards of fire, explosion or dangerous conditions in new and existing buildings, structures and premises, and to provide safety and assistance to fire fighters and emergency responders during emergency operations. Chapter 9 specifies where fire protection and life safety systems are required and shall apply to the design, installation, inspection, operation, testing and maintenance of all fire protection and life safety systems.

EDH Fire has adopted the 2022 CFC with several local amendments which are more restrictive than those described in the CFC.

SRA/VHFHSZ Fire Safe Regulations

The CCR, Title 14, Division 1.5, Chapter 7, Subchapter 2 "SRA/VHFHSZ Fire Safe Regulations" establishes 1) state minimum wildfire protection standards in conjunction with building, construction, and development in the SRA, and, after July 1, 2021, the Very High FHSZs, as defined in Government Code Section 51177(i), and 2) the future design and construction of structures, subdivisions and developments in the SRA and, after July 1, 2021, the Very High FHSZ shall provide for basic emergency access and perimeter wildfire protection measures as specified in the following articles. These standards shall provide for emergency access; signage and building numbering; private water supply reserves for emergency fire use; vegetation modification, fuel breaks, greenbelts, and measures to preserve undeveloped ridgelines. Subchapter 2 specifies the minimums for such measures.

The standards in this title shall apply to the proposed project, as the project site is located within an SRA in a WUI area.

California Public Resources Code

The California PRC also provides standards that address wildfire. Specifically, the PRC includes:

- PRC Section 4290 requires minimum fire safety standards related to defensible space that are applicable to state responsibility area lands and lands classified and designated as Very High FHSZs.
- PRC Section 4291 requires a reduction of fire hazards around buildings, requiring 100 feet of vegetation management around all buildings, and is the primary mechanism for conducting fire prevention activities on private property within CAL FIRE jurisdiction.

Fire Hazard Severity Zoning

CAL FIRE has mapped FHSZs in the county based on fuel loading, slope, fire weather, and other relevant factors as directed by PRC Sections 4201–4204, CCR Title 14, Section 1280, and Government Code Sections 51175–51189. FHSZs are ranked from moderate to very high and are categorized for fire protection within a FRA, SRA, or LRA under the jurisdiction of a federal agency, CAL FIRE, or local agency, respectively. The project site is located within SRA and is mapped as a Moderate FHSZ with a small area located in the southeast portion of the project site designated as a High FHSZ.

CAL FIRE Wildland Fire Management

The Office of the State Fire Marshal and CAL FIRE administer state policies regarding wildland fire safety. Construction contractors must comply with the following requirements stated in the PRC during construction activities at any sites with forest-, brush-, or grass-covered land:

- Earthmoving and portable equipment with internal combustion engines must be equipped with a spark arrestor to reduce the potential for igniting a wildland fire (PRC Section 4442).
- Appropriate fire-suppression equipment must be maintained from April 1 to December 1, the highest-danger period for fires (PRC Section 4428).
- On days when a burning permit is required, flammable materials must be removed to a distance of 10 feet from any equipment that could produce a spark, fire, or flame, and the construction contractor must maintain the appropriate fire suppression equipment (PRC Section 4427).
- On days when a burning permit is required, portable tools powered by gasoline fueled internal combustion engines must not be used within 25 feet of any flammable materials (PRC Section 4431).

California Strategic Fire Plan

The 2018 Strategic Fire Plan (Fire Plan) for California is a cooperative effort between the State Board of Forestry and Fire Protection and the California Department of Forestry and Fire Protection. By placing the emphasis on what needs to be done long before a fire starts, the Fire Plan looks to reduce firefighting costs and property losses, increase firefighter safety, and to contribute to ecosystem health. The Fire Plan reflects CAL FIRE's focus on (1) fire prevention and suppression activities to protect lives, property, and ecosystem services, and (2) natural resource management to maintain the state's forests as a resilient carbon sink to meet California's climate change goals and to serve as important habitat for adaptation and mitigation. It describes a vision for a natural environment that is more fire resilient; buildings and infrastructure that are more fire resistant; and a society that is more aware of

and responsive to the benefits and threats of wildland fire; all achieved through local, state, federal, tribal, and private partnerships (CAL FIRE 2018b). Fire Plan goals include the following:

1. Identify and evaluate wildland fire hazards and recognize life, property and natural resource assets at risk, including watershed, habitat, social and other values of functioning ecosystems. Facilitate the collaborative development and sharing of all analyses and data collection across all ownerships for consistency in type and kind.
2. Promote and support local land use planning processes as they relate to: (a) protection of life, property, and natural resources from risks associated with wildland fire, and (b) individual landowner objectives and responsibilities.
3. Support and participate in the collaborative development and implementation of local, county and regional plans that address fire protection and landowner objectives.
4. Increase fire prevention awareness, knowledge and actions implemented by individuals and communities to reduce human loss, property damage and impacts to natural resources from wildland fires.
5. Integrate fire and fuels management practices with landowner/land manager priorities across jurisdictions.
6. Determine the level of resources necessary to effectively identify, plan and implement fire prevention using adaptive management strategies.
7. Determine the level of fire suppression resources necessary to protect the values and assets at risk identified during planning processes.
8. Implement post-fire assessments and programs for the protection of life, property, and natural resource recovery.

Senate Bill 1241

In 2012, SB 1241 added Section 66474.02 to Title 7 Division 2 of the California Government Code, commonly known as the Subdivision Map Act. The statute prohibits subdivision of parcels designated very high fire hazard, or that are in an SRA, unless certain findings are made prior to approval of the tentative map. The statute requires that a county legislative body make three findings regarding fire hazard safety before approving a subdivision proposal. The three findings include: (1) the design and location of the subdivision and of lots are consistent with defensible space regulations found in PRC Section 4290-91, (2) structural fire protection services will be available for the subdivision through a publicly funded entity, and (3) ingress and egress road standards for fire equipment are met per any applicable local ordinance and PRC Section 4290. The project site is currently within a SRA.

Senate Bill 99 (Section 65302 of the Government Code)

State Planning and Zoning law requires that each city or county adopt a comprehensive general plan that includes a safety element to address hazards such as flooding and wildfire risks. It also requires the development of emergency and evacuation routes, and review on a specific schedule of not less than 8 years with updates, if necessary. SB 99 requires all cities and counties, upon revision of the housing element on or after January 1, 2020, to review and update the safety element to include information identifying residential developments in hazard areas that do not have at least two emergency evacuation routes.

Electric Tariff Rule 20

The California Public Utilities Commission (CPUC) instituted the current utilities undergrounding program in 1967. It consists of two parts. The first part, under Tariff Rules 15 and 16, requires new subdivisions (and those that were already undergrounded) to provide underground service for all new connections. The second part of the program, under Tariff Rule 20, governs both when and where a utility may convert overhead lines to underground facilities, and who shall bear the cost of the conversion (CPUC 2020a).

Local Regulations

El Dorado County General Plan

The El Dorado County General Plan was adopted in 2004; the last amendment to the General Plan was December 10, 2019 (El Dorado County 2019). The following goals, objectives, and policies related to wildfire risk are included in the Public Services and Utilities Element and Public Health, Safety, and Noise Element and would be applicable to the proposed project.

Goals and policies related to emergency response are listed in Section 4.13, Public Services and Recreation.

Public Services and Utilities Element

Goal 5.1: Provide and maintain a system of safe, adequate, and cost-effective public utilities and services; maintain an adequate level of service to existing development while allowing for additional growth in an efficient manner; and, ensure a safe and adequate water supply, wastewater disposal, and appropriate public services for rural areas.

Objective 5.1.2: Ensure through consultation with responsible service and utility purveyors that adequate public services and utilities, including water supply, wastewater treatment and disposal, solid waste disposal capacity, storm drainage, fire protection, police protection, and ambulance service are provided concurrent with discretionary development or through other mitigation measures provided, and ensure that adequate school facilities are provided concurrent with discretionary development to the maximum extent permitted by State law. It shall be the policy of the County to cooperate with responsible service and utility purveyors in ensuring the adequate El Dorado County General Plan Public Services and Utilities Element July 2004 (Amended December 2015) Page 91 provision of service. Absent evidence beyond a reasonable doubt, the County will rely on the information received from such purveyors and shall not substitute its judgment for that of the responsible purveyors on questions of capacity or levels of service.

Policy 5.1.2.1: Prior to the approval of any discretionary development, the approving authority shall make a determination of the adequacy of the public services and utilities to be impacted by that development. Where, according to the purveyor responsible for the service or utility as provided in Table 5-1, demand is determined to exceed capacity, the approval of the development shall be conditioned to require expansion of the impacted facility or service to be available concurrent with the demand, mitigated, or a finding made that a CIP project is funded and authorized which will increase service capacity.

Policy 5.1.2.2: Provision of public services to new discretionary development shall not result in a reduction of service below minimum established standards to current users, pursuant to Table 5-1. The following Levels of Service shall apply to the review of discretionary projects.

Table 5-1. Minimum Levels of Service[4]

	Community Region	Rural Center and Rural Region
Fire district response	8-minute response to 80% of the population	15 to 45-minute response

Goal 5.7: Adequate and comprehensive emergency services, including fire protection, law enforcement, and emergency medical services.

Objective 5.7.1: Ensure sufficient emergency water supply, storage, and conveyance facilities are available, and that adequate access is provided for, concurrent with development.

Policy 5.7.1.1: Prior to approval of new development, the applicant will be required to demonstrate that adequate emergency water supply, storage, conveyance facilities, and access for fire protection either are or will be provided concurrent with development.

Public Health, Safety, and Noise Element

Goal 6.1: A coordinated approach to hazard and disaster response planning.

Objective 6.1.1: The El Dorado County Multi-Jurisdictional Hazard Mitigation Plan shall serve as the implementation program for this Goal.

Policy 6.1.1.1: The El Dorado County MJHMP shall serve as the implementation program for the coordination hazard planning and disaster response efforts within the County and is incorporated by reference to this Element. The County will ensure that the MJHMP is regularly to keep pace with the growing population.

Objective 6.1.2: Expand community resilience to support effective emergency response and recovery during and after emergency events.

Policy 6.1.2.1: Support an emergency mass evacuation and sheltering plan that prioritizes the needs of at-risk, vulnerable, and disadvantaged people and individuals with disabilities, access and functional needs, and other special needs by providing meaningful opportunities in emergency planning efforts.

Goal 6.2: Minimize fire hazards and risks in both wildland and developed areas.

Objective 6.2.1: All existing and new development and structures shall meet "defensible space" requirements to minimize wildland fire hazards.

[4] Table 5-1 from the El Dorado County General Plan has been modified to omit rows unrelated to wildfire.

Policy 6.2.1.1: Implement Fire Safe ordinance to attain and maintain defensible space through conditioning of tentative maps and in new development at the final map and/or building permit stage.

Policy 6.2.1.2: Coordinate with the local Fire Safe Councils, California Department of Forestry and Fire Protection (CAL FIRE), and federal and state agencies having land use jurisdiction in El Dorado County in the development of a countywide fuels management strategy.

Policy 6.2.1.3: Require all existing and new residential development in State Responsibility Areas (SRAs) and/or very high Fire Hazard Severity Zones (VHFHSZs) to enforce fire-resistant landscaping and defensible space requirements that meet or exceed Title 14, Code of California Regulations (CCR), Division 1.5, Chapter 7, Subchapter 2, Articles 1-5 (commencing with Section 1270) (State Minimum Fire Safe regulations) and Subchapter 3, Article 3 (commencing with Section 1299.01) (Fire Hazard Reduction around Buildings and Structures Regulations). Adequate compliance with these requirements shall be determined by the local Fire Protection Districts (FPDs) or other local fire agencies, as appropriate.

Policy 6.2.1.4: Require consistency with fire code and development standards that ensure adequate defensible space clearance around all existing and new structures in compliance with the California Fire Code, Public Resources Code Section 4291 (ember-resistant zone), Government Code Section 51175- 51188, CCR Title 14, Division 1.5, Chapter 7, Subchapter 3, Section 1299.03, and in the County Code of Ordinances Chapter 8.09.

Objective 6.2.2: Regulate development in areas of high and very high fire hazard as designated by the California Department of Forestry and Fire Protection Fire Hazard Severity Zone (FHSZ) Maps.

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

Policy 6.2.2.2: The County shall preclude development, including public facilities and essential services (see definition in the Background Information Report in Appendix B), in areas of high and very high wildland fire hazard or in areas identified as wildland-urban interface (WUI) communities within the vicinity of Federal lands that are a high risk for wildfire, as listed in the Federal Register Executive Order 13728 of May 18, 2016, unless such development can be adequately protected from wildland fire hazard, as demonstrated in a WUI Fire Safe Plan prepared by a qualified professional as approved by the El Dorado County Fire Prevention Officers Association. The WUI Fire Safe Plan shall be approved by the local FPD having jurisdiction and/or CAL FIRE. (Resolution 124- 2019, August 6, 2019)

Objective 6.2.3: Application of uniform fire protection standards to development projects by fire districts.

Policy 6.2.3.1: As a requirement for approving new development, the County must find, based on information provided by the applicant and the responsible FPD that, concurrent with development, adequate emergency and peak load water supply, water flow, fire access,

and firefighting personnel and equipment will be available in accordance with applicable State and local fire district standards to support fire suppression efforts.

Policy 6.2.3.2: As a requirement of new development, the applicant must demonstrate that adequate access exists, or can be provided to ensure that emergency vehicles can access the site and private vehicles can evacuate the area.

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

Policy 6.2.3.5: Identify actions to ensure noncompliant development meets current fire safe standards and road standards as defined in Title 14 CCR, Division 1.5, Chapter 7 Fire Protection, Subchapter 2, Articles 1-5, SRA Fire Safe Regulations through the WUI Fire Safe Plan review process and through collaboration with the FPDs and local fire agencies when reviewing Fire Protection Plans and provisions for new development.

Policy 6.2.3.6: All new development within an SRA or very high (VHFHSZs) shall prepare a Fire Protection Plan that complies with established fire safety standards. Ingress and egress to the new development will be constructed utilizing the most current State Fire Safe Regulations, Fire Code, and/or County Code that meets these minimum requirements. Key components of a Fire Protection Plan include:

1. risk analysis;
2. fire response capabilities;
3. fire safety requirements – defensible space, infrastructure, and building ignition resistance;
4. mitigation measures and design considerations for non-conforming fuel modification;
5. wildfire education, maintenance, and limitations; and
6. evacuation planning.

Existing development within an SRA or VHFHSZ can meet these requirements through retro-fitting and home hardening.

Policy 6.2.3.7: Enforce the most recent California Uniform Building Code Fire Code to safeguard life and property from the hazards of fires and explosions; dangerous conditions arising from the storage, handling, and use of hazardous materials and devices; and hazardous conditions in the use or occupancy of building or premises.

Objective 6.2.4: Reduce fire hazard through cooperative fuel management activities.

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

Policy 6.2.4.2: The County shall cooperate with CAL FIRE and local FPDs to identify opportunities for fuel breaks in zones of high and very high fire hazard either prior to or as a component

of project review and will support the FPDs in tracking grants to fund fire breaks and their long-term maintenance.

Policy 6.2.4.3: Require fuel modification around homes and subdivision developments in SRAs or VHFHSZs by assisting the local FPDs and other local fire agencies.

El Dorado County Code of Ordinances

Chapter 8.08 (Fire Prevention) of the County Code of Ordinances ("County Code") specifies limits on campfires, fireworks, smoking, and incinerators for all discretionary and ministerial developments.

Chapter 8.09 (Vegetation Management and Defensible Space) requires the removal of hazardous vegetation and combustible materials situated in the unincorporated areas of the county so as to reduce the potential for fire and to promote the safety and welfare of the community.

Section 8.09.070. - Duty to remove and abate hazardous vegetation and combustible material.

A. It shall be the duty of every owner, occupant, and person in control of any parcel of land or interest therein, which is located within the County to remove, or abate, all hazardous vegetation and combustible material, which constitutes a fire hazard and may endanger or damage neighboring property.
B. The owner, lessee or occupant of buildings, grounds, or lots within the County shall remove from such property and adjacent streets all waste, garbage, rubbish, weeds, hazardous vegetation or other combustible materials growing or accumulated thereon in accordance with the procedures and methods prescribed in this chapter and by the Enforcement Official.
C. Any home owners association (HOA), lighting and landscape district, subdivision development, special district, or other entity that has a developed and approved Wildland Fire Safe Plan in accordance with the County's General Plan requirement and CFC Chapter 49, shall be granted a reasonable amount of time to comply with this ordinance not to exceed five years from the date which this ordinance was approved and ratified by the Board of Supervisors (May 30, 2019).
D. Prior to the close of any real estate sales transaction within the County, the requirements for property owners to comply with the Vegetation Management Ordinance shall be disclosed to all potential property owners.
E. All improved parcels, shall comply with the following requirements:
    1. Maintain defensible space of 100 feet from each side and from the front and rear of the structure, but not beyond the property line except as provided in Paragraph 11. The amount of fuel modification necessary shall take into account the flammability of the structure as affected by building material, building standards, location, and type of vegetation. Fuels shall be maintained in a condition so that a wildfire burning under average weather conditions would be unlikely to ignite the structure. This paragraph does not apply to single specimens of trees or other vegetation that are well-pruned and maintained so as to effectively manage fuels and not form a means of rapidly transmitting fire from other nearby vegetation to a structure or from a structure to other nearby vegetation.
    2. Consistent with fuels management treatment objectives, steps should be taken to minimize erosion. For the purposes of this paragraph, "fuel" means any combustible material, including petroleum-based products and wildland fuels.
    3. A greater distance than that required under Paragraph 1 may be required by State law, local ordinance, rule, or regulation. Clearance beyond the property line may only be required if the State law, local

ordinance, rule, or regulation includes findings that the clearing is necessary to significantly reduce the risk of transmission of flame or heat sufficient to ignite the structure, and there is no other feasible mitigation measure possible to reduce the risk of ignition or spread of wildfire to the structure.

4. Clearance on adjacent property shall only be conducted following written consent by the adjacent landowner.
5. Remove that portion of a tree that extends within ten feet of the outlet of a chimney or stovepipe.
6. Maintain trees, shrubs, or other plants adjacent to or overhanging a building free of dead or dying wood.
7. Maintain the roof of a structure free of leaves, needles, or other vegetative materials.
8. A person is not required under this section to manage fuels on land if that person does not have the legal right to manage fuels, nor is a person required to enter upon or to alter property that is owned by any other person without the written consent of the owner of the property.
9. Cultivated and useful grasses and pastures shall not be considered a public nuisance. However, if the County's Enforcement Official determines it necessary to protect adjacent improved property from fire exposure, an adequate firebreak may be required.
10. The public and entities should be aware of rare plants areas, riparian areas, and raptor nesting trees on the property and try to avoid these sites.
11. Good neighbor and neighborhood protection policy including unimproved parcels. A 100-foot-wide strip of land around structure(s) located on an adjacent improved parcel (some or all of this clearance may be required on the adjacent improved parcel or the adjacent unimproved parcel depending upon the location of the structure on the improved parcel). For example, a structure could be within 70 feet of its property line. The adjacent property owner shall assist its neighbor by completing fuels management on another 30 feet to create a 100-foot strip of treated land.
12. Improved and unimproved parcels adjacent to all roadways that have been designated by the County Enforcement Official (or designee) to be necessary for the safe ingress and egress to the area served by the roadway or fire access easement and the current condition of fuels on the improved or unimproved parcel is assessed by the County Enforcement Official as an extra hazardous fire condition which must be treated or abated.

El Dorado Hills County Water District Ordinance 2022-01 (Fire Code)

EDH Fire has adopted the 2022 CFC with several local amendments which are more restrictive than those described in the CFC. EDH Fire updates its local fire code ordinance in conjunction with the triennial update to the CBC. Specific local amendments contained within the ordinance that may impact the project include the following:

- Fire apparatus access road design criteria (Section 503.2.1);
- Dead end roads and driveways (Section 503.2.5);
- Fire lane marking requirements (Section 503.3.1);
- Security gate design criteria (Section 503.6);
- Address identification criteria (Section 505.1);
- LP-Gas storage tank limits (Section 6104.2);
- Residential fire sprinkler system installation requirements (Chapter 80);
- Fire-Flow requirements for buildings (Appendix B);
- Fire Apparatus access road design criteria (Appendix D).

El Dorado Hills County Water District Ordinance 2023-01 (Unimproved Parcel Maintenance)

EDH Fire has adopted local regulations related to hazardous vegetation management on unimproved parcels located throughout the District. Specific provisions contained within the ordinance that may impact the project include the following:

- Hazardous vegetation maintenance on unimproved parcels that are one (1.0) acre in size or smaller**;**
- Hazardous vegetation maintenance on unimproved parcels over one-acre (1.01) in size or larger**;**
- Unimproved parcels known to contain, or that the property owner believes, may contain habitat for rare, threatened, or endangered plant or animal species**;**
- Duty of property owner to abate fire hazards on their property;
- Acceptable methods of clearance of hazardous vegetation and combustible materials**;**
- Reoccurring fire hazards**;**
- Penalties for violating the ordinance**.**

In addition, the County Fire Chiefs Association has created several fire protection standards, as permitted by the CFC, to clarify certain provisions of the code and their application locally (El Dorado County Fire Chiefs Association 2024).

The following fire protection standards may apply to this project:

- Standard B-001; Addressing of Buildings
- Standard B-002; Automatic & Manual Gates on Fire Access Roadways and Driveways
- Standard B-003; Emergency Apparatus Access Ways
- Standard D-003; Water Supplies for Suburban and Rural Firefighting
- Standard G-001; Fire Department Access & Clearances During Construction
- Standard H-005; Solar Photovoltaic Standard
- Standard R-001; Construction of Residential Buildings (EDH Fire-specific)

El Dorado County Design and Improvement Standards Manual

The County Design and Improvement Standards Manual (1990) discusses fire-related standards in Volume II: Design Standard for Subdivisions, Section 2: General Information and Criteria, Section 3: Streets, and Section 6: Fire Protection Requirements. The following standards are applicable to the proposed project:

i. Volume II: Design Standard for Subdivisions, Section 2: General Information and Criteria, Lands Subject to Hazards:
   a. Land subject to extreme wildfire hazards shall be modified by such corrective measures as may be required by the Planning Division, Planning Commission and/or the Board of Supervisors, from recommendations made by the California Department of Forestry, United States Forest Service, and structural fire protection districts.

ii. Volume II: Design Standards for Subdivisions, Section 3: Streets
   b. Fuel modification (thinning) may be required up to 100 feet from the edge of the roadway (on- site) by the Planning Director upon favorable recommendation from the fire protection agencies, based on the following criteria:

Fire Rating	When Length of Road is to Exceed
Extreme	500 feet
High	800 feet
Moderate	1,000 feet

iii. Volume II: Design Standard for Subdivisions, Section 6: Fire Protection Requirements

c. The following are considered minimum fire protection requirements and may be modified by the Planning Director with a favorable recommendation from the fire protection district. Such modification may include the increase or decrease of the minimum fire protection requirement standards dependent upon the unique needs of the servicing fire district.

i. Fire Protection Required

1. When division of land (minor or major) is proposed and is within a fire protection district, the minimum fire protection requirements must be met, unless modified by agreement between the subdivider and structural fire protection district and wildland fire protection agencies.
2. When a major subdivision (no matter the size of the lots) is proposed, it shall be within a structural fire protection district.

ii. Water Supply and Source Requirements for Fire Protection (Major and Minor Land Divisions, Five (5) or more parcels)

1. The supply system and source shall provide a minimum of 60,000 usable gallons of storage for 5 to 50 lots; 120,000 gallons for 51 to 100 lots; and 180,000 gallons for 100 or more lots. The water supply system and source shall be located at the direction of the Planning Director and based on comments received from the structural fire protection district,
    a. Where water distribution systems are not available, the following will be considered by the structural fire protection district:
        i. tanks;
        ii. reservoirs;
        iii. canals; and
        iv. other systems as may be approved by the structural fire protection district.
    b. Any of the above water supplies, or combinations thereof, may be required by the Planning Director with a favorable recommendation from the structural fire protection agency having the responsibility in that area.
    c. A facility for refilling fire trucks shall be provided for taking of water from the water supplies and shall conform to the standard drawings. The standard drawings may be modified by the fire protection district having the responsibility in that area where structural conditions require it.
    d. Fire hydrant locations shall be approved by the Fire Chief of the district providing the service, under Article 10, Section 10.301 of UFC.

El Dorado County Local Hazard Mitigation Plan

The County Local Hazard Mitigation Plan (LHMP) updates the County Multi-Hazard Mitigation Plan (El Dorado County 2018). The purpose of the LHMP is to guide hazard mitigation planning to better protect the people and property of

the County from the effects of hazard events. The LHMP serves as a tool to help decision makers direct mitigation activities and resources. It provides risk and vulnerability assessments for potential hazards (i.e., avalanche, dam failure, drought, earthquake, erosion, flood, seiche, severe weather/extreme temperatures, severe weather/ thunderstorms, wildfire, and subsidence) and develops mitigation strategies to reduce potential hazards.

The LHMP notes that wildfires may occur in all areas of the county, including the most populated areas of El Dorado Hills, Cameron Park/Shingle Springs, Placerville, Camino/Pollock Pines, and South Lake Tahoe. The county also has a large area of National Forest Service land that is also vulnerable to wildfire. The LHMP includes a general wildfire vulnerability assessment for the County, stating that wildfire is a priority hazard because wildfire disaster events have impacted the County on numerous occasions, and that the likelihood of future wildfire occurrence is highly likely. Due to its high fuel load and long, dry summers, most of the county continues to be at risk from wildfire. Mitigation strategies for wildfire that may be applicable to the project include strategies for fuel reduction, since fire itself, weather, and topography cannot be mitigated. The LHMP recommends that development in areas identified as high wildfire risk areas should be planned appropriately, given previous occurrences of fire and fire behavior in the state, and that planning for evacuation routes should be considered with any new developments.

El Dorado County Emergency Operations Plan

The El Dorado County Office of Emergency Services (OES) updates and maintains the County's Emergency Operations Plan (EOP). The EOP is the principal guide for the County and other local government entities to prevent, prepare, respond, and recover from emergencies and disasters affecting the county. Secondarily, this plan is intended to facilitate multi-agency and multi-jurisdictional coordination, particularly between local, state, and federal agencies in emergency operations. The Standardized Emergency Management System (SEMS) is the organizational framework for emergency response and operations in the County, and the EOP complies with the National Incident Management System (NIMS) and the National Response Framework (NRF). The plan is also integrated with the State Emergency Response Plan, and California's mutual aid system.

The EOP establishes the policies, responsibilities, and procedures necessary to protect public health and safety, property, infrastructure, and the environment from the effects of emergencies and disasters. The EOP also establishes the operational concepts and procedures associated with both field responses and Emergency Operations Center (EOC) activities. Project residents would be required to follow the evacuation warnings or orders issued by OES. The protocol for evacuating a specific area is usually a joint effort between the County Sheriff and another authority such as CAL FIRE during a wildfire response. Evacuation warnings or orders issued by the OES will route through the EOC Operations Section, Law Branch, or OES Duty Officer if the EOC is not activated.

Creekside Village Specific Plan

If the project is approved and the CVSP is adopted, project design elements outlined in the CVSP would apply (CVSP 2023). The CVSP includes its own unique site development standards that customize the requirements contained in the County's Design and Improvements Standards Manual. It should be noted that where conflicts exist between the CVSP and the County Ordinances and Design Standards, the CVSP standards shall govern. None of the CVSP standards are less restrictive than the state and local standards identified herein. The CVSP does not contain specific policies related to wildfire, emergency response or evacuation. As such, County and state regulations discussed above would apply.

As required by the General Plan, a Fire Safe Plan has been prepared for the project that has been reviewed and approved by CAL FIRE and the EDH Fire. The plan demonstrates that development can be adequately protected from wildfire fire hazards (Appendix J).

3.15.3 Thresholds of Significance

Thresholds of significance are used to determine the significance of a project's environmental effects. Per Section 15064.7 of the CEQA Guidelines, a threshold is an identifiable quantitative, qualitative or performance level of particular environmental effect, non-compliance with which means the effect will normally be determined to be significant and compliance with normally means the effect will be determined to be less than significant. A significant impact would occur if development of the proposed project would do any of the following:

- Substantially impair an adopted emergency response plan or emergency evacuation plan.
- Exacerbate wildfire risks due to slope, prevailing winds, and other factors thereby exposing project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire.
- Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment.
- Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or changes in drainage.

3.15.4 Impacts and Mitigation Measures

Methodology

Maps and reports prepared by CAL FIRE and for the proposed CVSP were reviewed to determine the project's potential risk related to wildfire. The potential for the project to be impacted by wildfire was determined qualitatively by comparing the existing conditions present on the site. In determining the level of significance, this analysis assumes the proposed project would comply with relevant state and local ordinances and regulations, as well as the County General Plan policies presented above. Note that, under CEQA, the effects of the existing environment upon a proposed project are generally not a project impact. A project impact occurs when direct or indirect changes to the environment would occur as a result of implementation of the project.

This section is based primarily on a review of applicable fire planning documents prepared for the proposed project and publicly available data, including but not limited to: CAL FIRE Mapping Data for Fire History and Fire Hazard Severity Zones (CAL FIRE 2018; CAL FIRE 2022), and the Fire Safe Plan (included as Appendix J).

As described in Chapter 2, Project Description, the project includes two development options. The first option would be to convert the 1,8-acres of neighborhood commercial to park uses if neighborhood commercial is not adopted as part of the Specific Plan. The second option proposes construction of up to 768 age-restricted units and 150 conventional homes. Where applicable, the impact analysis below indicates if a proposed option would result in a change in impact significance or require new mitigation.

Project Impacts

Impact 3.15-1. The proposed project would not impair an adopted emergency response plan or emergency evacuation plan.

The CVSP is proposing to develop 918 residential units, parks and a small 1.8-acre neighborhood commercial use that could be converted to park if not approved as part of the project on a site that is undeveloped grasslands within an area designated as a Moderate FHSZ within an SRA.

Emergency Response

The project would add population and structures to EDH Fire's responsibility area, which would increase demand for emergency response and related services. The project would result in a maximum of 918 new residential units, for a total of approximately 2,314 new residents at buildout (see Chapter 2, Project Description). This would result in an increase in demand for fire protection services to serve the project site. The nearest station to the project site is Fire Station 87, approximately 1.5 miles to the southeast. EDH Fires strives to obtain an initial response time of 6 minutes or less 90% of the time in urban/suburban areas (Citygate 2016). The County General Plan Policy 5.1.2.1 sets a minimum level of service for fire response at 8-minutes to 80% of the population, and 15-to-45-minute response time to rural centers and rural regions (El Dorado County 2019a). Emergency response from Fire Station 87 would be anticipated to be approximately between 3.2 minutes and 5 minutes, which is within the response time goal for Station 87 and the minimum level of service set by the County.

Additionally, consistent with General Plan Policy 5.1.2.3, the project would be required to pay development impact fees to cover the costs of facilities and equipment necessary to mitigate the impacts of new development and to ensure that existing service levels are not compromised (El Dorado County 2024; EDHFD 2013). Potential impacts to fire protection services and emergency response are further discussed in Section 3.11, Public Services and Recreation.

Evacuation

As previously discussed, the project site is located within the County EOP area (El Dorado County 2023). The EOP discusses evacuation, and notes that the protocol for evacuating a specific area is usually a joint effort between the Sheriff and another authority such as CAL FIRE during a wildfire response. Evacuation warnings or orders issued by the County's OES would be routed through the County's EOC Operations Section, Law Branch, or OES Duty Officer if the EOC is not activated. Project residents and surrounding areas could be subject to evacuation orders issued by the OES in the event of a wildfire emergency. The County does not publicly distribute established evacuation routes or its community evacuation plans, and the appropriate evacuation routes would be indicated on a case-by-case basis in the event of a wildfire emergency depending on the location, current conditions, and other factors. There are not established evacuation timeframe thresholds set by the County or the state that must be met to ensure the project would not impair an adopted emergency response plan or evacuation plan, thus evacuation has been evaluated qualitatively.

[5] When applying the nationally recognized RAND Corporation formula used by the Insurance Services Office (ISO) Public Protection Classification Program's Response Time Standard: (T=0.65 + 1.7(D), where T=time and D=distance). Travel distance is derived from Google Maps data. The response travel time formula discounts speed for intersections, vehicle deceleration and acceleration, and does not include turnout time.

Although the County does not publish established evacuation routes, Latrobe Road is an existing two-lane arterial road that provides direct regional access to Highway 50 to the north and from U.S. Highway 50 south past the project site to Highway 16, which could serve as a potential evacuation route to access larger roadways. As evaluated in the project's Fire Safe Plan, the proposed project is not expected to impair evacuation procedures along Latrobe Road, as there are no modifications proposed that would impede access or evacuation (Appendix J). The eastern boundary of the project site is located adjacent to Latrobe Road, south of the El Dorado Hills Business Park and approximately 3 miles south of U.S. Highway 50. As shown in Figure 11 in the Fire Safe Plan (Appendix J), the project includes five emergency access points that would provide evacuation access in the event of a wildfire: access points A, B, and C to the east providing access to Latrobe Road, access point D to the west providing access to the Heritage Master Plan Community, and access point E to the northwest connecting to the Business Park located to the northwest (Appendix J). Access point E is an Emergency Vehicle access road that would be constructed as part of the project, as described in Chapter 2, Project Description and shown on Figure 2-9. All improvements would be constructed in accordance with applicable County Code requirements regarding egress and ingress. Additionally, three potential Temporary Areas of Refuge may be available within the project at the village and neighborhood parks if OES determines that evacuating from the area is not possible (see Figure 11 of the Fire Safe Plan for an area map with the available evacuation routes and temporary refuge areas for the project). The project would adhere to emergency access requirements specified in the CVSP and required by EDH Fire standards. Adequate road design for emergency vehicle access and private vehicle evacuation would be provided, as required under General Plan Policy 6.2.3.2 and Fire Department Standard #B-003. Additionally, Class I bike paths and enhanced trails would include design features that allow fire and emergency vehicle access. Per the CVSP, access features such as the use of gates or bollards require review and approval by EDH Fire. The project has been designed to meet EDH Fire restrictions and approval considerations noted in the Fire Safe Plan to ensure adequate emergency response and evacuation procedures, or on-site shelter areas are in place in the event of a wildfire. The Fire Safe Plan thus concludes that, based on the multiple potential evacuation routes in different directions from the project site, road capacity, limited project size, and mitigation measures the project would not impair evacuation. Additionally, the project would not block, limit, alter, or impact routes utilized for evacuation.

Active Adult Option

As explained in Section 3.9, Land Use, Population and Housing, the Active Adult option is assumed to have an approximately 33.5% reduction in future residents, which would reduce the number of residents having to evacuate in the event of a wildfire. With active adult units, the project would not be expected to pose unique evacuation concerns that might be present for other types of age-restricted developments, such as an assisted-living facility with a substantial non-ambulatory portion of the population. Therefore, because the Active Adult option would slightly reduce the number of residents needing to evacuate in the event of an emergency and would not introduce new impacts, the impacts would generally be expected to be reduced as compared to the proposed project and remain less than significant.

Because the proposed project would be within the response area of EDH Fire, would not result in any road closures, and would be designed in accordance to state and local fire and emergency access requirements, which includes site plan review by EDH Fire and payment of County development fees, ensuring that the project would not impair an adopted emergency response plan or evacuation procedures in the project area, impacts would be **less than significant**.

Impact 3.15-2. The proposed project could exacerbate wildfire risks exposing future residents to potential wildfire hazards.

Wildfire Risk

The project site is located within a WUI, which is identified as a zone of transition between wildland (undeveloped/unoccupied/"natural" land) and urban development. A WUI presents an area of concentrated human-environmental conflicts and risks, including the loss of property and lives to wildfire. The number of wildfires in the WUI has increased over the past few decades due to both the increase in development and human activity in the WUI as well as changes in climatic conditions (Schug 2023). The proposed project would develop residential and a small commercial use within a Moderate and High FHSZ in a WUI area where approximately 30 recorded wildfires have occurred within a 5-mile radius, and wildfires burned onto the project site in 1959, 1992, and 2001 (CAL FIRE 2018). Construction and operation of the project within the WUI would increase human activities and potential ignition sources, which may increase the chances of a wildfire and spread of wildfire which could exacerbate wildfire risks by increasing the number of people and structures exposed to risk of loss, injury, or death due to wildfire.

The project includes the development of up to 918 dwelling units, parks, open space, neighborhood commercial, and roadway infrastructure on undeveloped land in an SRA area mostly within a Moderate FHSZ (the southeastern edge of the project site is located in a High FHSZ). The project site is surrounded by land with Moderate, High, and Very High FHSZ classifications, with a High FHSZ located adjacent to the south, and the nearest Very High FHSZs located approximately 0.5 miles to the east (Figure 3.15-1, Fire Hazard Severity Zones) (CAL FIRE 2024). Although the project site is located within a Moderate and High FHSZ within a WUI area, based on a review of site and local conditions the Fire Safe Plan prepared for the project determined the project site has a low wildfire risk (Appendix J). The proposed project also includes installation of a fire hydrant network, per the County's Fire Safe Regulations.

Existing potential ignition sources near the project site include surrounding roadways and vehicles, overhead transmission lines, off-site commercial areas, off-site residential neighborhoods, and other arson-related ignitions. Construction and operation of the project would introduce new potential sources of ignition to the project site, including increased human activity and additional vehicles traveling on internal and external roads.

Slopes

Topography and slope variations can influence surface winds, which impact wildfire behavior. Topography that is typically associated with creating unusual weather conditions and influencing wildfire behavior includes steep slopes, chutes, chimneys, or saddles. As discussed in Section 3.15.1, the project site is located in the western foothills of the Sierra Nevada Mountain Range with relatively flat to moderately sloped terrain. While the topography of the project site is variable, the majority of the site includes slope gradients of less 20% slopes (Appendix J), with the steepest slopes located along the side-slopes of some of the drainages and an isolated hill within the southeastern corner of the project site.

While there are steeper slopes present on site, these areas would remain undeveloped and maintained as park or open space areas. Additionally, slopes areas along intermittent drainages, seasonal wetlands, vernal pools and ponds within proposed open space are largely associated with wetland and riparian habitat which presents less flammable vegetation due to high moisture content. Wildfires typically burn up slopes faster and more intensely than along flat ground and steeper slopes result in a faster moving fire. Moderate or steep slopes greater than 20%, are considered a higher risk for wildfires. Fires also travel in the direction of the ambient wind, which usually flows uphill. Development is proposed within the flatter areas of the site and site grading would remove some of the steeper slopes.

Weather/Wind

As discussed in Section 3.15.1, the project area is subject to seasonal variations and weather conditions that may be favorable to wildfire spread. However, the project would not create new slopes that would affect wind speeds or otherwise alter or exacerbate wildfire behavior.

Vegetation/Other Factors

Variations in vegetative cover type and species composition have a direct effect on fire behavior. The project site is currently undeveloped, and the vegetation community is dominated by annual grasslands, which present an existing fuel source and readily ignitable fuels during the dry season. While the project would convert readily ignitable fuels to buildings and maintained landscaped areas, the project site would be exposed to large areas of naturally vegetated open space to the south and east.

Overhead electrical transmission lines are located along Latrobe Road, as described in Section 3.15.1. Faulty power lines have been known to result in igniting wildfires. Although the project's electrical infrastructure would be placed underground and would not have the potential to ignite a wildfire, the project would place new residential structures in an area with existing overhead transmission lines; however, CEQA does not consider how existing hazards or conditions might impact a project's users or residents, unless the project might exacerbate existing environmental hazards. The project would not exacerbate any risk from existing overhead transmission lines.

As noted above, a majority of the proposed development would be located within the flatter areas of the project site and would replace existing grassland with irrigated landscape and buildings constructed to current state and local building and fire codes to further minimize the loss of structures in the event of a wildfire. However, the project site is located within an area mapped by CAL FIRE as within a Moderate and High FHSZ and based on the history of wildfires in the area, approximately 30 recorded fires have occurred within 5 miles of the project site since the 1950s, and three fires have burned portions of the site: the 1959 Dunlap Fire, the 1992 SMUD #1 Fire, and the 2001 Payen Fire (CAL FIRE 2018). Due to the increasing threat of wildfires and loss of property and human lives associated, in part, with development within the WUI, the project including the Active Adult option could exacerbate wildfire risk and expose future residents to potential wildfire hazards by adding increased population and human activities within a WUI area designated primarily as Moderate with a small portion designated as a High FHSZ. Although, the Active Adult option is assumed to have an approximately 33.5% reduction in future residents, which would reduce the number of residents that could be exposed to wildlife hazards. The proposed project would develop residential uses within an area designed as Moderate with a small portion designated as a High FHSZ in a WUI Area where wildfires have occurred. Given the introduction of these land uses into an undeveloped area that has experienced wildfire and is considered to have an existing fire risk, there is the potential for the project including the Active Adult option to exacerbate fire risks through an accidental ignition resulting in the exposure of future residents to the risk of wildfire hazards. Therefore, impacts would be **potentially significant.**

Construction

Construction activities could also exacerbate wildfire risks due to the use of flammable materials, tools, and equipment capable of generating a spark and igniting a wildfire. During construction activities, heat or sparks from construction equipment and vehicles have the potential to ignite vegetation and start a fire. Construction sites also store and use of flammable hazardous materials. The risk of wildfire would be especially high during weather events

that include low humidity and high wind speeds. The following construction-related equipment has the potential to generate heat or sparks that could result in wildfire ignition:

- Earth-moving and excavating equipment (i.e., tractors, graders, mowers, bulldozers, backhoes, cranes, excavators, trucks, and vehicles) – heated exhaust or sparks in contact with vegetation may result in ignition.
- Chainsaws and other small gas-powered equipment/tools – may result in vegetation ignition from overheating, sparks, fuel leak, etc.
- Welders – open heat source may result in metallic sparks coming into contact with vegetation.
- Wood chippers – include flammable fuels and hydraulic fluid that may overheat and spray onto vegetation with a hose failure.
- Grinders – sparks from grinding metal components may land on a receptive fuel bed.
- Torches – heat source, open flame, and resulting heated metal shards may come in contact with vegetation.

The potential risk of wildfire ignition and spread associated with construction activities can be managed so that the potential for vegetation ignition is reduced. In addition, pre-planning and construction personnel fire awareness, reporting, and suppression training can lower the probability of ignition, and increase the probability that fire can be controlled and extinguished in its early stages. Data indicates that 95% of all wildfire ignitions are controlled during an initial attack (Smalley 2008). The project would be required to comply with County, state and EDH Fire requirements for construction activities in hazardous fire areas, including fire safety practices, to reduce the possibility of fires during construction activities. To reduce the risk of wildfires spreading to nearby buildings, EDH Fire requires all unimproved properties to comply with Ordinance 2023-01, which requires the abatement of accumulated weeds, grasses, shrubs, and other hazardous vegetation and combustible materials.

Additionally, measures that would help reduce construction-related wildfire impacts include having adequate water available to service construction activities, implementing a construction-phase fire prevention plan, providing proper wildfire awareness, reporting, and suppression training to construction personnel, and requiring that all construction-phase components of the fuel modification be fulfilled prior to delivery of combustible materials/lumber to the project site. Even with adherence to the required construction best management practices and County requirements, construction activities require the use of equipment that could spark a fire, especially during windy days and the hot, dry summer and fall months (fire season). Because construction activities associated with the installation of infrastructure for the project including the Active Adult option may exacerbate fire risk in the project area, the impact is considered **potentially significant**.

Operation/Maintenance

While the project is located mostly in a Moderate FHSZ, due to its location within an SRA and a WUI, the project is required to be designed, constructed, and maintained in compliance with applicable local, regional, state, and federal regulations (see Section 3.15.2) related to fire safety, emergency access, and evacuation, as well as building materials, setbacks, and defensible space requirements for development in fire hazard areas. The CVSP does not include specific wildfire safety or risk reduction policies, requirements or development standards that address building requirements or fuel management requirements. Instead, the project would be required to adhere to federal, state and local requirements. These rules, regulations, and policies included in Section 3.15.2 outline

strategies for development in the WUI and fire hazard areas to reduce the risk of wildfire damage and losses, including but not limited to:

- Proposed structures would be required to be built to the standards of Chapter 7A of the CBC, which applies to building materials, systems and/or assemblies used in the exterior design and construction of new buildings located within a FHSZ or WUI area. New buildings located in such areas shall comply with ignition-resistant construction standards, including 704A Ignition-Resistant Construction, 705A Roofing, 706A Vents, 707A Exterior Covering, 708A Exterior Windows, Skylights and Doors, 709A Decking, and 710A Accessory Structures.
- All roads serving the project shall meet the emergency vehicle access requirements of the California Code of Regulations Title 24 – Part 9 (California Fire Code).
- The County General Plan and County Code require that a Fire Safe Plan prepared by a qualified professional be prepared for the project and shall be approved by EDH Fire. The Fire Safe Plan shall demonstrate that the development can be adequately protected from wildland fire hazard, including requirements for adequate emergency water flow, emergency access, and firefighting personnel and equipment will be available. The Fire Safe Plan prepared for the project has been included as Appendix J and explains how the project is consistent with the County fire safety policies and regulations and has been reviewed and approved by CAL FIRE and EDH Fire.
- Vegetation management requirements associated with the provision of defensible space and hazard abatement shall be implemented in accordance with California Government Code Section 51182 and California Fire Code Section 4903, County Code Chapter 8.09 (Vegetation Management and Defensible Space), County Ordinance 2023-01 (Unimproved Parcel Maintenance). The project shall include adequate defensible space within 100 feet of all buildings and the establishment of a Wildfire Fuel Reduction Zone (WFRZ) for all lands located within the Open Space Buffer (CV-OS2). Offsite fuel modification southwest of the project site would be the responsibility of neighboring property owner(s), per County ordinance 2023-01. Maintenance of defensible space and the WFRZ shall be the responsibility of the landowner and the Homeowner's Association (HOA) or Community Service District (CSD) established for the project and in accordance with CAL FIRE, EDH Fire, and El Dorado County requirements. The WFRZ shall extend from the property line of the adjacent residential or commercial lot out 85-feet, or to the boundary with CV-OS1, whichever is less, to ensure that adequate defensible space is provided for the building. The WFRZ shall be established and accepted by EDH Fire prior to the issuance of the first building construction permit issued by the County. Maintenance of the WFRZ shall be the responsibility of the landowner prior to the transfer of the obligation to the HOA/CSD and shall be completed prior to May 1st each year unless otherwise ordered to complete this work earlier by EDH Fire due to drought or other fire conditions being present. (See Figure 14 and Section 6.4 of the Fire Safe Plan for additional details [Appendix J]).

While development of the site would introduce new potential ignition sources to the project site, the site would be largely converted from readily ignitable fuels to structures, paved roads, and landscaped areas, consisting of ignition resistant building materials and an ignition-resistant plant palette. The CVSP does not include a landscaping plan, so the types of trees and other plantings are not known. It is anticipated that all construction activities, building materials, access, and vegetation maintenance activities would be conducted as prescribed by federal, state, and local requirements. This would minimize the potential for wildfire ignition and spread. As specified in the Fire Safe Plan, the HOA would coordinate annual visitation and inspection with EDH Fire, enforce compliance with requirements and protocols, maintain fire breaks and fuel reduction zones along the WUI, and disseminate information to residents regarding all required fire safety practices. Compliance with these regulations and annual practices would help minimize the risk of fire. A detailed description of these features can be found in Appendix J.

These ignition-resistant features would form a redundant system of protection to minimize the likelihood of exposing residents and visitors, as well as structures, to the uncontrolled spread of a wildfire. This same fire protection system would provide protections from an on-site fire spreading to off-site vegetation. As such, accidental fires within the maintained landscape or structures in the project would have limited ability to spread. Further, research indicates that communities that are informed about wildfire risk reduction can reduce risk of wildfire ignition and spread (CAL FIRE 2019). It should be noted that while these standards would provide a high level of protection to structures for the proposed project, there is no guarantee that compliance with these standards would prevent damage or destruction of structures by fire in all cases. Therefore, due to periodic weather conditions, use of vehicles and equipment with the potential to ignite a fire, and availability of fuel sources, operations and maintenance activities which would be the same under the Active Adult option could result in a **potentially significant impact** associated with exacerbating wildfire risk.

Mitigation Measures

Implementation of mitigation measures WF-1 (construction) and WF-2 through WF-4 (operation) would ensure the proper guidelines are followed during project construction and operation to reduce the risk of fire and ensure all feasible steps are taken to minimize the potential for wildfires to expose future residents to hazards. The project shall prepare a construction fire prevention plan (mitigation measure WF-1), implement recommendations of the Fire Safe Plan (mitigation measure WF-2), implement an emergency and evacuation preparedness education and program for project occupants (mitigation measure WF-3), and include a fire-resistant landscape plant palette (mitigation measure WF-4).

Implementation of MM-WF-1 through MM-WF-4, combined with regulatory requirements, would reduce potential impacts related to exacerbating wildfire risks and exposing project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire to **less than significant**.

WF-1: Construction Fire Prevention Plan. Prior to any ground-disturbing activities, including site clearing, grading or trenching, the project applicant(s) shall work with the El Dorado Hills Fire Department to prepare a Construction Fire Prevention Plan to be provided to all future developers. The plan shall address training of construction personnel and provide details of fire-suppression procedures and equipment to be used during construction. Information contained in the plan shall be included as part of project-related environmental awareness training to occur prior to any ground disturbance. At a minimum, the plan shall be consistent with the requirements in California Building Code Chapter 33 and California Fire Code Chapter 33 and shall include the following:

- Procedures for minimizing potential ignition, including, but not limited to, vegetation clearing, parking requirements/restrictions, idling restrictions, smoking restrictions, proper use of gas-powered equipment, use of spark arrestors, and hot work restrictions;
- Work restrictions during Red Flag Warnings and High to Extreme Fire Danger days;
- Specifications for adequate water supply to service construction activities;
- On-site fire awareness coordinator role and responsibility;
- Construction worker training for fire prevention, initial attack firefighting, and fire reporting;
- Emergency communication, response, and reporting procedures;
- Coordination with local fire agencies to facilitate access through the project site;

- Implement all construction-phase fuel modification components prior to combustible building materials being delivered to the site;
- Emergency contact information; and
- Demonstrate compliance with applicable plans and policies established by state and local agencies.

WF-2: Fire Safe Plan Recommendations. The Fire Safe Plan (FSP) provides customized measures that address potential fire hazards on the site. The measures are independently established but shall work together to result in reduced fire threat and heightened fire protection. These measures shall be established and accepted by the El Dorado Hills Fire Department prior to the issuance of the first building construction permit issued by the County. The following measures identified in Section 7.3 of the FSP shall be implemented and shall be included as notes on any Final Map, grading plans, and construction plans:

- Fencing materials used within 5-feet of all buildings shall be constructed of non-combustible materials.
- Fencing materials adjacent to non-irrigated open space areas shall be constructed of non-combustible materials.
- Combustible sheds and other outbuildings shall be kept at least 30 feet from residential dwellings and other buildings on each parcel.
- The following specific alternative material and construction methods, exceeding the minimum criteria described in CBC Chapter 7A, shall be implemented within the project to meet the "Practical Effect" principles (described in CCR Title 14 – section 1276.01) when buildings are located within 30-feet of property lines to reduce the potential for building-to-building fire spread may include, but are not limited to the following provisions:
  - All spaces between roof decking and the Class A roof covering shall be blocked to prevent embers from catching and igniting the building; and Eaves shall be boxed in (soffit-eave design) and protected with ignition resistant or non-combustible materials; and
  - Ignition resistant building materials, such as stucco, fiber cement wall siding, fire retardant treated wood, or other approved materials shall be used when neighboring buildings are within 30-feet; and
  - WUI ember and flame-resistant vents, conforming with the requirements of ASTM E2886, shall be used to protect exterior wall openings when the wall is located within 30-feet of another building or faces the Wildland Fuel Reduction Zone areas; and
  - The size and number of windows to bedroom rescue window openings and other essential location shall be limited when the exterior wall is located within 30-feet of another building. Windows on all sides of buildings shall be constructed of multi-pane glazing with a minimum of one tempered pane on the exterior side; and
  - Exterior doors of buildings shall be constructed of non-combustible or ignition-resistant material, or shall be constructed of solid core wood compliant with California Residential Code Section R327.8.3 when located within 30-feet of another building; and
  - Combustible decks that are cantilevered over the natural slope shall be enclosed to reduce the accumulation of debris and combustible storage items that may be ignited by fire

brands. The construction of combustible decks shall comply with the building construction requirements found in CBC Section R337; and

- A minimum non-combustible area of 6 vertical inches, measured from the ground up (at grade) and from any attached horizontal surface like a deck, shall be provided on the exterior walls of all buildings. Non-combustible materials include brick, stone, fiber-cement siding, or concrete; and
- Address numbers on each residential building shall be either internally or externally illuminated.

- Wildfire fuel reduction management and defensible space practices for the project shall follow the requirements identified in Chapter 6 of the FSP.
- A Restrictive Covenant shall be filed with the final subdivision map which stipulates that a Fire Safe Plan has been prepared and wildfire mitigation measures shall be implemented.
- "No Smoking" signs shall be posted at all trail entrances.
- At all trail intersections with the roads that have vehicle access there shall be a knock down bollard or gate with a Knox® padlock, or other approved lock, to allow for the passage of emergency equipment onto the trail.
- A 5-foot defensible space ember-resistant zone (Zone 0) shall be maintained around all buildings (including fencing within 5 feet).
- A Homeowners Association (HOA), or other acceptable entity, shall be responsible for maintaining all private emergency vehicle access roads and wildfire fuel reduction zone provisions described in Chapter 6 of the FSP.
- A HOA, or other acceptable entity, shall be responsible for enforcing compliance with all applicable federal, state and County regulations related to defensible space and vegetation management.
- Reliable on-going sources of funding shall be established and acceptable to the El Dorado Hills Fire Department prior to the recording of the final map for the project.

WF-3: Emergency Preparedness and Evacuation Preparedness. The following measures identified in Section 7.4 of the Fire Safe Plan (FSP) shall be implemented. The Homeowner's Association shall be responsible for providing the following information to project occupants in consultation with the El Dorado Hills Fire Department.

- CAL FIRE Ready-Set-Go education materials shall be made available to all new residents of the project for their use in preparing for an evacuation. Fire Department and CAL FIRE shall be encouraged to visit the neighborhood annually to discuss this material and answer questions by the homeowners. See Fire Safe Plan Chapter 8 – Appendix J for additional details.
- El Dorado County Office of Emergency Services education materials on the "RAVE" program shall be made available to all new residents of the project for use in receiving timely notification information regarding the need to evacuate. See Fire Safe Plan Chapter 8 – Appendix L for additional details.

WF-4: Prohibited Plants. A landscape plan shall be submitted to the El Dorado Hills Fire Department for review and approval prior to the issuance of building permits. The landscape plan shall include a fire-resistant plant palette consistent with Appendix I of the Fire Safe Plan and shall not include

tress and vegetation identified by the El Dorado Hills Fire Department on its current list of Highly Flammable Trees & Vegetation, which are plant communities and their associated plant species known to have increased flammability based on plant physiology (resin content), biological function (flowering, retention of dead plant material), physical structure (bark thickness, leaf size, branching patterns), and overall fuel loading, shall be prohibited in the CVSP proposed landscape plan. The proposed landscape plan shall be consistent with the El Dorado Hills Fire Department Defensible Space guidelines, the El Dorado County Weed Abatement guidelines, and the El Dorado County Fire Safe Council. This mitigation measure shall be included as a note on any Final Map, grading plans, and construction plans.

Impact 3.15-3. The proposed project could exacerbate fire risk associated with the installation and maintenance of project-related infrastructure.

Roads and Utilities

The proposed project would require installation and maintenance of infrastructure to support the proposed residential, neighborhood commercial, and park uses. Internal roads would be constructed to provide access throughout the plan area. Utilities necessary to serve the proposed project include water, wastewater and storm drainage, as well as dry utilities such as natural gas, electricity, and telecommunications. The installation and maintenance of roads and utilities would introduce new potential sources of ignition as a result of construction activities. Construction of roads and utilities associated with the project which would be the same under the Active Adult option is discussed above under Impact 3.15-1. Additionally, the Fire Safe Plan prepared for this project details that all electrical power distribution lines serving the project would be buried underground, reducing the wildfire risk (Appendix J). All new roads and driveways would be designed, constructed and maintained in accordance with EDH Fire and CAL FIRE requirements as well as the County Code (Appendix J -- see Chapter 8 – Appendix D and G of the Fire Safe Plan for additional details). Nonetheless, as discussed in Impact 3.15-2, construction associated with installing on-site roads and utilities and ongoing maintenance of this infrastructure could increase the potential for wildfire due to the use of a variety of heavy and light duty equipment that could result in sparks potentially igniting a fire. This is considered a **potentially significant impact** for the project as well as the Active Adult option.

Fuels/Vegetation Management

To ensure wildfire risks associated with the open space areas are minimized, the project includes a WFRZ that identifies defensible space requirements in accordance with CAL FIRE, EDH Fire and County requirements which would be the same under the Active Adult option. The WFRZ would extend from the property line of the adjacent residential or commercial lot to the boundary with areas designated open space, whichever is less, to ensure that adequate defensible space is provided for the building. The WFRZ would be reviewed and accepted by EDH Fire prior to the issuance of the first building. Maintenance of the WFRZ would be the responsibility of the landowner prior to the transfer of the obligation to the HOA/CSD. All defensible space and WFRZs shall be annually maintained by May 1. Specific WFRZ and defensible space criteria for the project is detailed in Chapter 6 of the Fire Safe Plan (Appendix J). Defensible space shall also be installed adjacent to all lots that border open space. The proposed vegetation management activities would reduce the fire risk by thinning or removing combustible vegetation and implementing a landscape plan with more adequately spaced, drought-tolerant, low-fuel-volume plants (in accordance with mitigation measure WF-4) in order to provide a reasonable level of protection to structures from wildland fire. Installation and ongoing maintenance of defensible space areas would not result in additional temporary or permanent impacts related to exacerbating wildfire risk beyond those identified in Impact 4.14-2.

Given that the activities involved with installation or maintenance of associated infrastructure would require ground disturbance and the use of heavy machinery associated with trenching, grading, site work, and other construction and maintenance activities, the installation of related infrastructure could potentially result in temporary or ongoing impacts to the environment or exacerbate wildfire risks. However, the installation and maintenance of proposed roads, underground utilities, stormwater features, fuel modification zones, and other associated infrastructure are part of the project analyzed herein and would occur in accordance with the requirements of the Construction General Permit, which would include best management practices. As such, any potential temporary or ongoing environmental impacts related to these components of the proposed project have been accounted for and analyzed in this Draft EIR as part of the impact assessment conducted for the entirety of the project. Additionally, the project would be required to comply with all regulatory requirements and mitigation measures outlined within this EIR for the purposes of mitigating impacts associated with trenching, grading, site work, and the use of heavy machinery. No adverse physical effects beyond those already disclosed in this EIR would occur as a result of implementation of the project's associated infrastructure. Nonetheless, construction associated with installing on-site infrastructure and ongoing maintenance of this infrastructure could increase the potential for wildfire due to the use of a variety of heavy and light duty equipment that could result in sparks potentially igniting a fire. This is considered a **potentially significant impact** for the project as well as the Active Adult option.

Mitigation Measures

Implementation of mitigation measure WF-1 and WF-4. Compliance with these mitigation measures would ensure the proper guidelines are followed during construction to reduce the risk of an accidental fire to **less than significant**.

WF-5: Implement mitigation measures WF-1 and WF-4.

Impact 3.15-4. The proposed project could expose future residents or structures to hazards associated with post-fire runoff.

Wildfires can greatly reduce the amount of vegetation within a burned area. Plant roots stabilize the soil and above-ground plant parts slow water, allowing it to percolate into the soil. Removal of surface vegetation resulting from a wildfire reduces the ability of the soil surface to absorb rainwater and can allow for increased runoff that may include large amounts of debris. If water-resistant soil conditions exist post-fire, the rate of surface water runoff is increased as water percolation into the soil is reduced (Moench and Fusaro 2012). The potential for surface runoff and debris flows therefore increases significantly for areas recently burned by large wildfires (Moench and Fusaro 2012). Figure 3.15-2, Fire History and Burn Frequency, shows the fires that have burned on site and within a 5-mile radius of the project site. Three fires have burned portions of the project site in 1959, 1992, and in 2001. The most recent fires that have burned in proximity to the project site is the Blackstone Fire in 2021, 1.66 miles north of the project site, and the Latrobe Fire in 2022, 2.37 miles northwest of the project site. It is anticipated that vegetation on or near the project site has rebounded since the most recent wildfire occurrence, and vegetation growth has restabilized nearby soils and slopes.

There are three seasonal drainages that cross the project site and merge at the western boundary to form one intermittent drainage that drains offsite. The proposed project's drainage improvements would follow the recommendations provided by the Carson Creek Regional Drainage Study, detailed more in Section 3.8, Hydrology and Water Quality. As described in Chapter 2, Project Description, the project's on-site storm drain system includes low impact development (LID), flow duration control basins and in-stream approaches. Stormwater runoff would be directed, via surface flow and drainage pipes, to the existing drainage channel and a new hydromodification pond. A water quality swale would be constructed adjacent to the primary roadway that bisects the plan area. The system

is designed consistent with the County's hydromodification standards in order to avoid adverse impacts to Carson Creek and its tributaries. Post development stormwater runoff would not exceed pre-development runoff rates to ensure flooding would not occur downstream of the project. With this system in place, the proposed project would not expose people or structures to risks posed by runoff.

Slope failure can occur as either rapid movement of large masses of soil (landslide) or slow, continuous movement (creep) on slopes of varying steepness. Areas susceptible to landslides are characterized by steep slopes and downslope creep of surface materials. The project site, as well as surrounding areas, are characterized by gently rolling hills with broad valleys. The Fire Safe Plan notes that slopes within the project are generally less than 20% with approximately 3% of the site with slopes greater than 21% and the remaining 1% with slopes of 30% or greater. As discussed in Section 3.6, Geology, Soils, and Paleontology, the Geotechnical Study noted that existing slopes on the project site are shallow, vegetated, and show no indication of slope instability such as tension cracks, slump blocks, seeps or springs. The Geotechnical Study concludes that the potential for slope instability to occur in the plan area is negligible (Appendix D). It is unlikely that there would be substantial adverse effects involving landslides to residences located downslope under post-fire conditions. As such, the proposed project including the Active Adult option would not expose people or structures to risks posed by slope instability.

The occurrence of wildfire could damage proposed LID drainage systems or vegetation in open space areas. Due to the proposed WFRS and defensible space, and ignition resistant construction, it is anticipated that a wildfire occurring in the project area would be unlikely to burn through the site uncontrolled, and topographical and developed drainage features would be unaffected under post-fire conditions and would result in a minimum increase in the risk of post-fire flooding and increased runoff. However, in the event of a wildfire as project build-out is occurring there could be areas not yet developed where post-fire conditions could result in substantial erosion which could affect developed areas exposing people or structures to significant risks. Therefore, project impacts including the Active Adult option would be considered **potentially significant**.

Mitigation Measures

Implementation of mitigation measure WF-6 would ensure potential impacts associated with post-fire flooding, runoff, or slope instability are evaluated and addressed through the use of erosion control techniques, reseeding grasses, and tree removal, if required, to ensure any potential impacts would be reduced to **less than significant**.

WF-6: Post Fire Activities. Following any on-site wildfire during project build-out in areas where development may be affected by post-fire risks, a post-fire field assessment shall be conducted by an engineering geologist or civil engineer, in coordination with the El Dorado Hills Fire Department, to identify any areas that may be subject to increased risk of post-fire flooding, landslide or erosion. Any recommendations identified by the geologist to mitigate such risk shall be provided to the County, El Dorado Hills Fire Department, and the County Emergency Operations Center for consideration of the work necessary to allow safe re-entry and/or re-occupation of the affected area.

Cumulative Impacts

This section provides an analysis of cumulative impacts from construction and operation of the proposed project in combination with other past, present, and reasonably foreseeable future projects within the County and areas adjacent to the County, see Chapter 3 for a list of other cumulative projects that have been approved since the adoption of the General Plan. The geographic context for the cumulative analysis as it relates to wildfire is the surrounding fire hazard areas within the western foothills of the Sierra Nevada Mountain Range. Because post-fire

hazards are site-specific these concerns would not combine with other development resulting in a cumulative effect. Therefore, post-fire hazards are not addressed on a cumulative level.

Impact 3.15-5. Implementation of the proposed project could contribute to cumulative impacts on emergency response and evacuation efforts or plans.

Emergency Response

The project site and vicinity is vulnerable to several hazards, including but not limited to wildfire, that could result in the need for emergency response procedures outlined in an adopted Emergency Response Plan or Evacuation Plan. The County's General Plan EIR determined that new and expanded fire protection and emergency facilities would be constructed in response to population growth. The project, and other cumulative projects located in the SRA or fire hazard areas, would similarly be constructed to current design standards and building codes, which include emergency access requirements.

Adherence to the CFC and CBC would ensure that proposed project along with the cumulative projects would be designed with adequate emergency access, and roads for all proposed projects are required to meet minimum widths, have all-weather surface, and be capable of supporting the imposed loads of responding emergency apparatus. General Plan Policies LU-7a, HS-2d, PS-1a through PS-1e, PS-7a, and PS-7c would ensure that the County would cooperate with the fire protection districts in developing level-of-service standards and capital improvement plans (e.g., facility master plans). These policies would also require new discretionary developments to contribute fair-share funding to fire protection districts in order to maintain an adequate level of service for fire protection and emergency medical services. While this does not address ministerial actions, Policy HS-2d requires application of fire protection standards for discretionary actions and building permits (ministerial actions), and Policies PS-7a and PS-7c more generally address demands created by ministerial actions. Given these policies, it is expected that additional and expanded fire protection and emergency medical facilities would be constructed in response to population growth as funding allows. The General Plan EIR determined that build out of the General Plan would not result in cumulative impacts associated with the provisioning of fire and emergency response and facilities. However, the additional projects have the potential to contribute approximately 5,107 new dwelling units within the western portion of the County, as well as 918 units from the proposed project, which could create a potentially significant cumulative impact to emergency response.

Per the County's General Plan, compliance with existing standards and requirements would avoid cumulative impacts associated with fire protection and emergency response services. As development continues in the area, the increased population could warrant improvements to the EDHFD facilities and/or acquisition of new equipment and new staff and EDH Fire has planned for such needs through adoption of Fire Impact Fees that the project applicant and all future development must pay. It could also warrant increased responses from neighboring fire districts, such as CAL FIRE or Rescue Fire Department.

The proposed project would include fire access and circulation throughout the project site including emergency access and on-site shelter-in-place areas. Implementation of the CVSP, in conjunction with other cumulative projects, would not impair or interfere with the County's ability to prevent, prepare for, or respond to and recover from the identified hazards because existing codes are designed to minimize hazards and protect public health and safety. As such, the project's contribution is not considerable and would not impair emergency response and evacuation plans and the cumulative impact would be **less than significant**.

Evacuation

To date, there is no evacuation quantitative threshold that projects must meet in order to avoid a CEQA impact or to be consistent with codes, regulations or policies and thus evacuation impacts have been qualitatively evaluated. The proposed project, combined with other development in the County, would contribute to an increase in population which could affect the ability to safely evacuate the area. The County does not publicly distribute established evacuation routes and does not identify an existing cumulative impact related to emergency evacuation.

As previously discussed, the project in combination with the cumulative projects would be required to be designed with adequate emergency access, which would allow for safe evacuation of the project site and cumulative project sites. Development of CVSP would provide new roadway access and emergency access into the project site, as well as offsite road improvements and on-site shelter-in-place areas, which would ensure adequate emergency vehicle access and evacuation routes are available to serve the project site and surrounding areas. The project's contribution to the potential to impair emergency evacuation would not be considerable based on the multiple potential evacuation routes in different directions from the project site, road capacity, limited project size, and the fact the project would not block, limit, alter, or impact routes used for evacuation. If determined appropriate by OES based on the conditions of a particular emergency, the project also includes on-site locations to safely shelter in place and adheres to all state building codes for emergency ingress and egress. Adherence to the CFC and CBC would ensure that every project approved for construction includes adequate emergency access. Roads for all proposed projects are required to meet minimum widths, have all-weather surface, and be capable of supporting the imposed loads of responding emergency apparatus. Therefore, the project's contribution to the potential to impair emergency evacuation would not be considerable because the project includes on-site locations to safely shelter in place (if necessary) and adheres to all state building codes to minimize the spread of a wildfire. As discussed above under Impact 3.15-1, the Active Adult option is assumed to have an approximately 33.5% reduction in future residents, which would reduce the number of residents having to evacuate in the event of a wildfire and would not introduce new impacts, the impacts would generally be expected to be reduced as compared to the proposed project. Therefore, the project's contribution including the Active Adult option is not considerable and would not impair the County's emergency evacuation plan and the cumulative impact would be **less than significant**.

Mitigation Measures

No mitigation measures are required.

Impact 3.15-6. Implementation of the proposed project could exacerbate wildfire risk to onsite residents resulting in a cumulative contribution.

As described above, the project site is located in a Moderate and High FHSZ within the SRA. The project, combined with other projects in the surrounding SRA or fire hazard areas, would increase the population and/or activities in these areas, which would introduce new potential ignition sources in the area. This could increase the potential for a wildfire and increase the number of people and structures exposed to wildfire risks. As discussed above under Impact 3.15-1, the Active Adult option is assumed to have an approximately 33.5% reduction in future residents, which would reduce the number of residents potentially exposed to wildfire risks. The County has not identified an existing cumulative impact related to wildfire risk.

Cumulative projects located within the County would be required to comply with applicable County fire and building codes, which have been increasingly strengthened as a result of severe wildfires that have occurred in the last two decades. Additionally, cumulative projects may be subject to preparation of a project-specific Fire Safe Plan (per

Chapter 8 of the El Dorado County Code and Policy 6.2.2.2 of the El Dorado County General Plan), which would assess the project to demonstrate that development can be adequately protected from wildland fire hazards. These regulations include fire prevention and protection features that reduce the likelihood of a fire igniting in a specific project and spreading to off-site vegetated areas. These codes also protect projects from wildfires that may occur in the area through implementation of brush management and fuel management zones, ensuring adequate water supply, preparation of Fire Safe Plans, and other measures.

Placing new residential projects in WUI areas could increase the risk of fire ignition, however, available research on fire ignition and spread suggests otherwise. According to the available evidence, wildfires have not historically started within a master-planned, ignition-resistant subdivision or neighborhood. Ignition sources are typically associated with lower-density housing, not higher-density housing within master planned communities such as that proposed in the project (Syphard and Keeley 2015). Other cumulatively considerable projects located in Very High FHSZs or the SRA would be required to comply with local and state vegetation clearance requirements and building codes requiring ignition resistant construction. These codes, along with project-specific needs assessments and Fire Safe Plan requirements, would also ensure that every project approved for construction includes adequate emergency access and fire-resistant structures and landscaping. As mentioned, updated building codes for fire resistant construction are increasingly stringent and have proven successful at reducing the risk of structural ignition. The project and all cumulative projects in the service area would be subject to discretionary review by EDH Fire and would be required to comply with the local and state code requirements and regulations related to fire safety, building construction, access, fire flow, and fuel modification. As discussed in Impacts 4.14-1 through 4.14-4, the proposed project aims to both reduce the risk of accidental fire ignition through compliance with existing requirements and the CBC and CFC. While there is the potential for the project to result in a wildfire that could affect surrounding areas, it is not possible to determine to what extent the proposed project would exacerbate the likelihood of accidental ignition. Based on the history of wildfires in the area, the increasing threat of wildfires is due to an increase in human activity within the grassland and forested area to be left undeveloped, as well as proximity to undeveloped lands. Buildout of the project's future commercial and residential areas within the WUI would increase human activities and potential ignition sources, which may increase the chances of a wildfire and spread of wildfire and increase the number of people and structures exposed to risk of loss, injury, or death. When considered in combination with other projects within the County within WUI areas, the project's contribution, including the Active Adult option, to wildfire risk could be cumulatively considerable but would be reduced to **less-than cumulatively considerable with mitigation.**

Project landscapes would be managed and maintained to remove exotic fuels that may become established over time. Further, mitigation measure WF-1 (Construction Fire Prevention Plan) would ensure all feasible steps are taken to minimize the potential for a fire to ignite during project construction. The plant palette restrictions included in mitigation measure WF-4, combined with HOA maintenance and code-exceeding fire safety measures and fire-resistant building materials (mitigation measure WF-2), would minimize the ability for fire to move through the project site. Additionally, implementation of an emergency and evacuation preparedness education and program by the project HOA for project occupants (mitigation measure WF-3) would ensure the community is educated about wildfire risks and residents would take individual steps to reduce risk.

Mitigation Measures

Implement mitigation measures WF-1 through WF-4. Compliance with these mitigation measures would ensure requirements are followed to minimize the potential for wildfires to spread creating hazards to future residents. The impact would be reduced to **less than significant**.

WF-7: Implement mitigation measures WF-1 through WF-4.

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