Draft Environmental Impact Report

Grant Line Construction Aggregate Production and Recycling Facility Project

State Clearinghouse Number 2022010079

Prepared for:

CITY OF ELK GROVE

January 2023

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LIST OF ABBREVIATIONS

°C	degrees Celsius
AB	Assembly Bill
ADA	Americans with Disabilities Act
ADT	average daily traffic
AFV	alternative fuel vehicles
AFY	acre-feet per year
APSA	Aboveground Petroleum Storage Act
AST	aboveground storage tanks
BACT	best available control technology
bgs	below ground surface
BMP	best management plans
BPTMP	Bicycle, Pedestrian, & Trails Master Plan
CAA	Clean Air Act
CAAQS	California Ambient Air Quality Standards
CAFE	corporate average fuel economy
CAL FIRE	California Department of Forestry and Fire Protection
Cal/OSHA	California Occupational Safety and Health Administration
CalEEMod	California Emissions Estimator Model
CalEPA	California Environmental Protection Agency
Caltrans	California Department of Transportation
CAP	Climate Action Plan 2019 Update
CARB	California, the California Air Resources Board
CBC	California Building Code
CCAA	California Clean Air Act
CCR	California Code of Regulation
CEC	California Energy Commission
CEHCP	California Essential Habitat Connectivity Project
Central Valley RWQCB	Central Valley Regional Water Quality Control Board
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CFC	California Fire Code
CFR	Code of Federal Regulations
CMC	California Mechanical Code
CNDDB	California Natural Diversity Database
CNEL	Community Noise Equivalent Level
CNPS	California Native Plant Society
CO	carbon monoxide
CO_2	carbon dioxide
Cortese List	California Government Code Section 65962.5
CREC	controlled RECs
CRHR	California Register of Historical Resources
CRPR	California Rare Plant Rank
CSD	Community Services District

CUPA	Certified Unified Program Agencies
CVFPP	Central Valley Flood Protection Plan
CWA	Clean Water Act
CWA	Clean Water Act
dB	decibels
DBH	diameter at breast height
Delta	Sacramento–San Joaquin Delta
diesel PM	exhaust from diesel engines
Draft EIR	draft environmental impact report
DTSC	California Department of Toxic Substances Control
DWR	Department of Water Resources
EGMC	Elk Grove Municipal Code
EGPD	Elk Grove Police Department
EGUSD	Elk Grove Unified School District
EGWD	Elk Grove Water District
EIR	environmental impact report
EMD	Environmental Management Department
EOP	Emergency Operations Plan
EPA	US Environmental Protection Agency
EPAct	Energy Policy Act of 1992
ESA	Endangered Species Act
EV	electric vehicles
FEMA	Federal Emergency Management Agency
FHWA	Federal Highway Administration
FICAN	Federal Interagency Committee on Aviation Noise
FIRM	Flood Insurance Rate Maps
FTA	Federal Transit Administration
GBV	Ground-Borne Vibration
GHG	greenhouse gas
GSP	Groundwater Sustainability Plan
HAP	hazardous air pollutants
HRA	health risk assessment
HREC	historical RECs
I-5	Interstate 5
in/sec	inches per second
KOP	Key Observation Point
kV	kilovolt
LCFS	Low Carbon Fuel Standard
L_{dn}	Day-Night Level
LED	light-emitting diode
L_{eq}	Equivalent Continuous Sound Level
LHMP	Local Hazard Mitigation Plan
LID	low-impact development
L_{max}	Maximum Sound Level
MBTA	Migratory Bird Treaty Act
MCL	maximum contaminant levels
mg/kg	milligrams per kilogram

mgd	million gallons per day
MLD	most likely descendant
MPO	metropolitan planning organizations
MS4	municipal separate storm sewer systems
MTBE	methyl tert-butyl ether
$MTCO_2e$	metric tons of carbon dioxide equivalent
MTP/SCS	Metropolitan Transportation Plan/Sustainable Communities Strategy 2035
NAAQS	National Ambient Air Quality Standards
NAHC	Native American Heritage Commission
NFIP	National Flood Insurance Program
NHPA	National Historic Preservation Act
NMFS	National Marine Fisheries Service
NO	nitric oxide
NO_2	Nitrogen dioxide
NOP	notice of preparation
NPDES	National Pollutant Discharge Elimination System
NPPA	Native Plant Protection Act
NRHP	National Register of Historic Places
NWI	National Wetlands Inventory
OSHA	Occupational Safety and Health Administration
ozone	photochemical smog
PM	particulate matter
$PM_{2.5}$	fine particulate matter with an aerodynamic diameter of 2.5 micrometers or less
PM_{10}	fine particulate matter with an aerodynamic diameter of 10 micrometers or less
Porter-Cologne Act	Porter-Cologne Water Quality Control Act of 1970
ppm	parts per million
PPV	peak particle velocity
PRC	Public Resources Code
Project	Grant Line Construction Aggregate Production and Recycling Facility Project
RCRA	Resource Conservation and Recovery Act of 1976
REC	recognized environmental conditions
Regional San	Sacramento Regional County Sanitation District
RMS	root-mean-square
ROG	reactive organic gases
RWQCB	regional water quality control boards
SACOG	Sacramento Area Council of Governments
SAFE Rule	Safer Affordable Fuel-Efficient Vehicles Rule
SASD	Sacramento Area Sewer District's
SB	Senate Bill
SCEMD	Sacramento County Environmental Management Department
SCWA	Sacramento County Water Agency
SEL	Sound Exposure Level
SGMA	Sustainable Groundwater Management Act
SIP	State implementation plan
SMAQMD	Sacramento Metropolitan Air Quality Management District
SMUD	Sacramento Municipal Utility District
SO_2	sulfur dioxide

SPL	pressure level in terms of decibels
SR	State Route
SRWTP	Sacramento Regional Wastewater Treatment Plant
STIP	Statewide Transportation Improvement Program
SVAB	Sacramento Valley Air Basin
SWPPP	stormwater pollution prevention plan
SWRCB	State Water Resources Control Board
TAC	Toxic air contaminants
TDM	transportation demand measure
the Delta	Sacramento–San Joaquin Delta
TMDL	total maximum daily load
tpy	tons per year
USACE	U.S. Army Corps of Engineers
USC	U.S. Code
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
UST	underground storage tanks
UWMPA	Urban Water Management Planning Act
VdB	vibration decibels
VMT	vehicle miles traveled
WQO	water quality objectives
ZEV	zero-emission vehicle

EXECUTIVE SUMMARY

ES.1 INTRODUCTION

This summary is provided in accordance with California Environmental Quality Act Guidelines (State CEQA Guidelines) Section 15123. As stated in Section 15123(a), "an EIR [environmental impact report] shall contain a brief summary of the proposed action and its consequences. The language of the summary should be as clear and simple as reasonably practical." As required by the guidelines, this chapter includes (1) a summary description of the proposed Grant Line Construction Aggregate Production and Recycling Facility Project (proposed Project), (2) a synopsis of environmental impacts and recommended mitigation measures (Table ES-1), (3) identification of the alternatives evaluated and of the environmentally superior alternative, and (4) a discussion of the areas of controversy associated with the Project.

ES.2 SUMMARY DESCRIPTION OF THE PROJECT

ES.2.1 Project Location

The approximately 25-acre Project site is in an industrial area in the southeastern area of the City of Elk Grove, in Sacramento County. It is located at 10000 Waterman Road (Assessor's Parcel Numbers 134-0181-042), approximately 3,000 feet north of Grant Line Road. The site is currently vacant, but was previously occupied by industrial uses and now consists of weedy vegetation and an aging rail spur roughly bisects the property. Project site access is provided from Waterman Road.

The Project site has a City of Elk Grove General Plan land use designation and Elk Grove Municipal Code zoning designation of Heavy Industrial (HI). It is bordered on the north by existing light and heavy industrial lands with vacant lands and an existing storage facility next door. South of the site is an asphalt plant with three large tanks and production facilities and a railroad spur. To the east, across Waterman Road, are resource management and conservation lands under a Pacific Gas and Electric Company right-of-way, as well as light industrial lands and MP zones (Industrial Office Parks). Further east are single-family residential areas. To the west is the Union Pacific Railroad's 400-foot-wide right-of-way, which is designated for public service land uses. West of the right-of-way is a mixture of uses, which include the following: heavy and light industrial land uses, a park, and low-density residential areas.

ES.2.2 Project Objectives

The primary objectives of the Project are to:

- develop a concrete and asphalt recycling and production facility to serve construction projects in Elk Grove and the surrounding areas,
- develop a project that creates an industrial use on vacant land that is compatible with surrounding uses,
- plan and develop underutilized lots in the City,
- increase the diversion of concrete and asphalt materials from landfills, and
- provide employment opportunities for residents in the City.

ES.2.3 Characteristics of the Project

PROJECT DESCRIPTION

Vulcan Materials Company proposes to develop the Project site into a processing facility capable of processing 1.7 million tons of construction aggregate materials, including hot-mix asphalt and ready-mix concrete, annually (Table ES-1). To produce these materials, approximately 600,000 tons of raw aggregate would be imported to the facility. Aggregate materials would be transported to the site from Vulcan's aggregate mine, located approximately 11 miles northeast of the site at 15012 Florin Road in Sacramento, California. The facility also would recycle asphalt and concrete from local demolition projects. Construction aggregate materials would be used to support a wide range of construction, including large highway paving projects. The facility would be designed to run 24 hours a day and 7 days a week. Production volumes anticipate constant operation during busy construction months of the summer and early fall. Hours during late fall, winter, and early spring are anticipated to be reduced.

Table ES-1 Proposed Maximum Annual Throughput by Material Type

Material	Maximum Throughput (Annual)
Raw material import	600,000 tons
Ready-mix concrete	406,000 tons[1]
Recycled concrete	200,000 tons
Hot-mix asphalt	300,000 tons
Aggregate material sales	200,000 tons
Total	1.7 million tons

[1] Amount is based on 200,000 cubic yards and assumes that 1 cubic yard equals 2.03 tons.

Source: Information provided by Vulcan Materials Company in 2021.

The Project would have the following elements: a ready-mix concrete (RMC) facility, a concrete and asphalt recycling facility, a hot-mix asphalt facility, and associated facilities including modular office buildings. These elements are described below.

Ready-Mix Concrete Facility

A 2.66-acre ready-mix concrete facility is proposed near southeastern corner of the Project site. An access road would provide a loop for ingress and egress. The facility would consist of a ready-mix concrete plant accompanied by aggregate storage, and a concrete washout. This facility would process a maximum of approximately 200,000 cubic yards (i.e., 406,000 tons) of ready-mix concrete annually, and it would produce concrete for large scale public and private users.

Recycling Facility

A recycling plant would process broken asphalt and concrete brought to the facility. It would be connected to a crushed reclaimed asphalt pavement (RAP) area and the crushed miscellaneous base (CME) area to the west via a series of conveyor belts. An asphalt rubble pile area and concrete rubble pile area are proposed just north of the recycling plant. Each would have a small access road that would be used to drop off materials for recycling. The recycling plant would be designed to process approximately 200,000 tons of recycled concrete and asphalt per year on site. These materials would be used in the production of ready-mix concrete and hot-mix asphalt.

Hot-Mix Asphalt Facility

A hot-mix asphalt (HMA) facility is proposed in the southwestern portion of the site. It would have two tankers, five 47-foot-tall silos (reaching a total height of 78 feet), and a drum plant. Two access loops would be graded through the facility. A portion of the Project site northeast of the hot-mix asphalt facility would be used for hot-mix asphalt aggregate storage. The hot-mix facility is designed to process approximately 300,000 tons of asphalt annually on site.

Ancillary Structures

Accessory structures, including a shop, a lab, and employee facilities would be installed to accommodate office space, operations, sales, and administrative staff. The Project would provide 26 parking spaces and 22 truck parking spaces, for a total of 48 parking spaces. The site would include 2 bike parking spaces.

Project Operations

The facility would be designed to facilitate production operations 24 hours a day, if necessary, to accommodate regional construction supply needs. Typical business operating hours, however, would be 5:00 a.m. to 5:00 p.m. Monday through Saturday. Again, the facility would accommodate production operations at times when construction materials are needed even if outside of the hours of 5:00 a.m. to 5:00 p.m., Monday through Saturday. Some projects, such as public roadway and infrastructure projects require construction materials to be delivered outside of typical operating hours, which may extend up to 24 hours per day. In addition, when temperatures reach above 100 degrees large projects may require concrete deliveries in the early morning hours.

ES.2.4 Potential Approvals and Permits Required

As the lead agency under CEQA, the City of Elk Grove is responsible for considering the adequacy of this Draft EIR and determining whether the Project should be approved and issued a Conditional Use Permit.

The following discretionary actions and permits are anticipated for the proposed Project.

- Central Valley Regional Water Quality Control Board: Waste Discharge Requirements
- Sacramento Metropolitan Air Quality Management District: Clean Air Act compliance
- City approval of Design Review
- City approval of a Conditional Use Permit
- City approval of a Tree Removal Permit
- Sacramento County Water Agency: approval of water supply distribution facility improvements
- Sacramento Area Sewer District: approval of wastewater conveyance facility improvements
- Sacramento Municipal Utility District: approval of electrical conveyance facility improvements
- Sacramento Metropolitan Air Quality Management District: approval of an Authority to Construct and Permit to Operate

ES.3 ENVIRONMENTAL IMPACTS AND RECOMMENDED MITIGATION MEASURES

ES.3.1 Project-Specific Impacts

This EIR has been prepared pursuant to CEQA (Public Resources Code [PRC] Section 21000 et seq.) and the State CEQA Guidelines (California Code of Regulations [CCR], Title 14, Chapter 3, Section 15000 et seq.) to evaluate the physical environmental effects of the proposed Project. The City is the lead agency for the Project. The City Council has the principal responsibility for approving the Project and for ensuring that the requirements of CEQA have been met.

Table ES-2, presented at the end of this chapter, provides a summary of the environmental impacts of the Project. The table identifies the level of significance of the impact before mitigation, recommended mitigation measures, and the level of significance of the impact after implementation of the mitigation measures.

For detailed discussions of all Project impacts and mitigation measures, the reader is referred to the topical environmental analysis in Chapter 3, "Environmental Setting, Impacts, and Mitigation Measures." Cumulative impacts are discussed in Chapter 4, "Cumulative Impacts."

ES.3.2 Significant-and-Unavoidable Impacts and Cumulative Impacts

The proposed Project would not result in any significant and unavoidable impacts.

ES.4 ALTERNATIVES TO THE PROPOSED PROJECT

The following provides brief descriptions of the alternatives evaluated in this Draft EIR. Chapter 4, "Alternatives," provides a comparison of the environmental impacts between the alternatives and the proposed Project.

- Alternative 1: No Project–No Development Alternative assumes no construction of the facility. The Project site would remain in its current condition.
- Alternative 2: Reduced Development Alternative assumes that the facility would contain only the concrete and asphalt production facilities and there would be no recycling facility on the Project site. Because most asphalt and concrete production facilities operate with a recycling component, it is likely that the Project applicant would seek to develop a recycling facility nearby; however, the location for such a site has not been identified.

ES.4.1 Environmentally-Superior Alternative

Alternative 1, the No Project-No Development Alternative would avoid the adverse impacts generated by the construction and operation of the proposed Project. Therefore, it is considered the environmentally superior alternative. However, the No Project–No Development Alternative would not meet the Project objectives.

When the environmentally superior alternative is the No Project Alternative, the State CEQA Guidelines (Section 15126.6 require selection of an environmentally superior alternative other than the No Project Alternative from among the other action alternatives evaluated. Based on the environmental analysis contained in this Draft EIR, Alternative 2 is considered environmentally superior among the remaining alternatives because it would reduce most of the proposed Project's impacts, including aesthetic, air quality, biological resources, cultural resources, GHG and energy, noise, transportation, and utilities. However, the Project would not result in any significant environmental effects that cannot be mitigated to a less-than-significant level, and therefore no additional alternatives need to be evaluated or considered.

ES.5 AREAS OF CONTROVERSY AND ISSUES TO BE RESOLVED

A notice of preparation (NOP) was distributed for the proposed Project on January 7, 2022, to responsible agencies, interested parties, and organizations, as well as private organizations and individuals that may have an interest in the Project. CEQA provides for a lead agency to facilitate one or more scoping meetings, which provide an opportunity for determining the scope and content of the EIR. Traditionally, the City hosts one scoping meeting for the public during the NOP comment period. In accordance with State and local health orders limiting in-person public meetings, the City provided a virtual scoping meeting. A video presentation by staff, introducing the Project and outlining the CEQA process, was made available for review at http://www.egplanning.org/environmental. The NOP and responses to the NOP are included in Appendix A of this Draft EIR. Key concerns and issues that were expressed during the scoping process included concerns with traffic, tribal cultural resources, air quality, and water quality.

State CEQA Guidelines Section 15123 requires the summary section of a Draft EIR to identify issues to be resolved related to the proposed project. Issues to be resolved by the City are identified below, including issues that will not necessarily be resolved through the EIR:

- Should the Project be approved as proposed?
- Should the Project be reduced in size to reduce some significant but mitigable impacts?
- Should Project operation hours be reduced to avoid effects related to noise or traffic?
- Should the Project site be moved to a different location?

Table ES-2 Summary of Impacts and Mitigation Measures

Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
NI = No impact LTS = Less than significant PS = Potentially significant S = Significant SU = Significant and unavoidable			
Aesthetics			
Impact 3.1-1: Substantially Degrade the Existing Visual Character of the Site and Surroundings The Project site is located on vacant land and is visible from nearby roadways and residences. The Project site is located in an industrial and commercial corridor, bordered on the east and west by residential uses. The introduction of construction equipment and features of the Project would not be substantially different than other industrial and commercial land uses located along Waterman Road and areas farther southwest of the Project site. Therefore, because the Project would not result in development that is substantially different than surrounding land uses and would not substantially degrade the existing visual character or quality of public views of the site and its surroundings, this impact would be less than significant.	LTS	No mitigation is required.	LTS
Impact 3.1-2 Consistency with Regulations Governing Site Design and Architecture Project site design and architectural character are regulated by the City through compliance with General Plan policies; compliance with the Elk Grove Municipal Code Chapters 23.29. 23.54, and 23.62; and application of the Design Guidelines. The Project would not conflict with City design policies and guidelines that are associated with site design and architecture. This impact would be less than significant.	LTS	No mitigation is required.	LTS
Impact 3.1-3 Create a New Source of Substantial Light or Glare That Would Adversely Affect Day or Nighttime Views The Project would include outdoor lighting of work areas as well as light fixtures in parking areas as required by EGMC 23.56 that would increase nighttime lighting conditions in the Project area. Light-emitting diode (LED) luminaires are adjustable and have been selected to limit nighttime glare with optical cutoffs to direct light downward onto work areas rather than outward to the surrounding environment. The exit/entry point of the Project is visible from a nearby property; however, lights from vehicles turning south onto Waterman Road would not substantially affect the residence located near the exit/entry point on the east side of Waterman Road. No residences would be affected by vehicles turning north onto Waterman Road. This impact would be less than significant.	LTS	No mitigation is required.	LTS

Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
NI = No impact LTS = Less than significant PS = Potentially significant S = Significant SU = Significant and unavoidable			
Air Quality			
Impact 3.2-1: Generate Emissions of Criteria Air Pollutants and Precursors during Project Construction That Exceed Sacramento Metropolitan Air Quality Management District Thresholds Implementation of the Project would generate construction emissions of ROG, NO_X, PM_{10}, and $PM_{2.5}$ from material and equipment delivery trips, worker commute trips, and other miscellaneous activities. Emissions of NO_X would not exceed SMAQMD's threshold of significance of 85 lb/day. SMAQMD's threshold for PM_{10} and $PM_{2.5}$ emissions is 0 lb/day; however, this threshold increases to 80 and 82 lb/day, respectively, with implementation of best management practices (BMPs). Mitigation Measure 3.2-1, which requires implementation of BMPs, would reduce PM_{10} and $PM_{2.5}$ emissions by approximately 54 percent to 8 and 4 lb/day, respectively. Because construction emissions of PM_{10} and $PM_{2.5}$ would be less than 80 and 82 lb/day, respectively (SMAQMD's thresholds when BMPs are applied), with implementation of Mitigation Measure 3.2-1, this impact would be less than significant with mitigation.	PS	**Mitigation Measure 3.2-1: Implement SMAQMD's Basic Construction Emissions Control Practices** SMAQMD requires construction projects to implement basic construction emissions control practices to control fugitive dust and diesel exhaust emissions. These basic construction emissions control practices are considered Best management practices, as recommended by SMAQMD. The Project applicant shall implement the following control measures during Project construction: ▶ Control fugitive dust as required by SMAQMD Rule 403 and enforced by SMAQMD staff. ▶ Water all exposed surfaces twice daily. Exposed surfaces include but are not limited to soil piles, graded areas, unpaved parking areas, staging areas, and access roads. ▶ Cover or maintain at least 2 feet of freeboard space on haul trucks transporting soil, sand, or other loose material on the site. Any haul trucks that would travel along freeways or major roadways should be covered. ▶ Use wet power vacuum street sweepers to remove any visible track-out of mud or dirt from adjacent public roads at least once a day. Use of dry power sweeping is prohibited. ▶ Complete all roadways, driveways, sidewalks, and parking lots to be paved as soon as possible. In addition, lay building pads as soon as possible after grading unless seeding or soil binders are used. ▶ Limit vehicle speeds on unpaved roads to 15 miles per hour. ▶ Minimize idling time, either by shutting equipment off when not in use or by reducing the time of idling to 5 minutes (required by 13 CCR Sections 2449[d][3] and 2485). Provide clear signage that posts this requirement for workers at the site entrances. ▶ Maintain all construction equipment in proper working condition according to the manufacturers' specifications. The equipment must undergo a one-time inspection by a certified mechanic and be determined to be running in proper condition prior to the start of construction activities.	LTS

Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
NI = No impact LTS = Less than significant PS = Potentially significant S = Significant SU = Significant and unavoidable			
Impact 3.2-2: Generate Long-Term Operational Emissions of ROG, NO_X, PM_{10}, and $PM_{2.5}$ in Exceedance of Sacramento Metropolitan Air Quality Management District Thresholds Operation of the Project would not generate emissions of ROG or NO_X in exceedance of SMAQMD's daily mass emissions thresholds of significance. However, operation would exceed SMAQMD's 0 lb/day PM_{10} and $PM_{2.5}$ threshold because it would emit 50 lb/day of PM10 and 15 lb/day of $PM_{2.5}$. Implementation of the best available control technologies (BACTs) contained in Mitigation Measure 3.2-2 would adjust SMAQMD's thresholds of significance for PM_{10} and $PM_{2.5}$ to 80 and 82 lb/day, respectively. Project emissions after implementation of Mitigation Measure 3.2-2 would be lower than pre-mitigation emission levels of 50 lb/day of PM_{10} and 15 lb/day of $PM_{2.5}$, which are below SMAQMD's operational emissions thresholds of significance of 80 PM_{10} and 82 lb/day $PM_{2.5}$ (SMAQMD's thresholds when BMPs and BACTs are applied). Additionally, the reductions achieved from implementation of Mitigation Measure 3.2-2 would reduce the total number of potential adverse health incidences. Therefore, operational emissions would be less than significant with mitigation.	PS	**Mitigation Measure 3.2-2: Implement Best Available Control Technology and Best Management Practices to Reduce Operational Emissions** SMAQMD requires operational projects to implement BACT and BMPs to reduce operational emissions of NO_X, PM_{10}, and $PM_{2.5}$. While the Project's operational NO_X emissions are below SMAQMD's thresholds of significance, NO_X is a primary pollutant that leads to the secondary formation of PM in the atmosphere. Therefore, applicable NO_X BACT shall be applied to reduce ambient PM within the SVAB and is considered an indirect form of PM mitigation. The Project applicant shall incorporate the following BACT control measures into project design as verified by SMAQMD during the permitting process prior to Project operation: ▶ The hot-mix asphalt dryer shall meet the BACT threshold of 33 ppm for NO_X at 3 percent for oxygen levels as verified by SMAQMD. ▶ The hot oil heaters shall meet the BACT thresholds of 9 ppm for NO_X at 3 percent oxygen levels as verified by SMAQMD. Additionally, the following practice shall be implemented to reduce emissions from on-site mobile diesel equipment: ▶ Minimize idling time by shutting equipment off when not in use or reducing the time of idling to 5 minutes or less. Clear signage shall be provided to instruct all workers to adhere to this idling requirement.	LTS
Impact 3.2-3: Conflict with or Obstruct Implementation of a Regional Air Quality Plan Construction and operation of the Project would not result in ROG or NO_X emissions in exceedance of SMAQMD's mass emissions thresholds. ROG and NO_X are precursor emissions to the formation of ground-level ozone, and SMAQMD's thresholds are tied to long-term regional air quality planning. Therefore, emissions of ROG and NO_X would not interfere with the Sacramento Regional 2008 NAAQS 8-Hour Ozone Attainment and Reasonable Further Progress Plan. Construction and operation emissions of PM_{10} and $PM_{2.5}$ would exceed SMAQMD's 0 lb/day thresholds prior to implementation of BACT and BMPs. Therefore, emissions of PM_{10} and $PM_{2.5}$ could conflict with long-term regional air quality planning in the SVAB with respect to PM. Implementation of the BACT and BMPs contained in Mitigation Measures 3.2-1 and 3.2-2 would adjust SMAQMD's thresholds of significance for PM_{10} and $PM_{2.5}$ to 80 and 82 lb/day, respectively. Mitigation Measure 3.2-1, which requires implementation of BMPs, would reduce construction-related PM_{10} and $PM_{2.5}$ emissions by approximately 54 percent to 8	PS	**Mitigation Measure 3.2-3: Implement Mitigation Measures 3.2-1 and 3.2-2** SMAQMD requires operational projects to implement BACT and BMPs to reduce construction and operational emissions of NOX, PM10, and PM2.5. The Project applicant shall implement the control measures identified under Mitigation Measures 3.2-1 and 3.2-2 to reduce construction and operational emissions.	LTS

Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
NI = No impact LTS = Less than significant PS = Potentially significant S = Significant SU = Significant and unavoidable			
and 4 lb/day, respectively. Operational project emissions after implementation of Mitigation Measure 3.2-2 would be lower than pre-mitigation emission levels of 50 lb/day of PM_{10} and 15 lb/day of $PM_{2.5}$, which are below SMAQMD's operational emissions thresholds of significance of 80 PM_{10} and 82 lb/day $PM_{2.5}$ (SMAQMD's thresholds when BMPs and BACTs are applied). These levels of emissions are below SMAQMD's operational emissions thresholds of significance (80 PM_{10} and 82 lb/day $PM_{2.5}$) used following implementation of BMPs and BACT. Therefore, this impact would be less than significant with mitigation.			
Impact 3.2-4: Expose Sensitive Receptors to Toxic Air Contaminants Construction-related TAC emissions would not expose sensitive receptors to an incremental increase in cancer risk greater than 10 in 1 million or a hazard index greater than 1.0, which reflects the: (1) relatively low mass of diesel PM emissions that would be generated by construction activity on the Project site (i.e., 3 lb/day of exhaust PM_{10}), (2) the relatively short duration of diesel PM-emitting construction activity at the Project site (i.e., 7 months), and (3) the highly dispersive properties of diesel PM. Additionally, based on the HRA conducted for the Project (Appendix B), operation of the Project would generate a health risk score of approximately 9.1 in one million at the maximally exposed individual. This would be below SMAQMD's threshold of significance of 10 in one million for TAC impacts. Therefore, this impact would be less than significant.	LTS	No mitigation is required.	LTS
Impact 3.2-5: Generate Odors or Emissions Leading to the Formation of Odors The Project would generate short-term odors from the use of diesel-powered construction equipment; however, the duration of these emissions would occur only within the Project's anticipated 7-month construction period. Emissions of odors would be inherently short term and would not cause long-term odor-related impacts. The Project would include operational project design features that are considered BACT by SMAQMD and that would reduce the potential for the release of odors into the Project area. Therefore, this impact would be less than significant.	LTS	No mitigation is required.	LTS
Biological Resources			
Impact 3.3-1: Result in Disturbance to or Loss of Western Spadefoot Breeding Habitat Project implementation could lead to potential loss of western spadefoot breeding habitat, resulting from fill of seasonal wetlands and disturbance from construction activities. Impacts would be less than significant with mitigation.	PS	**Mitigation Measure 3.3-1: Avoid and Protect Western Spadefoot** The applicant shall impose the following conditions before and during construction: ▶ For work conducted during the western spadefoot migration and breeding season (November 1 through May 31), a qualified biologist shall survey the Project site (including access roads) within 48 hours before initiation of	LTS

Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
NI = No impact LTS = Less than significant PS = Potentially significant S = Significant SU = Significant and unavoidable			
		construction activities. If no western spadefoot individuals are found during the preconstruction survey, the biologist shall document the findings in a letter report to CDFW and the City of Elk Grove, and further mitigation shall not be required. ▶ If western spadefoot toad is found within the Project site, the qualified biologist shall consult with CDFW to determine appropriate avoidance measures. When feasible, as determined by the applicant in coordination with a qualified biologist by considering project design, a 50-foot no-disturbance buffer shall be established around burrows that provide suitable upland habitat for western spadefoot. Burrows considered suitable for spadefoot shall be identified by a qualified biologist. The biologist shall delineate and mark the no-disturbance buffer. ▶ If establishing a 50-foot no-disturbance buffer is not feasible(i.e., redesign of the project footprint within the 50-foot buffer would not meet project objectives), then a qualified biologist shall relocate any adult western spadefoot toads or aquatic larvae to nearby suitable habitat, and shall be present during initial ground disturbing activities. If any adult western spadefoot toads are observed during initial ground disturbing activities, all work shall cease until the qualified biologist can relocate the toads to nearby suitable habitat. ▶ Before initiation of construction activities, the Project applicant shall employ a qualified biologist to conduct environmental awareness training for personnel working on construction activities. The training will describe special-status wildlife and habitats and applicable measures designed to minimize disturbance to these species.	
Impact 3.3-2: Result in Disturbance to or Loss of Special-Status Bird Species and Habitat Project implementation could lead to potential loss of special-status birds or their nests due to disturbance from construction activities. Loss of nests could include nest abandonment, failure, and/or mortality of chicks or eggs. Implementation could also result in loss of foraging habitat. Impacts would be less than significant with mitigation.	PS	**Mitigation Measure 3.3-2a: Avoid Disturbance to Swainson's Hawk, White-Tailed Kite, and Other Raptor Nests and Compensate for Loss of Foraging Habitat for Swainson's Hawk** The City of Elk Grove shall impose the following conditions before and during construction. The following measures will be implemented and are intended to avoid and minimize impacts on nesting raptors, including Swainson's hawk and white-tailed kite: ▶ Before initiation of any Project activities during the nesting bird season (February 1-August 31), a qualified biologist shall conduct preconstruction	LTS

Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
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		surveys for nesting raptors and shall identify active nests within 0.5 mile (for Swainson's hawk; SHTAC 2000) and within 0.25 mile (for white-tailed kite and other nesting raptors) of the Project site and off-site improvement areas. The surveys shall be conducted between February 1 and August 31, no more than 7 days before initiation of construction activities. The results of these surveys shall be provided to the City's Development Services Department. ▶ Impacts on nesting Swainson's hawks and other raptors shall be avoided by establishing appropriate no-disturbance buffers around active nest sites identified during preconstruction raptor surveys. Project activities shall not commence within the buffer areas until a qualified biologist has determined, in consultation with CDFW, that the young have fledged, that the nest is no longer active, or that reducing the buffer would not likely result in nest abandonment. A 0.25-mile-wide buffer shall be implemented for active Swainson's hawk and a 500-foot buffer shall be implemented for active nests of other raptor species. I size of the buffer may be adjusted if a qualified biologist, in consultation with CDFW, determines that such an adjustment would not be likely to adversely affect the nest. Factors to be considered for determining buffer location will include presence of natural buffers provided by vegetation, buildings, or topography; nest height above ground; baseline levels of noise and human activity (e.g., SR 99, other nearby urban development); and species sensitivity. ▶ Monitoring of the nest by a qualified biologist during and after construction activities shall be required if the activity has potential to adversely affect the nest. If construction activities cause the nesting bird to vocalize, make defensive flights at intruders, get up from a brooding position, or fly off the nest, then the no-disturbance buffer shall be increased until the agitated behavior ceases, as determined by a qualified biologist. ▶ Approximately 16.7 acres of Swainson's hawk foraging habitat (i.e., ruderal herbaceous, seasonal wetland) would be affected by project implementation. Mitigation for loss of Swainson's hawk foraging habitat will follow Chapter 16.130 of the City of Elk Grove Municipal Code, which requires projects that would impact less than 40 acres of habitat to mitigate loss of Swainson's hawk foraging habitat by paying a mitigation fee.	

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		Mitigation Measure 3.3-2b: Conduct Take Avoidance Survey for Burrowing Owl, Implement Avoidance Measures, and Compensate for Loss of Occupied Burrows The City of Elk Grove shall impose the following conditions before and during construction: ▶ A qualified biologist shall conduct a focused survey for burrowing owls in areas of habitat suitable for the species (e.g., ruderal grassland) on and within 1,640 feet (500 meters) of the Project site no less than 14 days before initiating ground disturbance activities using survey methods described in Appendix D of the CDFW Staff Report on Burrowing Owl Mitigation (CDFG 2012). ▶ If no occupied burrows are found, the qualified biologist shall submit a report documenting the survey methods and results to the applicant and the City of Elk Grove, and no further mitigation will be required. ▶ If an active burrow is found within 1,640 feet of pending construction activities that would occur during the nonbreeding season (September 1 through January 31), the applicant shall establish and maintain a protective buffer of 164 feet (50 meters) to 1,640 feet (500 meters) around the occupied burrow throughout construction. The actual buffer size will be determined by the qualified biologist based on the time of year and level of disturbance in accordance with guidance provided in the CDFW *Staff Report on Burrowing Owl Mitigation* (CDFG 2012). The protection buffer will be adjusted if, in consultation with CDFW, a qualified biologist determines that an alternative buffer would not disturb burrowing owl use of the burrow because of particular site features or other buffering measures. If occupied burrows are present that cannot be avoided or adequately protected with a no-disturbance buffer, a burrowing owl exclusion plan shall be developed, as described in Appendix E of the CDFW staff report. Burrowing owls shall not be excluded from occupied burrows until the Project burrowing owl exclusion plan is approved by CDFW. The exclusion plan shall include a compensatory habitat mitigation plan (see below). ▶ If an active burrow is found during the breeding season (February 1 through August 31), occupied burrows shall not be disturbed and shall be provided with a protective buffer of 164 feet to 1,640 feet (as determined by a qualified biologist based on time of year and level of disturbance). There is an option for the size of the buffer to be adjusted depending on the time of year and level of disturbance as outlined in the CDFW staff report. The size of the buffer	

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		will be reduced if a broad-scale, long-term monitoring program acceptable to CDFW is implemented so that burrowing owls are not adversely affected. After the fledglings are capable of independent survival, the owls can be evicted, and the burrow can be destroyed per the terms of a CDFW-approved burrowing owl exclusion plan developed in accordance with Appendix E of CDFW staff report. ▶ If burrowing owls are evicted from burrows and the burrows are destroyed by implementation of Project activities, the applicant shall mitigate the loss of occupied habitat in accordance with guidance provided in the CDFW staff report, which states that permanent impacts on nesting, occupied, and satellite burrows and burrowing owl habitat (i.e., grassland habitat with suitable burrows) shall be mitigated such that habitat acreage and the number of burrows are replaced through permanent conservation of comparable or better habitat with similar vegetation communities and burrowing mammals (e.g., ground squirrels) present to provide for nesting, foraging, wintering, and dispersal. The applicant shall retain a qualified biologist to develop a burrowing owl mitigation and management plan that incorporates the following goals and standards and that shall be approved by the City of Elk Grove and CDFW: ▪ Mitigation lands shall be selected based on comparison of the habitat lost to the compensatory habitat, including type and structure of habitat, disturbance levels, potential for conflicts with humans, pets, and other wildlife, density of burrowing owls, and relative importance of the habitat to the species throughout its range. ▪ If feasible (i.e., if available), mitigation lands shall be provided adjacent or proximate to the Project site so that displaced owls can relocate with reduced risk of injury or mortality. Feasibility of providing mitigation adjacent or proximate to the Project site depends on availability of sufficient habitat to support displaced owls that will be preserved in perpetuity. ▪ If habitat suitable for burrowing owl is not available for conservation adjacent or proximate to the Project site, mitigation lands can be secured off-site and shall aim to consolidate and enlarge conservation areas outside of planned development areas and within foraging distance of other conservation lands. Another option for mitigation is the purchase	

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		of mitigation credits at a CDFW-approved mitigation bank, if available. For this alternative, consultation with CDFW would be required. ▪ If burrowing owl habitat mitigation is completed through permittee-responsible conservation lands, the mitigation plan shall include mitigation objectives, site selection factors, site management roles and responsibilities, vegetation management goals, financial assurances and funding mechanisms, performance standards and success criteria, monitoring and reporting protocols, and adaptive management measures. Success shall be based on the number of adult burrowing owls and pairs using the site and whether the numbers are maintained over time. Measures of success, as suggested in the CDFW staff report, shall include site tenacity, number of adult owls present and reproducing, colonization by burrowing owls from elsewhere, changes in distribution, and trends in stressors. **Mitigation Measure 3.3-2c: Conduct Preconstruction Loggerhead Shrike and Common Native Nesting Bird Surveys, and Establish Protective Buffers** The City of Elk Grove shall impose the following conditions before, and during, construction. The following measure shall be implemented to avoid or minimize loss of native nesting birds protected under Section 3503 of the California Fish and Game Code: ▶ To minimize the potential for loss of loggerhead shrike and other native birds, Project activities (e.g., tree removal, vegetation clearing, ground disturbance, staging) shall be conducted during the nonbreeding season (approximately September 1-January 31, as determined by a qualified biologist) if feasible (i.e., if project objectives and schedule can be met by conducting all Project activities outside of the nesting bird season). If Project activities are conducted during the nonbreeding season, no further mitigation shall be required. ▶ If conducting all Project activities outside of the nesting bird season is not feasible, within 14 days before the onset of Project activities during the breeding season (approximately February 1 through August 31, as determined by a qualified biologist), a qualified biologist familiar with birds of California and with experience conducting nesting bird surveys shall conduct focused nest surveys for loggerhead shrike and other native birds. Surveys shall be conducted in accessible areas within 500 feet of the Project site for raptor species and within 50 feet of the Project site for nonraptor common native bird nests.	

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		▶ If no active nests are found, the qualified biologist shall submit a report documenting the survey methods and results to the applicant and Sacramento County, and no further mitigation shall be required. ▶ If active nests are found, impacts on nesting birds shall be avoided by establishing appropriate no-disturbance buffers around active nest sites. Project activity would not commence within the buffer areas until a qualified biologist has determined that the young have fledged, the nest is no longer active, or reducing the buffer would not likely result in nest abandonment. Buffers shall be determined by a qualified biologist. Factors to be considered for determining buffer size shall include presence of natural buffers provided by vegetation or topography, nest height above ground, baseline levels of noise and human activity, species sensitivity, and proposed Project activities. Generally, buffer size for these species would be at least 20 feet. The size of the buffer will be adjusted if a qualified biologist determines that such an adjustment would not be likely to adversely affect the nest. Periodic monitoring of the nest by a qualified biologist during Project activities shall be required if the activity has potential to adversely affect the nest, the buffer has been reduced, or birds within active nests are showing behavioral signs of agitation (e.g., standing up from a brooding position, flying off the nest) during Project activities, as determined by the qualified biologist.	
Impact 3.3-3: Disturb and Result in Loss of Wetlands, Other Waters of the United States, and Waters of the State Implementation of the Project would result in the removal or fill of waters of the state. Implementation of Mitigation Measure 3.3-3 would reduce this impact to less than significant by requiring compensatory mitigation to offset any loss of wetland function and requiring the Project applicant to comply with all rules and regulations imposed by the relevant regulatory agencies. Impacts would be less than significant with mitigation.	PS	**Mitigation Measure 3.3-3: Implement Mitigation for Wetlands, Other Waters of the United States, and Waters of the State** The City of Elk Grove shall impose the following conditions before and during construction: ▶ The Project applicant shall replace or restore on a no-net-loss basis the function of all wetlands and other waters that would be removed as a result of implementing the Project in accordance with USACE mitigation guidelines and State wetland procedures (SWRCB 2021). Before the issuance of any grading permit, Section 401 Water Quality Certification from the RWQCB shall be obtained. ▶ Since the wetlands on the Project site were disclaimed by USACE, the applicant shall apply for a permit and waste discharge requirements from the Central Valley RWQCB for any activity that would result in discharges of	LTS

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		dredged or fill material into waters of the state. The application shall be completed in accordance with State wetland procedures (SWRCB 2021). ▶ The applicant shall provide compensatory mitigation for permanent loss of any waters of the state in accordance with the State procedures, such that implementing the Project would not result in a net loss of overall abundance, diversity, or condition of aquatic resources within the affected watershed based on a watershed assessment using an assessment method approved by the permitting authority (e.g., Central Valley RWQCB or State Water Resources Control Board). ▶ Wetland habitat shall be restored or replaced at an acreage and location and by methods agreeable to the Central Valley RWQCB, depending on agency jurisdiction, and as determined during the Section 401 permitting processes or according to waste discharge requirements issued by the Central Valley RWQCB.	
Impact 3.3-4: Conflict with Local Policies and Ordinances The Project proposed to remove two trees designated as trees of local importance under City of Elk Grove Municipal Code Chapter 19.12: Tree Preservation and Protection: the northern California black walnut and one valley oak tree. Therefore, Project implementation could conflict with a local ordinance protecting trees. Impacts would be less than significant with mitigation.	PS	**Mitigation Measure 3.3-4: Avoid, Minimize, or Compensate for Loss of Protected Trees** A tree removal permit shall be obtained from the City for removal of the northern California black walnut and valley oak (#132 and #731; Figure 3.3-2), which are in the area proposed for development. Approval of a tree removal permit shall require compensatory mitigation for any trees to be removed as a result of Project activities. To avoid and minimize damage to existing trees that are not proposed for direct impact by Project activities, the following measures shall be implemented: ▶ All construction activity (e.g., grading, filling, paving, landscaping) will avoid the critical root zone around all trees selected for preservation within the vicinity of the Project site. ▶ Temporary protective fencing will be installed around the dripline of existing trees before commencement of any construction activity conducted within 25 feet of the tree canopy. The fence will be clearly marked to prevent inadvertent encroachment by heavy machinery. ▶ Drainage will not be allowed to pond around the base of any tree. ▶ Construction materials or heavy equipment will not be stored within the critical root zone of any tree of local importance. ▶ Construction materials will be properly stored away from existing trees to avoid spillage or damage to trees.	LTS

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		▶ The loss of trees protected under Elk Grove Municipal Code Chapter 19.12 and General Plan policy (i.e., California black walnut and valley oak tree) shall be replaced at a 1:1 ratio (1 new inch DSH of tree for each inch DSH lost), unless alternative mitigation is approved by the City pursuant to Elk Grove Municipal Code Section 19.12.180 of the City code. Replacement trees will be planted on-site in areas that would not be developed or in nearby off-site open space areas if another option is not approved by the City Arborist. ▶ Alternatively, payment of an in-lieu fee to the City's tree preservation fund will be allowed to compensate for tree loss, as estimated by a certified arborist.	
Cultural Resources and Tribal Cultural Resources			
Impact 3.4-1: Cause a Substantial Adverse Change in the Significance of Archaeological Resources Implementation of the Project would result in trenching, grading, the construction of ready-mix concrete facility and associated facilities and amenities. Although no known archaeological resources have been identified on the Project site, Project-related ground-disturbing activities may result in the discovery or damage of yet undiscovered archaeological resources as defined in State CEQA Guidelines Section 15064.5. Impacts would be less than significant with mitigation.	PS	**Mitigation Measure 3.4-1a: Develop and Implement a Worker Environmental Awareness Program** The Applicant shall retain a qualified professional archaeologist (one who meets the Secretary of the Interior's Professional Qualification Standards for archaeologists) to prepare a worker environmental awareness program. The program shall be provided to all construction personnel and supervisors who will have the potential to encounter and alter heritage and cultural resources. A copy of the worker environmental awareness program shall be provided to the City Development Services Department before construction activities begin. The topics to be addressed in the worker environmental awareness program will include, at a minimum: ▶ types of cultural resources expected on the Project site; ▶ types of evidence that indicates cultural resources might be present (e.g., ceramic shards, lithic scatters); ▶ what to do if a worker encounters a possible resource; ▶ what to do if a worker encounters bones or possible bones; and ▶ penalties for removing or intentionally disturbing heritage and cultural resources, such as those identified in the Archaeological Resources Protection Act. **Mitigation Measure 3.4-1b: Implement Procedures to Address Discovery of Subsurface Archaeological Features and Tribal Cultural Resources** If any prehistoric or historic-era subsurface archaeological features or deposits (e.g., ceramic shard, trash scatters), including locally darkened soil ("midden"), which may	LTS

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		conceal cultural deposits, are discovered during construction, all ground-disturbing activity within 100 feet of the resources shall be halted, and a qualified professional archaeologist (one who meets the Secretary of the Interior's Professional Qualification Standards for archaeology) shall be retained to assess the significance of the find. If the qualified archaeologist determines the archaeological material to be Native American in nature, the City shall contact the appropriate California Native American tribe. A tribal representative from a California Native American tribe that is traditionally and culturally affiliated with the Project area may make recommendations for further evaluation and treatment as necessary and provide input on the preferred treatment of the find. If the find is determined to be significant by the archaeologist or the tribal representative (i.e., because it is determined to constitute a unique archaeological resource or a tribal cultural resource, as appropriate), the archaeologist and tribal representative, as appropriate, shall develop, and the City shall implement, appropriate procedures to protect the integrity of the resource and ensure that no additional resources are affected. Procedures may include but would not necessarily be limited to preservation in place (which shall be the preferred manner of mitigating impacts on archaeological and tribal sites), archival research, subsurface testing, or contiguous block unit excavation and data recovery (pursuant to a data recovery plan). No work at the discovery location shall resume until all necessary investigation and evaluation of the resource has been satisfied. This requirement shall be placed on Project improvement plans and will be verified by the City's Development Services Department.	
Impact 3.4-2: Cause a Substantial Adverse Change in the Significance of a Tribal Cultural Resource Tribal consultation, as required by law, has been completed and has not resulted in the identification of tribal cultural resources on the Project site. However, excavation activities associated with Project construction may disturb or destroy previously undiscovered significant subsurface tribal cultural resources. Impacts would be less than significant with mitigation.	PS	**Mitigation Measure 3.4-2a: Implement Mitigation Measure 3.4-1a** **Mitigation Measure 3.4-2b: Implement Mitigation Measure 3.4-1b** **Mitigation Measure 3.4-2c: Retain a Native American Tribal Monitor** The Applicant shall retain and compensate for the services of a Tribal monitor/consultant who is both approved by the Wilton Rancheria and is listed under the NAHC's Tribal Contact list for the Project area. The Applicant shall contact the Tribal representatives a minimum of seven days before beginning earthwork or other ground disturbing activities; construction activities will proceed without a monitor if no response is received 48 hours before ground disturbing activities. The Tribal monitor shall only be present onsite during the construction phases that involve ground disturbing activities for construction. The Tribal monitor shall complete daily monitoring logs that describe each day's activities, including construction activities, locations, soil, and any cultural materials identified. The	LTS

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		onsite monitoring shall end when the grading and excavation activities are completed, or when the Tribal representatives and monitor have indicated that the site has a low potential for impacting tribal cultural resources.	
Impact 3.4-3: Disturb Human Remains Based on documentary research, no evidence suggests that any prehistoric- or historic-era marked or unmarked human interments are present within or in the immediate vicinity of the Project site. However, ground-disturbing construction activities could uncover previously unknown human remains. Impacts would be less than significant with mitigation.	PS	**Mitigation Measure 3.4-3: Implement Response Protocol If Human Remains Are Uncovered** Consistent with California Health and Safety Code Section 7050.5 and PRC Section 5097, if suspected human remains are discovered, ground-disturbing activities in the area of the remains shall be halted immediately, and the Sacramento County coroner shall be notified immediately. The responsibilities for acting upon notification of a discovery of Native American human remains are specifically identified in PRC Section 5097.94. If the remains are determined by the coroner to be Native American, the NAHC shall be notified within 24 hours, and the guidelines of the NAHC shall be adhered to in the treatment and disposition of the remains. Following the coroner's findings, the NAHC-designated MLD and the landowner shall determine the ultimate treatment and disposition of the remains and take appropriate steps to ensure that additional human interments, if present, are not disturbed. This requirement shall be included in Project improvement plans and will be verified by the City Development Services Department.	LTS
Greenhouse Gas Emissions, Climate Change, and Energy			
Impact 3.5-1: Generate GHG Emissions in Exceedance of Thresholds Construction of the Project would generate 125 $MTCO_2e$ over seven months, which is below SMAQMD's 1,100 $MTCO_2e$ per year threshold of significance for evaluating construction-related climate change impacts. Additionally, operation of the Project would generate 5,575 $MTCO_2e$ per year, which is also below SMAQMD's bright-line threshold of significance (for evaluating stationary sources of GHGs in Sacramento County. Because the Project's construction and operational emissions would be below the applicable thresholds of significance of 1,100 $MTCO_2e$ per year and 10,000 $MTCO_2$ per year, respectively, as developed by SMAQMD, the Project would have a less-than-significant impact on GHG emissions.	LTS	No mitigation is required.	LTS
Impact 3.5-2: Conflict with or Obstruct Implementation of Greenhouse Gas Reduction Measures or Energy Measures in the City of Elk Grove's Climate Action Plan The Project would be consistent with the relevant greenhouse gas reduction and energy measures from the City of Elk Grove's CAP that pertain to nonresidential development, which includes commercial and industrial land uses. Because the	LTS	No mitigation is required.	LTS

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Project would incorporate relevant measures as Project design features, as shown using the City's CAP consistency checklist, the Project would not conflict with or obstruct implementation of the City of Elk Grove's CAP. This impact would be less than significant.			
Impact 3.5-3: Result in Wasteful, Inefficient, or Unnecessary Consumption of Energy during Project Construction or Operation The Project would be consistent with the relevant measures from the City of Elk Grove's CAP that pertain to nonresidential development, which includes commercial and industrial land uses. Using the City's CAP consistency checklist (Appendix B), the Project demonstrates consistency with the CAP. Also, the Project would not use energy for construction that would be considered wasteful or unnecessary, as that energy expenditure would facilitate operation of the Project and achievement of Project goals. The Project would be automatically enrolled in the SMUD's Greenergy program, which would provide the Project site with 50 percent renewable energy. For these reasons, the Project's energy consumption would not be considered wasteful, inefficient, or unnecessary. This impact would be less than significant.	LTS	No mitigation is required.	LTS
Hazards and Hazardous Materials			
Impact 3.6-1: Create a Hazard to the Public or Environment through the Routine Transport, Use, or Disposal of Hazardous Materials Project construction and operation would involve the use of materials that may create a hazard if released into the environment. Use, transport, and disposal of these materials in compliance with established regulations would effectively address hazards associated with these materials. This impact would be less than significant.	LTS	No mitigation is required.	LTS
Impact 3.6-2: Create a Hazard to the Public or Environment through Reasonably Foreseeable Upset or Accident Conditions Construction-related activities could result in the disturbance and subsequent release of hazardous materials into the environment, which would pose a hazard to human health if construction workers were exposed. Implementation of Mitigation Measure 3.6-2a requires the proper management of hazardous materials that are accidentally discovered during construction. Additionally, Mitigation Measure 3.6-2b requires the contractor to prepare and implement a site-specific worker health and safety plan during Project construction. This impact would be reduced to less than significant with mitigation incorporated.	PS	**Mitigation Measure 3.6-2a: Manage Accidental Discovery of Hazardous Materials** If previously unknown contaminated soils or potentially hazardous materials are discovered during earthmoving activities, all ground-disturbing activities within 50 feet of the discovery will be halted until a qualified City employee can assess the conditions on the site. The City will notify the appropriate enforcement agency (e.g., Sacramento County EMD, California Department of Toxic Substances Control, and Central Valley Regional Water Quality Control Board), if appropriate, to determine the actions needed to remediate any potentially hazardous conditions. Actions to remediate potentially hazardous conditions include sampling potentially	LTS

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		contaminated soils and excavating and removing contaminated soils and/or other potentially hazardous materials. **Mitigation Measure 3.6-2b: Prepare and Implement Site-Specific Worker Health and Safety Plan** Before construction begins, the contractor shall prepare a Project-specific worker health and safety plan. The plan shall include site-specific information, requirements, and guidelines to be followed while activities that may disturb the existing hazardous materials of concern are conducted. These activities may include grading, excavation, trenching, boring, dewatering, stockpiling, reusing, handling, or disposing of wastes, as well as other applicable site activities. The worker health and safety plan shall be prepared in accordance with the federal and State OSHA Hazardous Waste Operations and Emergency Response (HAZWOPER) standards (29 CFR 1910.120 and 8 CCR 5192) and implemented throughout the duration of ground-disturbing construction activities. The worker health and safety plan shall include contingencies (i.e., if unknown or unanticipated environmental conditions may exist at the site) for a variety of situations that may arise. The plan shall ensure that site workers potentially exposed to site contamination in soil, groundwater, or vapor are trained, equipped, and monitored during site activity. The training, equipment, and monitoring activities shall ensure that workers are not exposed to contaminants above personnel exposure limits established by Table Z, 29 CFR 1910.1000. The worker health and safety plan shall be signed by and implemented under the oversight of a California State Certified Industrial Hygienist.	
Impact 3.6-3: Impair Implementation of, or Physically Interfere with, an Adopted Emergency Response Plan or Emergency Evacuation Plan The Project would not impair the implementation of the City's EOP emergency response or evacuation plans, and it would not permanently alter the capacity of key transportation routes. Temporary road closures during construction, if required, would not be expected to substantially impair evacuation and response. Access to SR 99 would not be affected. This impact would be less than significant.	LTS	No mitigation is required.	LTS
Hydrology and Water Quality			
Impact 3.7-1: Violate Any Water Quality Standards or Waste Discharge Requirements or Substantially Degrade Surface Water or Groundwater Quality Runoff from construction sites and developed areas can carry pollutants and sediment, which can be potentially harmful to downstream receiving waters.	LTS	No mitigation is required.	LTS

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Project site construction activities would consist of ground-disturbing and excavation activities that would expose soils to wind and water erosion and potentially transport pollutants to surface water bodies, particularly during storm events. In addition, accidental spills of construction-related fuels, oils, hydraulic fluid, and other hazardous substances may contaminate stormwater flows, resulting in the potential degradation of surface water quality downstream of the disturbance area. The potential for erosion and transport of sediment and pollutants would be addressed through compliance with City Municipal Code Chapter 16.44, which requires all projects to implement erosion control measures to minimize erosion, sediment, dust, and other pollutant runoff created by improvement activities. Additionally, the Project would be required to obtain coverage under the Construction General NPDES permit, including completion of a SWPPP. Upon completion of Project construction, the total area of impervious surfaces would be increased compared to existing conditions. However, the Project would incorporate LID measures, which are included in the stormwater quality management plan consistent with the MS4 permit, to maintain pre-Project runoff quantities. All pollution control measure would be designed in accordance with the Sacramento Region Stormwater Quality Design Manual and enforced through the City permitting process. Because the Project would comply with existing regulations, the impact associated with the Project's potential to violate water quality standards or waste discharge requirements or otherwise degrade surface water or groundwater would be less than significant.			
Impact 3.7-2: Substantially Decrease Groundwater Supplies or Interfere Substantially with Groundwater Recharge Such That the Project May Impede Sustainable Groundwater Management Implementation of the Project would increase the total extent of impervious area at the site but would allow for recharge of shallow groundwater systems by maintaining pre-Project conditions. Although implementing the Project would increase water demand relative to existing conditions, this change represents a small percentage of the overall demand in EGWD's Service Area 1 and would not substantially decrease groundwater supplies or impede sustainable groundwater management. This impact would be less than significant.	LTS	No mitigation is required.	LTS

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Impact 3.7-3: Increase Localized Flooding Risk Because of Changes in Site Drainage Implementation of the Project would increase the total area of impervious surfaces compared to existing conditions. The volume and rate of stormwater runoff generated from an area is affected by development through conversion of vegetated or other pervious surfaces to impervious surfaces and by the development of drainage systems that connect these impervious surfaces to streams or other water bodies. In this way, development can increase the rate of runoff and eliminate storage and infiltration that would naturally occur along drainage paths and increase the potential for localized flooding risk. However, the Project would incorporate LID measures, which are included in the stormwater quality management plan under the MS4 permit, to maintain pre-Project runoff quantities. This impact would be less than significant.	LTS	No mitigation is required.	LTS
Land Use and Planning			
Impact 3.8-1: Cause a Significant Environmental Impact Related to a Conflict with Any Land Use Plan, Policy, or Regulation Adopted for the Purpose of Avoiding or Mitigating an Environmental Effect The Project involves construction and operation of an asphalt and cement recycling and processing facility with associated industrial equipment and storage, as well as supporting structures, such as a commercial shop, a lab, an employee facility, and an associated parking lot. The Project would be consistent with the site's existing land use designation and zoning. This impact would be less-than-significant.	LTS	No mitigation is required.	LTS
Noise			
Impact 3.9-1: Expose Noise-Sensitive Receptors to Excessive Construction-Generated Noise Levels Proposed construction areas are located close to existing noise-sensitive receptors. Noise-generating construction activity would be performed during daytime hours, when construction noise is exempt from noise standards by the Section 6.32.100 of the Elk Grove Municipal Code. Accounting for simultaneous equipment operation, proximity to existing sensitive receptors, which consist of single-family homes east and west of the Project site, and typical attenuation rates for noise levels associated with the loudest construction activities, noise levels would not result in exceedance of City noise standards at any nearby receptors or result in a substantial increase in noise levels that would impact area residents. This impact would be less than significant.	LTS	No mitigation is required.	LTS

Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
NI = No impact LTS = Less than significant PS = Potentially significant S = Significant SU = Significant and unavoidable			
Impact 3.9-2: Generate Short-Term Construction-Related and Long-Term Operational Vibration Levels The Project would entail the use of construction equipment and operational equipment that would generate groundborne vibration in the Project area.. During construction and operation of the Project, the nearest sensitive receptors are located approximately 1,000 feet or more from where construction would occur and the location of the proposed asphalt, ready-mix, and recycling facilities. At that distance, vibration levels would be well below the thresholds for annoyance or damage to residential structures (0.2 in/sec PPV). This impact would be less than significant.	LTS	No mitigation is required.	LTS
Impact 3.9-3: Increased Traffic Noise Vehicle trips generated by operation of the Project would not result in traffic noise increases that exceed the City's incremental noise increase criteria for transportation noise sources or expose receptors to perceptible increases in traffic noise (Table 3.9-3). In addition, the occasional nighttime operation of the facility would result in increased noise associated with haul trucks on nearby roads; however, based on the modeling conducted truck pass-by noise events would not result in an increased potential for sleep disturbance. Thus, buildout of the Project would not result in substantially more mobile source–related noise. This impact would be less than significant.	LTS	No mitigation is required.	LTS
Impact 3.9-4: Generate On-Site Stationary Noise Operation of the Project would involve the operation of an asphalt and ready-mix plant and a recycling facility, as well as movement of on-site vehicles associated with the sale of future aggregate products. Predicted daytime and nighttime noise levels from the operation of the noise sources would not exceed the City's noise standards of 60 L_{eq} dBA and 50 L_{eq} dBA for daytime and nighttime hours, respectively. Nevertheless, due to uncertainties surrounding the timing and intensity of use of on-site equipment at the facility, these noise standards could be exceeded from Project operation as well as generate single event noise conditions that could create sleep disturbance for sensitive receptors in the area. Impacts would be less than significant with mitigation.	PS	**Mitigation Measure 3.9-4: Implement Noise Control Measures** The Project applicant shall implement the following noise control measures to ensure that operation of the Project would not generate stationary noise that would exceed the City's noise standards: ▶ Limit recycle operations to daytime hours (7:00 a.m. - 10:00 p.m.). ▶ Limit aggregate sales to daytime hours as proposed (7:00 a.m. - 10:00 p.m.). ▶ Ensure that all processing area conveyors are properly lubricated at all times. ▶ Use electric power rather than generators for on-site power. ▶ Design and maintain recycle area aggregate stockpiles such that they maximize shielding of onsite noise sources in the directions of the nearby residences. This may include solid barriers such as concrete masonry walls, existing structures, or topography, such that the barrier breaks the line of sight between the receiver and the stockpile location.	LTS

Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
NI = No impact LTS = Less than significant PS = Potentially significant S = Significant SU = Significant and unavoidable			
		▶ Equip all mobile plant area equipment with acoustic "growler-type" backup warning systems, rather than conventional "beepers." ▶ Limit asphalt and ready-mix operations to daytime hours unless construction contracts specifically require the delivery of materials during nighttime hours. ▶ Upon completion of project construction but prior to issuance of authority to operate, the onsite equipment and operations shall be subject to a sound level measurement by an acoustical professional to ensure that City daytime and nighttime noise standards, as well as the 65 dBA SEL interior level for sleep disturbance, are not exceeded at any nearby sensitive receptor. In the event that noise monitoring indicates that the Project noise generation would exceed either the City's daytime (i.e., 60 dBA L_{eq}) or nighttime (i.e., 50 dBA L_{eq}) noise standards or create noise levels at nighttime that could disturb sleep at nearby sensitive receptors, additional noise control measures shall be implemented until such compliance is achieved. Operation of the facility shall not be allowed until a noise operational analysis, submitted to the City for review and approval, can verify that noise standards are in compliance. If any identified noise standard is not being met, additional analysis of the noise monitoring results shall be conducted to determine the sources of noise responsible for any exceedances and noise control measures shall be targeted for those sources. The following noise control options have been successfully implemented at aggregate facilities and should be considered for this facility if needed and as feasible: ▪ Suspension of acoustic curtains as close as possible to significant noise sources. ▪ Installation of acoustic silencers on the asphalt plant bag house exhaust fans. ▪ Construct localized barriers adjacent to significant noise sources. ▪ Relocation of aggregate stockpiles as feasible to provide additional screening of processing area noise sources from view of nearby residences. ▪ Pre-loading of asphalt plant and ready-mix feed hoppers before nighttime operations to reduce the degree of nighttime loading required.	

Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
NI = No impact LTS = Less than significant PS = Potentially significant S = Significant SU = Significant and unavoidable			
Public Services and Utilities			
Impact 3.10-1: Result in Substantial Adverse Physical Construction-Related Impacts Associated with the Provision or the Need for New or Physically Altered Fire Facilities, to Maintain Acceptable Service Ratios and Response Times The Project would construct an industrial facility on a vacant lot within the existing boundaries of Cosumnes CSD Fire Department. Because the Project would adhere to all applicable requirements related to fire protection and would not create a substantial demand for fire protection services such that service ratios, response times, or other performance objectives would not be substantially affected, Project implementation would not require the need for new or expanded fire protection facilities. This impact would be less than significant.	LTS	No mitigation is required.	LTS
Impact 3.10-2: Result in Substantial Adverse Physical Construction-Related Impacts Associated with the Provision or the Need for New or Physically Altered Police Facilities, to Maintain Acceptable Service Ratios and Response Times The Project involves construction of an industrial facility on a vacant lot. Implementation of the Project would not create a substantial demand for police protection resources and would not interfere with existing services. Because the Project would adhere to all applicable requirements related to police protection and would not create a substantial demand for police protection services, Project implementation would not require the need for new or expanded police protection facilities. This impact would be less than significant.	LTS	No mitigation is required.	LTS
Transportation			
Impact 3.11-1: Conflict with Bicycle, Pedestrian, and Transit Programs, Plans, or Ordinances The Project includes the implementation of off-site bicycle and pedestrian facilities along the Project frontage on Waterman Road, consistent with the City of Elk Grove General Plan, BPTMP, and Improvement Standards. Additionally, the Project is not expected to increase ridership such that the existing transit system does not have the capacity to accommodate demand. Additionally, the Project would not permanently alter the physical transportation network external to the Project site such that the bus stops serving these routes would be adversely affected. Thus, this impact on bicycle, pedestrian, and transit facilities would be less than significant.	LTS	No mitigation is required.	LTS

Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
NI = No impact LTS = Less than significant PS = Potentially significant S = Significant SU = Significant and unavoidable			
Impact 3.11-2: Result in an Exceedance of City of Elk Grove General Plan VMT Thresholds The Project is located in a prescreened area of the City of Elk Grove where it has been determined that VMT for that land use designation would not exceed the City's designated threshold of 15 percent below the average service population established for that land use designation if it is built to the specifications of the VMT transportation guidelines included in the City of Elk Grove *Transportation Analysis Guidelines*. Additionally, the Project's building footprint would not exceed 50,000 square feet; thus, the Project is exempt from further VMT analysis pursuant to the City of Elk Grove Land Use Project VMT Analysis Process and is presumed to result in a less-than-significant impact on VMT. The impact would be less than significant.	LTS	No mitigation is required.	LTS
Impact 3.11-3: Substantially Increase Hazards Related to a Geometric Design Feature (e.g., Sharp Curves or Dangerous Intersections) or Incompatible Uses (e.g., Farming Equipment) The Project would be subject to, and constructed in accordance with, applicable roadway design and safety guidelines. The driveway width from Waterman Road does not meet City of Elk Grove Standard Drawing ST-20 minimum width dimensions, which may affect safe access to the project site. Implementation of Mitigation Measure 3.11-3 would reduce the impact related to transportation hazards to a less-than-significant level because it would require consistency with the City of Elk Grove Standard Drawing ST-20 minimum width dimensions, which support safe access to the Project site .	PS	**Mitigation Measure 3.11-3: Design Internal Roadways and Site Access to Be Consistent with City of Elk Grove Design Standards** The Project applicant shall ensure that Project design meets City of Elk Grove Standard Drawing ST-20 minimum width dimensions and minimizes all transportation hazards to its greatest ability by implementing the following measure: ▶ The Project applicant shall ensure that the driveway design for Project site access from Waterman Road meets standards for four-lane facilities as designated by the General Plan. Therefore, the driveway width shall be a minimum of 45 feet, consistent with City of Elk Grove Standard Drawing ST-20. The driveway shall be constructed to accommodate heavy vehicles making a southbound right turn onto the Project site and an eastbound right turn out of the Project site safely and without difficulty. All improvements shall meet requirements set forth in the City of Elk Grove Improvement Standards Manual and shall be reviewed and approved by the City's Engineering Services Division as a condition of approval to ensure the safe movement of heavy vehicles accessing and exiting the Project site.	LTS
Impact 3.11-4: Result in Inadequate Emergency Access The Project would be required to meet standards and regulations identified in the 2022 California Fire Code as adopted by the City of Elk Grove, including provisions related to maintaining emergency access during construction and operations. Additionally, the Project design would be subject to review by City emergency	LTS	No mitigation is required.	LTS

Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
NI = No impact LTS = Less than significant PS = Potentially significant S = Significant SU = Significant and unavoidable			
services and responsible agencies, thus ensuring that the Project would be designed to meet all applicable emergency access requirements. For these reasons, implementing the Project would not result in inadequate emergency access. Therefore, the impact would be less than significant.			
Utilities and Service Systems			
Impact 3.12-1: Expansion of Infrastructure that Could Cause Adverse Environmental Effects Infrastructure associated with the water, wastewater, stormwater, electricity, and natural gas requirements of the Project would be expanded as needed before development of the site, as a condition of approval for the Project. Connections to existing infrastructure would be expected to occur within the new on-site driveway and paved areas and would be limited to areas within the Project site. The environmental impacts related to these connections are discussed throughout this EIR in the relevant resource sections because this work would be part of the grading and construction phase of the Project. No additional utility infrastructure would be needed off-site to adequately serve the Project. This impact would be less than significant.	LTS	No mitigation is required.	LTS
Impact 3.12-2: Provision of Sufficient Water Supplies The Project's water demand would be associated with concrete production, as well as on-site dust control, landscaping, and potable water for staff. Implementation of the Project would create demand for 6 million gallons of water per year, or approximately 22 afy, which could be met through the available groundwater production capacity associated with EGWD Service Area 1. This water supply is reliable during normal, dry, and multiple-dry years. This impact would be less than significant.	LTS	No mitigation is required.	LTS
Impact 3.12-3: Availability of Wastewater Treatment Capacity The Project would have a wastewater generation rate of approximately 0.000225 mgd, which would result in a minimal increase over existing wastewater treatment volumes (141 mgd). This increased volume would be within the SRWTP's permitted capacity of 181 mgd. Therefore, the Project's wastewater generation would be accommodated within the existing and planned treatment capacity of the SRWTP. This impact would be less than significant.	LTS	No mitigation is required.	LTS

Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
NI = No impact LTS = Less than significant PS = Potentially significant S = Significant SU = Significant and unavoidable			
Impact 3.12-4: Provision of Adequate Capacity at Solid Waste Facilities and Compliance with Regulations Related to Solid Waste Waste generated at the Project site, which would consist of office-related refuse and recycled oil and organics, may be collected by several permitted haulers, and wastes would be hauled to a permitted landfill for disposal as selected by the hauler. There is substantial remaining capacity in the landfills serving local waste haulers, with an average remaining capacity of more than 70 percent. Therefore, because the Project would not generate solid waste in excess of State or local standards or in excess of the capacity of the local infrastructure, negatively affect the provisions of solid waste services, or interfere with the attainment of solid waste reduction goals, this impact would be less than significant.	LTS	No mitigation is required.	LTS

1 INTRODUCTION

This draft environmental impact report (Draft EIR) evaluates the environmental impacts of the proposed Grant Line Construction Aggregate Production and Recycling Facility Project (Project). It has been prepared under the direction of the City of Elk Grove (City) in accordance with the requirements of the California Environmental Quality Act (CEQA) (Public Resources Code [PRC] Section 21000 et seq.) and the State CEQA Guidelines. This chapter of the Draft EIR provides information on:

- the project requiring environmental analysis (synopsis);
- the type, purpose, and intended uses of this Draft EIR;
- the scope of this Draft EIR;
- agency roles and responsibilities;
- the public review process;
- the organization of this Draft EIR; and
- standard terminology.

1.1 PROJECT REQUIRING ENVIRONMENTAL ANALYSIS

The following paragraph presents a synopsis of Project characteristics. For further information on the Project, see Chapter 2, "Project Description."

The Vulcan Materials Company ("the Applicant") is proposing to develop the Grant Line Construction Aggregate Materials Production and Recycling Facility in the southeastern edge of the City, in Sacramento County, California, just east of State Route (SR) 99. The Project would consist of an aggregate processing facility capable of processing 1.7 million tons of construction aggregate materials, including hot-mix asphalt and ready-mix concrete, annually. To produce these materials, approximately 600,000 tons per year of raw aggregate would be imported to the facility. Aggregate materials would be transported to the site from Vulcan's aggregate mine, located approximately 11 miles northeast of the site. The facility also would recycle asphalt and concrete from local demolition projects. Construction aggregate materials would be used to support a wide range of construction projects, including large highway paving projects.

1.2 PURPOSE AND INTENDED USES OF THIS DRAFT EIR

According to CEQA, preparation of an EIR is required whenever it can be fairly argued, based on substantial evidence, that implementing a proposed Project may result in a significant environmental impact. An EIR is an informational document used to inform public-agency decision makers and the general public of the significant environmental impacts of a project, identify possible ways to minimize the significant impacts, and describe reasonable alternatives to the Project that could feasibly attain most of the basic objectives of the Project while substantially lessening or avoiding any of the significant environmental impacts. Public agencies are required to consider the information presented in the EIR when determining whether to approve a project.

This Draft EIR has been prepared to meet the requirements of a project EIR as defined by Section 15161 of the State CEQA Guidelines. A project EIR focuses on the changes in the physical environment that would result from implementation of a project, including its planning, construction, and operation. The State's intention is that no further environmental analysis beyond a project EIR would be required for additional regulatory approvals following approval of the project, absent conditions requiring a subsequent EIR, a supplement to the EIR, or an addendum (State CEQA Guidelines Sections 15162–15164).

1.3 SCOPE OF THIS DRAFT EIR

This Draft EIR includes an evaluation of the following 12 environmental issue areas, as well as other CEQA-mandated issues (e.g., cumulative impacts, growth-inducing impacts, significant and unavoidable impacts, alternatives):

- aesthetics;
- air quality;
- biological resources;
- cultural resources and tribal cultural resources;
- greenhouse gas emissions, climate change, and energy;
- hazards and hazardous materials;
- hydrology and water quality;
- land use and planning;
- noise;
- public services;
- transportation; and
- utilities and service systems.

Under the CEQA statute and the State CEQA Guidelines, a lead agency may limit an EIR's discussion of environmental effects when such effects are not considered potentially significant (PRC Section 21002.1[e]; State CEQA Guidelines Sections 15128 and 15143). Information used to determine which impacts would be potentially significant was derived from review of the Project, review of applicable planning documents and CEQA documentation, fieldwork, feedback from public and agency consultation, and comments received on the notice of preparation (NOP) (see Appendix A of this Draft EIR).

The NOP was distributed on January 7, 2022, to responsible agencies, interested parties, and organizations, as well as private organizations and individuals who may have an interest in the Project. A scoping video was recorded and made available on the City of Elk Grove's website. The purpose of the NOP and the scoping video was to provide notification that an EIR for the Project was being prepared and to solicit input on the scope and content of the environmental document. Traditionally, the City hosts one scoping meeting for the general public during the NOP comment period. Due to the COVID-19 pandemic and related State and local health orders limiting in-person public meetings, the City provided a video presentation during the NOP comment period (January 7 to February 7, 2022). The video presentation introduced the Project, outlined the CEQA process, and provided a method for directly submitting comments on the scope of the EIR. Comments were also received in writing via postal service.

As a result of review of existing information and the scoping process, it was determined that each of the issue areas listed above should be evaluated fully in this Draft EIR. Further information on the NOP and scoping process is provided below in Section 1.5, "Public Review Process."

1.4 AGENCY ROLES AND RESPONSIBILITIES

1.4.1 Lead Agency

The City is the lead agency responsible for approving the Project and for ensuring that the requirements of CEQA have been met. After the EIR public review process is complete, the City Council will determine whether to certify the EIR (see State CEQA Guidelines Section 15090) and approve the Project.

1.4.2 Trustee and Responsible Agencies

A trustee agency is a State agency that has jurisdiction by law over natural resources that are held in trust for the people of the State of California. The only trustee agency that has jurisdiction over resources potentially affected by the Project is the California Department of Fish and Wildlife.

Responsible agencies are public agencies other than the lead agency that have discretionary-approval responsibility for reviewing, carrying out, or approving elements of a project. Responsible agencies should participate in the lead agency's CEQA process, review the lead agency's CEQA document, and use the document when making a decision on project elements. The following agencies may have responsibility for, or jurisdiction over, the implementation of elements of the Project.

STATE AGENCIES

- California Department of Fish and Wildlife
- State Water Resources Control Board
- Central Valley Regional Water Quality Control Board (Region 5)

REGIONAL AND LOCAL AGENCIES

- Sacramento Metropolitan Air Quality Management District
- Cosumnes Community Services District, Fire Department
- Sacramento Municipal Utility District
- Pacific Gas and Electric Company
- Elk Grove Water District
- Sacramento Regional County Sanitation District
- Sacramento Area Sewer District

1.5 PUBLIC REVIEW PROCESS

As identified above in Section 1.3, "Scope of This Draft EIR," in accordance with CEQA regulations, an NOP was distributed on January 7, 2022, to responsible agencies, interested parties and organizations, and private organizations and individuals who could have interest in the Project. The NOP and a video presentation by staff, introducing the Project and outlining the CEQA process, was available for review at http://www.egplanning.org/environmental.

The purpose of the NOP was to provide notification that an EIR for the Project was being prepared and to solicit input on the scope and content of the document. The NOP and responses to the NOP are included in Appendix A of this Draft EIR.

This Draft EIR is being circulated for public review and comment for a period of 45 days. During this period, comments from the general public and from organizations and agencies on environmental issues may be submitted to the lead agency.

Upon completion of the public review and comment period, a Final EIR will be prepared that will include both written and oral comments on the Draft EIR received during the public review period, responses to those comments, and any revisions to the Draft EIR made in response to public comments. The Draft EIR and Final EIR will comprise the EIR for the Project.

Before adopting the Project, the lead agency is required to certify that the EIR has been completed in compliance with CEQA, that the decision-making body (City Council) reviewed and considered the information in the EIR, and that the EIR reflects the independent judgment of the lead agency.

1.6 DRAFT EIR ORGANIZATION

This Draft EIR is organized into chapters, as identified and briefly described below. Chapters are further divided into sections (e.g., Chapter 3, "Environmental Impacts and Mitigation Measures" and Section 3.2, "Air Quality"):

- The "Executive Summary": This chapter introduces the Project; provides a summary of the environmental review process, effects found not to be significant, and key environmental issues; and lists significant impacts and mitigation measures to reduce significant impacts to less-than-significant levels.
- Chapter 1, "Introduction": This chapter provides a description of the lead and responsible agencies, the legal authority and purpose for the document, and the public review process.
- Chapter 2, "Project Description": This chapter describes the location, background, and goals and objectives for the Project and describes the Project elements in detail.
- Chapter 3, "Environmental Impacts and Mitigation Measures": The sections within this chapter evaluate the expected environmental impacts generated by the Project, arranged by subject area (e.g., Land Use, Hydrology and Water Quality). Within each subsection of Chapter 3, the regulatory background, existing conditions, analysis methodology, and thresholds of significance are described. The anticipated changes to the existing conditions after development of the Project are then evaluated for each subject area. For any significant or potentially significant impact that would result from Project implementation, mitigation measures are presented and the level of impact significance after mitigation is identified. Environmental impacts are numbered sequentially within each section (e.g., Impact 3.2-1, Impact 3.2-2, etc.). Any required mitigation measures are numbered to correspond to the impact numbering; therefore, the mitigation measure for Impact 3.2-2 would be Mitigation Measure 3.2-2.
- Chapter 4, "Alternatives": This chapter evaluates alternatives to the Project, including alternatives considered but eliminated from further consideration, the No Project Alternative, and two alternative development options. The environmentally superior alternative is identified.
- Chapter 5, "Cumulative Impacts": This chapter provides information required by CEQA regarding cumulative impacts that would result from implementation of the Project together with other past, present, and probable future projects.
- Chapter 6, "Other CEQA-Mandated Sections": This chapter evaluates growth-inducing impacts and irreversible and irretrievable commitment of resources, and discloses any significant and unavoidable adverse impacts.
- Chapter 7, "Report Preparers": This chapter identifies the preparers of the document.
- Chapter 8, "References": This chapter identifies the organizations and persons consulted during preparation of this Draft EIR and the documents and individuals used as sources for the analysis.

The following appendices are also included in this EIR:

- Appendix A: NOP and Comments on the NOP
- Appendix B: Air Quality
- Appendix C: Cultural Resources
- Appendix D: Noise
- Appendix E: Transportation

1.7 STANDARD TERMINOLOGY

This Draft EIR uses the following standard terminology:

- "Applicant" means a person who proposes to carry out a project that needs a lease, permit, license, certificate, or other entitlement for use or financial assistance from one or more public agencies when that person applies for the governmental approval or assistance (CEQA Guidelines Section 15351).
- "Project" means the Grant Line Construction Aggregate Production and Recycling Facility Project.
- "No impact" means no change from existing conditions (no mitigation is needed).
- "Less-than-significant impact" means no substantial adverse change in the physical environment (no mitigation is needed).
- "Potentially significant impact" means an impact that might cause a substantial adverse change in the environment (mitigation is recommended because potentially significant impacts are treated as significant).
- "Significant impact" means an impact that would cause a substantial adverse change in the physical environment (mitigation is recommended).
- "Significant and unavoidable impact" means an impact that would cause a substantial adverse change in the physical environment and that cannot be avoided, even with the implementation of all feasible mitigation.

"Lead Agency," as defined by CEQA, is the public agency that has the primary responsibility for carrying out or approving a project (State CEQA Guidelines Section 15367).

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2 PROJECT DESCRIPTION

2.1 PROJECT OVERVIEW

Vulcan proposes to develop an existing vacant site into an aggregate processing and recycling facility ("Project"). The location of the Project, Project objectives, and a description of the Project components, construction-related activities, and Project operations are presented in this chapter.

2.2 PROJECT LOCATION AND SETTING

The approximately 25-acre Project site is in an industrial area in the southeastern area of the City of Elk Grove, in Sacramento County (Figure 2-1). It is located at 10000 Waterman Road (Assessor's Parcel Number 134-0181-042), approximately 3,000 feet north of Grant Line Road. The site is vacant, dominated by grassland, and an aging rail spur roughly bisects the property. All access to the Project site is via Waterman Road.

The Project site has a City of Elk Grove General Plan land use designation and Elk Grove Municipal Code (EGMC) Zoning District of Heavy Industrial (HI). It is bordered on the north by existing light and heavy industrial lands. South of the site is an asphalt plant with three large tanks and production facilities and a railroad spur. To the east, across Waterman Road, are resource management and conservation lands under a Pacific Gas and Electric Company right-of-way, as well as light industrial lands. Further east are single-family residential areas. To the west is the Union Pacific Railroad's 400-foot-wide right-of-way, which is designated for public service land uses. West of the right-of-way is a mixture of uses, which include the following: heavy and light industrial land uses, a park, and low-density residential areas.

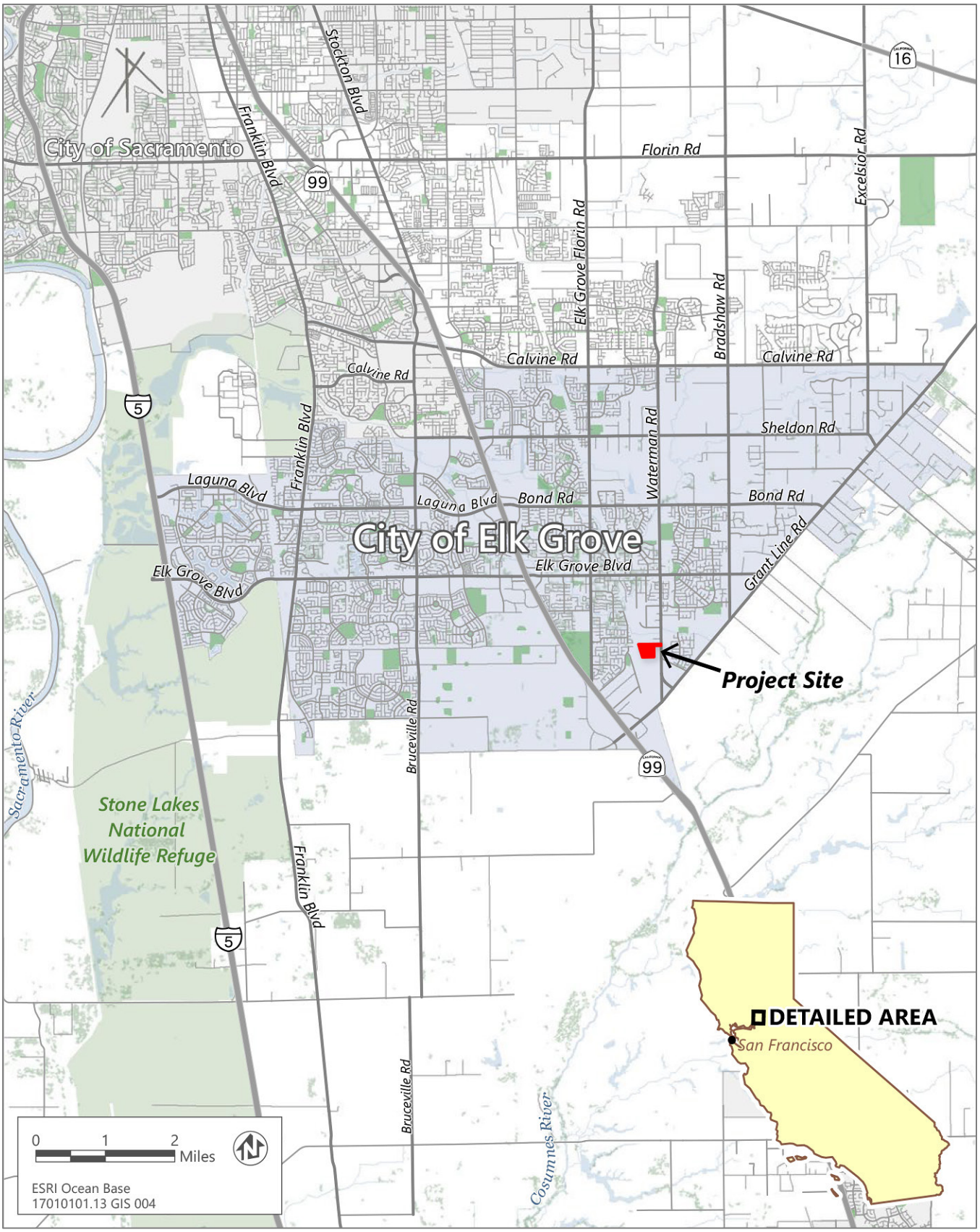
2.3 PROJECT OBJECTIVES

The primary objectives of the Project are to:

- develop a concrete and asphalt recycling and production facility to serve construction projects in Elk Grove and the surrounding areas,
- develop a project that creates an industrial use on vacant land that is compatible with surrounding uses,
- plan and develop underutilized lots in the City,
- increase the diversion of concrete and asphalt materials from landfills, and
- provide employment opportunities for residents in the City.

2.4 PROPOSED COMPONENTS

This section describes the requested entitlements needed to support Project implementation and includes a detailed description of all Project elements.



Source: Adapted by Ascent Environmental in 2019.

Figure 2-1 Project Location

Vulcan proposes to develop the Project site into a processing facility capable of processing 1.7 million tons of construction aggregate materials, including hot-mix asphalt and ready-mix concrete, annually. To produce these materials, approximately 600,000 tons of raw aggregate would be imported annually to the facility. Aggregate materials would be transported to the site from Vulcan's aggregate mine, located approximately 11 miles northeast of the site, at 11501 Florin Road in Sacramento, California. The facility also would recycle asphalt and concrete from local demolition projects. Construction aggregate materials would be used to support a wide range of construction projects, including large highway paving projects. The facility would be designed to run 24 hours a day and 7 days a week. Production volumes anticipate constant operation during the busy construction months of the summer and early fall. Hours of operation during late fall, winter, and early spring are anticipated to be reduced. Figure 2-2 depicts the site plan of the Project. Table 2-1 identifies the maximum annual throughput proposed for the materials that would be processed at the facility.

Table 2-1 Proposed Maximum Annual Throughput by Material Type

Material	Maximum Throughput (Annual)
Raw material import	600,000 tons
Ready-mix concrete	406,000 tons[1]
Recycled concrete	200,000 tons
Hot-mix asphalt	300,000 tons
Aggregate material sales	200,000 tons
Total	1.7 million tons

[1] Amount is based on 200,000 cubic yards and assumes that 1 cubic yard equals 2.03 tons.

Source: Information provided by Vulcan Materials Company in 2020.

The Project would have the following elements: a ready-mix concrete facility; a concrete and asphalt recycling facility; a hot-mix asphalt facility; and associated facilities, including modular office buildings. These elements are described below.

2.4.1 Ready-Mix Concrete Facility

A 2.66-acre ready-mix concrete facility is proposed near the southeastern corner of the Project site. An access road would provide a loop for ingress and egress. The facility would consist of an elevated ready-mix concrete plant accompanied by an aggregate storage area and a concrete washout area. This facility would process a maximum of approximately 200,000 cubic yards (i.e., 406,000 tons) of ready-mix concrete annually, and it would produce concrete for large-scale public and private users.

2.4.2 Recycling Facility

A recycling plant would process broken asphalt and concrete brought to the facility. It would be connected to a crushed reclaimed asphalt pavement area and a crushed miscellaneous base area to the west via a series of conveyor belts. An asphalt rubble pile area and concrete rubble pile area are proposed just north of the recycling plant. Each would have a small access road that would be used to drop off materials for recycling. The recycling plant would be designed to process approximately 200,000 tons of recycled concrete and asphalt per year on-site. These materials would be used in the production of ready-mix concrete and hot-mix asphalt.

2.4.3 Hot-Mix Asphalt Facility

A hot-mix asphalt facility is proposed in the southwestern portion of the site. It would have two tankers, five 47-foot-tall silos (reaching a total height of 78 feet), and a drum plant. Two access loops would be graded through the facility. A portion of the Project site northeast of the hot-mix asphalt facility would be used for hot-mix asphalt aggregate storage. The hot-mix facility is designed to process approximately 300,000 tons of asphalt annually on-site.

2.4.4 Ancillary Structures

Ancillary structures, including a shop, a lab, and employee facilities, would be installed to accommodate office space, operations, sales, and administrative staff. The Project would provide 26 parking spaces and 22 truck parking spaces, for a total of 48 parking spaces. The site would include 2 bike parking spaces.

2.4.5 Grading and Drainage

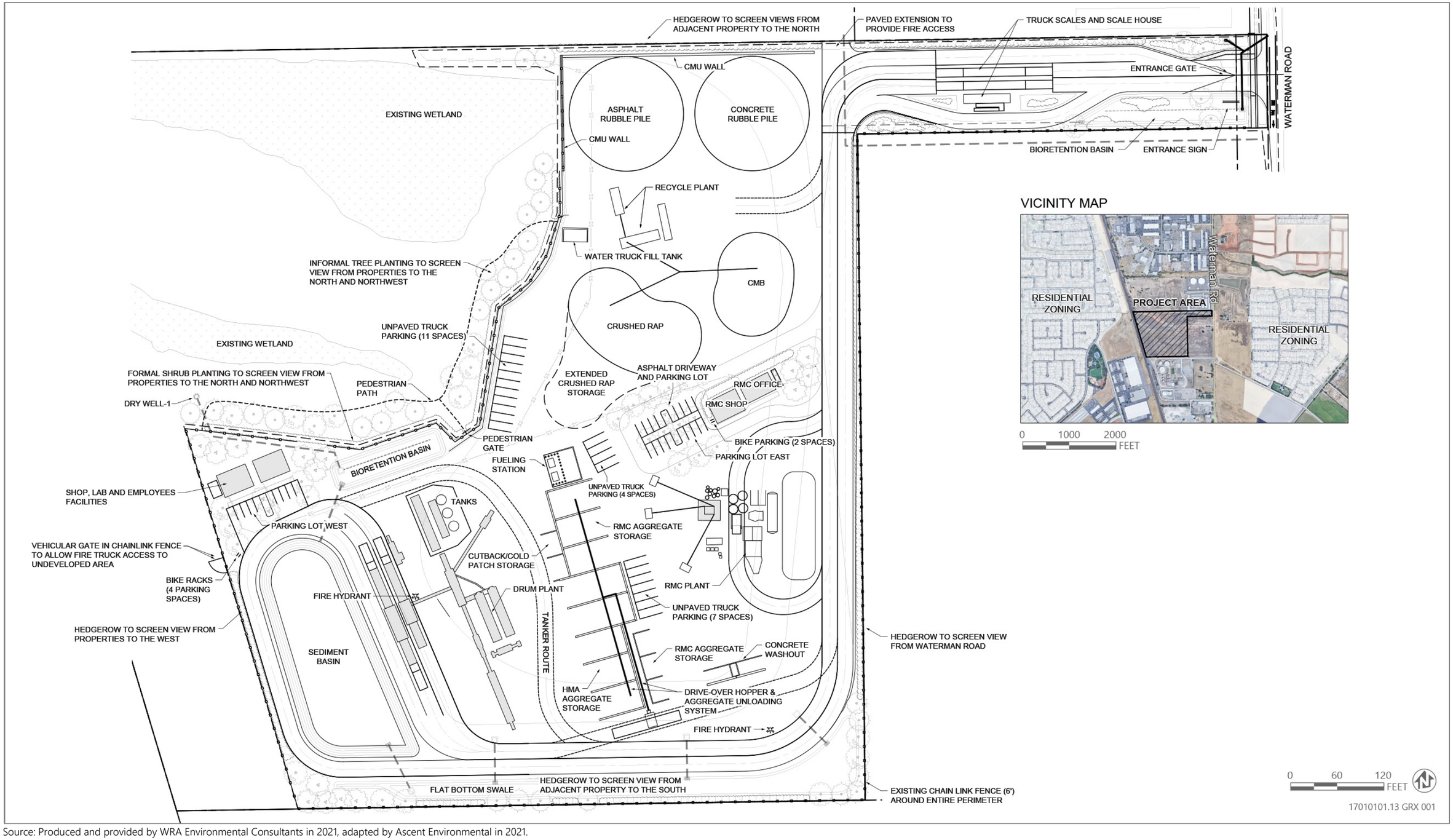
The Project would include a sediment basin, flat-bottom swale, disconnected pavement, and disconnected roof drains, consistent with the City of Elk Grove Storm Water Quality Design Manual. All stormwater from the site would be captured, stored, and infiltrated to maintain pre-Project runoff quantities. Runoff from the aggregate processing and recycling facility would be directed to a sediment basin that would be located near the southwestern portion of the Project site (see Figure 2-2). After suspended sediment settles, runoff would be further treated in a bioretention pond, north of the sediment basin, before being released to a dry well to allow for percolation of the treated water. A second bioretention basin would be located near the entrance gate at Waterman Road. This bioretention basin would be used to treat runoff from the entry area before it is released into the City storm drain system.

2.4.6 Lighting

Lighting for the Project would be consistent with EGMC Chapter 23.56and would include night lighting for parking areas, walkways, and driveways. Twelve 30-foot pole lights, twenty-nine 20-foot pole lights, and one custom entrance sign would illuminate these areas at night. Outdoor lights would cast their illumination downward and would be shrouded to prevent glare.

2.4.7 Landscaping

Landscaping of the site would comply with EGMC Chapter 23.54, and would include informal native tree planting and formal shrub planting to screen views from the residential properties west and northwest of the site, as well as to partially screen views from the adjacent property south of the site. Taller trees would be planted in the southeastern corner of the Project site to screen views from Mosher Road and from north-bound Waterman Road. Hedgerows would also be planted on the eastern boundary of the Project site to screen views from Waterman Road. Wetland planting would be included in bioretention basins.



Source: Produced and provided by WRA Environmental Consultants in 2021, adapted by Ascent Environmental in 2021.

Figure 2-2 Site Plan

2.4.8 Utilities

WATER

The Elk Grove Water District would provide water to the Project site via a 16-inch water main that is planned for construction on the west side of the Union Pacific Railroad track and a 12-inch water main that would extend across the railroad track and parallel to the east side of the track for a total of 1,001 linear feet. The cost of the new water main would be split between the applicant, developer to the north of the Project site, and the Elk Grove Water District located in Waterman Road. It would serve the Project site through a series of water supply pipelines sized from 10 to 12 inches in diameter. These pipelines would be used to serve the fire and domestic water needs of the Project. Water would be needed to produce ready-mix concrete at the rate of approximately 30 gallons per cubic yard of concrete produced. Assuming maximum production of 200,000 cubic yards per year, the water requirements for concrete would be about 6 million gallons annually.

Potable water is needed for the approximately 15 employees who would be working on-site at any one time. Additional water would be needed to irrigate native landscaping during the initial 3–5 years of plant establishment.

WASTEWATER

The Sacramento Area Sewer District would serve the Project site. Wastewater would be limited to that produced by the employees on-site. The Project would include installation of a minimum 6-inch lateral that would connect to SASD's trunk sewer line located in Waterman Road.

ELECTRICAL AND NATURAL GAS SERVICE

The Sacramento Municipal Utility District (SMUD) would provide electricity to the Project site from the existing 12-kilovolt facilities located at the northwestern corner of the site. Electrical service would be provided by SMUD, and the Project would be enrolled in SMUD's Greenergy program to ensure that 50 percent of the power used on-site is provided from renewable energy supplies. In addition, the Project would meet California Green Building Standards Code Tier 1 standards for nonresidential development.

The Pacific Gas and Electric Company would supply natural gas to the site.

During construction, all California Division of Occupational Health and Safety and California Public Utilities Commission safety clearance requirements related to overhead and underground facilities would be maintained.

2.4.9 Improvements to Waterman Road

Consistent with City Improvement Standards, the Project includes extension of a sidewalk, a curb, and gutters from adjacent properties along the west side of Waterman Road. In addition, a Class II bike lane would be installed along the southbound lane of Waterman Road, as identified in the *City of Elk Grove Bicycle, Pedestrian, & Trails Master Plan*.

2.5 PROJECT CONSTRUCTION

The general construction schedule and phasing for the Project, along with a brief description of the construction activities, equipment, materials and services, and workforce associated with Project construction, are presented below.

2.5.1 Construction Activities

Construction of the facility would require minimal site preparation. After subsurface drainage and utilities are installed and grades set, roadwork would begin. Roads in the configuration shown in Figure 2-2 would be paved to accommodate heavy loads. Paving would facilitate moving in and placing the aggregate-handling equipment and modular buildings. It is assumed that the northern California black walnut tree near the entry would have to be removed because it limits the clear line of sight to Waterman Road from the facility.

Grading would be concentrated primarily in the southeastern portion of the Project site on approximately 14 acres. Approximately 1,800 cubic yards would be cut from the site, and approximately 23,700 cubic yards of fill would be imported from Vulcan's Florin Road Quarry, located approximately 11 miles to the northeast. The site would be graded to improve surface drainage, subsurface flow through bioretention basins, and management of sediment capture on-site, as described in more detail above.

Construction equipment would vary from day to day depending on activities occurring but would involve operation of graders, paddle wheels, bulldozers, compactors, backhoes, trenchers, water trucks, excavators, scrapers, tractors, forklifts, generator sets, paving equipment, rollers, welders, and air compressors. Equipment and materials would be staged on-site for the duration of construction activities. At least 25 percent of the off-road construction fleet would be US Environmental Protection Agency–certified off-road Tier 4 diesel engines.

The proposed structures would be constructed of a variety of building materials, including cement; aluminum and steel beams, poles, and columns; and screens ranging in permeability and made of different materials. No pile-driving or blasting is proposed. During Project construction, deliveries of materials, such as concrete, structural steel, electrical equipment, and insulation, would be required. Deliveries also would be necessary for additional construction service equipment (e.g., portable toilets, temporary office trailers for construction contractors). In general, materials would be delivered by truck.

Construction would occur over a span of approximately 7 months. Consistent with the City's noise ordinance, construction would occur on weekdays between the hours of 7:00 a.m. and 6:00 p.m., unless otherwise permitted by the City. All construction equipment would be staged on-site and would be kept out of the 100-foot wetland setback area (with some exceptions for drainage work).

2.5.2 Construction Workforce

Over the Project construction period, the Applicant would hire 93 construction workers, including cement finishers, ironworkers, pipe fitters, welders, carpenters, electricians, riggers, painters, operators, and laborers. Construction workers would park on the Project site in the construction staging area.

2.6 HOURS OF OPERATIONS AND STAFFING

The facility would be designed to facilitate production operations 24 hours a day, if necessary, to accommodate regional construction supply needs. Typical business operating hours, however, would be 5:00 a.m. to 5:00 p.m. Monday through Saturday. As mentioned, the facility would accommodate production operations at times when construction materials are needed even if outside of the hours of 5:00 a.m. to 5:00 p.m., Monday through Saturday. Some projects, such as public roadway and infrastructure projects, require construction materials to be delivered outside of typical operating hours, which may extend up to 24 hours per day. In addition, when temperatures reach above 100 degrees, large projects may require concrete deliveries in the early morning hours. The Project would support 15 full-time jobs.

2.7 PROJECT-RELATED APPROVALS, AGREEMENTS, AND PERMITS

As the lead agency under CEQA, the City of Elk Grove is responsible for considering the adequacy of this EIR and determining whether the Project should be approved and issued a Conditional Use Permit.

The following discretionary actions and permits are anticipated for the proposed Project.

- Central Valley Regional Water Quality Control Board: Waste Discharge Requirements
- Sacramento Metropolitan Air Quality Management District: Clean Air Act compliance
- City approval of Design Review
- City approval of a Conditional Use Permit
- City approval of a Tree Removal Permit
- Sacramento County Water Agency: approval of water supply distribution facility improvements
- Sacramento Area Sewer District: approval of wastewater conveyance facility improvements
- Sacramento Municipal Utility District: approval of electrical conveyance facility improvements
- Sacramento Metropolitan Air Quality Management District: approval of an Authority to Construct and Permit to Operate

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3 ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

APPROACH TO THE ENVIRONMENTAL ANALYSIS

This Draft EIR identifies and focuses on the environmental impacts associated with the Grant Line Construction Aggregate Production and Recycling Facility Project, in accordance with CEQA (PRC Section 21000 et seq.) and the State CEQA Guidelines (California Code of Regulation [CCR] Section 15000 et seq.).

Sections 3.1 through 3.12 of this Draft EIR present a discussion of regulatory background, existing conditions, environmental impacts associated with construction and operation of the Project, mitigation measures to reduce the level of impact, and the residual level of significance (i.e., after application of mitigation, including impacts that would be significant and unavoidable after application of all feasible mitigation measures). Issues evaluated in these sections consist of the environmental topics identified for review in the NOP prepared for the Project, as well as responses received on the NOP (see Appendix A of this Draft EIR).

Chapter 4, "Alternatives," presents a reasonable range of alternatives and evaluates the environmental effects of those alternatives relative to those of the Project, as required by Section 15126.6 of the State CEQA Guidelines. Chapter 5 of this Draft EIR, "Cumulative Impacts," presents an analysis of the Project's impacts considered together with the related impacts of other past, present, and probable future projects, as required by Section 15130 of the State CEQA Guidelines. Chapter 6, "Other CEQA-Mandated Sections," includes an analysis of the Project's growth-inducing impacts and significant irreversible environmental effects.

The remainder of this chapter addresses the following resource topics:

- Section 3.1, "Aesthetics";
- Section 3.2, "Air Quality";
- Section 3.3, "Biological Resources";
- Section 3.4, "Cultural and Tribal Cultural Resources";
- Section 3.5, "Greenhouse Gas Emissions, Climate Change, and Energy";
- Section 3.6, "Hazards and Hazardous Materials";
- Section 3.7, "Hydrology and Water Quality";
- Section 3.8, "Land Use and Planning";
- Section 3.9, "Noise";
- Section 3.10, "Public Services";
- Section 3.11, "Transportation"; and
- Section 3.12, "Utilities and Service Systems."

Sections 3.1 through 3.12 of this Draft EIR each include the following components:

- **Regulatory Setting:** This subsection presents information on the laws, regulations, plans, and policies relevant to each resource topic, including Federal, State, Regional, and City regulations that address potentially adverse environmental impacts.
- **Environmental Setting:** This subsection describes existing environmental conditions at the Project site and in the surrounding area, in accordance with the State CEQA Guidelines (CCR Section 15125). This setting generally serves as the baseline against which environmental impacts are evaluated. The NOP for the Project was issued on January 7, 2022. Typically, and in accordance with State CEQA Guidelines Section 15125, the date on which the NOP is issued is considered appropriate for establishing the baseline.

- **Environmental Impacts and Mitigation Measures:** In accordance with the State CEQA Guidelines (CCR Sections 15126, 15126.2, and 15143), this section identifies the method of analysis to determine whether an impact may occur, as well as the thresholds of significance used to determine the level of significance of the environmental impacts for each resource topic. The thresholds of significance are based on the checklist presented in Appendix G of the most recently adopted State CEQA Guidelines, best available data, applicable regulatory standards, and local practice and standards. The level of each impact is determined by analyzing the effect of the Project on the defined baseline conditions and comparing it to the applicable significance threshold.

  Project impacts and mitigation measures are numbered sequentially in each subsection (e.g., Impact 3.2-1, Impact 3.2-2, Impact 3.2-3, etc.). A summary impact statement precedes a more detailed discussion of each environmental impact. The discussion presents the analysis, rationale, and substantial evidence upon which conclusions are drawn regarding the level of significance of the impact.

  An impact is considered "less than significant" if it would not involve a substantial adverse change in the physical environment. An impact would be "potentially significant" or "significant" if it could or clearly would, respectively, result in a substantial adverse change in the physical environment; both are treated the same under CEQA in terms of procedural requirements and the need to identify feasible mitigation.

  This EIR identifies feasible mitigation measures that would avoid, minimize, rectify, reduce, or compensate for potentially significant and significant adverse impacts (PRC Section 21081.6[b]). Mitigation measures are not required for effects found to be less than significant. Where feasible mitigation for a potentially significant or significant impact is available, it is described in this EIR following the impact, along with its effectiveness at addressing the impact. Each identified mitigation measure is labeled numerically to correspond with the impact it addresses. Where feasible mitigation is not sufficient to reduce an impact to a less-than-significant level, the impact is identified as significant and unavoidable. The final determination of the level of significance of each impact is presented in bold text in the impact summary and at the end of each impact discussion.

  It is important to note that environmental impact analyses under CEQA generally are not required to analyze the impact of existing environmental conditions on a project's future users or residents unless the proposed Project might cause or risk exacerbating environmental hazards or conditions that already exist (CCR Section 15126.2[a]). In those specific instances, it is the Project's impact on the environment and not the environment's impact on the project that compels an evaluation of how future residents or users could be affected by exacerbated conditions (*California Building Industry Association v. Bay Area Air Quality Management District* [2015] 62 Cal. 4th 369).

The full references associated with the sources cited in Sections 3.1 through 3.12 are presented in Chapter 8, "References," organized by section number.

EFFECTS FOUND NOT TO BE SIGNIFICANT

CEQA allows a lead agency to limit the detail of discussion of environmental effects that are not potentially significant (PRC Section 21100, CCR Section 15128). Following research and analysis of technical studies and data, it was determined that implementing the Project would not result in significant environmental impacts on the resources identified below. Accordingly, these resources are not addressed in later sections of this Draft EIR.

Agriculture and Forestry Resources

No forestry resources or timberlands are located in the City. The EIR certified for the City's 2021 General Plan Update evaluated the potential for impacts on agricultural resources in the City's Planning Area. Because this issue was evaluated in that document and no additional agricultural impacts would occur with implementation of the Project, this issue is not discussed further in this EIR.

Geology and Soils

Project construction would involve ground disturbance and the potential for soil erosion and sedimentation off-site. The potential for increased erosion would be minimized through compliance with Elk Grove Municipal Code (EGMC) Chapter 16.44, Land Grading and Erosion Control, and the requirement of State Water Resources Control Board Construction General Permit Order 2009-0009-DWQ to implement measures to control soil erosion and sedimentation. City has adopted the most recent version of the California Building Code (CBC), Title 24, Part 2, Volumes 1 and 2 (EGMC Section 16.04.010). The CBC's accepted engineering practices require special design and construction methods for dealing with expansive soils that the Project would be required to demonstrate compliance. The Project site has been disturbed by prior development, including the placement of fill materials. Because of this prior disturbance, shallow excavations are unlikely to affect unique paleontological resources. Therefore, there would not be significant impacts related to geology and soils, and these issues are not discussed further in this EIR.

Mineral Resources

No significant mineral resources have been identified in the City. Because the Project would have no impact on mineral resources, this impact is not discussed further in this EIR.

Population and Housing

The Project would not contribute to unplanned growth and would not include new housing. In addition, implementing the Project would not displace existing housing or people because no residential units exist on the site. Therefore, there would not be a significant impact related to population and housing, and this issue is not discussed further in this EIR.

Recreation

The Project would not contribute to unplanned growth and would not include new housing or create demand for new recreational facilities. Therefore, there would not be a significant impact related to recreation, and this issue is not discussed further in this EIR.

Wildfire

The City is not located in or near a Very High Fire Hazard Severity Zone. Therefore, the Project would not have a significant impact related to wildfire, and this issue is not discussed further in this EIR.

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3.1 AESTHETICS

This section describes the existing aesthetic (often referred to as visual) conditions of the Project site and surrounding area and continues with an assessment of changes to those visual conditions that would occur from Project implementation. The effects of the Project on the visual environment are generally defined in terms of the Project's physical characteristics and potential visibility, the extent to which the Project's presence would change the perceived visual character and quality of the environment, and the expected level of sensitivity that the viewing public may have towards a Project that would alter existing views.

No comments regarding aesthetic resources were received in response to the NOP during the public scoping period.

3.1.1 Regulatory Setting

FEDERAL

There are no federal policies related to aesthetics that directly affect the Project site.

STATE

California Scenic Highway Program

The California Scenic Highway Program[1] 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 Scenic Highway System maintains a list of eligible and designated scenic highways. There are no designated scenic highways in Elk Grove (Caltrans 2022). The closest designated scenic highway is State Route 160 along the Sacramento River, approximately 8.4 miles to the west of the Project site (Caltrans 2022).

LOCAL

City of Elk Grove General Plan

The City's current General Plan was amended in 2021. The General Plan goals, policies, and standards are based on the General Plan Vision Statement and supporting principles. The City of Elk Grove General Plan contains the following policies and actions related to aesthetics that apply to the Project (City of Elk Grove 2021).

- **Policy LU-5-4:** Require high standards of architectural and site design, and apply strong design controls for all development projects, both public and private, for the enhancement and development of community character and for the proper transition between areas with different types of land uses. Design standards shall address new construction and the reuse and remodeling of existing buildings.
- **Policy LU-5-5:** Improve the visual appearance of business areas and districts by applying high standards for architectural design, landscaping, and signs for new development and the reuse or remodeling of existing buildings.
- **Policy LU-5-8**: Require developers to provide pedestrian amenities, such as trees, lighting, recycling and refuse containers, seating, awnings, and/or art, in pedestrian areas along project frontages. Where appropriate, install pedestrian amenities in public rights-of-way.
- **Policy NR-1-9:** Encourage development clustering where it would facilitate on-site protection of woodlands, grasslands, wetlands, stream corridors, scenic areas, or other appropriate features such as active agricultural uses

[1] California laws governing the Scenic Highway Program are in the Streets and Highways Code, Section 260 et seq.

and historic or cultural resources under the following conditions and requirements. Clustering shall not be allowed in the Rural Area.

- Urban infrastructure capacity is available for urban use.
- On-site resource protection is appropriate and consistent with General Plan policies.
- The architecture and scale of development are appropriate for and consistent with the intended character of the area.
- Development rights for the open space area are permanently dedicated and appropriate long-term management, with funding in perpetuity, is provided for by a public agency or another appropriate entity.

City of Elk Grove Municipal Code

The City of Elk Grove Municipal Code provides regulations imposed by the City on development and business activities in the City. Title 23 of the Municipal Code (Zoning Code) contains development standards and permit requirements that address building mass and setbacks (Chapter 23.29), landscaping (Chapter 23.54), lighting (Chapter 23.56), and signage (Chapter 23.62).

Chapter 23.29: Development Standards

The maximum building height in the Heavy Industrial zone is generally limited to 40 feet under this chapter. If any of the buildings are within 100 feet of a residential zoning district, the height limit is 24 feet; and, if any of the buildings (or portions of buildings) are within a distance equal to or greater than 500 feet from a residential zoning district, the height limit is 120 feet (Table 23.29-1 Part B). Chapter 23.29 allows listed building heights to be exceeded through the Design Review process.

Chapter 23.54: Landscaping

The Municipal Code Title 23 requires landscaping to be provided for all development types in setbacks, unused areas, and parking areas. Minimum landscape area requirements are established by zoning district. For Heavy Industrial zoning district, minimum landscape area requirements are as follows:

- Minimum lot coverage is 15 percent (Table 23,54-1).
- Minimum landscape planter along an abutting interior property line is 6 feet (Table 23,54-1).
- Minimum landscape planter along an abutting street is 25 feet (Table 23,54-1).
- Minimum thirty percent of parking lot trees shall be evergreen species (Section 23.54.040).
- Minimum one third (1/3) of all trees on the project shall be planted at a minimum 24-inch box size (Section 23.54.040).
- Landscaped islands shall be eight (8) by 16 feet minimum, with an island for every eight (8) spaces (Section 24.54.050).
- A clear vision triangle at the driveway intersection with the street limits the full-grown height of trees/shrubs to 36-inchs (Section 24.54.050).
- Parking Lot Shading requirements: 5-24 spaces (30 percent minimum) and 25-49 spaces (40 percent minimum) (Section 24.54.050).

Chapter 23.56: Lighting

The intent of this code is to reduce the potential for local light and glare, and potential contributions to skyglow.

Section 23.56.030 contains requirements for shielding of fixtures and levels of illumination, as well as restrictions on fixture heights and hours of illumination for multifamily and nonresidential uses as follows:

- Outdoor lighting shall be constructed with full shielding.

- Parking lots driveways, and trash enclosures shall be illuminated with a minimum maintained one (1) foot-candle of light and an average not to exceed four (4 fc) foot-candles of light.
- Pedestrian walkways shall be illuminated with a minimum maintained one-half (0.5) foot candle of light and an average not to exceed two (2 fc) foot-candles of light.
- Exterior doors of nonresidential structures shall be illuminated during the hours of darkness with a minimum maintained one (1 fc) foot-candle of light, within a five (5' 0") foot radius on each side of the door at ground level.
- Maximum height of freestanding outdoor light fixtures shall be 30 feet.
- New outdoor light fixtures must be energy efficient with a rated average bulb life of not less than 10,000 hours.
- Automatic timing devices shall be required for all new outdoor light fixtures with off hours (exterior lights turned off) between 10:00 p.m. and 6:00 a.m. However, outdoor lights may remain on during the required off hours when:
    1. The hours of operation of the associated use extend into the required off hours (lighting may stay on during the hours of operation of the use);
    2. Illuminating flags representing country, state, or other civic entity (also see Elk Grove Municipal Code [EGMC] Section 23.62.090(B)(4)); and
    3. Functioning as security lighting (e.g., illuminating a pathway, building entry, etc.).

Section 23.56.040 addresses the outdoor lighting that shall be prohibited[2], including:

A. Neon tubing or band lighting along building structures as articulation.

B. Searchlights.

C. Illumination of entire buildings. Building illumination shall be limited to security lighting and lighting of architectural features authorized by the designated approving authority in conjunction with the required development permit(s).

D. Roof-mounted lights except for security purposes with motion detection and full shielding so that the glare of the light source is not visible from any public right-of-way.

E. Any light that imitates or causes visual interference with a traffic signal or other necessary safety or emergency light.

Chapter 23.62: Signs on Private Property

Section 23.62.070 addresses permits, as well as entitlements required for signs on private property. A sign permit is required for all permanent signs (attached to a building or freestanding) before their erection, relocation, alteration, or replacement.

Section 23.62.100 lists signs that are prohibited, including animated, moving, flashing, blinking (intermittent light), fluctuating, reflecting, revolving, or other, similar signs; pole signs; electronic reader board signs other than time/temperature signs; and roof signs erected and constructed on or over the roofline of a building and supported by the roof structure. Exceptions are possible in some cases.

Section 23.62.130 addresses permitted signs by type and development characteristics. Signs are regulated by sign and development type and/or zoning district.

City of Elk Grove Citywide Design Guidelines

In 2003, the City Council adopted amendments to the City's Municipal Code, establishing a design review process for new development and redevelopment of properties. This process is enumerated in Municipal Code Section 23.16.080, Design Review, and has been updated as recently as 2019. Adoption of the design review process was accompanied by adoption of the corresponding Elk Grove Design Guidelines. Section 23.16.080 establishes an expanded design review process for all development Citywide, requiring additional site and design consideration beyond conformance

[2] Existing light fixtures legally permitted or authorized prior to adoption of this chapter may be maintained.

with minimum standards of the Zoning Code. The City of Elk Grove's current Citywide Design Guidelines were adopted by the Elk Grove City Council in phases in 2003, 2004, and 2007. A comprehensive update to the Citywide Design Guidelines were approved in May 2022.

The Citywide Design Guidelines include design provisions for site planning, architecture, lighting, and landscaping, as well as provisions regarding the preservation of natural features. They encourage the use of landscaping to reduce potential impacts of lighting from parking areas on both the project area and adjacent vacant land. In addition, the guidelines specify that perimeter landscaping must be designed to maximize screening and buffering between adjacent uses. The following design concepts are applicable to all nonresidential development:

Chapter 5A of the Design Guidelines addresses site planning for nonresidential development. These site planning guidelines are based on the following design concepts (City of Elk Grove 2003):

a) Ensure that new development contributes to the character of a community by providing opportunities for integration of the project with the adjacent properties, neighborhood and City. The design of new development should pay particular attention to design compatibility between non-residential and adjacent residential use/property and the predominant characteristics of non-residential corridors.

b) Encourage projects to have a unified design theme and discourage the use of corporate architecture that is not compatible with the established design theme.

c) Design projects to be pedestrian friendly. As appropriate, incorporate pedestrian and outdoor gathering places into the project design with consideration given to the climate and planned use of space.

d) Ensure that new development establishes a streetscape appearance that defines the pedestrian and vehicle corridor and presents an appealing and continuous theme along a sidewalk or street.

e) Design parking lots with smaller parking fields and parking dispersed throughout the development. This will avoid the visual and functional detriment associated with a single sea of parking along a non-residential street frontage.

Chapter 5B of the Design Guidelines addresses architecture for nonresidential development. These architecture guidelines are based on the following design concepts (City of Elk Grove 2003):

a) Promote high quality building designs that consist of durable and maintainable materials and that provide visual interest and diversity to the community.

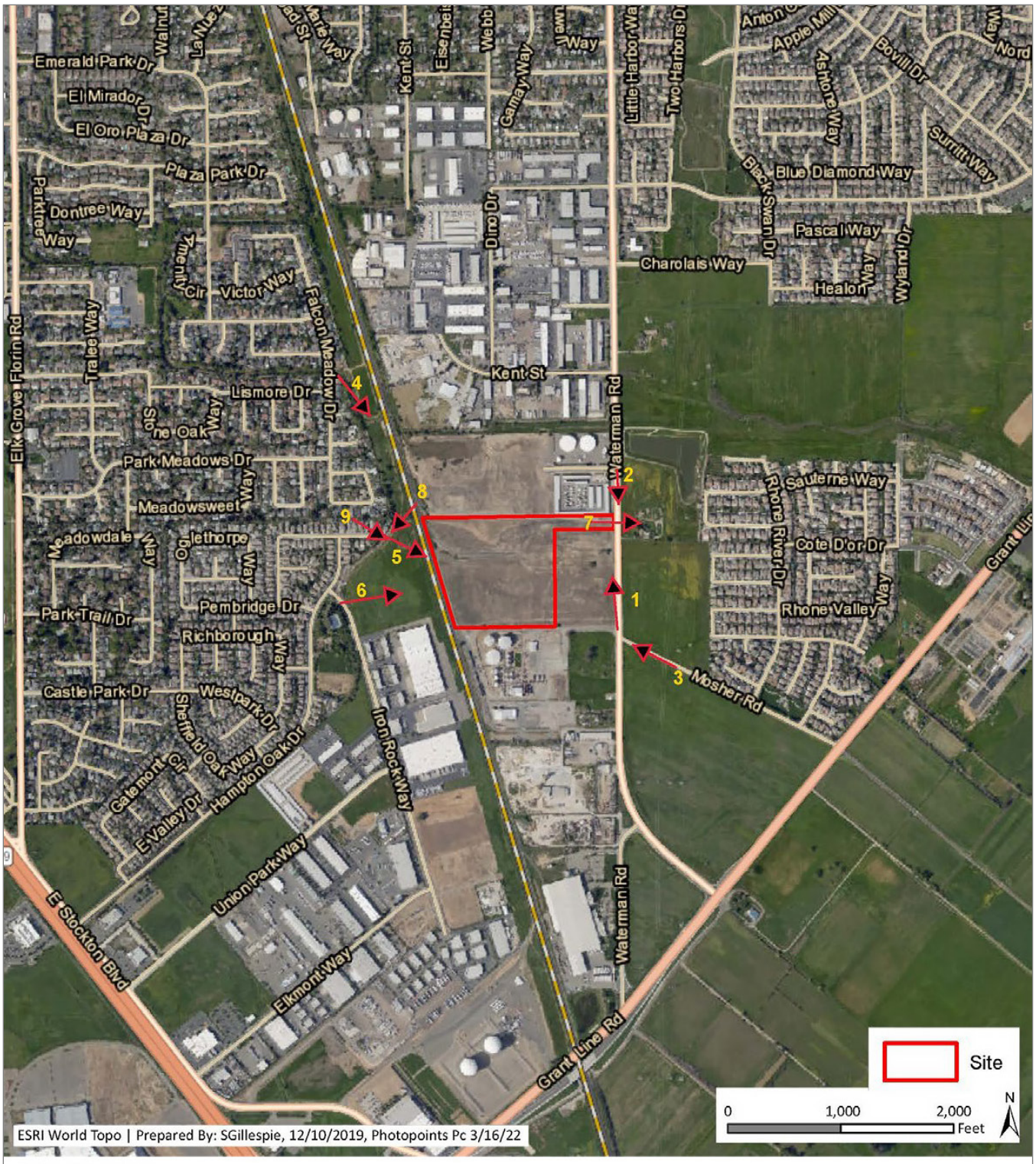
b) Ensure building design achieves human scale and interest.

c) Ensure the design of proposed buildings or structures is sensitive to the neighborhood character with regard to scale, architectural style, use of materials and bulk.

3.1.2 Environmental Setting

The following descriptions of the Project site and surrounding area refer to photographs taken in 2022. The locations from which the photographs were taken are shown in Figure 3.1-1.

The Project site is at 10000 Waterman Road, Elk Grove, California. The 25-acre parcel is in an established industrial area, between a small asphalt oil refinery and a self-storage facility. To the west across the active Southern Pacific railroad tracks is a light and heavy industrial area, a park, and the edge of a residential subdivision. A Union pacific Railroad track borders the site to the west. A single-family residence, surrounded by undeveloped land, is located to the east of the project site directly across Waterman Road. A residential subdivision is located approximately 500 feet east of this residence.



Source: WRA 2022.

Figure 3.1-1 Site Location and Photo Viewpoints

VISUAL CHARACTER OF THE PROJECT SITE

The visual character of the Project vicinity is characterized by flat lands with tall trees at property edges with a few on interior portions of lots. Powerlines are located on Waterman Road, and tall transmission lines are located east of Waterman Road (Photographs 1 and 2, Figure 3.1-2). Views of the Project site from residences on the west would generally be obscured by fences (Photograph 9, Figure 3.1-4) and the elevated Union Pacific Railroad track (Photograph 4). Views to the north and south consist of existing industrial uses (Photographs 3 and 6, Figure 3.1-2 and 3.1-3). Clear views of the site are available from Iron Rock Road from the west (Photographs 5 and 6, Figure 3.1-3) and Mosher Road from the east (Photograph 3, Figure 3.1-2). The Project site itself is flat and poorly drained. Grasses emerge green in the spring and grow to about four-feet tall before turning brown. In the summer, the grasses are mowed to limit fire danger, and by winter the site becomes bare earth. Similar conditions extend into the lot to the north and the asphalt oil refinery is to the south. Six trees grow around the perimeter of the site, five of which are Valley Oaks and one northern California black walnut tree. Two trees are in good condition while others have grown into fences. The multi-stem black walnut tree, near the entry, has resprouted from a larger stump and blocks views to Waterman Road. Pipes and concrete foundations are present on the Project site, but overall, the site is relatively clear of debris. Overall, the Project site is characterized as undeveloped land located within an industrial area.

VISUAL CHARACTER OF THE SURROUNDING AREA

Nearby views from the Project site consist of single family residences (Photographs 7 and 8, Figure 3.1-4) to the east and west). Further to the east, a 750-foot-wide transmission line corridor with over a dozen nearby towers all over 100 feet tall supporting four (4) sets of 350 kilovolt (kV) and 500 kV power lines. In total, 24 high voltage power lines are suspended above the corridor and additional above ground lines parallel Waterman Road. Existing industrial uses can be seen from the Project site to the south and north (Photograph 1 and 2, Figure 3.1-2). These industrial areas include tilt-up industrial warehouse spaces with construction suppliers, automotive repair services, and another concrete and aggregate facility to the north. Paramount Petroleum Asphalt Plant and A vacant lot for light industrial development are located to the south of the site.

SCENIC RESOURCES

Scenic resources are defined in the City of Elk Grove General Plan EIR as significant visual features that contribute to the overall visual character of the area. They can be land form elements, such as hillsides or valleys; land cover components, such as rivers, streams, and forests; or areas that are unique and valuable to the community, such as parks and preserves. These types of features are not located on the Project site. There are public spaces however, specifically local roads and a City park, from which the Project site can be seen.

Scenic corridors are designated under the California Scenic Highway Program to preserve the aesthetic value of lands adjacent to and visible from highways. There are currently no designated scenic corridors near the Project site.

There are no designated scenic resources, no scenic vistas, or scenic corridors near the Project site.

LIGHT AND GLARE

There are no sources of light and glare on the Project site. Currently, headlights and windshield reflections from vehicles on Waterman Road are the primary sources of light and glare in the area. The storage facility to the north on Brinkman Court has street lighting and security lighting. The Paramount Petroleum Asphalt Plant to the south also has security and work area lighting. To the west the low-density residential area emits some exterior light, but generally the overall area is relatively dark at night. High-mast street lights are located along Waterman Road to the north.

Source: Photo provided by WRA in 2022

Photograph 1. Looking northward on Waterman Road. Project site is located on the left side of the photograph. Note the presence of powerlines along Waterman Road and on the right side of the photograph.

Source Photo provided by WRA in 2022

Photograph 2. Looking south on Waterman Road from adjacent storage facility on Brinkman Court.

Source: Photo provided by WRA in 2022

Photograph 3. Looking northwest on Mosher Road across Waterman Road, approximately 1,000 feet to the east of the Project site. Industrial uses to the north and Paramount Petroleum Asphalt Plant are shown on the left side of the photograph. Project site is located in the middle of the photograph.

Figure 3.1-2 Representative Photographs

Source: Photo provided by WRA in 2022

Photograph 4. View to southeast toward Project site from Elk Grove Creek crossing. Views of the Project site are obscured due to the presence of an elevation railroad track and vegetation.

Source: Photo provided by WRA in 2022

Photograph 5. View southeast from Elk Grove Community Garden, which is adjacent to the nearest resident to Project. Paramount Petroleum Asphalt Plant refinery tanks are visible in the center of the photograph and electric transmission towers near Waterman Road are visible on the left side of the photograph.

Source: Photo provided by WRA in 2022

Photograph 6. Looking east from Jennie McConnel Park located on Iron Rock Way. Project site is located near the right edge of the photograph at the skyline. Existing industrial uses north and south of the Project site are visible.

Figure 3.1-3 Representative Photographs

Source: Photo provided by WRA in 2022

Photograph 7. View east from the entry to proposed Project. The single rural residence is about 220 feet away and partially protected from Waterman Road by mature vegetation. Multiple agricultural outbuildings are under the transmission lines.

Source: Photo provided by WRA in 2022

Photograph 8. View west to the nearest residence across the active Union Pacific railroad on Provencial Court. The residence would be 1,100 feet from the closest proposed facility. The house is fenced and presents no windows with views to the Project.

Source: Photo provided by WRA in 2022

Photograph 9. View east from the end of Provencial Court looking toward the Project. The Elk Grove Community Gardens are behind the fence with the view shown in Photograph 5.

Figure 3.1-4 Representative Photographs

3.1.3 Impacts and Mitigation Measures

METHODOLOGY

Two Key Observation Points (KOPs) were selected by the City of Elk Grove to evaluate the aesthetic impacts of the Project. One KOP is from the closest public park to the west of the site and the second is from Mosher Road which is aligned directly towards the site from the southeast. The existing conditions images show essentially a flat site with a few perimeter trees, while the proposed Project images show an assembly of machinery, heavy equipment and a few small buildings in a landscaped setting. Landscaping based on the proposed landscape plan and is shown at 10 years of maturity. Figure 3.1-6 shows a visual simulation of the Project looking east from Jennie McConnell Park. Figure 3.1-7 shows a visual simulation of the Project looking northwest from Mosher Road.

The analysis of aesthetics is qualitative. This impact analysis evaluates changes to the existing visual character of public views of the Project site described in Section 3.1.3, "Environmental Setting," from Project construction activities and development and operation of the site. It involves an evaluation of consistency with the City of Elk Grove General Plan, the Design Guidelines, and the Zoning Code standards identified in Section 3.1.2, "Regulatory Setting," that are intended to address visual quality and design compatibility with the surrounding area and City. This information, in combination with the thresholds below, was used to determine whether implementing the Project may create adverse visual effects.

THRESHOLDS OF SIGNIFICANCE

An impact on aesthetics, light, and glare would be significant if implementation of the Project would:

- have 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;
- substantially degrade the existing visual character or quality of public views of the site and its surroundings and/or conflict with applicable zoning and other regulations governing site design and architecture; or
- create a new source of substantial light or glare that would adversely affect day or nighttime views in the area.

ISSUES NOT DISCUSSED FURTHER

Scenic resources are defined in the City of Elk Grove General Plan EIR as significant visual features that contribute to the overall visual character of the area. The Project site is in an industrial development setting that does not contain remarkable scenery,views of natural areas, or built features that would be considered part of a scenic vista. There are no designated scenic vistas in the surrounding area. Therefore, this threshold of significance is not addressed further in this Draft EIR.

No scenic highways designated by the California Department of Transportation are located near the Project site (Caltrans 2022). Therefore, the Project would have no impact on scenic resources in a designated scenic highway. This threshold of significance is not addressed further in this Draft EIR.

3.1.4 Environmental Impacts and Mitigation Measures

Impact 3.1-1: Substantially Degrade the Existing Visual Character of the Site and Surroundings

The Project site is located on vacant land and is visible from nearby roadways and residences. The Project site is located in an industrial and commercial corridor, bordered on the east and west by residential uses. The introduction of construction equipment and features of the Project would not be substantially different than other industrial and commercial land uses located along Waterman Road and areas farther southwest of the Project site. Therefore, because the Project would not result in development that is substantially different than surrounding land uses and would not substantially degrade the existing visual character or quality of public views of the site and its surroundings, this impact would be **less than significant**.

As discussed in Section 3.1.2, "Environmental Setting," the Project site can be characterized as undeveloped land bordered to the north and south by existing industrial uses, and rural residences to the east and west (Photograph 3, Figure 3.1-2; Photograph 6, Figure 3.1-3). The surrounding area includes an asphalt oil refinery with multiple 40-foot-tall oil-storage tanks to the south, an active railroad to the west, and to the north are municipal water tanks, light industrial and another ready-mix concrete plant. A power-line corridor with four high-voltage lines, supported by a dozen nearby towers over 100-foot-tall, is located to the east of the Project site (see Photograph 3, Figure 3.1-2). As further discussed below, Project construction and establishment of an industrial facility with heavy equipment would result in a noticeable change in the visual character of the Project area through equipment massing and height.

Construction Activities

As described in Chapter 2, "Project Description," construction activities on the approximately 25-acre Project site would include construction equipment staging, building and pavement demolition, site preparation, excavation, tree removal, grading, and building construction that would be publicly visible from nearby roadways including Waterman Road, Mosher Road, and Iron Rock Way. Construction equipment and materials would be temporarily staged on-site during development. Grading would be concentrated primarily in the southeastern portion of the Project site on approximately 14 acres, and would be performed to improve surface drainage, subsurface flow through bioretention basins, and management of sediment capture on-site. Construction equipment would vary from day to day depending on activities occurring but would involve operation of graders, paddle wheels, bulldozers, compactors, backhoes, trenchers, water trucks, excavators, scrapers, tractors, forklifts, generator sets, paving equipment, rollers, welders, and air compressors.

Developed Conditions

Figure 3.1-5 shows the locations of the viewing angles for the simulated views of the completed Project that are depicted in Figures 3.1-6 and 3.1-7. These simulations are views of the Project from public access points along Mosher Road and Iron Rock Way. As depicted in Figures 3.1-6 and 3.1-7, the Project would introduce tall narrow 47-foot tall silos (totaling approximately 80 feet with related equipment), 40-foot tall elevated hoppers, and up to 135-foot tall conveyance equipment to the site that would be visible from public vantage points. The equipment would be painted darker earth-tone color and landscaped with tress and hedges, in an effort to blend in with the existing industrial character of the area. Regardless, Project features, particularly the silos, would be visible from nearby public vantage points. However, the Project site and surrounding areas are primarily zoned for industrial uses and contain various existing industrial operations including the Paramount Petroleum Asphalt Plant to the south and a self-storage facility, City water tanks to the north, and power line towers that parallel Waterman Road. There are additional commercial and industrial facilities farther to the north and south of these businesses, as well as in the area southwest of the Project site. That is, the Project site is located in an established industrial and commercial area. Implementation of the Project, at its proposed location, would be consistent with the surrounding land uses and would therefore not substantially degrade the existing visual character or quality of public views of the site and its surroundings.

Source: Ascent Environmental 2022.

Figure 3.1-5 Simulation Viewpoints

Source: Previsualists, Inc. 2022.

View from Jennie McConnel Park – Existing Conditions.

Source: Previsualists, Inc. 2022.

View from Jennie McConnel Park – Proposed Conditions.

Figure 3.1-6 Views of from Jennie McConnel Park

Source: Previsualists, Inc. 2022.

View from Mosher Road – Existing Conditions.

Source: Previsualists, Inc. 2022.

View from Mosher Road – Proposed Conditions.

Figure 3.1-7 Views from Mosher Road

Impact Summary

The Project site is located on vacant land and is visible from nearby roadways and residences. The Project site is located in an industrial and commercial corridor, bordered on the east and west by residential uses. The introduction of construction equipment and features of the Project would not be substantially different than other industrial and commercial land uses located along Waterman Road and areas farther southwest of the Project site. Therefore, because the Project would not result in development that is substantially different than surrounding land uses and would not substantially degrade the existing visual character or quality of public views of the site and its surroundings, this impact would be **less than significant**.

Mitigation Measures

No mitigation is required.

Impact 3.1-2 Consistency with Regulations Governing Site Design and Architecture

Project site design and architectural character are regulated by the City through compliance with General Plan policies; compliance with the Elk Grove Municipal Code Chapters 23.29. 23.54, and 23.62; and application of the Design Guidelines. The Project would not conflict with City design policies and guidelines that are associated with site design and architecture. This impact would be **less than significant**.

As identified below, the Project would be consistent with the following City design policies and guidelines, which are associated with visual character:

- High-quality, attractive, functional, and efficient development and signage (General Plan Policies LU-5-2, and LU-5-4; Policies LU-5-5, LU-5-8, and NR 1-9; Zoning Code Chapters 23.29, 23.54, 23.56, and 23.62; Design Guidelines 1, 4, 5, 8, 20, 29, 36, 37, 38, 38, 39, 40, and 41 of Chapter 5A; and Design Guidelines 1, 2, 3, 16, 17, and 18)

  The Project site is located within an area that contains established industrial and commercial uses. Design would cluster the largest buildings and associated massing along the western boundary to provide a transition of building intensity from the existing residential commercial uses in the surrounding area. Silos, elevated conveyors, and heavy storage equipment would be located greater than 500 feet from the closest residential neighborhood district, which would allow for a 120-foot height limit within the Heavy Industrial zoning district applicable to the Project site. The Project also includes landscaping and a color scheme that would soften the visual character of the Project and partially screen the Project from adjoining residential uses. In addition, the Project has been designed to avoid most of the existing wetland features including tree and shrub planting to screen views from surrounding areas. Project implementation would result in removal of up to two trees within the area proposed for development. Stormwater management features are integrated into the site design. In addition, lighting design includes dim-capable lighting to reduce nighttime glare. Light pole height would be limited to keep light sources closer to the ground and to reduce glare. Signage for the Project would consist of one sign that would be placed along Waterman. Illumination from the sign would direct downward to reduce light and glare.

- Integration of new development with surrounding areas (General Plan Policy LU-5-4; Standard LU-5-4a; EGMC Chapters 23.29 and 23.54; Design Guidelines 3 and 6 of Chapter 5A; Design Guidelines 6, 7, and 8 of Chapter 5B)

  As discussed above in Impact 3.1-1, the Project site is located within an area that contains established industrial and commercial uses. Development of the Project would be consistent with the surrounding uses along Waterman Road and southwest of the Project site. The Project also includes landscaping and a color scheme that would soften the visual character of the Project and partially screen the Project from nearby residential uses.

- Conceal utilities (General Plan Policy LU-5-3, Standard LU-5-3a, and Design Guidelines 36 of Chapter 5A)

  As identified in Chapter 2, "Project Description," the Project infrastructure improvements would generally be placed underground, consistent with City policy provisions. Utility boxes would be placed aboveground.

As shown in the analysis above, the Project would not conflict with City design policies and guidelines that are associated with visual character. Thus, this impact would be **less than significant**.

Mitigation Measures

No mitigation is required.

Impact 3.1-3 Create a New Source of Substantial Light or Glare That Would Adversely Affect Day or Nighttime Views

The Project would include outdoor lighting of work areas as well as light fixtures in parking areas as required by EGMC 23.56 that would increase nighttime lighting conditions in the Project area. Light-emitting diode (LED) luminaires are adjustable and have been selected to limit nighttime glare with optical cutoffs to direct light downward onto work areas rather than outward to the surrounding environment. The exit/entry point of the Project is visible from a nearby property; however, lights from vehicles turning south onto Waterman Road would not substantially affect the residence located near the exit/entry point on the east side of Waterman Road. No residences would be affected by vehicles turning north onto Waterman Road. This impact would be **less than significant**.

The Project is intended to be able to operate during nighttime conditions when projects require material outside of daytime business hours. The applicant prepared a Lighting Plan, which is subject to approval by the City to ensure that it meets minimum thresholds of illumination required in City Zoning standards. All work areas on the site are illuminated with energy conserving LED controlled lighting systems. Luminaires focus light only into work areas and limit the potential for off-site glare or nighttime glow into the surroundings. Optical cut-offs prevent any direct lighting into the wetland areas and any neighboring sites.

During nighttime operation of the Project, headlights from trucks could extend light beyond the limits of the Project site. However, lights from trucks would generally be blocked by fencing and landscaping proposed for the site. In terms of offsite impacts, one rural residence is located on Waterman Road, approximately 220 feet south of the entry and about 800-feet east of proposed facilities, as viewed across the intervening property on Waterman Road. This residence is not in a direct line from the exit/entry point of the Project site. Typically, low beam headlights stretch from 160 to 250 feet in front of a vehicle, while high beams shine about 350 to 500 feet ahead (Phil Berg and Anthony Alaniz 2018). Depending on the clarity of the headlights, and the beam selection (i.e., high versus low beam), light could reach the windows of the residence. It is assumed that vehicles would be using their low beam headlights while leaving the Project site. However, the potential for light shining onto the residence on Waterman Road would occur during a turning movement and would be near the expected extent of the light beam (i.e., approximately 220 feet from the site with a maximum beam length of 250 feet). Headlight strength under this scenario would not be substantially more invasive upon the residence than that from other vehicles travelling along Waterman Road. Because light from the headlights would not illuminate the interior of the residence, it is not expected that light emanating from vehicles leaving the site would affect sleep or cause adverse effects on the residences during nighttime hours. This impact would be **less than significant**.

Mitigation Measures

No mitigation is required.

3.2 AIR QUALITY

This section includes a discussion of existing air quality conditions, a summary of applicable regulations, and an analysis of potential construction and operational air quality impacts caused by development of the Project. Mitigation is developed as necessary to reduce significant air quality impacts to the extent feasible.

In response to the NOP during the public scoping period, the Sacramento Metropolitan Air Quality Management District (SMAQMD) submitted a public comment recommending that the Draft EIR's air quality analysis adhere to SMAQMD's most recent *Guide to Air Quality Assessment in Sacramento County Guide* (CEQA Guide) and *Guidance to Address the Friant Ranch Ruling for CEQA Projects in the Sac Metro Air District* (Final Friant Ranch Guidance). The analysis presented below is consistent with these guidance documents.

3.2.1 Regulatory Setting

Ambient air quality in the Project area is regulated through the efforts of various federal, State, regional, and local government agencies. These agencies work jointly, as well as individually, to improve air quality through legislation, planning, policy making, education, and a variety of programs. The agencies responsible for improving the air quality within the Sacramento Valley Air Basin (SVAB) are discussed below.

FEDERAL

US Environmental Protection Agency

The US Environmental Protection Agency (EPA) has been charged with implementing national air quality programs. EPA's air quality mandates are drawn primarily from the federal Clean Air Act (CAA), which was enacted in 1970 (42 US Code Chapter 85). The most recent major amendments were made by Congress in 1990.

Criteria Air Pollutants

The CAA required EPA to establish National Ambient Air Quality Standards (NAAQS) for six common air pollutants found all over the United States referred to as criteria air pollutants. EPA has established primary and secondary NAAQS for the following criteria air pollutants: ozone, carbon monoxide (CO), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), respirable particulate matter with an aerodynamic diameter of 10 micrometers or less (PM_{10}), fine particulate matter with an aerodynamic diameter of 2.5 micrometers or less ($PM_{2.5}$), and lead. The NAAQS are shown in Table 3.2-1. The primary standards protect public health, and the secondary standards protect public welfare. The CAA also required each state to prepare a State implementation plan (SIP) for attaining and maintaining the NAAQS. The federal Clean Air Act Amendments of 1990 added requirements for states with nonattainment areas to revise their SIPs to incorporate additional control measures to reduce air pollution. California's SIP is modified periodically to reflect the latest emissions inventories, planning documents, and rules and regulations of the air basins as reported by their jurisdictional agencies. EPA is responsible for reviewing all SIPs to determine whether they conform to the mandates of the CAA and its amendments, and whether implementation will achieve air quality goals. If EPA determines a SIP to be inadequate, EPA may prepare a federal implementation plan that imposes additional control measures. If an approvable SIP is not submitted or implemented within the mandated time frame, sanctions may be applied to transportation funding and stationary air pollution sources in the air basin.

Table 3.2-1 National and California Ambient Air Quality Standards

Pollutant	Averaging Time	California (CAAQS)[a,b]	National (NAAQS)[c]	
			Primary[b,d]	Secondary[b,e]
Ozone	1-hour	0.09 ppm (180 µg/m^3)	–[e]	Same as primary standard
	8-hour	0.070 ppm (137 µg/m^3)	0.070 ppm (147 µg/m^3)	
Carbon monoxide (CO)	1-hour	20 ppm (23 mg/m^3)	35 ppm (40 mg/m^3)	Same as primary standard
	8-hour	9 ppm[f] (10 mg/m^3)	9 ppm (10 mg/m^3)	
Nitrogen dioxide (NO_2)	Annual arithmetic mean	0.030 ppm (57 µg/m^3)	53 ppb (100 µg/m^3)	Same as primary standard
	1-hour	0.18 ppm (339 µg/m^3)	100 ppb (188 µg/m^3)	—
Sulfur dioxide (SO_2)	24-hour	0.04 ppm (105 µg/m^3)	—	—
	3-hour	—	—	0.5 ppm (1,300 µg/m^3)
	1-hour	0.25 ppm (655 µg/m^3)	75 ppb (196 µg/m^3)	—
Respirable particulate matter (PM_{10})	Annual arithmetic mean	20 µg/m^3	—	Same as primary standard
	24-hour	50 µg/m^3	150 µg/m^3	
Fine particulate matter ($PM_{2.5}$)	Annual arithmetic mean	12 µg/m^3	12.0 µg/m^3	15.0 µg/m^3
	24-hour	—	35 µg/m^3	Same as primary standard
Lead [f]	Calendar quarter	—	1.5 µg/m^3	Same as primary standard
	30-Day average	1.5 µg/m^3	—	—
	Rolling 3-Month Average	–	0.15 µg/m^3	Same as primary standard
Hydrogen sulfide	1-hour	0.03 ppm (42 µg/m^3)	No national standards	
Sulfates	24-hour	25 µg/m^3		
Vinyl chloride [f]	24-hour	0.01 ppm (26 µg/m^3)		
Visibility-reducing particulate matter	8-hour	Extinction of 0.23 per km		

Notes: µg/m^3 = micrograms per cubic meter; km = kilometers; ppb = parts per billion; ppm = parts per million.

a California standards for ozone, carbon monoxide, SO_2 (1- and 24-hour), NO_2, particulate matter, and visibility-reducing particles are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.

b Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based on a reference temperature of 25 degrees 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.

c National standards (other than ozone, particulate matter, and those based on annual averages or annual arithmetic means) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest 8-hour concentration in a year, averaged over three years, is equal to or less than the standard. The PM_{10} 24-hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 µg/m^3 is equal to or less than one. The $PM_{2.5}$ 24-hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard. Contact the US Environmental Protection Agency for further clarification and current federal policies.

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 The California Air Resources Board has identified lead and vinyl chloride as toxic air contaminants with no threshold 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.

Source: CARB 2016.

Hazardous Air Pollutants and Toxic Air Contaminants

Toxic air contaminants (TACs) or, in federal parlance, hazardous air pollutants (HAPs) are a defined set of airborne pollutants that may pose a present or potential hazard to human health. A TAC is defined as an air pollutant that may cause or contribute to an increase in mortality or in serious illness, or that may pose a hazard to human health. A substance that is listed as a HAP pursuant to subsection (b) of Section 112 of the CAA (42 US Code Section 7412[b]) is considered a TAC. TACs are usually present in minute quantities in the ambient air; however, their high toxicity or health risk may pose a threat to public health even at low concentrations.

A wide range of sources, from industrial plants to motor vehicles, emit TACs. The health effects associated with TACs are quite diverse and generally are assessed locally, rather than regionally. TACs can cause long-term health effects, such as cancer, birth defects, neurological damage, asthma, bronchitis, and genetic damage, or short-term acute effects, such as eye watering, respiratory irritation (a cough), running nose, throat pain, and headaches.

For evaluation purposes, TACs are separated into carcinogens and noncarcinogens based on the nature of the physiological effects associated with exposure to the pollutant. Carcinogens are assumed to have no safe threshold below which health impacts would not occur. This contrasts with criteria air pollutants, for which acceptable levels of exposure can be determined and for which ambient standards have been established (Table 3.2-1). Cancer risk from TACs is expressed as excess cancer cases per one million exposed individuals, typically over a lifetime of exposure.

EPA and, in California, the California Air Resources Board (CARB) regulate HAPs and TACs, respectively, through statutes (i.e., 42 US Code Section 7412[b]) and regulations that generally require the use of the maximum achievable control technology or best available control technology (BACT) for toxics to limit emissions.

STATE

CARB is the agency responsible for coordination and oversight of State and local air pollution control programs in California and for implementing the California Clean Air Act (CCAA) (California Health and Safety Code Section 40910). The CCAA, which was adopted in 1988, required CARB to establish California Ambient Air Quality Standards (CAAQS) (Table 3.2-1).

Criteria Air Pollutants

CARB has established CAAQS for sulfates, hydrogen sulfide, vinyl chloride, visibility-reducing particulate matter, and the above-mentioned criteria air pollutants. In most cases, the CAAQS are more stringent than the NAAQS. Differences in the standards are generally explained by the health effects studies considered during the standard-setting process and the interpretation of the studies. In addition, the CAAQS incorporate a margin of safety to protect sensitive individuals.

The CCAA requires that all local air districts in the state endeavor to attain and maintain the CAAQS by the earliest date practical. The CCAA specifies that local air districts should focus particular attention on reducing the emissions from transportation and areawide emission sources. The CCAA also provides air districts with the authority to regulate indirect sources.

Toxic Air Contaminants

TACs in California are regulated primarily through the Tanner Air Toxics Act (Assembly Bill [AB] 1807, Chapter 1047, Statutes of 1983) and the Air Toxics Hot Spots Information and Assessment Act of 1987 (AB 2588, Chapter 1252, Statutes of 1987). AB 1807 sets forth a formal procedure for CARB to designate substances as TACs. Research, public participation, and scientific peer review are required before CARB can designate a substance as a TAC. To date, CARB has identified more than 21 TACs and adopted EPA's list of HAPs as TACs. Most recently, particulate matter (PM) exhaust from diesel engines (diesel PM) was added to CARB's list of TACs.

After a TAC is identified, CARB then adopts an airborne toxics control measure for sources that emit that particular TAC. If a safe threshold exists for a substance at which there is no toxic effect, the control measure must reduce exposure below that threshold. If no safe threshold exists, the measure must incorporate BACT for toxics to minimize emissions.

The Hot Spots Act requires that existing facilities that emit toxic substances above a specified level prepare an inventory of toxic emissions, prepare a risk assessment if emissions are significant, notify the public of significant risk levels, and prepare and implement risk reduction measures.

CARB has adopted diesel exhaust control measures and more stringent emissions standards for various transportation-related mobile sources of emissions, including transit buses, and off-road diesel equipment (e.g., tractors, generators). Over time, the replacement of older vehicles will result in a vehicle fleet that produces substantially lower levels of TACs than under current conditions. Mobile-source emissions of TACs (e.g., benzene, 1-3-butadiene, diesel PM) have been reduced significantly over the last decade and will be reduced further in California through a progression of regulatory measures (e.g., Low Emission Vehicle/Clean Fuels and Phase II reformulated gasoline regulations) and control technologies. With implementation of CARB's Risk Reduction Plan, it is expected that diesel PM concentrations will be 85 percent less in 2020 in comparison to year 2000 (CARB 2000). Adopted regulations are also expected to continue to reduce formaldehyde emissions emitted by cars and light-duty trucks. As emissions are reduced, it is expected that risks associated with exposure to the emissions will also be reduced.

LOCAL

Sacramento Metropolitan Air Quality Management District

Criteria Air Pollutants

SMAQMD is the primary agency responsible for planning to meet NAAQS and CAAQS in Sacramento County. SMAQMD works with other local air districts in the Sacramento region to maintain the region's portion of the SIP for ozone. The SIP is a compilation of plans and regulations that govern how the region and State will comply with the CAA requirements to attain and maintain the NAAQS for ozone. The Sacramento region has been designated as a "serious" 2015 8-hour ozone nonattainment area with an extended attainment deadline of June 15, 2019 (EPA 2022). The 2018 Sacramento Regional 2008 8-Hour Ozone Attainment and Further Reasonable Progress Plan was approved by CARB on November 16, 2017. The previous 2013 Update to the 8-Hour Ozone Attainment and Reasonable Further Progress Plan was approved and promulgated by EPA for the 1997 8-Hour Ozone Standard.

SMAQMD has developed a set of guidelines for use by lead agencies when preparing environmental documents. The guidelines contain thresholds of significance for criteria pollutants and TACs, and also make recommendations for conducting air quality analyses. After SMAQMD guidelines have been consulted and the air quality impacts of a project have been assessed, the lead agency's analysis undergoes a review by SMAQMD. SMAQMD submits comments and suggestions to the lead agency for incorporation into the environmental document.

All projects are subject to adopted SMAQMD rules and regulations in effect at the time of construction. Specific rules relevant to the construction of future development under the Project may include the following:

- Rule 201: General Permit Requirements. Any project that includes the use of equipment capable of releasing emissions into the atmosphere may be required to obtain permit(s) from SMAQMD before equipment operation. The applicant, developer, or operator of a project that includes an emergency generator, boiler, or heater should contact SMAQMD early to determine whether a permit is required, and to begin the permit application process. Portable construction equipment (e.g., generators, compressors, pile drivers, lighting equipment) with an internal combustion engine greater than 50 horsepower must have a SMAQMD permit or CARB portable equipment registration.
- Rule 202: New Source Review. The purpose of this rule is to provide for the issuance of authorities to construct and permits to operate at new and modified stationary air pollution sources and to provide mechanisms, including emission offsets, by which authorities to construct such sources may be granted without interfering with the attainment or maintenance of ambient air quality standards.
- Rule 207: Federal Operating Permit. The purpose this rule is to establish an operating permitting system consistent with the requirements of Title V of the US Code and pursuant to 40 FR Part 70. Stationary sources subject to the requirements of this rule are also required to comply with any other applicable federal, State, or SMAQMD orders, rules, and regulations, including requirements pertaining to prevention of significant

deterioration pursuant to Rule 203, requirements to obtain an authority to construct pursuant to Rule 201, or applicable requirements under SMAQMD's new source review rule in the SIP.

- Rule 402: Nuisance. A person shall not discharge from any source whatsoever such quantities of air contaminants or other materials that cause injury, detriment, nuisance, or annoyance to any considerable number of persons or the public, or that endanger the comfort, repose, health, or safety of any such persons or the public, or that cause or have natural tendency to cause injury or damage to business or property.
- Rule 403: Fugitive Dust. The developer or contractor is required to control dust emissions from earthmoving activities or any other construction activity to prevent airborne dust from leaving the project site. Fugitive dust controls include the following:
  - Water all exposed surfaces two times daily.
  - Cover or maintain at least 2 feet of freeboard on haul trucks transporting soil, sand, or other loose material on the site.
  - Use wet power vacuum street sweepers to remove any visible track-out mud or dirt onto adjacent public roads at least once a day.
  - Limit vehicle speeds on unpaved roads to 15 miles per hour.
  - All roadways, driveways, sidewalks, and parking lots to be paved should be completed as soon as possible. In addition, building pads should be laid as soon as possible after grading unless seeding or soil binders are used.
  - Minimize idling time either by shutting equipment off when not in use or reducing the time of idling to 5 minutes.
  - Maintain all construction equipment in proper working condition according to manufacturers' specifications.
- Rule 442: Architectural Coatings. The purpose of this rule is to limit the emissions of volatile organic compounds from the use of architectural coatings supplied, sold, offered for sale, applied, solicited for application, or manufactured for use within Sacramento County.
- Rule 902: Asbestos. The developer or contractor is required to notify SMAQMD of any regulated renovation or demolition activity. Rule 902 contains specific requirements for surveying, notification, removal, and disposal of material containing asbestos.

In addition, if modeled construction-generated emissions for a project are not reduced to levels below SMAQMD's mass emission threshold (of 85 pounds per day [lb/day] for nitrogen oxide [NO_X], 80 lb/day or 13.2 tons per year (tpy) for PM_{10}, and 82 lb/day or 15 tpy for $PM_{2.5}$) after the standard construction mitigation is applied, then SMAQMD requires an off-site construction mitigation fee to purchase off-site emissions reductions. Such purchases are made through SMAQMD's Heavy Duty Incentive Program, through which select owners of heavy-duty equipment in Sacramento County can repower or retrofit their old engines with cleaner engines or technologies (SMAQMD 2019).

As discussed in greater detail under the headings "Thresholds of Significance" and "Methodology," the thresholds of significance have been developed in consideration of long-term regional air quality planning. Projects that are found to emit emissions in exceedance of these bright-line thresholds would generate a cumulatively considerable contribution of regional air pollution that could obstruct the region's attainment of the NAAQS and/or the CAAQS, or cause a localized exceedance of these concentration-based standards within the SVAB. Conversely, projects that emit levels of air pollution below these thresholds would not affect the SVAB's ability to attain the NAAQS and/or the CAAQS.

Also discussed in greater detail under the heading "Methodology," SMAQMD has released several versions of guidance in response to the California Supreme Court Case *Sierra Club v. County of Fresno* (2018) 6 Cal.App.5th 503 (herein referred to as the Friant Ranch Decision). The Final Guidance, released in October 2020, is discussed in greater detail under the heading "Methodology."

Toxic Air Contaminants

At the local level, air districts may adopt and enforce CARB control measures for TACs. Under SMAQMD Rule 201 ("General Permit Requirements"), Rule 202 ("New Source Review"), and Rule 207 ("Federal Operating Permit"), all

sources that possess the potential to emit TACs are required to obtain permits from SMAQMD. Permits may be granted to these operations if they are constructed and operated in accordance with applicable regulations, including New Source Review standards and air toxics control measures. SMAQMD limits emissions and public exposure to TACs through a number of programs. SMAQMD prioritizes TAC-emitting stationary sources based on the quantity and toxicity of the TAC emissions and the proximity of the facilities to sensitive receptors. Sensitive receptors are people, or facilities that generally house people (e.g., schools, hospitals, residences), that may experience adverse effects from unhealthful concentrations of air pollutants.

Odors

Although offensive odors rarely cause any physical harm, they can be very unpleasant, leading to considerable stress among the public and often generating citizen complaints to local governments and SMAQMD. SMAQMD's Rule 402 ("Nuisance") regulates odors.

City of Elk Grove General Plan

The City's current General Plan was amended in 2021. The General Plan goals, policies, and standards are based on the General Plan Vision Statement and supporting principles. The following policies from the Community and Resource Protection element in the Elk Grove General Plan are relevant to the analysis of air quality effects (City of Elk Grove 2021).

- **Policy NR-4-3:** Implement and support programs that reduce mobile source emissions.
- **Policy NR-4-8:** Require that development projects incorporate best management practices during construction activities to reduce emissions of criteria pollutants.
- **Policy NR-5-2:** Improve the health and sustainability of the community through improved regional air quality and reduction of greenhouse gas emissions that contribute to climate change.
- **Policy N-1-7:** The standards outlined in Table 8-4 shall not apply to transportation- and City infrastructure-related construction activities as long as construction occurs between the hours of 7 a.m. and 7 p.m., Monday through Friday, and 8 a.m. and 5 p.m. on weekends and federally recognized holidays. Work may occur beyond these time frames for construction safety or because of existing congestion that makes completing the work during these time frames infeasible.

3.2.2 Environmental Setting

The Project site is located in the SVAB. The SVAB includes all of Butte, Colusa, Glenn, Sacramento, Shasta, Sutter, Tehama, Yolo, and Yuba Counties; the western portion of Placer County; and the eastern portion of Solano County. The ambient concentrations of air pollutants are determined by the amount of emissions released by the sources of air pollutants and the atmosphere's ability to transport and dilute such emissions. Natural factors that affect transport and dilution include terrain, wind, atmospheric stability, and sunlight. Therefore, existing air quality conditions in the area are determined by such natural factors as topography, meteorology, and climate, in addition to the amount of emissions released by existing air pollutant sources, as discussed separately below.

CLIMATE, METEOROLOGY, AND TOPOGRAPHY

The SVAB is a relatively flat area bordered by the north Coast Ranges to the west and the northern Sierra Nevada to the east. Air flows into the SVAB through the Carquinez Strait, the only breach in the western mountain barrier, and moves across the Sacramento–San Joaquin Delta (Delta) from the San Francisco Bay Area.

The Mediterranean climate type of the SVAB is characterized by hot, dry summers and cool, rainy winters. During the summer, daily temperatures range from 50 degrees Fahrenheit (°F) to more than 100°F. The inland location and surrounding mountains shelter the area from much of the ocean breezes that keep the coastal regions moderate in temperature. Most precipitation in the area results from air masses that move in from the Pacific Ocean, usually from the west or northwest, during the winter months. More than half the total annual precipitation

falls during the winter rainy season (November through February); the average winter temperature is a moderate 49°F. Also characteristic of SVAB winters are periods of dense and persistent low-level fog, which are most prevalent between storms. The prevailing winds are moderate in speed and vary from moisture-laden breezes from the south to dry land flows from the north.

The mountains surrounding the SVAB create a barrier to airflow, which leads to the entrapment of air pollutants when meteorological conditions are unfavorable for transport and dilution. The highest frequency of poor air movement occurs in the fall and winter when high-pressure cells are often present over the SVAB. The lack of surface wind during these periods, combined with the reduced vertical flow caused by a decline in surface heating, reduces the influx of air and leads to the concentration of air pollutants under stable metrological conditions. Surface concentrations of air pollutant emissions are highest when these conditions occur in combination with agricultural burning activities or with temperature inversions, which hamper dispersion by creating a ceiling over the area and trapping air pollutants near the ground.

May through October is ozone season in the SVAB. This period is characterized by poor air movement in the mornings with the arrival of the Delta sea breeze from the southwest in the afternoons. In addition, longer daylight hours provide a plentiful amount of sunlight to fuel photochemical reactions between reactive organic gases (ROG) and NO_X, which result in ozone formation. Typically, the Delta breeze transports air pollutants northward out of the SVAB; however, a phenomenon known as the Schultz Eddy prevents this from occurring during approximately half of the time from July to September. The Schultz Eddy phenomenon causes the wind to shift southward and blow air pollutants back into the SVAB. This phenomenon exacerbates the concentration of air pollutant emissions in the area and contributes to the area violating the ambient air quality standards.

The local meteorology of the City and surrounding area is represented by measurements recorded at the Western Regional Climate Center Sacramento Executive Airport Station. The normal annual precipitation is approximately 17.24 inches. January temperatures range from a normal minimum of 37.8°F to a normal maximum of 53.5°F. July temperatures range from a normal minimum of 58.2°F to a normal maximum of 92.7°F (WRCC 2016). The prevailing wind direction is from the south (WRCC 2002).

CRITERIA AIR POLLUTANTS

Concentrations of criteria air pollutants are used to indicate the quality of the ambient air. Ozone, PM_{10}, and $PM_{2.5}$ are the criteria air pollutants of primary concern in this analysis because of their nonattainment status with respect to the applicable NAAQS and/or CAAQS in the SVAB. Brief descriptions of these key criteria air pollutants in the SVAB and their health effects are provided below. The attainment statuses of all criteria air pollutants with respect to the NAAQS and the CAAQS in Sacramento County are shown in Table 3.2-2. A brief summary of the various acute and chronic health effects from exposure to concentrations of criteria air pollutants in exceedance of the NAAQS/CAAQS is shown in Table 3.2-3.

Table 3.2-2 Attainment Status Designations for Sacramento County

Pollutant	National Ambient Air Quality Standard	California Ambient Air Quality Standard
Ozone	Attainment (1-hour)[1]	Nonattainment (1-hour) Classification-Serious[2]
	Nonattainment (8-hour)[3] Classification=Serious	Nonattainment (8-hour)
		Nonattainment (8-hour)
Respirable particulate matter (PM_{10})	Attainment (24-hour)	Nonattainment (24-hour)
	Attainment (Annual)	Nonattainment (Annual)
Fine particulate matter ($PM_{2.5}$)	Nonattainment (24-hour)	(No State Standard for 24-Hour)
	Attainment (Annual)	Attainment (Annual)
Carbon monoxide (CO)	Attainment (1-hour)	Attainment (1-hour)
	Attainment (8-hour)	Attainment (8-hour)

Pollutant	National Ambient Air Quality Standard	California Ambient Air Quality Standard
Nitrogen dioxide (NO_2)	Unclassified/Attainment (1-hour)	Attainment (1-hour)
	Unclassified/Attainment (Annual)	Attainment (Annual)
Sulfur dioxide (SO_2)[4]	(Attainment Pending) (1-Hour)	Attainment (1-hour)
	(Attainment Pending) (1-Hour)	Attainment (24-hour)
Lead (Particulate)	Attainment (3-month rolling avg.)	Attainment (30-day average)
Hydrogen sulfide	No Federal Standard	Unclassified (1-hour)
Sulfates		Attainment (24-hour)
Visibly-reducing particles		Unclassified (8-hour)
Vinyl chloride		Unclassified (24-hour)

Notes: NAAQS = national ambient air quality standards; CAAQS = California ambient air quality standards.

[1] Air Quality meets federal 1-hour ozone standard (77 FR 64036). EPA revoked this standard, but some associated requirements still apply. SMAQMD attained the standard in 2009. SMAQMD has requested EPA recognize attainment to fulfill the requirements.

[2] Per Health and Safety Code Section 40921.5(c), the classification is based on 1989–1991 data, and therefore does not change.

[3] 2015 Standard.

[4] 2010 Standard.

Source: CARB 2020.

Ozone

Ground-level ozone is not emitted directly into the air but is created by chemical reactions between ROG and NO_X. This happens when pollutants emitted by cars, power plants, industrial boilers, refineries, chemical plants, and other sources chemically react in the presence of sunlight. Ozone at ground level is a harmful air pollutant because of its effects on people and the environment and is the main ingredient in smog (EPA 2021).

Acute health effects of ozone exposure include increased respiratory and pulmonary resistance, cough, pain, shortness of breath, and lung inflammation. Chronic health effects include permeability of respiratory epithelia and possibility of permanent lung impairment (EPA 2021). Emissions of the ozone precursors ROG and NO_X have decreased over the past two decades because of more stringent motor vehicle standards and cleaner burning fuels (CARB 2013).

Nitrogen Dioxide

Nitrogen dioxide (NO_2) is a brownish, highly reactive gas that is present in all urban environments. The major human-made sources of NO_2 are combustion devices, such as boilers, gas turbines, and mobile and stationary reciprocating internal combustion engines. Combustion devices emit primarily nitric oxide (NO), which reacts through oxidation in the atmosphere to form NO_2. The combined emissions of NO and NO_2 are referred to as NO_X and are reported as equivalent NO_2. Because NO_2 is formed and depleted by reactions associated with photochemical smog (ozone), the NO_2 concentration in a particular geographical area may not be representative of the local sources of NO_X emissions (EPA 2021).

Acute health effects of exposure to NO_X includes coughing, difficulty breathing, vomiting, headache, eye irritation, chemical pneumonitis, pulmonary edema, breathing abnormalities, cough, cyanosis, chest pain, rapid heartbeat, and death. Chronic health effects include chronic bronchitis and decreased lung function (EPA 2021).

Particulate Matter

PM_{10} is emitted directly into the air and includes fugitive dust, soot, and smoke from mobile and stationary sources, construction operations, fires and natural windblown dust, and particulate matter formed in the atmosphere by reaction of gaseous precursors (CARB 2013). $PM_{2.5}$ includes a subgroup of smaller particles that have an aerodynamic diameter of 2.5 micrometers or less. PM_{10} emissions in the SVAB are dominated by emissions from area sources, primarily fugitive dust from vehicle travel on unpaved and paved roads, farming operations, construction and demolition, and particles from residential fuel combustion. Direct emissions of PM_{10} are projected to remain relatively constant through 2035. Direct emissions of $PM_{2.5}$ have steadily declined in the SVAB between 2000 and 2010 and are

projected to increase slightly through 2035. Emissions of $PM_{2.5}$ in the SVAB are dominated by the same sources as emissions of PM_{10} (CARB 2013).

Acute health effects of exposure to PM_{10} include breathing and respiratory symptoms, aggravation of existing respiratory and cardiovascular diseases, including asthma and chronic obstructive pulmonary disease, and premature death. Chronic health effects include alternations to the immune system and carcinogenesis (EPA 2021). 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. These adverse health effects have been reported primarily in infants, children, and older adults with preexisting heart or lung diseases. Long-term (months to years) exposure to $PM_{2.5}$ has been linked to premature death, particularly in people who have chronic heart or lung diseases, and reduced lung function growth in children.

Table 3.2-3 Sources and Health Effects of Criteria Air Pollutants

Pollutant	Sources	Acute[1] Health Effects	Chronic[2] Health Effects
Ozone	Secondary pollutant resulting from reaction of ROG and NO_X in presence of sunlight. ROG emissions result from incomplete combustion and evaporation of chemical solvents and fuels; NO_X results from the combustion of fuels	Increased respiration and pulmonary resistance; cough, pain, shortness of breath, lung inflammation	Permeability of respiratory epithelia, possibility of permanent lung impairment
Carbon monoxide (CO)	Incomplete combustion of fuels; motor vehicle exhaust	Headache, dizziness, fatigue, nausea, vomiting, death	Permanent heart and brain damage
Nitrogen dioxide (NO_2)	Combustion devices (e.g., boilers, gas turbines, and mobile and stationary reciprocating internal combustion engines)	Coughing, difficulty breathing, vomiting, headache, eye irritation, chemical pneumonitis or pulmonary edema, breathing abnormalities, cough, cyanosis, chest pain, rapid heartbeat, death	Chronic bronchitis, decreased lung function
Sulfur dioxide (SO_2)	Coal and oil combustion, steel mills, refineries, and pulp and paper mills	Irritation of upper respiratory tract, increased asthma symptoms	Insufficient evidence linking SO_2 exposure to chronic health impacts
Respirable particulate matter (PM_{10}), fine particulate matter ($PM_{2.5}$)	Fugitive dust, soot, smoke, mobile and stationary sources, construction, fires and natural windblown dust, and formation in the atmosphere by condensation and/or transformation of SO_2 and ROG	Breathing and respiratory symptoms, aggravation of existing respiratory and cardiovascular diseases, premature death	Alterations to the immune system, carcinogenesis
Lead	Metal processing	Reproductive/ developmental effects (fetuses and children)	Numerous effects, including neurological, endocrine, and cardiovascular effects

Notes: NO_X = oxides of nitrogen; ROG = reactive organic gases.

[1] "Acute" refers to effects of short-term exposures to criteria air pollutants, usually at fairly high concentrations.

[2] "Chronic" refers to effects of long-term exposures to criteria air pollutants, usually at lower, ambient concentrations.

Sources: EPA 2021.

TOXIC AIR CONTAMINANTS

According to the 2013 Edition of the California Almanac of Emissions and Air Quality, health risks from TACs can largely be attributed to relatively few compounds, the most important being diesel PM (CARB 2013:5-2 to 5-4). Diesel PM differs from other TACs in that it is not a single substance, but rather a complex mixture of hundreds of substances. Although diesel PM is emitted by diesel-fueled internal combustion engines, the composition of the emissions varies depending on engine type, operating conditions, fuel composition, lubricating oil, and whether an emissions control system is being used. Unlike the other TACs, no ambient monitoring data are available for diesel

PM because no routine measurement method currently exists. The TACs for which data are available that pose the greatest existing ambient risk in California are benzene, 1,3-butadiene, acetaldehyde, carbon tetrachloride, hexavalent chromium, para-dichlorobenzene, formaldehyde, methylene chloride, and perchloroethylene. Diesel PM poses the greatest health risk among the 10 TACs mentioned. Overall, statewide emissions of diesel PM are forecasted to decline by 71 percent between 2000 and 2035 (CARB 2013:3-8).

ODORS

Odors are generally regarded as an annoyance rather than a health hazard. However, manifestations of a person's reaction to foul odors can range from psychological (e.g., irritation, anger, or anxiety) to physiological (e.g., circulatory and respiratory effects, nausea, vomiting, and headache).

The ability to detect odors varies considerably among the population and overall is quite subjective. Some individuals can smell very minute quantities of specific substances; others may not have the same sensitivity but may have sensitivities to odors of other substances. In addition, people may have different reactions to the same odor; an odor that is offensive to one person may be perfectly acceptable to another (e.g., fast food restaurant). It is important to also note that an unfamiliar odor is more easily detected and is more likely to cause complaints than a familiar one. This is because of the phenomenon known as odor fatigue, in which a person can become desensitized to almost any odor and recognition occurs only with an alteration in the intensity.

Odor sources of concern include wastewater treatment plants, sanitary landfills, composting facilities, recycling facilities, petroleum refineries, chemical manufacturing plants, painting operations, rendering plants, food packaging plants, and cannabis (SMAQMD 2016). The Project site is located directly north of the Paramount Petroleum Asphalt Plant, which is considered a source of odor.

SENSITIVE RECEPTORS

Sensitive receptors are generally considered to include those land uses where exposure to pollutants could result in health-related risks to sensitive individuals, such as children or the elderly. Residential dwellings, schools, hospitals, playgrounds, and similar facilities are of primary concern because of the presence of individuals particularly sensitive to pollutants and/or the potential for increased and prolonged exposure of individuals to pollutants. The western boundary of the Project site is located approximately 270 feet from the residences along Falcon Creek Circle in the Casa Grande neighborhood. The eastern boundary of the Project site is located approximately 800 feet from residences on Trebbiano Circle, Roan Ranch Circle, and Oreo Ranch Circle in the Sonoma Creek neighborhood. Also, for the purposes of this analysis, future on-site workers are considered sensitive receptors.

3.2.3 Impacts and Mitigation Measures

METHODOLOGY

Regional and local criteria air pollutant emissions and associated impacts, as well as impacts from TACs, CO concentrations, and odors were assessed in accordance with SMAQMD-recommended methodologies. The Project's emissions are compared to SMAQMD-adopted thresholds.

Both construction and operational emissions of criteria air pollutants and precursors were calculated using the California Emissions Estimator Model (CalEEMod) Version 2016.3.2 computer program, which was the most recently available version of the program at the time the NOP was released. This model was developed in coordination with the South Coast Air Quality Management District and was the most current emissions model approved for use in California by various air districts, including SMAQMD, when the NOP was released. Modeling was based on Project-specific information (e.g., size, area to be graded, area to be paved) where available, reasonable assumptions based on typical construction activities, and default values in CalEEMod that are based on the Project's location and land use type. Construction would be completed with minimal site preparation; material would be imported on-site to fill

the site the level the grade on the Project site. Construction would commence in 2022 and would extend over a 7-month period.

With respect to operational emissions, mobile source emissions were estimated using Project-estimated annual vehicle miles travelled (VMT) derived from the traffic study prepared for the Project (see Section 3.11, "Transportation"). EPA EGrid AP42 tables were used to calculate emissions from the asphalt plant, silo loading and silo loading, and hot-mix asphalt handling. Emissions from the hot oil heater were estimated based on the South Coast Air Quality Management District default emissions factors for natural gas combustion.

SMAQMD has developed Final Friant Ranch Guidance, based on modeling that estimates the incremental health effects of a project's emissions of criteria air pollutants and ozone precursors (SMAQMD 2020a). Based on the magnitude of the Project emissions, the Minor Project Health Effects Tool contained in the guidance was used to evaluate the Project's incremental health effects. The Minor Project Health Effects tool was used to project the estimated health effects for a source emitting ROG, NO_X, and $PM_{2.5}$ at rates that match the lowest (i.e., most stringent) thresholds of significance for air districts in the area using local health data based on location. The most stringent thresholds of significance applied in this tool include 82 lb/day of $PM_{2.5}$ (derived from SMAQMD), 82 lb/day for PM_{10} (derived from the Placer County Air Pollution Control District), and 82 lb/day for ROG and NO_X (derived from the El Dorado County Air Quality Management District).

The Minor Projects Health Effects Screening Tool estimates the mean incidence of health outcomes such as mortality, hospital admissions, emergency room visits and heart attacks (acute myocardial infarction) in the SVAB that may result from emissions from a new project that emits 82 lb/day of NO_X, ROG, or PM. Projects with emissions lower than these thresholds of significance would have lower estimated health effects. Based on the impact determinations summarized below, the Project's associated adverse health outcomes were estimated only for operational emissions.

A health risk assessment (HRA) was prepared for operation of the Project in accordance with the recommended *Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments* (OEHHA 2015) and *Health Risk Assessment Guidance for Analyzing Cancer Risks from Mobile Source Diesel Idling Emissions for CEQA Air Quality Analysis* (SCAQMD 2003). Air dispersion modeling was prepared using US EPA AERMOD. Dispersion data were processed through HARP2 (Hotspots Analysis and Reporting Program), and emissions data were incorporated into HARP2 dated March 20, 2017. Construction-related TAC emissions were assessed qualitatively.

Impacts related to odors were also assessed qualitatively, based on proposed construction activities, equipment types and duration of use, overall construction schedule, proposed operational activities, and distance to nearby sensitive receptors. To evaluate an odor impact, SMAQMD recommends the lead agency provide the buffer distance and a description of the land features and topography in the buffer zone that separates nearby sensitive receptors and the odor source.

Specific model assumptions and inputs for these calculations can be found in Appendix B.

THRESHOLDS OF SIGNIFICANCE

The impact analysis provided below is based on the following CEQA Guidelines Appendix G thresholds of significance. An air quality impact would be significant if implementation of the Project would:

- conflict with or obstruct implementation of the applicable air quality plan,
- violate any air quality standard or contribute substantially to an existing or projected air quality violation,
- result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is non-attainment under an applicable federal or State ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors),
- expose sensitive receptors to substantial pollutant concentrations, or
- create objectionable odors affecting a substantial number of people.

For individual and subsequent projects developed under the Project, the significance criteria used to evaluate Project impacts on air quality under CEQA are based on Appendix G of the State CEQA Guidelines and thresholds of significance adopted by SMAQMD. SMAQMD's air quality thresholds of significance are tied to achieving or maintaining attainment designations with the NAAQS and CAAQS, which are scientifically substantiated, numerical concentrations of criteria air pollutants considered to be protective of human health. Implementing the Project would have a significant impact related to air quality such that human health would be adversely affected if it would (SMAQMD 2020b):

- cause construction-generated criteria air pollutant or precursor emissions to exceed the SMAQMD-recommended thresholds of 85 lb/day for NO_X, 80 lb/day or 13.2 tpy for PM_{10}, and 82 lb/day or 15 tpy for $PM_{2.5}$ after SMAQMD's Basic Construction Emission Control Practices have been implemented;
- result in a net increase in long-term operational criteria air pollutant or precursor emissions that exceed the SMAQMD-recommended thresholds of 65 lb/day for ROG and NO_X, 80 lb/day and 13.2 tpy for PM_{10}, and 82 lb/day or 15 tpy for $PM_{2.5}$;
- result in long-term operational local mobile-source CO emissions that would violate or contribute substantially to concentrations that exceed the 1-hour CAAQS of 20 parts per million (ppm) or the 8-hour CAAQS of 9 ppm;
- result in an incremental increase in cancer risk (i.e., the risk of contracting cancer) greater than 10 in one million at any off-site receptor and/or a noncarcinogenic hazard index of 1.0 or greater; or
- result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.

ISSUES NOT DISCUSSED FURTHER

The Project would generate an average of approximately 454 new daily truck trips. SMAQMD developed a tiered approach to screen CO impacts. Using that guidance, a CO hotspot could occur at intersections that support 31,600 vehicles per hour. The Project's approximate new daily trips would be substantially lower than 31,600 vehicles, and these trips would not be localized in any one particular area in a way that could lead to a CO hotspot. For these reasons, CO hotspot emissions are not discussed further.

ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Impact 3.2-1: Generate Emissions of Criteria Air Pollutants and Precursors during Project Construction That Exceed Sacramento Metropolitan Air Quality Management District Thresholds

Implementation of the Project would generate construction emissions of ROG, NO_X, PM_{10}, and $PM_{2.5}$ from material and equipment delivery trips, worker commute trips, and other miscellaneous activities. Emissions of NO_X would not exceed SMAQMD's threshold of significance of 85 lb/day. SMAQMD's threshold for PM_{10} and $PM_{2.5}$ emissions is 0 lb/day; however, this threshold increases to 80 and 82 lb/day, respectively, with implementation of best management practices (BMPs). Mitigation Measure 3.2-1, which requires implementation of BMPs, would reduce PM_{10} and $PM_{2.5}$ emissions by approximately 54 percent to 8 and 4 lb/day, respectively. Because construction emissions of PM_{10} and $PM_{2.5}$ would be less than 80 and 82 lb/day, respectively (SMAQMD's thresholds when BMPs are applied), with implementation of Mitigation Measure 3.2-1, this impact would be **less than significant** with mitigation.

Construction-related activities would generate emissions of ROG, NO_X, PM_{10}, and $PM_{2.5}$ associated with off-road equipment, material delivery, worker commute trips, and other miscellaneous activities (e.g., application of architectural coatings). Fugitive dust emissions of PM_{10} and $PM_{2.5}$ would be associated primarily with site preparation and would vary as a function of soil silt content, soil moisture, wind speed, and acreage of disturbance. PM_{10} and $PM_{2.5}$ are also contained in exhaust from off-road equipment and on-road vehicles. Emissions of ozone precursors, ROG and NO_X, would be associated primarily with construction equipment and on-road mobile exhaust. The application of architectural coatings results in off-gas emissions of ROG.

Construction activities were assumed to begin in January 2022 and extend until July 2022; however, construction would begin in mid-2023. Emissions modeling for an earlier date than what would occur would result in slightly greater emission levels that what would be expected, because CalEEMOD's emission factors account for California's tailpipe regulations and fuel economy, which tend to require decreased emissions over time. For specific construction assumptions and modeling inputs, refer to Appendix B. Table 3.2-3 summarizes the modeled maximum daily (ROG/NO_x, PM) and annual (PM) emissions from construction activities over an assumed 7-month construction period.

As shown in Table 3.2-3, daily emissions of NO_X would not exceed SMAQMD's daily mass emissions thresholds. Emissions of PM_{10}, and $PM_{2.5}$ would, however, exceed their respective thresholds without implementation of BMPs. SMAQMD's project thresholds are intended to maintain or achieve attainment designations in the SVAB with respect to the CAAQS and NAAQS. If a project does not exceed SMAQMD's thresholds, its contribution of air pollutants would not affect an air basin's maintenance or attainment of the NAAQS and CAAQS and thus would not exacerbate or interfere with the region's ability to attain the health-based standards (SMAQMD 2020b).

Table 3.2-3 Summary of Maximum Emissions of Criteria Air Pollutants and Precursors Associated with the Project (2022)

Construction Year	ROG (lb/day)[1]	NO_X (lb/day)	PM_{10} (lb/day)	PM_{10} (tpy)	$PM_{2.5}$ (lb/day)	$PM_{2.5}$ (tpy)
2022	37.3	55.3	18.3	0.2	9.4	<1
SMAQMD threshold of significance	None	85	0[2]	0[2]	0[2]	0[2]

Notes: ROG = reactive organic gases; lb/day = pounds per day; NO_X = oxides of nitrogen; PM_{10} = respirable particulate matter with aerodynamic diameter of 10 micrometers or less; $PM_{2.5}$ = fine particulate matter with aerodynamic diameter of 2.5 micrometers or less; SMAQMD = Sacramento Metropolitan Air Quality Management District.

[1] Emissions of ROG were adjusted off-model to correct the CalEEMod assumption that all architectural coatings would occur within the final year of construction.

[2] SMAQMD recommends using a 0 lb/day and 0 tpy threshold of significance for evaluating construction-related emissions of PM_{10} and $PM_{2.5}$ prior to the implementation of best management practices or best available control technology. Following implementation of best management practices and/or best available control technology, construction emissions of PM_{10} are evaluated against a threshold of significance of 80 lb/day or 14.6 tpy and $PM_{2.5}$ is evaluated against a threshold of significance of 82 lb/day or 15 tpy.

Source: Modeling performed by Taylor Environmental Services in 2021 (see Appendix B).

As shown above, emissions of NO_X would not exceed SMAQMD's construction thresholds of significance. Because emissions of NO_X (a pollutant that contributes to the secondary formation of ozone) would be below SMAQMD's thresholds of significance, which are developed in consideration of long-term regional air quality planning, the Project would not conflict with the *Sacramento Regional 2008 NAAQS 8-Hour Ozone Attainment and Reasonable Further Progress Plan* (EDCAQMD et al. 2017).

However, emissions of PM_{10} and $PM_{2.5}$ would, however, exceed SMAQMD's thresholds of 0 lb/day without the implementation of best management practices (BMPs). Mitigation Measure 3.2-1 contains SMAQMD Basic Construction Emissions Control Practices, also referred to as SMAQMD's construction BMPs. Prior to the implementation of these mitigation measures, emissions of PM_{10} and $PM_{2.5}$ were estimated to be 18.3 and 9.4 lb/day. Using estimates provided by SMAQMD in its CEQA Guide, implementation of the BMPs listed in Mitigation Measure 3.2-1 would decrease fugitive dust PM_{10} and $PM_{2.5}$ emissions by approximately 54 percent (SMAQMD 2020b:3-8). As a result, construction-generated fugitive dust-related PM_{10} and $PM_{2.5}$ emissions would be reduced to approximately 8 and 4 lb/day, respectively. As discussed above, implementation of these BMPs would change SMAQMD's construction thresholds of significance for PM_{10} and $PM_{2.5}$, to 80 and 82 lb/day. Because construction emissions of PM_{10} and $PM_{2.5}$ would be reduced to less than SMAQMD's 80 and 82 lb/day thresholds of significance with implementation of the Best management practices provided in Mitigation Measure 3.2-1, impacts would be reduced to a **less-than-significant** level with mitigation.

Mitigation Measures

Mitigation Measure 3.2-1: Implement SMAQMD's Basic Construction Emissions Control Practices

SMAQMD requires construction projects to implement basic construction emissions control practices to control fugitive dust and diesel exhaust emissions. These basic construction emissions control practices are considered Best management practices, as recommended by SMAQMD. The Project applicant shall implement the following control measures during Project construction:

- Control fugitive dust as required by SMAQMD Rule 403 and enforced by SMAQMD staff.
- Water all exposed surfaces twice daily. Exposed surfaces include but are not limited to soil piles, graded areas, unpaved parking areas, staging areas, and access roads.
- Cover or maintain at least 2 feet of freeboard space on haul trucks transporting soil, sand, or other loose material on the site. Any haul trucks that would travel along freeways or major roadways should be covered.
- Use wet power vacuum street sweepers to remove any visible track-out of mud or dirt from adjacent public roads at least once a day. Use of dry power sweeping is prohibited.
- Complete all roadways, driveways, sidewalks, and parking lots to be paved as soon as possible. In addition, lay building pads as soon as possible after grading unless seeding or soil binders are used.
- Limit vehicle speeds on unpaved roads to 15 miles per hour.
- Minimize idling time, either by shutting equipment off when not in use or by reducing the time of idling to 5 minutes (required by 13 CCR Sections 2449[d][3] and 2485). Provide clear signage that posts this requirement for workers at the site entrances.
- Maintain all construction equipment in proper working condition according to the manufacturers' specifications. The equipment must undergo a one-time inspection by a certified mechanic and be determined to be running in proper condition prior to the start of construction activities.

Significance after Mitigation

Less than significant.

Impact 3.2-2: Generate Long-Term Operational Emissions of ROG, NO_X, PM_{10}, and $PM_{2.5}$ in Exceedance of Sacramento Metropolitan Air Quality Management District Thresholds

Operation of the Project would not generate emissions of ROG or NO_X in exceedance of SMAQMD's daily mass emissions thresholds of significance. However, operation would exceed SMAQMD's 0 lb/day PM_{10} and $PM_{2.5}$ threshold because it would emit 50 lb/day of PM_{10} and 15 lb/day of $PM_{2.5}$. Implementation of the best available control technologies (BACTs) contained in Mitigation Measure 3.2-2 would adjust SMAQMD's thresholds of significance for PM_{10} and $PM_{2.5}$ to 80 and 82 lb/day, respectively. Project emissions after implementation of Mitigation Measure 3.2-2 would be lower than pre-mitigation emission levels of 50 lb/day of PM_{10} and 15 lb/day of $PM_{2.5,}$ which are below SMAQMD's operational emissions thresholds of significance of 80 PM_{10} and 82 lb/day $PM_{2.5}$ (SMAQMD's thresholds when BMPs and BACTs are applied). Additionally, the reductions achieved from implementation of Mitigation Measure 3.2-2 would reduce the total number of potential adverse health incidences. Therefore, operational emissions would be **less than significant** with mitigation.

Significance of Operational Emissions

The Project would generate long-term operational criteria air pollutant emissions from the hot-mix asphalt plant, ready-mix plant, recycle plant, on-site and off-site haul truck exhaust, and employee-related on-road mobile source trips. Operational emission sources would generate ROG, NO_X, PM_{10}, and $PM_{2.5}$. Table 3.2-4 summarizes operational emissions from the Project.

SMAQMD's project thresholds are intended to maintain or achieve attainment designations in the SVAB with respect to the CAAQS and NAAQS. Projects that exceed SMAQMD's thresholds contribute to nonattainment designations because these levels of emissions would exacerbate or interfere with the region's ability to attain the health-based standards or conflict with applicable air quality plans to attain the NAAQS and CAAQS (SMAQMD 2020b). Because operational emissions of ROG and NO_X (pollutants that contributes to the secondary formation of ozone) would be below SMAQMD's thresholds of significance, which are developed in consideration of long-term regional air quality planning, the Project would not conflict with the *Sacramento Regional 2008 NAAQS 8-Hour Ozone Attainment and Reasonable Further Progress Plan* (EDCAQMD et al. 2017).

Table 3.2-4 Summary of Maximum Operational Emissions of Criteria Air Pollutants and Precursors from the Project (2023)

Emissions Source/Activity	ROG (lb/day)	NO_X (lb/day)	PM_{10} (lb/day)	PM_{10} (tpy)	$PM_{2.5}$ (lb/day)	$PM_{2.5}$ (tpy)
Ready-mix plant	<1	<1	2	0.3	2	0.3
Asphalt plant	31	12	21	3.8	10	1.7
Recycle plant	<1	<1	1	0.2	<1	<1
Aggregate unloading system	<1	<1	<1	<1	<1	<1
Off-road mobile equipment	2	3	<1	<1	<1	<1
Truck travel on-site	<1	1	<1	<1	<1	<1
Truck idling on-site	<1	2	<1	<1	<1	<1
Truck travel off-site	<1	6	<1	<1	<1	<1
Stockpiles	<1	<1	3	0.6	1	0.2
Paved roads	<1	<1	7	1.3	2	0.3
Unpaved roads	<1	<1	15	2.7	<1	<1
Total emissions	33	34	50	9.0	15	2.4
SMAQMD threshold of significance	65	65	0	0	0	0

Notes: ROG = reactive organic gases; lb/day = pounds per day; NO_X = oxides of nitrogen; PM_{10} = respirable particulate matter; $PM_{2.5}$ = fine particulate matter; SMAQMD = Sacramento Metropolitan Air Quality Management District.

Total values may not sum exactly because of rounding. See Appendix B for detailed input parameters and modeling results.

Source: Modeling performed by Taylor Environmental Services in 2021 (see Appendix B).

Because implementation of the Project could result in operational emissions above SMAQMD's recommended thresholds for PM_{10} and $PM_{2.5}$, it could contribute to a violation of any air quality standard, contribute substantially to an existing or projected air quality violation. Because the ambient air quality standards are established to be protective of public health, adverse health impacts to receptors could occur because the Project's emissions would be above SMAQMD's thresholds. This impact would be significant.

Health Effects

Consistent with SMAQMD's Final Friant Ranch Guidance, the potential annual incremental health incidences of the Project were estimated using SMAQMD's Minor Project Health Effects Tool. Using the best approximate GPS coordinates and the estimated operational air pollutant emissions, $PM_{2.5}$ and ozone exposure–related health incidences were calculated as shown in Table 3.2-5. The percent of background health incidences represents the mean health incidence within the boundaries of the SVAB; the background health incidences is an estimate of the average number of people that are affected by the health endpoint in a given population over a given period of time. In this case, these background incidence rates cover the SVAB and background incidence rates were obtained by from the Benefits Mapping and Analysis (BenMAP) program (SMAQMD 2020a).

Based on this modeling, operational emissions from implementation of the Project would represent approximately 0.035 percent of all total incidences from exposure to ozone and PM_{25} in the context of an incident background of 184,500, or

approximately 0.65 health incidences in total. Notably, SMAQMD's Minor Project Health Effects Tool projects new health incidences (represented in Table 3.2-5) for projects that emit criteria air pollutants in volumes equaling 82 lb/day for ROG, NO_X, PM_{10}, and $PM_{2.5}$; however, as shown above in Table 3.2-4, the Project would emit substantially less ROG, NO_X, PM_{10}, and $PM_{2.5}$ than what the Minor Project Health Effects Tool characterizes. Therefore, the potential new health incidences overstate the likely new adverse health outcomes that could occur from Project operations.

Table 3.2-5 Potential Annual Incremental Health Incidences for the Project

$PM_{2.5}$ Health Endpoint	Age Range	Incidences (Mean)	Percent of Background Incidences	Total Number of Health Incidences (per Year)[1]
Respiratory				
Emergency room visits	0–99	0.82	0.0045%	18,419
Hospital admissions, asthma	0–64	0.054	0.0029%	1,846
Hospital admissions, all respiratory	65–99	0.26	0.0013%	19,644
Cardiovascular				
Hospital admissions, all cardiovascular (less myocardial infarctions)	65–99	0.15	0.00061%	24,037
Acute myocardial infarction, nonfatal	18–24	0.000069	0.0018%	4
Acute myocardial infarction, nonfatal	25–44	0.0061	0.0020%	308
Acute myocardial infarction, nonfatal	45–54	0.016	0.0021%	741
Acute myocardial infarction, nonfatal	55–64	0.026	0.0021%	1,239
Acute myocardial infarction, nonfatal	65–99	0.094	0.0019%	5,052
Mortality				
Mortality, all causes	30–99	1.8	0.0040%	44,766
Ozone Health Endpoint	**Age Range**	**Incidences (Mean)**	**Percent of Background Incidences**	**Total Number of Health Incidences (per Year)**
Respiratory				
Hospital admissions, all respiratory	65–99	0.065	0.00033%	19,644
Emergency room visits, asthma	0–17	0.39	0.0066%	5,859
Emergency room visits, asthma	18–99	0.59	0.0047%	12,560
Mortality				
Mortality, nonaccidental	0–99	0.042	0.00014%	30,386
Total Incidences	**0–99**	**4.31**	**0.035%**	**184,505**

Note: $PM_{2.5}$ = fine particulate matter.

[1] These numbers represent the total background health incidences per year in the Sacramento Region.

Source: Modeling conducted by Ascent Environmental in 2022.

There is no established threshold of significance that addresses anticipated incidences; however, consistent with guidance from the Friant Ranch Decision and SMAQMD in its Final Friant Ranch Guidance, this information has been included to provide a meaningful level of detail to readers of this Draft EIR. Notably, there is inherent difficulty in evaluating the exact location and degree of adverse health outcomes from Project-level emissions. Moreover, the Minor Project Health Effects Tool cannot account for personal information such as age, preexisting conditions, genetic propensities, and lifestyle choices that may contribute to a receptor's sensitivity to air pollution.

Summary

As shown in Table 3.2-4, the Project would emit emissions of PM_{10} and $PM_{2.5}$ in exceedance of SMAQMD's 0 lb/day significance thresholds without implementation of BACT and BMPs. Compliance with the BACT and BMPs described above would reduce operational emissions of NO_X, PM_{10}, and $PM_{2.5}$ as verified by SMAQMD through SMAQMD's

permitting process. Prior to mitigation, emissions of PM_{10} and $PM_{2.5}$ would be 50 and 15 lb/day, respectively. Implementation of the BACT contained in Mitigation Measure 3.2-2 would adjust SMAQMD's thresholds of significance for PM_{10} and $PM_{2.5}$ to 80 and 82 lb/day, respectively. Emissions would be further reduced following the application of BMPs and BACT. (Note that emission levels post-implementation of the BMPs and BACT have not been quantified because Project emissions would be below the adjusted thresholds, even without accounting for reduced emissions related to implementation of the BMPs and BACT.) Additionally, the reductions achieved from implementation of Mitigation Measure 3.2-2 would reduce the total number of potential adverse health incidences. Implementation of Mitigation Measure 3.2-2 would reduce these emissions as verified by SMAQMD during its permitting process. Therefore, operational emissions would be **less than significant** with mitigation.

Mitigation Measures

Mitigation Measure 3.2-2: Implement Best Available Control Technology and Best Management Practices to Reduce Operational Emissions

SMAQMD requires operational projects to implement BACT and BMPs to reduce operational emissions of NO_X, PM_{10}, and $PM_{2.5}$. While the Project's operational NO_X emissions are below SMAQMD's thresholds of significance, NO_X is a primary pollutant that leads to the secondary formation of PM in the atmosphere. Therefore, applicable NO_X BACT shall be applied to reduce ambient PM within the SVAB and is considered an indirect form of PM mitigation. The Project applicant shall incorporate the following BACT control measures into project design as verified by SMAQMD during the permitting process prior to Project operation:

- The hot-mix asphalt dryer shall meet the BACT threshold of 33 ppm for NO_X at 3 percent for oxygen levels as verified by SMAQMD.
- The hot oil heaters shall meet the BACT thresholds of 9 ppm for NO_X at 3 percent oxygen levels as verified by SMAQMD.

Additionally, the following practice shall be implemented to reduce emissions from on-site mobile diesel equipment:

- Minimize idling time by shutting equipment off when not in use or reducing the time of idling to 5 minutes or less. Clear signage shall be provided to instruct all workers to adhere to this idling requirement.

Significance after Mitigation

Less than significant

Impact 3.2-3: Conflict with or Obstruct Implementation of a Regional Air Quality Plan

Construction and operation of the Project would not result in ROG or NO_X emissions in exceedance of SMAQMD's mass emissions thresholds. ROG and NO_X are precursor emissions to the formation of ground-level ozone, and SMAQMD's thresholds are tied to long-term regional air quality planning. Therefore, emissions of ROG and NO_X would not interfere with the *Sacramento Regional 2008 NAAQS 8-Hour Ozone Attainment and Reasonable Further Progress Plan*. Construction and operation emissions of PM_{10} and $PM_{2.5}$ would exceed SMAQMD's 0 lb/day thresholds prior to implementation of BACT and BMPs. Therefore, emissions of PM_{10} and $PM_{2.5}$ could conflict with long-term regional air quality planning in the SVAB with respect to PM. Implementation of the BACT and BMPs contained in Mitigation Measures 3.2-1 and 3.2-2 would adjust SMAQMD's thresholds of significance for PM_{10} and $PM_{2.5}$ to 80 and 82 lb/day, respectively. Mitigation Measure 3.2-1, which requires implementation of BMPs, would reduce construction-related PM_{10} and $PM_{2.5}$ emissions by approximately 54 percent to 8 and 4 lb/day, respectively. Operational project emissions after implementation of Mitigation Measure 3.2-2 would be lower than pre-mitigation emission levels of 50 lb/day of PM_{10} and 15 lb/day of $PM_{2.5}$, which are below SMAQMD's operational emissions thresholds of significance of 80 PM_{10} and 82 lb/day $PM_{2.5}$ (SMAQMD's thresholds when BMPs and BACTs are applied). These levels of emissions are below SMAQMD's operational emissions thresholds of significance (80 PM_{10} and 82 lb/day $PM_{2.5}$) used following implementation of BMPs and BACT. Therefore, this impact would be **less than significant** with mitigation.

As discussed under Impacts 3.2-1 and 3.2-2, construction and operational emissions of ROG and NO_X would not exceed SMAQMD's mass emissions thresholds. These mass emissions thresholds are determined in consideration of SMAQMD's, with the assistance of other air districts that regulate air quality in the SVAB, long-term regional air quality planning to attain the NAAQS and CAAQS. Projects that emit emissions of ROG and NO_X, which are precursor emissions to the secondary formation of ground-level ozone, below these thresholds would not result in a cumulatively considerable level of emissions that would conflict with or obstruct implementation of the broader suiter of emission reduction measures contained in the *Sacramento Regional 2008 NAAQS 8-Hour Ozone Attainment and Reasonable Further Progress Plan* (EDCAQMD et al. 2017). Therefore, construction and operational emissions of ROG and NO_X would not conflict with the implementation of a regional air quality plan.

Also discussed under Impacts 3.2-1 and 3.2-3, construction and operational emissions of PM_{10} and $PM_{2.5}$ would exceed SMAQMD's 0 lb/day threshold prior to the implementation of BMPs and BACT. As stated by SMAQMD, "[t]he proposed District threshold adds a layer of protection by insuring *[sic]* that projects also implement reasonable control measures. Requiring projects to implement BACT (where applicable) and [BMPs] is reasonable because it mirrors the CAA approach to reducing emissions and attaining the federal CAA standards. In the District's case, since our BACT threshold is zero, the use of a zero threshold insures *[sic]* inclusion of established controls and places all sources on a level playing field with stationary sources" (SMAQMD 2015). Using SMAQMD's logic in establishing its thresholds, projects that do not implement BMPs or BACT would inherently conflict with long-term regional air quality planning for PM emissions. Therefore, the Project's unmitigated emissions of PM_{10} and $PM_{2.5}$, as discussed under Impacts 3.2-1 and 3.2-2, would conflict with long-term PM planning in the SVAB. This impact would be **less than significant** with mitigation.

Mitigation Measure 3.2-3: Implement Mitigation Measures 3.2-1 and 3.2-2

SMAQMD requires operational projects to implement BACT and BMPs to reduce construction and operational emissions of NO_X, PM_{10}, and $PM_{2.5}$. The Project applicant shall implement the control measures identified under Mitigation Measures 3.2-1 and 3.2-2 to reduce construction and operational emissions.

Significance after Mitigation

Less than significant

Impact 3.2-4: Expose Sensitive Receptors to Toxic Air Contaminants

Construction-related TAC emissions would not expose sensitive receptors to an incremental increase in cancer risk greater than 10 in 1 million or a hazard index greater than 1.0, which reflects the: (1) relatively low mass of diesel PM emissions that would be generated by construction activity on the Project site (i.e., 3 lb/day of exhaust PM_{10}), (2) the relatively short duration of diesel PM-emitting construction activity at the Project site (i.e., 7 months), and (3) the highly dispersive properties of diesel PM. Additionally, based on the HRA conducted for the Project (Appendix B), operation of the Project would generate a health risk score of approximately 9.1 in one million at the maximally exposed individual. This would be below SMAQMD's threshold of significance of 10 in one million for TAC impacts. Therefore, this impact would be **less than significant**.

Construction

Particulate exhaust emissions from diesel-fueled engines (i.e., diesel PM) were identified as a TAC by CARB in 1998. The potential cancer risk from the inhalation of diesel PM, as discussed above in Section 3.2.2, "Environmental Setting," outweighs the potential for all other health impacts (i.e., non-cancer chronic risk, short-term acute risk) and health impacts from other TACs (CARB 2003:K-1). With regard to exposure of diesel PM, the dose to which receptors are exposed is the primary factor used to determine health risk. Dose is a function of the concentration of a substance or substances in the environment and the duration of exposure to the substance. Dose is positively correlated with time, meaning that a longer exposure period would result in a higher level of health risk for any exposed receptor. Thus, the risks estimated for an exposed individual are higher if a fixed exposure occurs over a longer period. According to the Office of Environmental Health Hazard Assessment, when a health risk assessment (HRA) is prepared to project the results of exposure of sensitive receptors to selected compounds, exposure of sensitive receptors to TAC emissions should be based on a 70- or 30-year exposure period; however, such

assessments should be limited to the duration of activities associated with a project if emissions occur for shorter periods (OEHHA 2015:5-23, 5-24).

The TAC that is the focus of this analysis is diesel PM because it is known that diesel PM would be emitted during Project construction and operation. Although other TACs exist (e.g., benzene, 1,3-butadiene, hexavalent chromium, formaldehyde, methylene chloride), they are primarily associated with industrial operations and the Project would not include any industrial sources of other TACs.

Construction-related activities that would result in temporary, intermittent emissions of diesel PM would be from the exhaust of off-road equipment used during demolition and building modernization and on-road heavy-duty trucks. On-road diesel-powered haul trucks traveling to and from the construction area to deliver materials and equipment are less of a concern because they do not operate at any one location for extended periods of time such that they would expose a single receptor to excessive diesel PM emissions.

Based on the construction-related emissions modeling conducted (see Appendix B), maximum daily emissions of exhaust PM_{10} (used as a surrogate for diesel PM) would be less than 3 pounds during peak construction. A portion of these emissions would be related to haul trucks traveling and to and from the Project site. Less than 3 pounds per day is below the SMAQMD-recommended threshold of 80 lb/day with the application of BMPs (i.e., Mitigation Measure 3.2-1).

In addition, studies show that diesel PM is highly dispersive and that concentrations of diesel PM decline with distance from the source (e.g., 500 feet from a freeway, the concentration of diesel PM decreases by 70 percent) (Roorda-Knape et al. 1999; Zhu et al. 2002, cited in CARB 2005:9). Additionally, the closest receptors to the Project site are located approximately 270 feet on Falcon Creek Circle to the western boundary of the Project site. Construction would not be limited only to the western portion of the Project site but would rather occur throughout the Project site in phases.

Construction-related TAC emissions would not expose sensitive receptors to an incremental increase in cancer risk greater than 10 in 1 million or a hazard index greater than 1.0 for the following reasons. The low exposure level reflects the (1) relatively low mass of diesel PM emissions that would be generated by construction activity on the Project site (i.e., 3 lb/day of exhaust PM_{10}), (2) the relatively short duration of diesel PM-emitting construction activity at the Project site (i.e., 7 months), and (3) the highly dispersive properties of diesel PM.

Therefore, construction-generated emissions of TACs would be **less than significant**.

Operation

An HRA was prepared for the long-term operational phase of the Project. The analysis evaluates potential public health effects from TAC emissions from the facility operations. The emission sources include the drum dryer unit vented to a baghouse, asphalt oil tanks, filling and loadout of the silos, trucks traveling on-site and to SR 99, trucks idling on-site, off-road mobile equipment, and the ready-mix plant.

As detailed in Appendix B, operation of the Project would result in a maximum risk exposure (chances in one million for carcinogenic risk) of 8.5 in one million and 9.1 in one million for the maximally exposed individual for nearby residences and on-site workers, respectively. This maximum estimated risk from activities from the Project would not exceed 10 in one million; thus, no sensitive receptor would be exposed to substantial TAC concentrations. Because these values would not exceed 10 in one million, exposure of sensitive receptors to TACs would not be considered substantial. Additionally, the Project would be required to adhere to the permitting process of SMAQMD's Rule 202, "New Source Review" which would ensure that Project's stationary source emissions would be accounted for and overseen by SMAQMD. For these reasons, and the reasons listed above, operation-generated emissions of TACs would be **less than significant**.

Mitigation Measures

No mitigation is required for this impact.

Impact 3.2-5: Generate Odors or Emissions Leading to the Formation of Odors

The Project would generate short-term odors from the use of diesel-powered construction equipment; however, the duration of these emissions would occur only within the Project's anticipated 7-month construction period. Emissions of odors would be inherently short term and would not cause long-term odor-related impacts. The Project would include operational project design features that are considered BACT by SMAQMD and that would reduce the potential for the release of odors into the Project area. Therefore, this impact would be **less than significant**.

The Project would generate short-term odors from the use of diesel-powered construction equipment; however, these emissions would be generated only within the Project's anticipated 7-month construction period. Emissions of odors would be inherently short-term (i.e., 7 months) and would not cause long-term odor-related impacts.

Long-term odor impacts associated with the Project would be related to the hot-mix asphalt facility. SMAQMD's CEQA Guide requires that if a sensitive receptor is located within the 2-mile Project screening distance of an asphalt plant, odors need to be analyzed (SMAQMD 2016). Asphalt plants have a number of technologies that are employed to address the sources of odors from the operation of the plant. Many of these technologies are considered BACT by SMAQMD and as a result would be required as part of the permit application for a permit to operate. Other Project components would not substantially affect long-term odors.

Project features considered to be BACT by SMAQMD are related to the hot-mix asphalt facility. Each asphalt tank would use a vent condenser to capture emissions generated when air is displaced as the tank is filled. Additionally, since the vent condensers are integral to the tanks, they would also capture emissions when the tanks experience any standing losses. Emissions released during asphalt plant silo filling and loadout also would be controlled by a Blue Smoke Control device. The blend of particulate and vapors would be controlled through the silo filling and loadout duct work, which would vent into the Blue Smoke Control device.

To consider the potential for odor complaints from the Project operations, it is notable that the Project site is located directly north of the existing Paramount Petroleum Asphalt Plant. Any odor complaints associated with this asphalt plant would be compiled by SMAQMD . However, SMAQMD has received no complaints from nearby residents regarding odors generated at the plant (Muller, pers comm., 2022); thus, it is reasonable to assume that objectional odors are not occurring from the existing Paramount Petroleum Asphalt Plant. Because the Project would produce similar odors to the Paramount Petroleum Asphalt Plant, it is reasonable to assume that complaints from nearby receptors would not be registered for the Project during operation.

Through implementation of these Project design features, the Project would control potential release of odors into the nearby surroundings. Therefore, these design features would reduce potential odor impacts to a **less-than-significant** level.

Mitigation Measures

No mitigation is required for this impact.

3.3 BIOLOGICAL RESOURCES

This section addresses biological resources known or with potential to occur on or near the Project site and describes potential effects of implementation of the Project on those resources. Biological resources include common vegetation and habitat types, sensitive plant communities, and special-status plant and animal species. The analysis includes a description of the existing environmental conditions, the methods used for assessment, the potential direct and indirect impacts of Project implementation, and mitigation measures recommended to address impacts determined to be significant or potentially significant.

Data reviewed in preparation of this analysis include:

- California Natural Diversity Database (CNDDB) record search of the Elk Grove, Bruceville, Florin, Sacramento East, Carmichael, Buffalo Creek, Sloughhouse, Clay, and Galt US Geological Survey (USGS) 7.5-minute quadrangles (CNDDB 2021);
- California Native Plant Society (CNPS) Inventory of Rare and Endangered Plants of California search of the Elk Grove, Bruceville, Florin, Sacramento East, Carmichael, Buffalo Creek, Sloughhouse, Clay, and Galt USGS 7.5-minute quadrangles (CNPS 2021);
- California Wildlife Habitat Relationships (CDFW 2021);
- *Tree Survey Report: Grant Line Construction Aggregate Production and Recycling Facility, Elk Grove, Sacramento County, California* (WRA 2020a);
- *Delineation of Waters of the U.S. and Water of the State: Grant Line Construction Aggregate Production and Recycling Facility Project, Elk Grove, Sacramento County, California* (WRA 2020b);
- *Biological Resources Assessment: Grant Line Construction Aggregate Production and Recycling Facility (APN: 134-0181-042-0000), Elk Grove, Sacramento County, California* (WRA 2020c);
- *Addendum to the Biological Resources Assessment for the Grant Line Construction Aggregate Production and Recycling Facility Project* (WRA 2021);
- *Second Addendum to the Biological Resources Assessment for the Grant Line Construction Aggregate Production and Recycling Facility Project* (WRA 2022); and
- aerial photographs of the Project site and surrounding areas.

No comments regarding biological resources were received in response to the NOP during the public scoping period.

3.3.1 Regulatory Setting

FEDERAL

Federal Endangered Species Act

Pursuant to the federal Endangered Species Act (ESA) (16 US Code Section 1531 et seq.), the US Fish and Wildlife Service (USFWS) and the National Oceanic and Atmospheric Administration's National Marine Fisheries Service (NMFS) regulate the taking of species listed in the ESA as threatened or endangered. In general, persons subject to the ESA (including private parties) are prohibited from "taking" endangered or threatened fish and wildlife species on private property, and from "taking" endangered or threatened plants in areas under federal jurisdiction or in violation of State law. Under Section 9 of the ESA, the definition of "take" is to "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct." The loss of habitat can also be considered take under the ESA.

Under Section 7, the federal lead agency must obtain incidental take authorization or a letter of concurrence stating that the proposed project is not likely to adversely affect federally listed species. Section 7 requirements do not apply

to nonfederal actions. For projects that may adversely affect (result in take of) a federally listed species but do not involve a federal action, ESA compliance is obtained through Section 10, which requires the project proponent to prepare a habitat conservation plan and obtain an Incidental Take Permit from USFWS and/or NMFS. Section 7 of the ESA applies if a federal discretionary action is required (e.g., a federal agency must issue a permit), in which case the involved federal agency consults with USFWS.

Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA), first enacted in 1918, provides for protection of international migratory birds and authorizes the Secretary of the Interior to regulate the taking of migratory birds. The MBTA provides that it will be unlawful, except as permitted by regulations, to pursue, take, or kill any migratory bird, or any part, nest, or egg of any such bird. Under the MBTA, "take" is defined as "to pursue, hunt, shoot, wound, kill, trap, capture, or collect, or any attempt to carry out these activities." A take does not include habitat destruction or alteration, as long as there is not a direct taking of birds, nests, eggs, or parts thereof. The current list of species protected by the MBTA can be found in Title 50 of the CFR, Section 10.13. The list includes nearly all birds native to the United States.

Section 404 of the Clean Water Act

Section 404 of the federal Clean Water Act (CWA) requires a project applicant to obtain a permit before engaging in any activity that involves any discharge of dredged or fill material into waters of the United States, including wetlands. Fill material is material placed in waters of the United States where the material has the effect of replacing any portion of a water of the United States with dry land or changing the bottom elevation of any portion of a water of the United States. Waters of the United States include navigable waters of the United States; interstate waters; all other waters where the use, degradation, or destruction of the waters could affect interstate or foreign commerce; tributaries to any of these waters; and wetlands adjacent to these waters. Wetlands are defined as those areas that are inundated or saturated by surface water or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions.

Potentially jurisdictional wetlands must meet three wetland delineation criteria: hydrophytic vegetation, hydric soil types, and wetland hydrology. Wetlands that meet the delineation criteria may be jurisdictional under Section 404 of the CWA pending US Army Corps of Engineers (USACE) verification.

Section 401 Water Quality Certification

Under Section 401 of the CWA, an applicant for a Section 404 permit must obtain a certificate from the appropriate State agency stating that the intended dredging or filling activity is consistent with the State's water quality standards and criteria. In California, the authority to grant water quality certification is delegated by the State Water Resources Control Board to the regional water quality control boards (RWQCBs).

STATE

California Endangered Species Act

Pursuant to the California Endangered Species Act (CESA), a permit from CDFW is required for projects that could result in the take of a plant or animal species that is listed by the State as threatened or endangered. Under CESA, "take" is defined as an activity that would directly or indirectly kill an individual of a species, but the definition does not include "harm" or "harass," unlike the federal definition. Authorization for take of State-listed species can be obtained through a California Fish and Game Code Section 2081 Incidental Take Permit.

California Fish and Game Code Sections 3503 and 3503.3—Protection of Bird Nests and Raptors

Section 3503 of the Fish and Game Code states that it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird. Section 3503.3 of the California Fish and Game Code states that it is unlawful to take, possess, or destroy any raptors (i.e., species in the orders *Falconiformes* and *Strigiformes*), including their nests or eggs. Typical violations include destruction of active nests as a result of tree removal or disturbance caused by project construction or other activities that cause the adults to abandon the nest, resulting in loss of eggs and/or young.

Fully Protected Species under the California Fish and Game Code

Protection of fully protected species is described in Sections 3511, 4700, 5050, and 5515 of the California Fish and Game Code. These statutes prohibit take or possession of fully protected species and do not provide for authorization of incidental take.

California Native Plant Protection Act

The Native Plant Protection Act (NPPA) (California Fish and Game Code Section 1900 et seq.) allows the California Fish and Game Commission to designate plants as rare or endangered. Sixty-four species, subspecies, and varieties of plants are protected as rare under the NPPA. The act prohibits take of endangered or rare native plants but includes exceptions for agricultural and nursery operations; for emergencies; and, after proper notification of CDFW, for vegetation removal from canals, roads, and other building sites, changes in land use, and other situations.

Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act requires that each of the nine RWQCBs prepare and periodically update basin plans for water quality control. Each basin plan sets forth water quality standards for surface water and groundwater, as well as actions to control nonpoint and point sources of pollution to achieve and maintain these standards. Basin plans offer an opportunity to protect wetlands through the establishment of water quality objectives. The RWQCB's jurisdiction includes waters of the United States, as well as areas that meet the definition of "waters of the state." "Waters of the state" is defined as any surface water or groundwater, including saline waters, within the boundaries of the state. The State definition of a wetland is an area that, under normal circumstances, (1) has continuous or recurrent saturation of the upper substrate caused by groundwater or shallow surface water or both, (2) is saturated long enough to cause anaerobic conditions in the upper substrate, and (3) lacks vegetation or the vegetation is dominated by hydrophytes (i.e., wetland plants). In addition to water quality certifications under Section 401 of the federal CWA, discharges to waters of the state, including wetlands, must meet the RWQCB waste discharge requirements. The RWQCB has the discretion to take jurisdiction over areas not federally protected under Section 404 of the CWA provided they meet the definition of waters of the state or the State definition of a wetland. The California Water Code generally regulates more substances contained in discharges and defines discharges to receiving waters more broadly than does the CWA. This issue is addressed comprehensively in Section 3.7, "Hydrology and Water Quality," as well as herein with respect to biological resources. Mitigation requiring no net loss of wetlands functions and values of waters of the state is typically required by the RWQCB.

LOCAL

City of Elk Grove General Plan

The City's current General Plan was amended in 2021. The General Plan goals, policies, and standards are based on the General Plan Vision Statement and supporting principles. The following General Plan policies and standards are relevant to biological resources:

- **Policy NR-1-2:** Preserve and enhance natural areas that serve, or may potentially serve, as habitat for special-status species. Where preservation is not possible, require that appropriate mitigation be included in the project.
  - **Standard NR-1.2a**: Require a biological resources evaluation for private and public development projects in areas identified to contain or possibly contain special-status plant and animal species.
  - **Standard NR-1.2b**: Require development projects to retain movement corridor(s) adequate (both in size and in habitat quality) to allow for the continued wildlife use based on the species anticipated in the corridor.
- **Policy NR-1-3:** Support the establishment of multipurpose open space areas to address a variety of needs, including but not limited to maintenance of agricultural uses, wildlife habitat, recreational open space, aesthetic benefits, and flood control. To the extent possible, lands protected in accordance with this policy should be in proximity to Elk Grove to facilitate use of these areas by Elk Grove residents, assist in mitigation of habitat loss within the City, and provide an open space resource close to the urbanized areas of Elk Grove.

- Policy NR-1-4: Avoid impacts to wetlands, vernal pools, marshland, and riparian (streamside) areas unless shown to be technically infeasible. Ensure that no net loss of wetland areas occurs, which may be accomplished by avoidance, revegetation, restoration on-site or through creation of riparian habitat corridors, or purchase of credits from a qualified mitigation bank.
- Policy NR-2-1: Preserve large native oak and other native tree species as well as large nonnative tree species that are an important part of the City's historic and aesthetic character. When reviewing native or nonnative trees for preservation, consider the following criteria:
  - Health of the tree
  - Safety hazards posed by the tree
  - Suitability for preservation in place
  - Biological value
  - Aesthetic value
  - Shade benefits
  - Water quality benefits
  - Air quality benefits (pollutant reduction)
- Policy NR-2-2: Maximize tree canopy coverage on public lands and in open spaces by continuing to plant new trees and ensuring sufficient right-of-way width for new developments to provide tree plantings.
- Policy NR-2-4: Preserve and plant trees in appropriate densities and locations to maximize energy conservation and air quality benefits.
- Policy NR-2-5: Ensure that trees that function as an important part of the City's or a neighborhood's aesthetic character or as natural habitat on public and private land are retained or replaced to the extent possible during the development of new structures, roadways (public and private, including roadway widening), parks, drainage channels, and other uses and structures.
- Policy NR-2-6: Promote the planting of drought-resistant shade trees with substantial canopies as part of private development projects and require, where feasible, site design that uses trees to shade rooftops, parking facilities, streets, and other facilities.

City of Elk Grove Municipal Code Chapter 16.130: Swainson's Hawk Impact Mitigation

Chapter 16.130 of the City of Elk Grove Municipal Code mitigates impacts from typical urban development projects and requires mitigation for the loss of Swainson's hawk habitat at a 1:1 ratio. Mitigation can be achieved through purchase of City-owned credits for projects 40 acres or less. EGMC Section 16.130.110 states that "[n]othing herein shall be construed to preclude the City Council's consideration or approval of other means of mitigating significant impact or significant cumulative impact on Swainson's hawk foraging habitat or to limit the City Council's authority to override mitigation measures for reasons permitted by CEQA."

City of Elk Grove Municipal Code Chapter 19.12: Tree Preservation and Protection

Chapter 19.12 of the City of Elk Grove Municipal Code provides regulations for tree preservation and protection.

The regulations apply to four types of trees as follows:

- landmark trees, which are trees specifically identified for protection by the City Council;
- trees of local importance, which are trees of specific varieties greater than 6 inches in diameter;
- secured trees, which are trees that were protected as part of the development process for residential subdivisions and commercial developments; and
- trees on City property or in the public right-of-way.

Work on or removal of any of these four types of trees requires prior approval in the form of a Tree Permit from the City of Elk Grove. Project applicants shall contact the City's Current Planning Division to determine whether their tree requires a Tree Permit before completing work.

Arborist Review

Before the consideration of a request for tree removal by the designated approving authority or grading within the critical root zone of a qualified tree, the applicant shall retain an ISA–certified arborist to prepare a report. The report shall identify the basis, if any, for supporting the removal of the qualified tree(s) and shall be subject to review by the City Arborist. The arborist report shall include an analysis of the following factors:

- the condition of the tree with respect to disease, general health, damage, structural integrity, and whether or not the tree acts as a host for an organism that is parasitic to another species of tree that is in danger of being exterminated by the parasite;
- the number of existing trees on the subject property, on adjacent property, and immediately proximate to the subject tree(s) as deemed relevant by the City Arborist, and the effect of the tree removal upon public health, public safety, and the prosperity of surrounding trees;
- the number of healthy trees that a given parcel of land will support, with and without the proposed development;
- the effect of tree removal on soil stability/erosion, particularly near water courses, near drainage ditches, or on steep slopes, or the effect on runoff interception;
- present and future shade potential with regard to solar heating and cooling;
- identification of alternatives that would allow for the preservation of the tree(s) proposed for removal; and
- any other information the City Arborist finds pertinent (e.g., site conditions, other vegetation, and utility service).

Mitigation for Tree Loss

As part of the approval of a tree permit for removal of a qualified tree, the designated approving authority shall require mitigation for the loss of the tree consistent with Chapter 19.12, Article IV (Mitigation for Tree Loss). The requirement for mitigation may be waived under those circumstances as provided in Section 19.12.180 (Alternative Mitigation Requirements). Mitigation for qualified tree loss shall be provided at a ratio of 1 new inch diameter at standard height (DSH) of tree for each inch DSH lost (1:1 ratio) unless alternative mitigation is approved by the City.

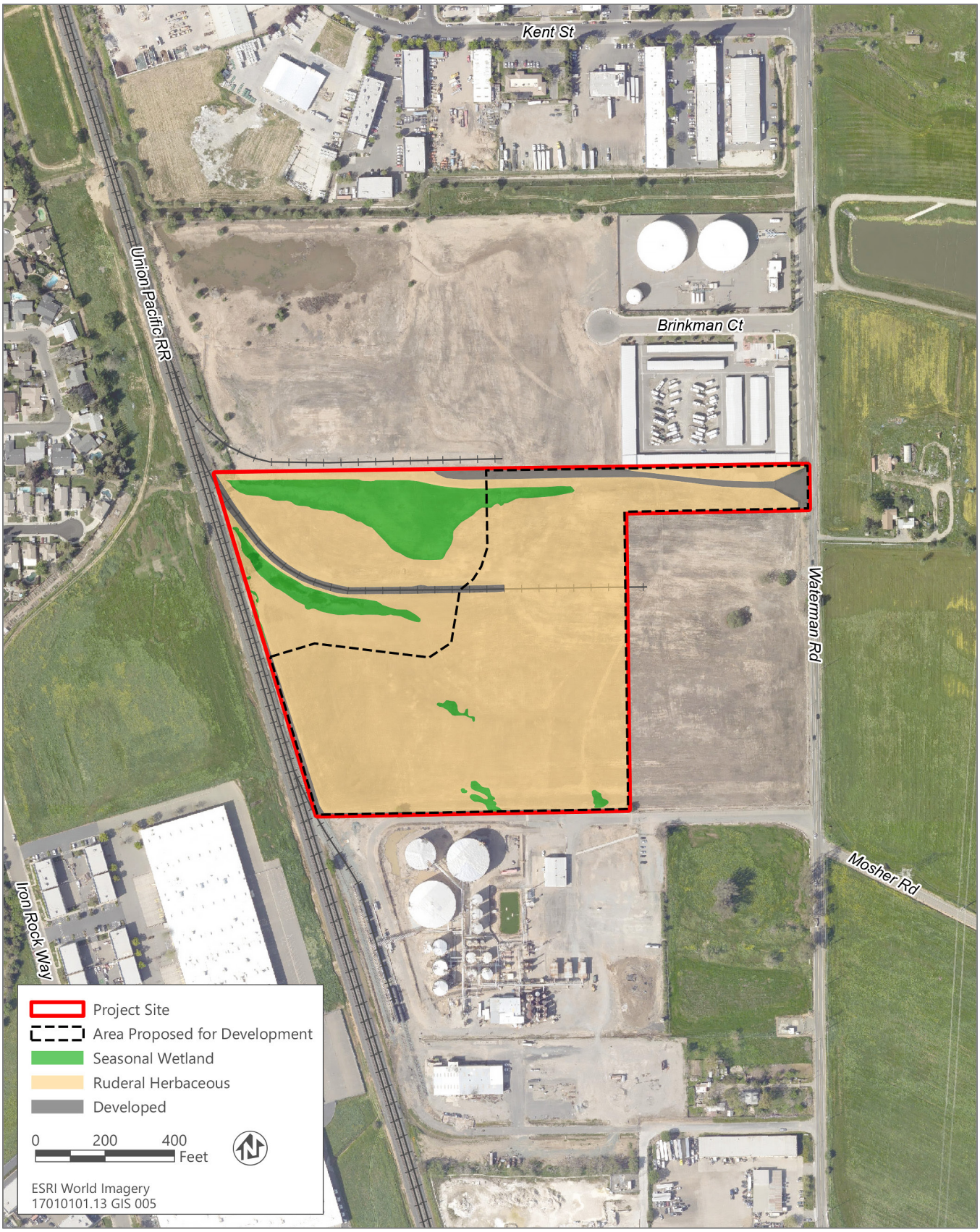
3.3.2 Environmental Setting

LAND COVER

The land cover types were identified by WRA Environmental Consultants through review of USGS 7.5-minute quadrangle topographic maps, the National Wetlands Inventory (NWI), and aerial photographs of the Project site and verified during reconnaissance surveys conducted on February 13, 2018, and October 7, 2019 (WRA 2020c). The approximately 25-acre Project site consists of mostly ruderal herbaceous and seasonal wetland land cover types, but the northern portion of the site also has developed land cover (Table 3.3-1, Figure 3.3-1). The area proposed for development makes up approximately 16.7 acres of the Project site. This would be the area of direct impact. No elderberry shrubs are located within the Project site.

Table 3.3-1 Land Cover Types on the Project Site

Land Cover/Habitat Type	Acreage
Ruderal herbaceous	20.3
Seasonal wetland	3.0
Developed	1.3



Source: adapted by Ascent in 2021.

Figure 3.3-1 Land Cover

Ruderal Herbaceous

Approximately 20.3 acres of ruderal herbaceous vegetation, the main land cover type, are located on the Project site. Vegetation consists of native forbs, including Canada horseweed (*Erigeron canadensis*) and telegraph weed (*Heterotheca grandiflora*); and nonnative grasses and forbs, including short-podded mustard (*Hirschfeldia incana*), Pacific bentgrass (*Agrostis avenacea*), Italian thistle (*Carduus pycnocephalus*), and stinkwort (*Dittrichia graveolens*) (WRA 2020c).

Seasonal Wetland

The seasonal wetland cover type occurs in the northern and southern portions of the Project site and is approximately 3.0 acres. Six seasonal wetlands are located on the Project site, the two larger ones occurring in the northern section. The direct impact area contains 0.36 acre of seasonal wetlands (Figure 3.3-1).

Smaller, patchy seasonal wetlands in the southern portion of the Project site are characterized by sparse vegetation cover dominated by stinkwort, short-podded mustard, Italian rye grass (*Festuca perennis*), common toad rush (*Juncus bufonius*), hyssop loosestrife (*Lythrum hyssopifolia*), and annual beardgrass (*Polypogon monspeliensis*). These features contained biotic crust and surface cracks, which indicate seasonal ponding or saturation during the growing season (WRA 2020b).

The two larger seasonal wetland features, located in the northern section of the Project site, are nearly devoid of vegetation, possibly because of scraping and/or herbicide application, but they exhibit evidence of extended seasonal ponding, including the presence of biotic crust, surface cracks, and aquatic invertebrates (i.e., exoskeletons). Because of the lack of vegetation, the precise extent of these features could not be determined at the time of the October 7, 2019, site visit (WRA 2020b). Data from a previous visit, occurring on February 13, 2018, and a subsequent visit, occurring on February 26, 2020, were used to determine the boundaries of these two features.

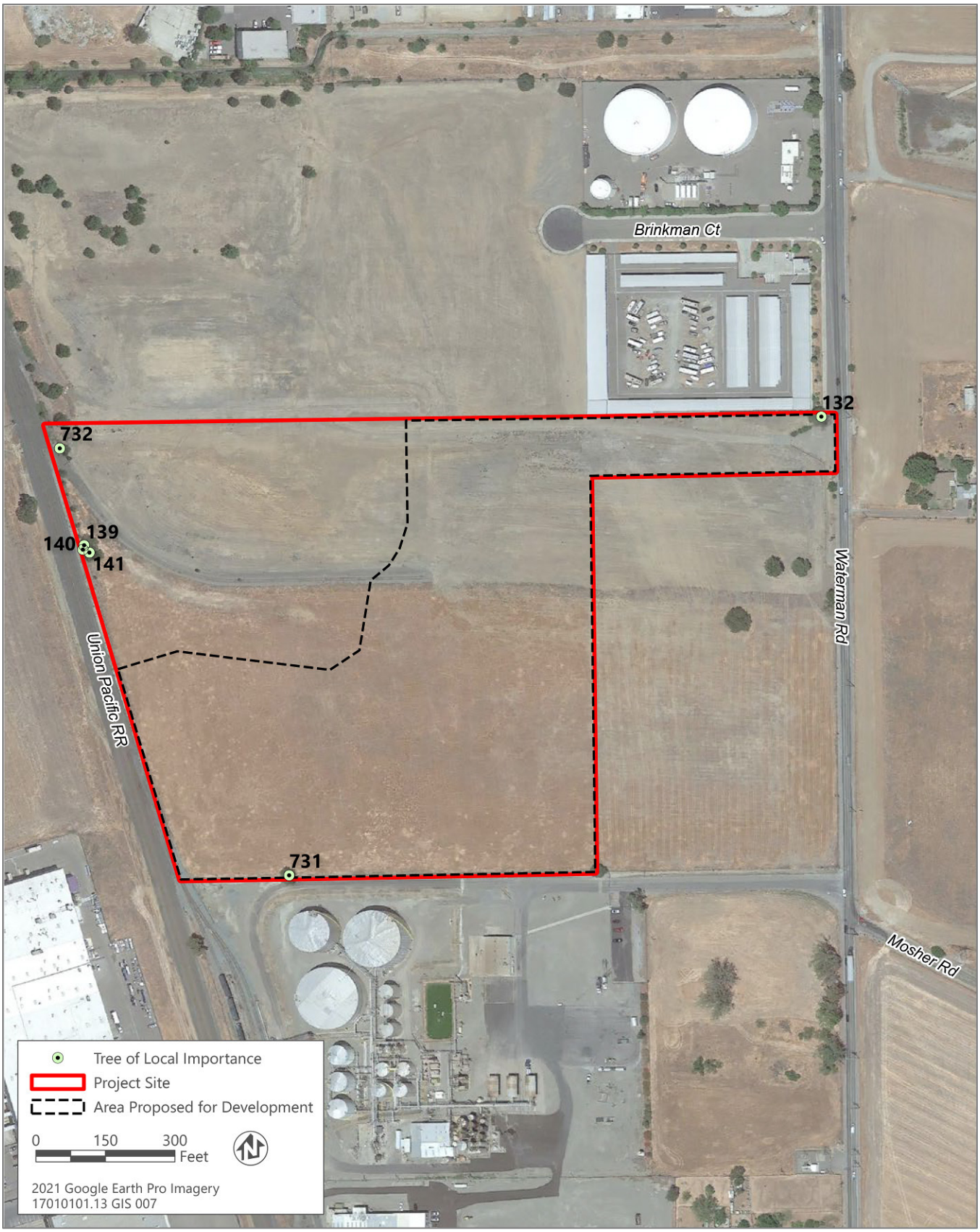
The Project site was graded sometime between June 2016 and October 2016, and the existing wetlands within the Project site appear to be construction related (WRA 2020b). A previous wetland assessment completed by Sycamore (2013) shows the majority of the area where current wetlands occur as uplands, with the exception of minor areas of overlap, which would indicate that most of the current wetland features were previously dry lands. The southernmost seasonal wetlands appear to be caused by runoff from a ditch, which was filled with standing water at the time of the October 7, 2019, site visit, located on the adjacent asphalt plant property.

Developed

The developed land cover type occurs in the northern portion of the Project site and occupies approximately 1.3 acres. This cover type consists of hard-packed dirt, gravel, and partial asphalt pavement and the abandoned railroad spur. Vegetation consisting of nonnative forbs, including Canada horseweed, stinkwort, and sharp point fluellin (*Kickxia elatine*), is growing between the railroad ties of the abandoned railroad spur.

TREES

Six trees of local importance were identified on the Project site: five valley oak (*Quercus lobata*) and one northern California black walnut tree (*Juglans hindsii*) (WRA 2020a) (Table 3.3-2, Figure 3.3-2). The trees crowns are approximately 15–24 feet above ground level. Of these six trees, the northern California black walnut and one of the valley oak trees are in the area proposed for development. Approximately five nonprotected trees were observed on the Project site, including Brazilian pepper tree (*Schinus terebinthifolius*) and valley oak. These trees are considered nonprotected trees because they are either nonnative or too small to be considered a tree of local importance c(i.e., less than 6 inches DSH) (WRA 2020a).



Source: adapted by Ascent in 2021.

Figure 3.3-2 Trees of Local Importance on the Project Site

Table 3.3-2 Trees of Local Importance

ID	Common Name	Species	Total DSH (inches)	Approximate Height (feet)
132	Northern California black walnut*	*Juglans hindsii*	30.8	20
139	Valley oak	*Quercus lobata*	17.1	24
140	Valley oak	*Quercus lobata*	11.8	16
141	Valley oak	*Quercus lobata*	17.2	20
731	Valley oak	*Quercus lobata*	17.0	22
732	Valley oak	*Quercus lobata*	9.1	15

Notes: DSH = diameter at standard height.

* Likely a hybrid between *J. hindsii* and another walnut species, such as English walnut, Eastern black walnut (*J. nigra*), or Arizona walnut (*J. major*) (Kirk 2003).

Source: WRA 2020a.

COMMON WILDLIFE SPECIES

Many common wildlife species use disturbed areas, such as the Project site, for foraging, roosting, and/or nesting. These species include native animals that have adapted well to living close to humans, such as red-tailed hawk (*Buteo jamaicensis*), coyote (*Canis latrans*), raccoon (*Procyon lotor*), western fence lizard (*Sceloporus occidentalis*), and tree swallow (*Hirundo rustica*), as well as nonnative species, such as Virginia opossum (*Didelphis virginiana*), house sparrow (*Passer domesticus*), and European starling (*Sturnus vulgaris*). Common native and nonnative wildlife species could use the Project site for breeding and are likely to move through the area while foraging.

SENSITIVE BIOLOGICAL RESOURCES

Special-Status Species

Special-status species are defined as species that are legally protected or that are otherwise considered sensitive by federal, State, or local resource agencies. Special-status species are species, subspecies, or varieties that fall into one or more of the following categories, regardless of their legal or protection status:

- officially listed by California or the federal government as endangered, threatened, or rare;
- a candidate for State or federal listing as endangered or threatened;
- taxa (i.e., taxonomic category or group) that meet the criteria for listing, even if not currently included on any list, as described in Section 15380 of the State CEQA Guidelines;
- species identified by CDFW as species of special concern;
- species listed as fully protected under the California Fish and Game Code;
- species afforded protection under local planning documents; and
- plant taxa considered by CDFW to be "rare, threatened, or endangered in California" and assigned a California Rare Plant Rank (CRPR). The CDFW system includes six rarity and endangerment ranks for categorizing plant species of concern, summarized as follows:
  - CRPR 1A - Plants presumed to be extinct in California;
  - CRPR 1B - Plants that are rare, threatened, or endangered in California and elsewhere;
  - CRPR 2A - Plants presumed to be extinct in California but common elsewhere;
  - CRPR 2B - Plants that are rare, threatened, or endangered in California but more common elsewhere;
  - CRPR 3 - Plants about which more information is needed (a review list); and
  - CRPR 4 - Plants of limited distribution (a watch list).

All plants with a CRPR are considered "special plants" by CDFW. The term "special plants" is a broad term used by CDFW to refer to all the plant taxa inventoried in CDFW's CNDDB, regardless of their legal or protection status. Plants ranked as CRPR 1A, 1B, 2A, or 2B typically qualify as endangered, rare, or threatened species within the definition of CEQA Guidelines Section 15380. CDFW recommends that potential impacts on CRPR 1 and 2 species be evaluated in CEQA documents. CRPR 3 and 4 species may meet the definition of endangered, rare, or threatened pursuant to CEQA Guidelines Section 15380 and/or Section15125 (c). These species should be evaluated by the lead agency on a case-by-case basis.

The term "California species of special concern" is applied by CDFW to animals that are not listed under the ESA or CESA but that are considered to be declining at a rate that could result in listing or that historically occurred in low numbers and known threats to their persistence currently exist. CDFW's fully protected status was California's first attempt to identify and protect animals that were rare or facing extinction. Most species listed as fully protected were eventually listed as threatened or endangered under CESA; however, some species remain listed as fully protected but do not have simultaneous listing under CESA. Fully protected species may not be taken or possessed at any time, and no take permits can be issued for these species except for scientific research purposes or for relocation to protect livestock.

Of the 21 special-status plant species that are known to occur within the nine USGS 7.5-minute quadrangles including and surrounding the Project vicinity, no special-status plant species are expected to occur on the Project site based on the absence of habitat suitable for these species (CNDDB 2021; CNPS 2021) (Table 3.3-2). Of the 37 special-status wildlife species that are known to occur within the nine USGS quadrangles, seven species were determined to have potential to occur on the Project site based on the presence of habitat suitable for the species (CNDDB 2021) (Table 3.3-3). The special-status wildlife species that could occur within the Project site are western spadefoot (*Spea hammondii*), burrowing owl (*Athene cunicularia*), greater sandhill crane (*Antigone canadensis tabida*), lesser sandhill crane (*Antigone canadensis*), loggerhead shrike (*Lanius ludovicianus*), Swainson's hawk (*Buteo swainsoni*), and white-tailed kite (*Elanus leucurus*). Although northern California black walnut is the only one of these plant or animal species that has been recorded within the Project site, this species was delisted in July 2019 (CNDDB 2021; CNPS 2021). The tables below describe the species' regulatory status, habitat, and potential for occurrence on the Project site.

Table 3.3-3 Special-Status Plant Species Known to Occur in the Vicinity of the Project Site and Potential for Occurrence in the Area Proposed for Development

Species	Listing Status[1] Federal	Listing Status[1] State	CRPR[1]	Habitat	Potential for Occurrence
Watershield *Brasenia schreberi*	–	–	2B.3	Freshwater marshes and swamps. Aquatic from water bodies both natural and artificial in California. 95–7,220 feet in elevation. Blooms June–September.	*Not expected to occur*. The area proposed for development does not contain marsh or swamp habitat to support this species.
Bristly sedge *Carex comosa*	–	–	2B.1	Marshes and swamps, coastal prairie, valley, and foothill grassland. Lake margins, wet places; site below sea level is on a Delta island. -15–5,315 feet in elevation. Blooms May–September.	*Not expected to occur*. The area proposed for development does not contain coastal prairie, marshes, swamps, or grassland habitat to support this species.
Bolander's water-hemlock *Cicuta maculata* var. *bolanderi*	–	–	2B.1	Marshes and swamps, fresh or brackish water. 0–660 feet in elevation. Blooms July–September.	*Not expected to occur*. The area proposed for development does not contain marsh or swamp habitat to support this species.
Peruvian dodder *Cuscuta obtusiflora* var. *glandulosa*	–	–	2B.2	Freshwater marsh. 45–920 feet in elevation. Blooms July–October.	*Not expected to occur*. The area proposed for development does not contain marsh or swamp habitat to support this species.

Species	Listing Status[1] Federal	Listing Status[1] State	CRPR[1]	Habitat	Potential for Occurrence
Dwarf downingia *Downingia pusilla*	–	–	2B.2	Vernal lake and pool margins with a variety of associates. In several types of vernal pools. 3–1,610 feet in elevation. Blooms March–May.	*Not expected to occur*. The area proposed for development does not contain vernal pools or suitable grassland habitat to support this species. Although the site currently contains seasonal wetlands, the site was initially converted to agriculture more than 60 years ago, and has been extensively graded, scraped, and treated with herbicide in the intervening years. Therefore, this habitat is currently inhospitable for growth of this species, and it is unlikely that this species could persist in the seed bank within the area proposed for development.
Boggs Lake hedge-hyssop *Gratiola heterosepala*	–	SE	1B.2	Marshes and swamps (freshwater), vernal pools. Clay soils; usually in vernal pools, sometimes on lake margins. 30–7,795 feet in elevation. Blooms April–August.	*Not expected to occur*. The area proposed for development does not contain marsh, swamp, vernal pools, or lake margin habitat to support this species. Although the site currently contains seasonal wetlands, the site was initially converted to agriculture more than 60 years ago, and has been extensively graded, scraped, and treated with herbicide in the intervening years. Therefore, this habitat is currently inhospitable for growth of this species, and it is unlikely that this species could persist in the seed bank within the area proposed for development.
Woolly rose-mallow *Hibiscus lasiocarpos* var. *occidentalis*	–	–	1B.2	Moist, freshwater-soaked riverbanks and low peat islands in sloughs; can also occur on riprap and levees. In California, known from the delta watershed. 0–510 feet in elevation. Blooms June–September.	*Not expected to occur*. The area proposed for development does not contain marsh or swamp habitat to support this species.
Ahart's dwarf rush *Juncus leiospermus* var. *ahartii*	–	–	1B.2	Restricted to the edges of vernal pools in grassland. 95–330 feet in elevation. Blooms March–May.	*Not expected to occur*. The area proposed for development does not contain grassland habitat to support this species. Although the site currently contains seasonal wetlands, the site was initially converted to agriculture more than 60 years ago, and has been extensively graded, scraped, and treated with herbicide in the intervening years. Therefore, this habitat is currently inhospitable for growth of this species, and it is unlikely that this species could persist in the seed bank within the area proposed for development.
Alkali-sink goldfields *Lasthenia chrysantha*	–	–	1B.1	Vernal pools. Alkaline. 0–660 feet in elevation. Blooms February–June.	*Not expected to occur*. Vernal pool habitat suitable for this species is not present in the area proposed for development.

Species	Listing Status[1] Federal	Listing Status[1] State	CRPR[1]	Habitat	Potential for Occurrence
Delta tule pea *Lathyrus jepsonii* var. *jepsonii*	–	–	1B.2	Freshwater and brackish marshes. Often found with *Typha* spp., *Symphyotrichum lentum*, *Rosa californica*, *Juncus* spp., and *Scirpus* spp. Usually on marsh and slough edges. 0–20 feet in elevation. Blooms May–July.	*Not expected to occur*. The area proposed for development does not contain marsh or swamp habitat to support this species.
Legenere *Legenere limosa*	–	–	1B.1	Vernal pools, wetland. In beds of vernal pools. 3–2,890 feet in elevation. Blooms April–June.	*Not expected to occur*. The area proposed for development does not contain vernal pools. Although the site currently contains seasonal wetlands, the site was initially converted to agriculture more than 60 years ago, and has been extensively graded, scraped, and treated with herbicide in the intervening years. Therefore, this habitat is currently inhospitable for growth of this species, and it is unlikely that this species could persist in the seed bank within the area proposed for development.
Heckard's pepper-grass *Lepidium latipes* var. *heckardii*	–	–	1B.2	Grassland, and sometimes vernal pool edges. Alkaline soils. 3–100 feet in elevation. Blooms March–May.	*Not expected to occur*. The area proposed for development does not contain suitable grassland habitat or alkaline soils to support this species.
Mason's lilaeopsis *Lilaeopsis masonii*	–	SR	1B.1	Tidal zones, in muddy or silty soil formed through river deposition or riverbank erosion. 0–35 feet in elevation. Blooms April–November.	*Not expected to occur*. The area proposed for development does not contain marsh, swamp, or riparian scrub habitat to support this species.
Delta mudwort *Limosella australis*	–	–	2B.1	Usually on mud banks of the Delta in marshy or scrubby riparian associations; often with *Lilaeopsis masonii*. 0–20 feet in elevation. Blooms May–August.	*Not expected to occur*. Mud bank and riparian scrub habitat suitable for this species is not present in the area proposed for development.
Slender Orcutt grass *Orcuttia tenuis*	FT	SE	1B.1	Vernal pools, wetland. Often in gravelly substrate. 80–5,760 feet in elevation. Blooms May–September.	*Not expected to occur*. The area proposed for development does not contain vernal pools. Although the site currently contains seasonal wetlands, the site was initially converted to agriculture more than 60 years ago, and has been extensively graded, scraped, and treated with herbicide in the intervening years. Therefore, this habitat is currently inhospitable for growth of this species, and it is unlikely that this species could persist in the seed bank within the area proposed for development.
Sacramento Orcutt grass *Orcuttia viscida*	FE	SE	1B.1	Vernal pools, wetland. 45–280 feet in elevation. Blooms April–July.	*Not expected to occur*. The area proposed for development does not contain vernal pools. Although the site currently contains seasonal wetlands, the site was initially converted to agriculture more than 60 years ago, and has been extensively graded, scraped, and treated with herbicide in the intervening

Species	Listing Status[1] Federal	Listing Status[1] State	CRPR[1]	Habitat	Potential for Occurrence
					years. Therefore, this habitat is currently inhospitable for growth of this species, and it is unlikely that this species could persist in the seed bank within the area proposed for development.
Sanford's arrowhead *Sagittaria sanfordii*	–	–	1B.2	In standing or slow-moving freshwater ponds, marshes, and ditches. 0–2,135 feet in elevation. Blooms May–October.	*Not expected to occur*. The area proposed for development does not contain marsh or swamp habitat to support this species.
Marsh skullcap *Scutellaria galericulata*	–	–	2B.2	Marshes and swamps, lower montane coniferous forest, meadows, and seeps. Swamps and wet places. 0–6,400 feet in elevation. Blooms June–September.	*Not expected to occur*. The area proposed for development does not contain lower montane coniferous forest, meadows, seeps, marshes, or swamps to support this species.
Side-flowering skullcap *Scutellaria lateriflora*	–	–	2B.2	Wet meadows and marshes. In the Delta, often found on logs. 0–1,640 feet in elevation. Blooms July–September.	*Not expected to occur*. The area proposed for development does not contain meadows, seeps, marshes, or swamps to support this species.
Saline clover *Trifolium hydrophilum*	–	–	1B.2	Marshes and swamps, valley and foothill grassland, vernal pools. Mesic, alkaline sites. 0–985 feet in elevation. Blooms April–June.	*Not expected to occur*. The area proposed for development does not contain marshes, swamps, vernal pools, or alkaline grassland to support this species. Although the site currently contains seasonal wetlands, the site was initially converted to agriculture more than 60 years ago, and has been extensively graded, scraped, and treated with herbicide in the intervening years. Therefore, this habitat is currently inhospitable for growth of this species, and it is unlikely that this species could persist in the seed bank within the area proposed for development.

Notes: CRPR = California Rare Plant Rank; CEQA = California Environmental Quality Act; CESA = California Endangered Species Act; ESA = Endangered Species Act.

[1] Legal Status Definitions

Federal:

FE Federally listed as endangered (legally protected by the ESA).
FT Federally listed as threatened (legally protected by the ESA).

State:

CBR Considered but rejected.
SE State listed as endangered (legally protected by CESA).
SR State listed as rare.

California Rare Plant Ranks (CRPR):

1B Plant species considered rare or endangered in California and elsewhere (protected under CEQA, but not legally protected under the ESA or CESA).
2B Plant species considered rare or endangered in California but more common elsewhere (protected under CEQA, but not legally protected under the ESA or CESA).

CRPR Threat Ranks:

0.1 Seriously threatened in California (over 80% of occurrences threatened; high degree and immediacy of threat).
0.2 Moderately threatened in California (20-80% occurrences threatened; moderate degree and immediacy of threat).
0.3 Not very threatened in California — Less than 20% of occurrences threatened / low degree and immediacy of threat or no current threats known.

Sources: CNDDB 2021; CNPS 2021.

Table 3.3-4 Special-Status Wildlife Species Known to Occur in the Vicinity of the Project Site and Potential for Occurrence on the Project Site

Species	Listing Status[1] Federal	Listing Status[1] State	Habitat	Potential for Occurrence
Amphibians and Reptiles				
California red-legged frog *Rana draytonii*	FT	SSC	Lowlands and foothills in or near permanent sources of deep water with dense, shrubby, or emergent riparian vegetation. Requires 11–20 weeks of permanent water for larval development. Must have access to estivation habitat.	*Not expected to occur*. Permanent sources of deep water are not present on the Project site.
California tiger salamander *Ambystoma californiense*	FT	ST	Central Valley DPS federally listed as threatened. Santa Barbara and Sonoma Counties DPS federally listed as endangered. Need underground refuges, especially ground squirrel burrows, and vernal pools or other seasonal water sources for breeding.	*Not expected to occur*. Some seasonal wetlands on the Project site may hold water for a sufficient period to provide aquatic breeding habitat; however, the closest known occurrence is 10 miles south of the Project site and was recorded in 1914 and is thought to be extirpated from this location (CNDDB 2021). The next closest documented occurrence was recorded 11.5 miles east of the Project site in 1982 where this species is presumed to be extant (CNDDB 2021). California tiger salamander has not been recorded within the Sacramento County Urban Services Boundary or north of the Cosumnes River despite extensive surveys (Sacramento County et al. 2018). Additionally, upland habitat quality on the Project site is extremely poor due to compaction and ongoing operations.
Giant garter snake *Thamnophis gigas*	FT	ST	Prefers freshwater marsh and low-gradient streams. Has adapted to drainage canals and irrigation ditches. This is the most aquatic of the garter snakes in California.	*Not expected to occur*. Perennial aquatic habitat is not present within the Project site to support this species or its prey base. The closest documented occurrence is approximately 140 feet east of the Project site across Waterman Road, recorded in 2002 (CNDDB 2021). The next closest documented occurrence is approximately 2.8 miles to the northwest, recorded in 1982 (CNDDB 2021). Elk Grove Creek could support giant garter snake, but since the Project site is approximately 725 feet from the creek, it is too far to be considered upland habitat (USFWS 1997).
Western pond turtle *Actinemys marmorata*	–	SSC	A thoroughly aquatic turtle of ponds, marshes, rivers, streams, and irrigation ditches, usually with aquatic vegetation, below 6,000 feet elevation. Needs basking sites and suitable (sandy banks or grassy open fields) upland habitat up to 0.5 kilometer from water for egg-laying.	*Not expected to occur*. No perennial aquatic habitats are present on the Project site to support breeding of this species. The Project site is additionally unlikely to be used as upland habitat due to the lack of suitable aquatic features adjacent to the Project site.
Western spadefoot *Spea hammondii*	–	SSC	Occurs primarily in grassland habitats but can be found in valley-foothill hardwood	*May occur*. The nearest documented occurrence is approximately 11.5 miles east of the Project site and recorded in 2004 (CNDDB

Species	Listing Status[1] Federal	Listing Status[1] State	Habitat	Potential for Occurrence
			woodlands. Vernal pools are essential for breeding and egg-laying.	2021). Though there are no documented occurrences directly on or in the vicinity of the Project site, the wetland habitat on-site, while marginal, may provide habitat suitable for this species.
Birds				
Bald eagle *Haliaeetus leucocephalus* (wintering)	FD	SE, FP	Lower montane coniferous forest, old growth. Ocean shore, lake margins, and rivers for both nesting and wintering. Most nests within 1 mile of water. Nests in large, old-growth, or dominant live tree with open branches, especially ponderosa pine. Roosts communally in winter.	*Not expected to occur*. Habitat suitable for bald eagle (i.e., large trees) is not present on or adjacent to the Project site.
Bank swallow *Riparia riparia* (nesting)	–	ST	Riparian scrub, riparian woodland. Colonial nester; nests primarily in riparian and other lowland habitats west of the desert. Requires vertical banks/cliffs with fine-textured/sandy soils near streams, rivers, lakes, ocean to dig nesting hole.	*Not expected to occur*. No nesting habitat (i.e., banks, cliffs) suitable for this species is present on the Project site.
Burrowing owl *Athene cunicularia* (year round)	–	SSC	Open, dry annual or perennial grasslands, deserts and scrublands characterized by low-growing vegetation. Subterranean nester, dependent upon burrowing mammals, most notably, the California ground squirrel.	*May occur*. The nearest documented occurrences are approximately 2.2 and 2.3 miles southwest of the Project site, recorded in 2010 and 2004, respectively (CNDDB 2021). Though most of the Project site does not provide habitat suitable for this species given the tall, unmanaged vegetation and lack of burrows or surrogates, burrowing mammal activity is present along exterior fence lines that could provide breeding or overwintering habitat suitable for burrowing owls.
California black rail *Laterallus jamaicensis coturniculus* (year round)	–	ST, FP	Inhabits freshwater marshes, wet meadows and shallow margins of saltwater marshes bordering larger bays. Needs water depths of about 1 inch that do not fluctuate during the year and dense vegetation for nesting habitat.	*Not expected to occur*. No marsh habitat is present on the Project site to support breeding or foraging by this species.
Golden eagle *Aquila chrysaetos* (wintering)	–	FP	Rolling foothills, mountain areas, sage-juniper flats, and desert. Cliff-walled canyons provide nesting habitat in most parts of range; also, large trees in open areas.	*Not expected to occur*. Golden eagles migrate through and winter in the Central Valley, but the valley floor is not within the core breeding range, and typical breeding habitat is in rolling foothills, mountains, and deserts. Though migrating and nonbreeding individuals may forage on and around the Project site, no nesting habitat is present.
Grasshopper sparrow *Ammodramus savannarum* (nesting)	–	SSC	Valley and foothill grassland. Dense grasslands on rolling hills, lowland plains, in valleys and on hillsides on lower mountain slopes. Favors native grasslands with a mix of grasses, forbs, and scattered shrubs. Loosely colonial when nesting.	*Not expected to occur*. Dense native grassland habitat suitable for this species is not present on the Project site.

Species	Listing Status[1] Federal	Listing Status[1] State	Habitat	Potential for Occurrence
Greater sandhill crane *Antigone canadensis tabida* (wintering)	–	ST, FP	Marsh and swamp, meadow and seep, wetland. Nests in wetland habitats in northeastern California; winters in the Central Valley. Prefers grain fields within 4 miles of a shallow body of water used as a communal roost site; irrigated pasture used as loafing sites.	*May occur*. The Project site provides marginally suitable winter foraging or loafing habitat for this species. Although habitat on the Project site is marginal, species could periodically use the Project site while transiting between known wintering areas west, east, and south of the Project site.
Least bittern *Ixobrychus exilis* (nesting)	–	SSC	Marsh and swamp, wetlands. Colonial nester in marshlands and borders of ponds and reservoirs which provide ample cover. Nests usually placed low in tules, over water.	*Not expected to occur*. Marsh or pond habitat suitable for nesting for this species is not present on the Project site.
Lesser sandhill crane *Antigone canadensis* (wintering)	–	SSC	Annual and perennial grassland habitats, moist croplands with rice or corn stubble, and open, emergent wetlands.	*May occur*. The Project site provides marginally suitable winter foraging or loafing habitat for this species. Although habitat on the Project site is marginal, species could periodically use the Project site while transiting between known wintering areas west, east, and south of the Project site.
Loggerhead shrike *Lanius ludovicianus* (year round)	–	SSC	Broken woodlands, savanna, pinyon-juniper, Joshua tree, and riparian woodlands, desert oases, scrub, and washes. Prefers open country for hunting, with perches for scanning, and fairly dense shrubs and brush or small trees for nesting.	*May occur*. Trees and shrubs providing potential nest sites for this species are present on the Project site.
Northern harrier *Circus cyaneus* (nesting)	–	SSC	Nest and forage in grasslands, from salt grass in desert sink to mountain cienagas. Nests on ground in shrubby vegetation, usually at marsh edge; nest built of a large mound of sticks in wet areas.	*Not expected to occur*. Ruderal grassland habitat potentially suitable for foraging for this species is present on the Project site, but nesting habitat is not present.
Purple martin *Progne subis*	–	SSC	Inhabits woodlands, low-elevation coniferous forest of Douglas-fir, ponderosa pine, and Monterey pine. Nests in old woodpecker cavities mostly, also in human-made structures. Nest often located in tall, isolated tree/snag.	*Not expected to occur*. Though the site is within the range of this species, the Project site does not contain woodlands or human-made structures suitable for nesting by this species.
Short-eared owl *Asio flammeus* (wintering)	–	SSC	Found in swamplands, both fresh and salt; lowland meadows; irrigated alfalfa fields. Tule patches/tall grass needed for nesting/daytime seclusion. Nests on dry ground in depression concealed in vegetation.	*Not expected to occur*. Swamp and lowland meadow habitat suitable for this species is not present on the Project site.
Song sparrow ("Modesto" population) *Melospiza melodia* (year round)	–	SSC	Emergent freshwater marshes, riparian willow thickets, riparian forests of valley oak (*Quercus lobata*), and vegetated irrigation canals and levees.	*Not expected to occur*. Although the Project site is within the range of this species, no woody riparian or freshwater marshes are present on the Project site.
Swainson's hawk *Buteo swainsoni* (nesting and foraging)	–	ST	Breeds in grasslands with scattered trees, juniper-sage flats, riparian areas, savannas, and agricultural or ranch lands with groves or lines of trees. Requires adjacent suitable foraging areas such as grasslands, or alfalfa	*May occur*. Though trees are minimal in the area proposed for development itself and likely not large enough to provide nesting habitat suitable for Swainson's hawk, trees within 500 feet of the Project site may provide

Species	Listing Status[1] Federal	Listing Status[1] State	Habitat	Potential for Occurrence
			or grain fields supporting rodent populations.	nesting opportunities for this species. Multiple nest locations are documented nearby, including one approximately 145 feet east of the Project site, and another approximately 0.7 mile southeast of the Project site, both recorded in 2003 (CNDDB 2021). Given the proximity of nests to the Project site, Swainson's Hawk could potentially utilize the Project site for nesting and foraging.
Tricolored blackbird *Agelaius tricolor* (year round)	–	ST, SSC	Highly colonial species, most numerous in Central Valley and vicinity. Largely endemic to California. Requires open water, protected nesting substrate, and foraging area with insect prey within a few kilometers of the colony.	*Not expected to occur*. No vegetation typical of nesting habitat for this species (i.e., dense cattails, riparian thickets, blackberry brambles) is present on the Project site.
Western yellow-billed cuckoo *Coccyzus americanus occidentalis* (nesting)	FT	SE	Riparian forest nester, along the broad, lower flood-bottoms of larger river systems. Nests in riparian jungles of willow, often mixed with cottonwoods, with lower story of blackberry, nettles, or wild grape.	*Not expected to occur*. The Project site does not contain riparian habitat suitable for this species.
White-tailed kite *Elanus leucurus* (year round)	–	FP	Rolling foothills and valley margins with scattered oaks and river bottomlands or marshes next to deciduous woodland. Open grasslands, meadows, or marshes for foraging close to isolated, dense-topped trees for nesting and perching.	*May occur*. White-tailed kite has been documented nesting 3.5 miles south of the Project site in 1991 (CNDDB 2021). Several small and large trees exist on the Project site that could support nesting by this species. Foraging habitat is present nearby on agricultural fields and on the Project site in ruderal grassland.
Yellow-breasted chat *Icteria virens* (nesting)	–	SSC	Summer resident; inhabits riparian thickets of willow and other brushy tangles near watercourses. Nests in low, dense riparian, consisting of willow, blackberry, wild grape; forages and nests within 10 feet of ground.	*Not expected to occur*. The Project site does not contain riparian habitat suitable for this species.
Yellow-headed blackbird *Xanthocephalus xanthocephalus* (year round)	–	SSC	Nests in freshwater emergent wetlands with dense vegetation and deep water. Often along borders of lakes or ponds. Nests only where large insects such as Odonata are abundant, nesting timed with maximum emergence of aquatic insects.	*Not expected to occur*. Water bodies on the Project site are limited to seasonal wetlands and lack associated riparian vegetation that is required by this species for breeding.
Yellow warbler *Setophaga petechia* (nesting)	–	SSC	Riparian plant associations in close proximity to water. Also nests in montane shrubbery in open conifer forests in the Cascades and Sierra Nevada. Frequently found nesting and foraging in willow shrubs and thickets, and in other riparian plants including cottonwoods, sycamores, ash, and alders.	*Not expected to occur*. The Project site is outside the current known range of this species. This species has been largely extirpated from the Sacramento Valley (Shuford and Gardali 2008).
Fish				
Delta smelt *Hypomesus transpacificus*	FT	SE	Sacramento-San Joaquin Delta. Seasonally in Suisun Bay, Carquinez Strait and San Pablo	*Not expected to occur.* Aquatic habitat potentially suitable for this species is not present on the Project site.

Species	Listing Status[1] Federal	Listing Status[1] State	Habitat	Potential for Occurrence
			Bay. Seldom found at salinities > 10 ppt. Most often at salinities < 2 ppt.	
Longfin smelt *Spirinchus thaleichthys*	FC	SSC	Euryhaline, nektonic and anadromous. Found in open waters of estuaries, mostly in middle or bottom of water column. Prefer salinities of 15–30 ppt but can be found in completely freshwater to almost pure seawater.	*Not expected to occur.* Aquatic habitat potentially suitable for this species is not present on the Project site.
Sacramento splittail *Pogonichthys macrolepidotus*	–	SSC	Endemic to the lakes and rivers of the Central Valley, but now confined to the Delta, Suisun Bay, and associated marshes. Slow-moving river sections, dead-end sloughs. Requires flooded vegetation for spawning and foraging for young.	*Not expected to occur.* Aquatic habitat potentially suitable for this species is not present on the Project site.
Steelhead - Central Valley DPS *Oncorhynchus mykiss irideus* pop. 11	FT	–	Populations in the Sacramento and San Joaquin Rivers and their tributaries.	*Not expected to occur.* Aquatic habitat potentially suitable for this species is not present on the Project site.
Invertebrates				
Crotch bumble bee *Bombus crotchii*	–	–	Coastal California east to the Sierra-Cascade crest and south into Mexico. Food plant genera include *Antirrhinum* spp., *Phacelia* spp., *Clarkia* spp., *Dendromecon* spp., *Eschscholzia* spp., and *Eriogonum* spp.	*Not expected to occur*. The Project site is within the historic range of this species. Crotch bumble bee has recently undergone a decline in abundance and distribution and is no longer present across much of its historic range. In California, crotch bumble bee populations are currently largely restricted to the Central Valley and adjacent foothills (Xerces 2018). There are two documented occurrences of crotch bumble bee within a 10-mile radius of the Project site, both located near the Cosumnes River, 6.3 and 9.8 miles southwest of the Project site, recorded in 2007 and 2020, respectively (CNDDB 2021). While the Project site contains ruderal grassland habitat with some floral resources that could be utilized by bumble bees, this community is very disturbed and, as shown in aerial photographs, looks like it may be mowed or disked on a regular basis. The Project site is also almost completely surrounded by residential and industrial development and has little connectivity with other natural grassland habitat. Viable bumble bee populations typically require approximately 750–2,500 acres of suitable habitat, which is much larger than the Project site (Xerces 2018).
Monarch - California overwintering population *Danaus plexippus* pop. 1	FC	–	Closed-cone coniferous forest. Winter roost sites extend along the coast from northern Mendocino County to Baja California, Mexico. Roosts located in wind-protected tree groves (eucalyptus, Monterey pine,	*Not expected to occur*. The Project site is out of the wintering range of this species.

Species	Listing Status[1] Federal	Listing Status[1] State	Habitat	Potential for Occurrence
			cypress), with nectar and water sources nearby.	
Valley elderberry longhorn beetle *Desmocerus californicus dimorphus*	FT	–	Riparian scrub. Occurs only in the Central Valley of California, in association with blue elderberry (*Sambucus nigra* ssp. *caerulea*). Prefers to lay eggs in elderberries 2–8 inches in diameter; some preference shown for "stressed" elderberries.	*Not expected to occur*. No individuals of the *Sambucus* spp. host plant were identified on the Project site.
Vernal pool fairy shrimp *Branchinecta lynchi*	FT	–	Endemic to the grasslands of the Central Valley, Central Coast mountains, and South Coast mountains, in astatic rain-filled pools. Inhabits small, clear-water sandstone-depression pools and grassed swale, earth slump, or basalt-flow depression pools.	*Not expected to occur*. Protocol-level surveys conducted in fall and winter of 2021 and 2022 concluded that seasonal wetlands on the Project site do not support vernal pool fairy shrimp (WRA 2022).
Vernal pool tadpole shrimp *Lepidurus packardi*	FE	–	Inhabits vernal pools and swales in the Sacramento Valley containing clear to highly turbid water. Pools commonly found in grass-bottomed swales of unplowed grasslands. Some pools are mud-bottomed and highly turbid.	*Not expected to occur*. Protocol-level surveys conducted in fall and winter of 2021 and 2022 concluded that seasonal wetlands on the Project site do not support vernal pool tadpole shrimp (WRA 2022).
Mammals				
American badger *Taxidea taxus*	–	SSC	Most abundant in drier open stages of most shrub, forest, and herbaceous habitats, with friable soils. Needs sufficient food, friable soils, and open, uncultivated ground. Preys on burrowing rodents. Digs burrows.	*Not expected to occur*. Soils on the site are highly compacted, and would not be favorable for burrowing. A robust prey population is not present on the Project site, and the surrounding development suggests a lack of surrounding suitable habitat.
Western red bat *Lasiurus blossevillii*	–	SSC	Roosts primarily in trees, 2–40 feet above ground, from sea level up through mixed conifer forests. Prefers habitat edges and mosaics with trees that are protected from above and open below with open areas for foraging.	*Not expected to occur*. The Project site does not support any suitable roost trees.

Notes: DPS = distinct population segment; ppt = parts per thousand.

[1] Status definitions:

Federal:

FC Federal Candidate for Listing.

FD Federally Delisted.

FE Federally listed as endangered (legally protected under the ESA).

FT Federally listed as threatened (legally protected under the ESA).

State:

SE State listed as endangered (legally protected under CESA).

ST State listed as threatened (legally protected under CESA).

FP State listed as fully protected (legally protected under the California Fish and Game Code).

SSC State species of special concern (protected under CEQA, but not legally protected under CESA).

Source: CNDDB 2021.

Sensitive Natural Communities

Sensitive natural communities are those native plant communities defined by CDFW as having limited distribution statewide or within a county or region and that are often vulnerable to environmental effects of projects (CDFW 2018). These communities may or may not contain special-status plants or their habitat (CDFW 2018). CDFW designates sensitive natural communities based on their State rarity and threat ranking using NatureServe's Heritage Methodology. Natural communities with rarity ranks of S1 to S3, where S1 is critically imperiled, S2 is imperiled, and S3 is vulnerable, are considered sensitive natural communities to be addressed in the environmental review processes of CEQA and its equivalents (CDFW 2018).

Known occurrences of sensitive natural communities are included in the CNDDB; however, no new occurrences have been added to the CNDDB since the mid-1990s, when funding was eliminated for this portion of the CNDDB program. Six sensitive natural communities were identified within the nine USGS quadrangles including and surrounding the Project area through a query of the CNDDB: northern hardpan vernal pool, coastal and valley freshwater marsh, great valley mixed riparian forest, great valley oak riparian forest, elderberry savanna, and valley oak woodland (CNDDB 2021). None of these sensitive natural communities are present on the Project site.

State or Federally Protected Wetlands

Six seasonal wetlands are located on the Project site and occupy a total approximate area of 3.0 acres (Figure 3.3-1). The aquatics resource delineation conducted by WRA in 2020 was submitted to USACE for verification (WRA 2020b). In August 2021 USACE determined that the wetlands onsite are not waters of the U.S. (USACE 2021). All these aquatic features are still potentially subject to State jurisdiction under Section 401 of the CWA and the Porter-Cologne Water Quality Control Act (WRA 2020b).

Essential Habitat Connectivity

The California Essential Habitat Connectivity Project (CEHCP) is an effort to identify large remaining blocks of intact habitat or natural landscape blocks in California, and to model linkages between them, primarily for wildlife movement. Although the Project site has essential connectivity habitat to the west, east, and south, it is not within a natural landscape block identified by the CEHCP.

3.3.3 Impacts and Mitigation Measures

METHODOLOGY

This impact evaluation is based on data collected during reconnaissance-level field surveys conducted by WRA Environmental Consultants on February 13, 2018, October 7, 2019, and February 26, 2020, review of aerial photographs, and information from several previously completed documents that address biological resources in the Project vicinity.

THRESHOLDS OF SIGNIFICANCE

An impact on biological resources would be significant if implementation of the Project would:

- 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 CDFW or USFWS;
- have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by CDFW or USFWS;
- 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; or
- conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or State habitat conservation plan.

ISSUES NOT DISCUSSED FURTHER

Special-Status Plants

The Project site does not contain habitat suitable for the special-status plant species identified within the nine USGS 7.5-minute quadrangles surrounding the Project area or otherwise known to occur in the region. Project implementation therefore would not result in any impact on special-status plants. This issue is not discussed further.

Riparian Habitat and Sensitive Natural Communities

There are no sensitive natural communities and no riparian habitat in or immediately adjacent to the Project site. Project implementation therefore would not result in any impact on these resources. This issue is not discussed further.

Movement and Migratory Corridors

The nearest essential connectivity area is located along the Cosumnes River, approximately 2 miles south of the Project site. In addition, the Project site is located in an area surrounded by development and is not associated with any modeled essential connectivity areas; thus, development of the Project would not affect wildlife movement corridors. This issue is not discussed further.

Habitat Conservation Plan and Natural Community Conservation Plan

The Project site is not located within the boundary of a habitat conservation plan or a natural community conservation plan. Project implementation therefore would not result in conflicts with the provisions of an adopted or approved conservation plan. This issue is not discussed further.

ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Impact 3.3-1: Result in Disturbance to or Loss of Western Spadefoot Breeding Habitat

Project implementation could lead to potential loss of western spadefoot breeding habitat, resulting from fill of seasonal wetlands and disturbance from construction activities. Impacts would be **less than significant** with mitigation.

Although the Project site has only marginal wetland habitat, it may provide habitat suitable for western spadefoot, including for breeding. The nearest known occurrence of this species is approximately 11.5 miles east of the Project site, observed in a bermed stock pond surrounded by grazed annual grassland (CNDDB 2021). Planned development for the Project site could result in disturbance or direct mortality to western spadefoot, if the species is present on the Project site, through conversion of ruderal grassland and wetland habitat and construction-related ground disturbance. Implementing Mitigation Measure 3.3-1 would reduce potential impacts on western spadefoot to a **less-than-significant** level by avoiding and protecting western spadefoot during construction activities and compensating for loss of western spadefoot.

Mitigation Measures

Mitigation Measure 3.3-1: Avoid and Protect Western Spadefoot

The applicant shall impose the following conditions before and during construction:

- For work conducted during the western spadefoot migration and breeding season (November 1 through May 31), a qualified biologist shall survey the Project site (including access roads) within 48 hours before initiation of construction activities. If no western spadefoot individuals are found during the preconstruction survey, the

biologist shall document the findings in a letter report to CDFW and the City of Elk Grove, and further mitigation shall not be required.

- If western spadefoot toad is found within the Project site, the qualified biologist shall consult with CDFW to determine appropriate avoidance measures. When feasible, as determined by the applicant in coordination with a qualified biologist by considering project design, a 50-foot no-disturbance buffer shall be established around burrows that provide suitable upland habitat for western spadefoot. Burrows considered suitable for spadefoot shall be identified by a qualified biologist. The biologist shall delineate and mark the no-disturbance buffer.
- If establishing a 50-foot no-disturbance buffer is not feasible(i.e., redesign of the project footprint within the 50-foot buffer would not meet project objectives), then a qualified biologist shall relocate any adult western spadefoot toads or aquatic larvae to nearby suitable habitat, and shall be present during initial ground disturbing activities. If any adult western spadefoot toads are observed during initial ground disturbing activities, all work shall cease until the qualified biologist can relocate the toads to nearby suitable habitat.
- Before initiation of construction activities, the Project applicant shall employ a qualified biologist to conduct environmental awareness training for personnel working on construction activities. The training will describe special-status wildlife and habitats and applicable measures designed to minimize disturbance to these species.

Significance after Mitigation
Less than significant.

Impact 3.3-2: Result in Disturbance to or Loss of Special-Status Bird Species and Habitat

Project implementation could lead to potential loss of special-status birds or their nests due to disturbance from construction activities. Loss of nests could include nest abandonment, failure, and/or mortality of chicks or eggs. Implementation could also result in loss of foraging habitat. Impacts would be **less than significant** with mitigation.

Five special-status bird species may occur on and in the vicinity of the Project site: burrowing owl, greater sandhill crane, lesser sandhill crane, loggerhead shrike, Swainson's hawk, and white-tailed kite. Additionally, common native nesting birds protected under the California Fish and Game Code and the federal MBTA may also be present on the Project site and in the vicinity.

Swainson's Hawk, Burrowing Owl, White-Tailed Kite, and Other Raptors
Swainson's hawk, burrowing owl, white-tailed kite, and other raptors have the potential to forage and nest on or immediately adjacent to the Project site. Foraging habitat for Swainson's hawk and other raptors is located within the ruderal grassland on the Project site and in the adjacent fields. Nesting could occur in trees lining the west, north, and south edges of the Project site and in trees located north, south, east, and west of the Project site, including trees lining Elk Grove Creek, north of the site.

There have been 55 Swainson's hawk nest occurrences documented within 5 miles of the Project site, the two closest recorded 145 feet east and 0.7 mile southeast of the site in 2003 (CNDDB 2021). There is also a nest occurrence documented 0.9 mile southeast of the Project site (CNDDB 2021). Construction activities conducted during the breeding season (defined as March 1 to September 15 for Swainson's hawk) near active nest trees could disturb Swainson's hawks if they are nesting nearby, causing adults to abandon their nests, resulting in mortality of chicks or eggs. Generally, visual and noise disturbances can affect nesting success of Swainson's hawks nesting up to 0.05 mile away from the disturbance source. Other raptor nests located near the Project site could also be disturbed or fail as a result of Project construction during the breeding season; however, other raptor species that occur in the area are generally not as sensitive to disturbances originating from distances further than 500 feet from the nest. Additionally, up to 16.7 acres of foraging habitat for Swainson's hawk would be lost as a result of project implementation.

Although Swainson's hawk is the only State-listed raptor species expected to occur in the Project vicinity, white-tailed kite, a fully protected species under the California Fish and Game Code, could also nest on and near the Project site. There is one documented occurrence within a 5-mile radius of the Project site, which was a nest occurrence recorded 3.5 miles south of the Project site in 1991 (CNDDB 2021). At a 10-miles radius, there have been approximately five

documented occurrences (CNDDB 2021). Additionally, all raptor species and their nests are protected under the California Fish and Game Code. Other raptors known to nest in the Project vicinity include red-shouldered hawk, American kestrel, red-tailed hawk, great horned owl, and barn owl.

There have been seven documented burrowing owl occurrences within a 5-mile radius of the Project site, the closest of which was a burrow occurrence with a pair of burrowing owls recorded 2.2 miles southwest of the site in 2010 (CNDDB 2021). Burrowing owls may be flushed from their burrows by disturbances occurring up to 500 meters (1,640 feet) from the burrow site. Flushing burrowing owls from their burrows can result in nest abandonment, resulting in death of chicks or eggs. In addition, burrowing owls need burrows at all times of year to survive, and displacing individuals from their burrows can result in indirect impacts, such as predation, increased energetic costs, increased stress, exposure to extreme heat or cold, and risks associated with having to find and compete for burrows, all of which can lead to take or reduced reproduction.

Implementing Mitigation Measure 3.3-2a would reduce Project-related impacts on Swainson's hawk, white-tailed kite, and other nesting or foraging raptors on the Project site to a **less-than-significant** level because it would avoid the potential disturbance or loss of active nests during Project construction. Implementation of Mitigation Measure 3.3-2b would reduce significant impacts on burrowing owl while nesting or foraging on the Project site to a **less-than-significant** level because burrowing owls would be avoided and protected from construction activities, or a qualified biologist in consultation with CDFW would relocate owls and compensate for Project-related loss of occupied habitat.

Loggerhead Shrike and Common Native Birds

The CNDDB contains no records of loggerhead shrike within a 5- or 10-mile radius of the Project site (CNDDB 2021); however, loggerhead shrike is known to be an underreported species. In Cornell Lab of Ornithology's eBird database, the closest observation of loggerhead shrike was recorded in January 1984 approximately 1.2 miles southwest of the Project site. The next closest observation was recorded in September 2013 approximately 2.3 miles northwest of the Project site. Riparian habitat, which includes Himalayan blackberry along Elk Grove Creek north of the Project site, may provide suitable nesting habitat for loggerhead shrike, and the species may nest in isolated trees on or near the site. Construction of the Project could disturb nesting loggerhead shrike individuals if they were to nest near the Project site.

Common native nesting birds are protected by the California Fish and Game Code and the federal MBTA. Nesting habitat potentially suitable for native bird species is present in the riparian zone north of the Project site along Elk Grove Creek and in isolated trees and shrubs on and near the Project site. Grading and other construction activities for the Project could result in the loss of nests, or disruption to nesting attempts, of loggerhead shrike, and non-special-status native birds protected by the California Fish and Game Code and MBTA if they nest on or near the Project site in the future.

Implementation Mitigation Measure 3.3-2c would reduce Project-related impacts on loggerhead shrike and common native birds to a **less-than-significant** level through avoidance of the potential disturbance or loss of active nests during Project construction and requires a temporary no-disturbance buffer for loggerhead shrike and common native nesting birds, during the nesting season as long as the nest/colony is occupied.

Greater and Lesser Sandhill Crane

Greater and lesser sandhill crane do not nest in the Sacramento Valley; however, these species may use seasonal wetlands within the Project site during winter for foraging or loafing. Project implementation would result in conversion of seasonal wetlands to urban uses, which would result in loss of potentially suitable overwintering habitat for greater and lesser sandhill cranes. The Project site is not known to be an important overwintering area for this species and is just northwest of ample suitable habitat associated with the Cosumnes River. Loss of a relatively small amount of seasonal wetland habitat is not expected to result in a substantial reduction of the number of sandhill cranes in the region or restrict the range of the species. This impact would be **less than significant**.

Mitigation Measures

Mitigation Measure 3.3-2a: Avoid Disturbance to Swainson's Hawk, White-Tailed Kite, and Other Raptor Nests and Compensate for Loss of Foraging Habitat for Swainson's Hawk

The City of Elk Grove shall impose the following conditions before and during construction.

The following measures will be implemented and are intended to avoid and minimize impacts on nesting raptors, including Swainson's hawk and white-tailed kite:

- Before initiation of any Project activities during the nesting bird season (February 1–August 31), a qualified biologist shall conduct preconstruction surveys for nesting raptors and shall identify active nests within 0.5 mile (for Swainson's hawk; SHTAC 2000) and within 0.25 mile (for white-tailed kite and other nesting raptors) of the Project site and off-site improvement areas. The surveys shall be conducted between February 1 and August 31, no more than 7 days before initiation of construction activities. The results of these surveys shall be provided to the City's Development Services Department.
- Impacts on nesting Swainson's hawks and other raptors shall be avoided by establishing appropriate no-disturbance buffers around active nest sites identified during preconstruction raptor surveys. Project activities shall not commence within the buffer areas until a qualified biologist has determined, in consultation with CDFW, that the young have fledged, that the nest is no longer active, or that reducing the buffer would not likely result in nest abandonment. A 0.25-mile-wide buffer shall be implemented for active Swainson's hawk and a 500-foot buffer shall be implemented for active nests of other raptor species. I size of the buffer may be adjusted if a qualified biologist, in consultation with CDFW, determines that such an adjustment would not be likely to adversely affect the nest. Factors to be considered for determining buffer location will include presence of natural buffers provided by vegetation, buildings, or topography; nest height above ground; baseline levels of noise and human activity (e.g., SR 99, other nearby urban development); and species sensitivity.
- Monitoring of the nest by a qualified biologist during and after construction activities shall be required if the activity has potential to adversely affect the nest. If construction activities cause the nesting bird to vocalize, make defensive flights at intruders, get up from a brooding position, or fly off the nest, then the no-disturbance buffer shall be increased until the agitated behavior ceases, as determined by a qualified biologist.
- Approximately 16.7 acres of Swainson's hawk foraging habitat (i.e., ruderal herbaceous, seasonal wetland) would be affected by project implementation. Mitigation for loss of Swainson's hawk foraging habitat will follow Chapter 16.130 of the City of Elk Grove Municipal Code, which requires projects that would impact less than 40 acres of habitat to mitigate loss of Swainson's hawk foraging habitat by paying a mitigation fee.

Mitigation Measure 3.3-2b: Conduct Take Avoidance Survey for Burrowing Owl, Implement Avoidance Measures, and Compensate for Loss of Occupied Burrows

The City of Elk Grove shall impose the following conditions before and during construction:

- A qualified biologist shall conduct a focused survey for burrowing owls in areas of habitat suitable for the species (e.g., ruderal grassland) on and within 1,640 feet (500 meters) of the Project site no less than 14 days before initiating ground disturbance activities using survey methods described in Appendix D of the CDFW *Staff Report on Burrowing Owl Mitigation* (CDFG 2012).
- If no occupied burrows are found, the qualified biologist shall submit a report documenting the survey methods and results to the applicant and the City of Elk Grove, and no further mitigation will be required.
- If an active burrow is found within 1,640 feet of pending construction activities that would occur during the nonbreeding season (September 1 through January 31), the applicant shall establish and maintain a protective buffer of 164 feet (50 meters) to 1,640 feet (500 meters) around the occupied burrow throughout construction. The actual buffer size will be determined by the qualified biologist based on the time of year and level of disturbance in accordance with guidance provided in the CDFW *Staff Report on Burrowing Owl Mitigation* (CDFG 2012). The protection buffer will be adjusted if, in consultation with CDFW, a qualified biologist determines that an alternative

buffer would not disturb burrowing owl use of the burrow because of particular site features or other buffering measures. If occupied burrows are present that cannot be avoided or adequately protected with a no-disturbance buffer, a burrowing owl exclusion plan shall be developed, as described in Appendix E of the CDFW staff report. Burrowing owls shall not be excluded from occupied burrows until the Project burrowing owl exclusion plan is approved by CDFW. The exclusion plan shall include a compensatory habitat mitigation plan (see below).

- If an active burrow is found during the breeding season (February 1 through August 31), occupied burrows shall not be disturbed and shall be provided with a protective buffer of 164 feet to 1,640 feet (as determined by a qualified biologist based on time of year and level of disturbance). There is an option for the size of the buffer to be adjusted depending on the time of year and level of disturbance as outlined in the CDFW staff report. The size of the buffer will be reduced if a broad-scale, long-term monitoring program acceptable to CDFW is implemented so that burrowing owls are not adversely affected. After the fledglings are capable of independent survival, the owls can be evicted, and the burrow can be destroyed per the terms of a CDFW-approved burrowing owl exclusion plan developed in accordance with Appendix E of CDFW staff report.
- If burrowing owls are evicted from burrows and the burrows are destroyed by implementation of Project activities, the applicant shall mitigate the loss of occupied habitat in accordance with guidance provided in the CDFW staff report, which states that permanent impacts on nesting, occupied, and satellite burrows and burrowing owl habitat (i.e., grassland habitat with suitable burrows) shall be mitigated such that habitat acreage and the number of burrows are replaced through permanent conservation of comparable or better habitat with similar vegetation communities and burrowing mammals (e.g., ground squirrels) present to provide for nesting, foraging, wintering, and dispersal. The applicant shall retain a qualified biologist to develop a burrowing owl mitigation and management plan that incorporates the following goals and standards and that shall be approved by the City of Elk Grove and CDFW:
    - Mitigation lands shall be selected based on comparison of the habitat lost to the compensatory habitat, including type and structure of habitat, disturbance levels, potential for conflicts with humans, pets, and other wildlife, density of burrowing owls, and relative importance of the habitat to the species throughout its range.
    - If feasible (i.e., if available), mitigation lands shall be provided adjacent or proximate to the Project site so that displaced owls can relocate with reduced risk of injury or mortality. Feasibility of providing mitigation adjacent or proximate to the Project site depends on availability of sufficient habitat to support displaced owls that will be preserved in perpetuity.
    - If habitat suitable for burrowing owl is not available for conservation adjacent or proximate to the Project site, mitigation lands can be secured off-site and shall aim to consolidate and enlarge conservation areas outside of planned development areas and within foraging distance of other conservation lands. Another option for mitigation is the purchase of mitigation credits at a CDFW-approved mitigation bank, if available. For this alternative, consultation with CDFW would be required.
    - If burrowing owl habitat mitigation is completed through permittee-responsible conservation lands, the mitigation plan shall include mitigation objectives, site selection factors, site management roles and responsibilities, vegetation management goals, financial assurances and funding mechanisms, performance standards and success criteria, monitoring and reporting protocols, and adaptive management measures. Success shall be based on the number of adult burrowing owls and pairs using the site and whether the numbers are maintained over time. Measures of success, as suggested in the CDFW staff report, shall include site tenacity, number of adult owls present and reproducing, colonization by burrowing owls from elsewhere, changes in distribution, and trends in stressors.

Mitigation Measure 3.3-2c: Conduct Preconstruction Loggerhead Shrike and Common Native Nesting Bird Surveys, and Establish Protective Buffers

The City of Elk Grove shall impose the following conditions before, and during, construction.

The following measure shall be implemented to avoid or minimize loss of native nesting birds protected under Section 3503 of the California Fish and Game Code:

- To minimize the potential for loss of loggerhead shrike and other native birds, Project activities (e.g., tree removal, vegetation clearing, ground disturbance, staging) shall be conducted during the nonbreeding season (approximately September 1-January 31, as determined by a qualified biologist) if feasible (i.e., if project objectives and schedule can be met by conducting all Project activities outside of the nesting bird season). If Project activities are conducted during the nonbreeding season, no further mitigation shall be required.
- If conducting all Project activities outside of the nesting bird season is not feasible, within 14 days before the onset of Project activities during the breeding season (approximately February 1 through August 31, as determined by a qualified biologist), a qualified biologist familiar with birds of California and with experience conducting nesting bird surveys shall conduct focused nest surveys for loggerhead shrike and other native birds. Surveys shall be conducted in accessible areas within 500 feet of the Project site for raptor species and within 50 feet of the Project site for nonraptor common native bird nests.
- If no active nests are found, the qualified biologist shall submit a report documenting the survey methods and results to the applicant and Sacramento County, and no further mitigation shall be required.
- If active nests are found, impacts on nesting birds shall be avoided by establishing appropriate no-disturbance buffers around active nest sites. Project activity would not commence within the buffer areas until a qualified biologist has determined that the young have fledged, the nest is no longer active, or reducing the buffer would not likely result in nest abandonment. Buffers shall be determined by a qualified biologist. Factors to be considered for determining buffer size shall include presence of natural buffers provided by vegetation or topography, nest height above ground, baseline levels of noise and human activity, species sensitivity, and proposed Project activities. Generally, buffer size for these species would be at least 20 feet. The size of the buffer will be adjusted if a qualified biologist determines that such an adjustment would not be likely to adversely affect the nest. Periodic monitoring of the nest by a qualified biologist during Project activities shall be required if the activity has potential to adversely affect the nest, the buffer has been reduced, or birds within active nests are showing behavioral signs of agitation (e.g., standing up from a brooding position, flying off the nest) during Project activities, as determined by the qualified biologist.

Significance after Mitigation

Less than significant.

Impact 3.3-3: Disturb and Result in Loss of Wetlands, Other Waters of the United States, and Waters of the State

Implementation of the Project would result in the removal or fill of waters of the state. Implementation of Mitigation Measure 3.3-3 would reduce this impact to less than significant by requiring compensatory mitigation to offset any loss of wetland function and requiring the Project applicant to comply with all rules and regulations imposed by the relevant regulatory agencies. Impacts would be **less than significant** with mitigation.

Development of the Project would result in direct or indirect impacts on five seasonal wetlands within the Project site. USACE confirmed that none of these aquatic features are subject to federal jurisdiction under Section 404 of the CWA (USACE 2021). Although, these features are still potentially subject to State jurisdiction under Section 401 of the CWA and the Porter-Cologne Water Quality Control Act. The direct loss of these aquatic features would be a significant impact under CEQA (WRA 2020c).

The Project would avoid and preserve one seasonal wetland located on the Project site (Figure 3.3-1) (WRA 2020c). The largest wetland present on the site would be partially filled in the area proposed for development; however, filling of

part of the wetland would affect the entire seasonal wetland (Figure 3.3-1). To determine whether implementing the Project might indirectly affect the avoided and preserved wetland areas by altering site drainage in such a way as to deprive them of sufficient wetland hydrology, WRA conducted a water budget analysis of the pre- and post-Project conditions (WRA 2020c). Based on the results of this analysis, it is expected that the decreases in watershed area would have minimal effect on the wetland hydrology of preserved and avoided seasonal wetlands (WRA 2020c).

Project construction activities could result in the loss or degradation wetlands or waters of the state through fill, hydrologic changes, or other disturbances. Implementation of Mitigation Measure 3.3-3 would require compensatory mitigation to offset any loss of wetland function and require the Project applicant to comply with all rules and regulations imposed by relevant regulatory agencies. Therefore, potential Project-related impacts on wetlands, other waters of the United States, and waters of the state be reduced to a **less-than-significant** level.

Mitigation Measures

Mitigation Measure 3.3-3: Implement Mitigation for Wetlands, Other Waters of the United States, and Waters of the State

The City of Elk Grove shall impose the following conditions before and during construction:

- The Project applicant shall replace or restore on a no-net-loss basis the function of all wetlands and other waters that would be removed as a result of implementing the Project in accordance with USACE mitigation guidelines and State wetland procedures (SWRCB 2021). Before the issuance of any grading permit, Section 401 Water Quality Certification from the RWQCB shall be obtained.
- Since the wetlands on the Project site were disclaimed by USACE, the applicant shall apply for a permit and waste discharge requirements from the Central Valley RWQCB for any activity that would result in discharges of dredged or fill material into waters of the state. The application shall be completed in accordance with State wetland procedures (SWRCB 2021).
- The applicant shall provide compensatory mitigation for permanent loss of any waters of the state in accordance with the State procedures, such that implementing the Project would not result in a net loss of overall abundance, diversity, or condition of aquatic resources within the affected watershed based on a watershed assessment using an assessment method approved by the permitting authority (e.g., Central Valley RWQCB or State Water Resources Control Board).
- Wetland habitat shall be restored or replaced at an acreage and location and by methods agreeable to the Central Valley RWQCB, depending on agency jurisdiction, and as determined during the Section 401 permitting processes or according to waste discharge requirements issued by the Central Valley RWQCB.

Significance after Mitigation

Less than significant.

Impact 3.3-4: Conflict with Local Policies and Ordinances

The Project proposed to remove two trees designated as trees of local importance under City of Elk Grove Municipal Code Chapter 19.12: Tree Preservation and Protection: the northern California black walnut and one valley oak tree. Therefore, Project implementation could conflict with a local ordinance protecting trees. Impacts would be **less than significant** with mitigation.

As required under City of Elk Grove Municipal Code Chapter 19.12: Tree Preservation and Protection (see full discussion of this code in Section 3.3.1, "Regulatory Setting"), the Project applicant prepared an arborist report that identified and mapped all trees within the Project site; determined whether any trees qualified as regulated trees under the Municipal Code (i.e., landmark trees, trees of local importance, secured trees, trees on City property); and determined the size, health, and condition of all the trees (WRA 2020a). The Project site does not contain any landmark trees, secured trees, or trees on City property (WRA 2020a). Of the six trees of local importance on the project site, two are located within the area proposed for development: a northern California black walnut and a valley oak with a DSH greater than 6 inches (WRA 2020a). Project implementation would result in removal of up to

two trees of local importance within the area proposed for development. Therefore, Project implementation could conflict with a local ordinance protecting trees of local importance. Implementation of Mitigation Measure 3.3-4 would ensure that a permit would be acquired for tree removal, trees removed would be compensated for, and other trees not subject to removal would be protected during construction activities. Therefore, upon implementation of Mitigation Measure 3.3-4, the project would achieve compliance with local ordinances and potential Project-related impacts on trees of local importance would be **less -than significant**.

Mitigation Measures

Mitigation Measure 3.3-4: Avoid, Minimize, or Compensate for Loss of Protected Trees

A tree removal permit shall be obtained from the City for removal of the northern California black walnut and valley oak (#132 and #731; Figure 3.3-2), which are in the area proposed for development. Approval of a tree removal permit shall require compensatory mitigation for any trees to be removed as a result of Project activities. To avoid and minimize damage to existing trees that are not proposed for direct impact by Project activities, the following measures shall be implemented:

- All construction activity (e.g., grading, filling, paving, landscaping) will avoid the critical root zone around all trees selected for preservation within the vicinity of the Project site.
- Temporary protective fencing will be installed around the dripline of existing trees before commencement of any construction activity conducted within 25 feet of the tree canopy. The fence will be clearly marked to prevent inadvertent encroachment by heavy machinery.
- Drainage will not be allowed to pond around the base of any tree.
- Construction materials or heavy equipment will not be stored within the critical root zone of any tree of local importance.
- Construction materials will be properly stored away from existing trees to avoid spillage or damage to trees.
- The loss of trees protected under Elk Grove Municipal Code Chapter 19.12 and General Plan policy (i.e., California black walnut and valley oak tree) shall be replaced at a 1:1 ratio (1 new inch DSH of tree for each inch DSH lost), unless alternative mitigation is approved by the City pursuant to Elk Grove Municipal Code Section 19.12.180 of the City code. Replacement trees will be planted on-site in areas that would not be developed or in nearby off-site open space areas if another option is not approved by the City Arborist.
- Alternatively, payment of an in-lieu fee to the City's tree preservation fund will be allowed to compensate for tree loss, as estimated by a certified arborist.

Significance after Mitigation

Less than significant.

3.4 CULTURAL RESOURCES AND TRIBAL CULTURAL RESOURCES

This section analyzes and evaluates the potential impacts of the Project on known and unknown cultural resources. Cultural resources include districts, sites, buildings, structures, or objects generally older than 50 years and considered to be important to a culture, subculture, or community for scientific, traditional, religious, or other reasons. They include pre-historic resources, historic-era resources, and "tribal cultural resources" (the latter as defined by Assembly Bill (AB) 52, Statutes of 2014, in Public Resources Code [PRC] Section 21074).

Archaeological resources are locations where human activity has measurably altered the earth or left deposits of prehistoric or historic-era physical remains (e.g., stone tools, bottles, former roads, house foundations). Historical (or architectural) resources include standing buildings (e.g., houses, barns, outbuildings, cabins) and intact structures (e.g., dams, bridges, roads, districts), or landscapes. A cultural landscape is defined 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 (Birnbaum 1994). Tribal cultural resources were added as a resource subject to review under CEQA, effective January 1, 2015 under AB 52 and includes site features, places, cultural landscapes, sacred places or objects, which are of cultural value to a tribe (Public Resources Code Section 21074).

In response to the NOP during the public scoping period, the Native American Heritage Commission (NAHC) requested AB 52 and SB 18 compliance information. SB 18 is not a CEQA requirement and therefore is not discussed in this section. AB 52 compliance is described below.

3.4.1 Regulatory Setting

FEDERAL

Section 106 of the National Historic Preservation Act

Federal protection of resources is legislated by (a) the National Historic Preservation Act (NHPA) of 1966 as amended by 16 US Code 470, (b) the Archaeological Resource Protection Act of 1979, and (c) the Advisory Council on Historical Preservation. These laws and organizations maintain processes for determination of the effects on historical properties eligible for listing in the National Register of Historic Places (NRHP).

Section 106 of the NHPA and accompanying regulations (36 Code of Federal Regulations [CFR] Part 800) constitute the main federal regulatory framework guiding cultural resources investigations and require consideration of effects on properties that are listed in, or may be eligible for listing in the NRHP. The NRHP is the nation's master inventory of known historic resources. It is administered by the National Park Service and includes listings of buildings, structures, sites, objects, and districts that possess historic, architectural, engineering, archaeological, and cultural districts that are considered significant at the national, State, or local level.

The formal criteria (36 CFR 60.4) for determining NRHP eligibility are as follows:

1. The property is at least 50 years old (however, properties under 50 years of age that are of exceptional importance or are contributors to a district can also be included in the NRHP);
2. It retains integrity of location, design, setting, materials, workmanship, feeling, and associations; and
3. It possesses at least one of the following characteristics:

   Criterion A Association with events that have made a significant contribution to the broad patterns of history (events).

   Criterion B Association with the lives of persons significant in the past (persons).

Criterion C Distinctive characteristics of a type, period, or method of construction, or represents the work of a master, or possesses high artistic values, or represents a significant, distinguishable entity whose components may lack individual distinction (architecture).

Criterion D Has yielded, or may be likely to yield, information important to prehistory or history (information potential).

Listing in the NRHP does not entail specific protection or assistance for a property but it does guarantee recognition in planning for federal or federally-assisted projects, eligibility for federal tax benefits, and qualification for federal historic preservation assistance. Additionally, project effects on properties listed in the NRHP must be evaluated under CEQA.

The National Register Bulletin also provides guidance in the evaluation of archaeological site significance. If a heritage property cannot be placed within a particular theme or time period, and thereby lacks "focus," it is considered not eligible for the NRHP. In further expanding upon the generalized National Register criteria, evaluation standards for linear features (such as roads, trails, fence lines, railroads, ditches, flumes, etc.) are considered in terms of four related criteria that account for specific elements that define engineering and construction methods of linear features: (1) size and length; (2) presence of distinctive engineering features and associated properties; (3) structural integrity; and (4) setting. The highest probability for National Register eligibility exists within the intact, longer segments, where multiple criteria coincide.

STATE

California Register of Historical Resources

All properties in California that are listed in or formally determined eligible for listing in the NRHP are eligible for the California Register of Historical Resources (CRHR). The CRHR is a listing of State of California resources that are significant within the context of California's history. The CRHR is a statewide program of similar scope and with similar criteria for inclusion as those used for the NRHP. In addition, properties designated under municipal or county ordinances are also eligible for listing in the CRHR.

A historic resource must be significant at the local, State, or national level under one or more of the criteria defined in the California Code of Regulations Title 15, Chapter 11.5, Section 4850 to be included in the CRHR. The CRHR criteria are similar to the NRHP criteria and are tied to CEQA because any resource that meets the criteria below is considered a significant historical resource under CEQA. As noted above, all resources listed in or formally determined eligible for the NRHP are automatically listed in the CRHR.

The CRHR uses four evaluation criteria:

1. Is associated with events or patterns of events that have made a significant contribution to the broad patterns of local or regional history, or the cultural heritage of California or the United States.
2. Is associated with the lives of persons important to local, California, or national history.
3. Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of a master, or possesses high artistic values.
4. Has yielded, or has the potential to yield, information important to the prehistory or history of the local area, California or the nation.

Similar to the NRHP, a resource must meet one of the above criteria and retain integrity. The CRHR uses the same seven aspects of integrity as the NRHP.

California Environmental Quality Act

CEQA requires public agencies to consider the effects of their actions on "historical resources," "unique archaeological resources," and "tribal cultural resources." Pursuant to PRC Section 21084.1, 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 projects would have effects on unique archaeological resources.

Historical Resources

"Historical resource" is a term with a defined statutory meaning (PRC, Section 21084.1; determining significant impacts to historical and archaeological resources is described in the State CEQA Guidelines, Sections 15064.5[a] and [b]). Under State CEQA Guidelines Section 15064.5(a), historical resources include the following:

1. A resource listed in, or determined to be eligible by the State Historical Resources Commission, for listing in the California Register of Historical Resources (PRC, Section 5024.1).
2. A resource included in a local register of historical resources, as defined in Section 5020.1(k) of the Public Resources Code or identified as significant in a historical resource survey meeting the requirements of Section 5024.1(g) of the Public Resources Code, will be presumed to be historically or culturally significant. Public agencies must treat any such resource as significant unless the preponderance of evidence demonstrates that it is not historically or culturally significant.
3. Any object, building, structure, site, area, place, record, or manuscript which a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California may be considered to be a historical resource, provided the lead agency's determination is supported by substantial evidence in light of the whole record. Generally, a resource will be considered by the lead agency to be historically significant if the resource meets the criteria for listing in the California Register of Historical Resources (Public Resources Code, Section 5024.1).
4. The fact that a resource is not listed in or determined to be eligible for listing in the California Register of Historical Resources, not included in a local register of historical resources (pursuant to Section 5020.1(k) of the Public Resources Code), or identified in a historical resources survey (meeting the criteria in Section 5024.1(g) of the Public Resources Code) does not preclude a lead agency from determining that the resource may be an historical resource as defined in PRC Section 5020.1(j) or 5024.1.

Unique Archaeological Resources

CEQA also requires lead agencies to consider whether projects will impact unique archaeological resources. Public Resources Code, Section 21083.2, subdivision (g), states that unique archaeological resource means an archaeological artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria:

1. Contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information.
2. Has a special and particular quality such as being the oldest of its type or the best available example of its type.
3. Is directly associated with a scientifically recognized important prehistoric or historic event or person.

Tribal Cultural Resources

CEQA also requires lead agencies to consider whether projects will impact tribal cultural resources. Public Resources Code, Section 21074 states the following:

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 Section 21084.1, a unique archaeological resource as defined in subdivision (g) of Section 21083.2, or a "nonunique archaeological resource" as defined in subdivision (h) of Section 21083.2 may also be a tribal cultural resource if it conforms with the criteria of subdivision (a).

Public Resources Code Section 21080.3

AB 52, signed by the California Governor in September of 2014, established a new class of resources under CEQA: "tribal cultural resources," defined in PRC Section 21074. Pursuant to PRC Sections 21080.3.1, 21080.3.2, and 21082.3, lead agencies undertaking CEQA review must, upon written request of a California Native American Tribe, begin consultation before the release of an environmental impact report, negative declaration, or mitigated negative declaration.

PRC Section 21080.3.2 states:

> Within 14 days of determining that a project application is complete, or to undertake a project, the lead agency must provide formal notification, in writing, to the tribes that have requested notification of proposed projects in the lead agency's jurisdiction. If it wishes to engage in consultation on the project, the tribe must respond to the lead agency within 30 days of receipt of the formal notification. The lead agency must begin the consultation process with the tribes that have requested consultation within 30 days of receiving the request for consultation. Consultation concludes when either: 1) the parties agree to measures to mitigate or avoid a significant effect, if a significant effect exists, on a tribal cultural resource, or 2) a party, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached.

California Native American Historical, Cultural, and Sacred Sites Act

The California Native American Historical, Cultural, and Sacred Sites Act applies to both State and private lands. The Act requires that upon discovery of human remains, construction or excavation activity cease and the County coroner be notified. If the remains are of a Native American, the coroner must notify NAHC, which notifies and has the authority to designate the most likely descendant (MLD) of the deceased. The Act stipulates the procedures the descendants may follow for treating or disposing of the remains and associated grave goods.

Health and Safety Code, Sections 7050.5 and 7052

Section 7050.5 of the Health and Safety Code requires that construction or excavation be stopped in the vicinity of discovered human remains until the coroner can determine whether the remains are those of a Native American. If determined to be Native American, the coroner must contact the NAHC. Section 7052 states that the disturbance of Native American cemeteries is a felony.

Public Resources Code, Section 5097

PRC Section 5097 specifies the procedures to be followed in the event of the unexpected discovery of human remains on nonfederal land. The disposition of Native American burial falls within the jurisdiction of the NAHC. Section 5097.5 of the Code states the following:

> No person shall knowingly and willfully excavate upon, or remove, destroy, injure, or deface any historic or prehistoric ruins, burial grounds, archaeological or vertebrate paleontological site, including fossilized footprints, inscriptions made by human agency, or any other archaeological, paleontological or historical feature, situated on public lands, except with the express permission of the public agency having jurisdiction over such lands. Violation of this section is a misdemeanor.

LOCAL

City of Elk Grove General Plan

The City's current General Plan was amended in 2021. The General Plan goals, policies, and standards are based on the General Plan Vision Statement and supporting principles. The City of Elk Grove General Plan contains the following policies and actions related to cultural and tribal cultural resources that apply to the Project (City of Elk Grove 2021).

- **Policy HR-1-1:** Encourage the appropriate adaptive reuse of historic resources and buildings.
- **Policy HR-1-2:** Strive to preserve historic buildings and resources through adaptive re-use.
- **Policy HR-1-3:** Encourage efforts that prevent the misuse, disrepair, and demolition of historic resources and buildings.
- **Policy HR-2-1:** Protect and preserve prehistoric and historic archaeological resources throughout the City.
- **Policy HR 2-2:** Consult when appropriate with local Native American tribes, the California Native American Heritage Commission, and any other appropriate organizations and individuals to minimize potential impacts to cultural and tribal resources.
- **Policy HR 2-3:** Identify and evaluate local archaeological resources for inclusion in the National Register of Historic Places.
- **Policy HR 2-4:** Ensure that City ordinances, programs, and policies create an environment that fosters the preservation, rehabilitation, and maintenance of historic, archaeological, and tribal resources.
- **Policy HR 3-2:** Encourage new development to be compatible with adjacent existing historic structures in terms of scale, massing, building material, and general architectural treatment.

3.4.2 Environmental Setting

REGIONAL PREHISTORY

The following discussion provides a general overview of the prehistory of the Central Valley divided into three overarching periods: Paleoindian (13,500–10,500 calibrated before present [cal BP]); the three-staged Archaic period, consisting of the Lower Archaic (10,500–7000 cal BP), Middle Archaic (7000–2450 cal BP), and Upper Archaic (2450–930 cal BP); and Emergent (930 cal BP–Contact). These periods reflect broad patterns in the prehistory of the Central Valley as evidenced in the archaeological record and focus on environmental, technological, and adaptive changes.

Paleoindian Period (13,500–10,500 cal BP)

The Sacramento Valley would have consisted of extensive grasslands and riparian forests when the first humans arrived on the scene around 13,000 years ago. These environments would have provided ample resources for hunting and foraging, including large mammals which would soon become extinct. The California Delta estuary had not yet formed, and the Southern San Joaquin Valley would have looked more like the desert of the Great Basin (Far Western 2020:7).

Although the archaeological record for this period is sparse it is evident that people favored the pluvial lakes of the Pleistocene, i.e., lakes generated from the heavy rainfall during this period of glaciation. In addition, pine forests were much lower in elevation due to the cooler temperatures and moist conditions. These early inhabitants were mobile hunters and gatherers, foraging in small groups across vast territories in an annual cycle, with a highly specialized flaked stone toolkit developed for hunting and processing megafauna. With the extinction of the megafauna some 10,000 years ago, the lifeways of the Paleoindian evolved and gave way to the Archaic Period (Far Western 2020:7).

Lower Archaic (10,500–7000 cal BP)

During the Lower Archaic, periods of climatic change were exhibited by warmer and wetter periods at the end of the Pleistocene and early Holocene and again at the Middle Holocene. At this time significant deposits of alluvium in the

Central Valley occurred through two episodes (9050 and 5550 cal BP). Clear stratigraphic sediment layers have been identified between the Late Pleistocene and Holocene throughout California as evidenced in alluvial fans and floodplain deposits (Far Western 2020:8).

These climatic shifts are characterized by an expansion of oak woodlands and grassland prairies as conifer environments receded. Throughout North America the earliest identification of milling tools and diverse faunal and floral assemblages from this period suggest a wide range of procurement reflecting economic exploitation at the broadest spectrum. No sites from this period have been identified in the Sacramento Valley proper and are thus predominantly exemplified by isolated finds within the Central Valley archaeological deposits within Central California which exhibit a variety of highly mobile group of hunters and foragers exploiting resources from the high elevations of the Sierra Nevada to the Pacific coast (Far Western 2020:7).

Middle Archaic (7000–2450 cal BP)

Pluvial lakes began to dry up as the region entered into a warmer and drier period at which time an initial period of alluvial deposition was followed by a period of landscape stability. As these wetlands receded, vegetation moved into higher elevations, oak woodlands expanded upwards along the foothill slopes and conifer forests receded into the subalpine zone in the Sierra Nevada. As sea levels rose, the wetland habitat of the Central Valley formed, creating the San Joaquin-Sacramento Delta. During this time, two distinct cultural patterns emerge, distinguishing a foothill and a valley tradition; sites from this period are relatively scarce in the Central Valley while foothill sites are abundant. Four sites and handful of isolated artifacts, from the Central Valley represent the earliest record, with a goodly amount occurring after 2500 cal BP. It is likely that prehistoric populations may have initially moved into the upland areas in response to the desiccation of the lakes (Far Western 2020:8-9).

The latter part of this period reveals a resettling of the valley floor with groups occupying the river corridors of the Sacramento and San Joaquin valleys around 4300–3500 cal BP. This latter period indicates a shifting technology to a riverine adaptation exploiting marshes, riparian and estuarine settings. This shift is evidenced by the introduction of the pestle and mortar reflecting a greater investment in technology associated with residential stability characterized by adaptation and logistical organization. These sites have resulted in elaborate artifact assemblages producing a variety of technology; dietary remains indicating year-round occupation; non-utilitarian items; and trade items. In addition, it is thought that fishing may have become a dominant economy at this time as evidenced in new fishing technology of bone hooks and spears and the large quantity of fish remains (Far Western 2020:8-9).

Upper Archaic (2450–930 cal BP)

Climatic reconstructions for much of California and the Great Basin indicate that following the drought of the Middle Holocene, the region experienced a rise in the regional water table, and a re-expansion of lakes and marshes. This climatic shift is reflected in the quantity of archaeological sites from this period discovered throughout California and the Great Basin, including the Sacramento and northern San Joaquin valleys, the San Joaquin-Sacramento Delta, and the adjacent foothills. These sites exhibit new specialized technologies, items created for the purpose of trade, and geographically diverse and specialized economic strategies, including bulk-processing of acorns, salmon, shellfish, rabbits, and deer (Far Western 2020:9-10).

Approximately 2,700 years ago, mounded village sites with smaller satellite villages emerge in the lower Sacramento Valley. These habitation sites exhibit long-term residential locales with flexed burials, extensive habitation debris, features, house floors, and hearths. Assemblages consist of mortars and pestles, fishing gear (e.g., harpoons, hooks, net weights, mesh gauges), hunting equipment (e.g., projectile points, atlatl spurs), and specialized implements (woodworking implements, bone awls, stone drills). In addition, trade with coastal groups is evidenced in the archaeological record with the presence of shell beads and ornaments while the obsidian trade continued along well-traveled exchange corridors. Cultural diversity is more prevalent than preceding periods, exhibited in burial patterns and artifact styles (Far Western 2020:9-10).

Emergent (930 cal BP–Contact)

The archaeological record for this time represents the most well understood period in prehistory and groups closely resembling inhabitants at the time of contact. Larger and more complex societies emerge with an increase in burial

practices and offerings. Largely populated villages existed in the Sacramento Valley where fishing weirs were present, mounded villages with smaller satellite villages were established in the Delta along waterways, and the San Joaquin Valley exhibited villages and hamlets situated on river channels and sloughs. These societies support regional variability with an emphasis on fishing and plant economies, particularly elaborate fishing equipment becomes prevalent in the Sacramento Valley, in association with large- and small-mammal bone and waterfowl deposits (Far Western 2020:10-11).

This period is ultimately defined by the introduction of the bow and arrow sometime around 1,300 and 1,000 years ago in California and the Great Basin. Larger points of the dart and atlatl give way to small, light-weight projectile points manufactured with finer precision. During this period, Cosumnes Brownware pottery from the lower Sacramento Valley appears and baked clay balls, likely used for cooking in areas where stone was scarce (i.e., Central Valley). Basketry, netting, and other perishables have been identified. A unique projectile point known as the Stockton Serrated Point was developed in the Delta region and is recognized as a clearly independent innovation (Far Western 2020:10-11).

Trade networks reflect a change in the obsidian exchange. Manufacturing debris indicates a change from biface blanks to raw cobbles and flake blanks being exchanged. Shell bead manufacturing evolves from Olivella blanks and debris identified in central California around 800 to 500 years ago shift to clam shell disk beads and manufacturing debris identified around 300 years ago which is often associated with a monetary system. This shift indicates a decentralized processing from coastal bead manufacturing groups to valley household fabrication (Far Western 2020:10-11).

ETHNOGRAPHY

The Project site is located in the Plains Miwok territory. The Plains Miwok are one of four Eastern Miwok groups. Linguistically, the Plains Miwok were part of the eastern group of the two subdivisions of Miwokan speakers. Plains Miwok territory included the lower Mokelumne River, the Cosumnes River, and the Sacramento River from Rio Vista to Sacramento. The Sierra Nevada foothills formed the eastern boundary; the western boundary was between Fairfield and the Sacramento River.

Because of their geographic location at the northeastern edge of the missionized area and the western edge of the Mother Lode, the Plains Miwok were hit early and hard by missionaries and later by gold-seekers and the diseases they brought. By the 1880s, few people survived who could remember life before these intrusions. For this reason, primary information on traditional Plains Miwok culture and lifeways is limited and often conflicting. Most information comes from mission records, early explorers' journals, and the recollections of aged and displaced Indian informants, often members of neighboring tribes; some archaeological data also are available (Far Western 2020:11-12).

The Plains Miwok territory encompassed a wide range of micro-environments, including delta wetlands and marshes, lakes and sloughs, riparian forest, prairie grassland, and oak woodland/savanna. The people ate a wide variety of plants and animals, but acorns, salmon, and deer may have been their main staples. The Miwok built several kinds of structures, among them conical dwellings (semi-subterranean or above ground), assembly or dance houses, sweat-houses, ceremonial structures (circular or rectangular), grinding booths, acorn granaries, and hunting blinds. Some houses were covered with earth, others with a thatch of brush, grass, or tule, laid over a framework of poles. Large, semi-subterranean dance houses were built by erecting a roof of heavy beams, covered with earth and thatch, over a large pit and supported with four center posts and eight side posts (Far Western 2020:11-12).

Native Californian hunting and gathering lifeways suffered severe impacts with the arrival of white explorers, missionaries, and subsequent waves of settlers. Epidemics, warfare, and missionization greatly reduced Native populations. Valley tribes fleeing missionization in the late 1770s and later the malaria epidemic of 1833 sought refuge with their foothill neighbors. The 1848 discovery of gold in the adjacent foothills resulted in a devastating influx of white miners and even more settlers. Disease, as well as hostile and active persecution, swiftly destroyed the Native peoples' traditional culture. Today Miwok people live and work in the same towns and industries as their non-native neighbors, though they hold fast to many of their traditional practices and beliefs. These people are the living descendants of those who created the middens and mound sites along the Cosumnes River corridor, and they value these sites highly (Far Western 2020:11-12).

HISTORIC SETTING

Regional History

In the 18th century, California became a territory of Spain and later of Mexico. In the mid-1840s, Mexico's interest in developing and strengthening its hold on California decreased as the Mexican government became distracted by political developments in central Mexico. The native-born Spanish speakers of Alta California, known as Californios, long accustomed to governmental neglect, experienced relative peace and enjoyed minimal intrusion into their social, political, and economic affairs. During this period, the United States aggressively sought access to the Pacific Ocean, resulting in the Mexican-American War (City of Elk Grove 2018).

Following the American victory and ratification of the Treaty of Guadalupe Hidalgo in 1848, California became a United States territory, and on September 9, 1850, it formally joined the Union as the 31st state. Sacramento County was one of the original 27 California counties established by the legislature in the same year (City of Elk Grove 2018).

Following the discovery of gold at Sutter's Mill on the American River in January 1848, the region surrounding Sutter's Fort was inundated with prospectors from around the world. Sacramento sprang up as a boomtown in 1848 in direct response to the gold discovery. Its location at the confluence of the Sacramento and American Rivers provided excellent access to San Francisco's shipping routes, and it was relatively close to the gold fields in the Sierra Nevada foothills, which led Sacramento to become an important transportation and trading center for those destined for the northern mines (City of Elk Grove 2018).

Project Site History

C.B. Hobbs Corp

Clarence Benton Hobbs, Jr. was born in 1922 in Missouri; his father moved the family to California in the late 1920s. Upon graduating from Lomita High School in 1940, Hobbs joined the Navy and served in World War II. He incorporated the C.B. Hobbs Corp., a charcoal operation, on December 21, 1960. Hobbs began with a charcoal plant in Santa Clara, supplying 20 percent of the total charcoal for California and buying nearly all of the peach pit by-products from the California canners. This made his operation the biggest in the western United States (Far Western 2020:14-15). In addition, the company processed walnut shells as well as almond shells from the California Almond Growers Exchange, a 4,500-member cooperative that processed 70 percent of the nation's almond produce. The shells supplemented the primary peach pit raw material and were mixed together for the charcoal product. At that time, the company was the only facility in the world to repurpose peach pits (and shells) into charcoal through the process of pyrolysis, decomposition produced by high temperatures to create the briquets (Far Western 2020:14).

In August 1966, C.B. Hobbs Corp. announced the proposed Elk Grove site for a manufacturing plant which would produce charcoal briquets and lighter fluid. The company built a 1-million-dollar facility on a 41-acre parcel on Waterman Road (including the Project site), beginning with 12 employees with an anticipated growth to 40 individuals. The first building was completed in October 1966 and the plant charring facility was slated for production to commence on February 1, 1967; with remaining facilities to follow. Hobbs invested an additional 80,000 dollars to install a smog control system, compliant with the strictest of environmental regulations, with the intent of eventually capturing the hot air for drying purposes. The initial output was estimated at 20,000 tons of charcoal per year. The Kingsford Corporation took over charcoal processing operations after Hobbs died in 1983. The Associated Press reported a fire which erupted in the Kingsford charcoal warehouse, dated November 28, 1988, and ignited by more than 1,000 tons of charcoal briquets and lighter fluid (Far Western 2020:14-15).

Southern Pacific Railroad

A portion of the Southern Pacific Railroad line runs north to south, paralleling the western boundary of the Project site. Sometime between 1971 and 1981, a spur was constructed to service the C.B. Hobbs Corp. charcoal plant, discussed above. The Southern Pacific Railroad has been documented exhaustively. The following is a brief excerpt from the California Department of Parks and Recreation 523 form prepared for the portion of the railroad located within the Project site:

> Originally constructed in 1869 as part of the Central Pacific Railroad mainline from Sacramento to Niles in the San Francisco Bay area near Alameda, the line was among the first built in California; completed during the construction of the Transcontinental Railroad. The railroad had a profound impact on the development of the region and throughout California. It was finished to Lodi by August 4, 1869, to Stockton on August 14, 1869 and to Alameda Wharf by September 8, 1869. The line then crossed the southern San Francisco Bay by ferry, making it the main connection to San Francisco. The Southern Pacific Railroad began leasing the line in 1885 and continued that lease until it began acquiring the company around 1900 (Far Western 2020:14-15).

ARCHAEOLOGICAL SENSITIVITY

Studies have shown that large portions of the archaeological record are buried by younger Holocene-age deposits throughout northern and central California. This is particularly true in valleys and other low-lying areas where sediments tend to accumulate. Buried sites can only be associated with landforms that developed during the span of human occupation, and therefore can be limited to the terminal Pleistocene and Holocene (approximately the last 14,700 years). Additionally, prehistoric sites tend to occur in specific settings. Proximity to water, topographic setting, and past distributions of important plant and animal foods made some locations attractive and others unfavorable for past human use or occupation. Thus, environmental variables can help estimate the relative probability that people occupied any one point on the landscape, as demonstrated by previous studies throughout California (Far Western 2020:22).

Geologic mapping indicates that the Project site is located on alluvial fan deposits of the Pleistocene-age Riverbank Formation. Soil mapping indicates that the Project site is underlain by San Joaquin silt loam and Galt clay. San Joaquin soils consist of loam to clay that is moderately well to well drained and formed in alluvium on undulating low terraces with gentle slopes. They are estimated to be Older Pleistocene (2.56 million years–25,000 cal BP). Galt soils consist of clay loam to clay that is moderately well drained and formed in alluvium on low terraces, basins, and basin rims that are level to gently sloping. They are estimated to be Late Holocene (4200–2200 cal BP) in age. Vernal pool complexes have been associated with the Riverbank Formation, and specifically with areas mapped as San Joaquin and Galt series soils, with San Joaquin series soils located on "mounds" and Galt soils located in the "intermounds" (Far Western 2020:22).

The closest water source is Elk Grove Creek, approximately 720 feet north of the Project site. Based on a review of historical maps and aerial photographs, Elk Grove Creek was naturally an ephemeral drainage that did not flow at all times. In fact, before human modification no water is indicated here although topographic lines suggest an ephemeral drainage was present. By 1941, Elk Grove Creek is more clearly indicated, terminating on the valley floor just east of Waterman Road; straight sections clearly indicate human modification (Far Western 2020:24).

The potential for buried archaeological sites in the Project site was assessed based on the age and distribution of surface deposits combined with proximity to historic-era water sources. This method has successfully been used to estimate archaeological sensitivity throughout California. The highest potential for buried sites occurs where young surface deposits (Late Holocene-age or less) are adjacent to a water source. Buried site potential diminishes with greater distance from a water source and increasing landform age. Based on these factors the potential for buried sites in the Project site is estimated to be low to moderate due to the Pleistocene age of the San Joaquin soils (Far Western 2020:24).

RECORDS SEARCHES, SURVEYS, AND CONSULTATION

On December 18, 2019, a records search of the Project site and a 0.25-mile buffer was conducted at the North Central Information Center (NCIC), at California State University, Sacramento (File No. SAC-19-249). The following information was reviewed as part of the records search:

- NRHP and CRHR,
- California Office of Historic Preservation Historic Property Directory,

- California Inventory of Historic Resources,
- California State Historic Landmarks,
- California Points of Historical Interest, and
- Historic properties reference map.

The NCIC search revealed that no resources have been previously documented within the Project site. The records search identified two previously recorded historic-era resources within the one-quarter-mile records search radius, the Southern Pacific Railroad (P-34-001302/SAC-1230H) and the Waterman residence (P-34-005319). The NCIC search identified 19 previous cultural resources studies within a one-quarter mile; of these none are within the Project site.

A pedestrian survey of the Project site was conducted on January 28, 2020. Ground visibility was generally excellent in the north half of the Project site, ranging from completely exposed expanses of soils with patches of thick grasses blanketing the ground surface to densely knit bushes waist-high and nearly impassable in the south. The Project area is heavily disturbed due to prior infrastructure and development.

No prehistoric archaeological sites were encountered during the pedestrian survey; however, two historic-era archaeological features were identified:

- a railroad spur and culvert associated with the Southern Pacific Railroad and the Hobbs charcoal plant, and
- remnant infrastructure related to the Hobbs/Kingsford charcoal plant.

NRHP and CRHR criteria were used to evaluate the significance of the two historic-era archaeological features, as described below. The NRHP criteria for eligibility are codified in 36 CFR Part 60 and explained in guidelines published by the Keeper of the NRHP. The NRHP and CRHR are discussed in more detail above in Section 3.4.1, "Regulatory Setting." Eligibility for listing on the NRHP and the CRHR rests on twin factors of significance and integrity. A resource must have both significance and integrity to be considered eligible. Loss of integrity, if sufficiently great, will become more important than the historical significance a resource may possess and render it ineligible. Likewise, a resource can have complete integrity, but if it lacks significance, it must also be considered ineligible.

Archaeological Sites

P-34-001302

P-34-001302 consists of a portion of the Southern Pacific Railroad, with at least five segments having been recorded since 1994. During the current survey an abandoned spur of the Southern Pacific Railroad and concrete culvert were identified in the Project site; both associated with the C.B. Hobbs Corp. charcoal plant. The spur was constructed between 1971 and 1981 to service the charcoal plant and extends approximately 1,000 feet into the Project site. The spur consists of a standard gauge rail resting on a 25-foot-wide ballast of crushed stone. The culvert is of indeterminate age; however, it appears to have been constructed in association with the spur to provide proper drainage. The culvert extends under the spur, outside the current Project site, and continues under the mainline railroad tracks of the Southern Pacific Railroad (west).

The railroad spur and culvert, while features of the Southern Pacific Railroad, maintain primary association with the C.B. Hobbs Corp. charcoal plant. Under NRHP/CRHR Criterion A/1, the charcoal plant is not recommended eligible for listing and it would follow that the spur and culvert, ubiquitous and utilitarian features, holds no significance as contributors to events in history. The railroad spur and culvert were constructed in association with C.B. Hobbs who does not appear to meet the threshold to be considered significant under NRHP/CRHR Criterion B/2, as described below. Therefore, the railroad spur and culvert are not recommended eligible as associated with the lives of persons significant in history. The railroad spur is a ubiquitous and common example of a standard gauge railroad, lacking in innovation or the work of a master. Culverts are primarily ubiquitous and common utilitarian features. Neither are recommended eligible under Criterion NRHP/CRHR C/3. Data potential for both the railroad spur and the culvert has been exhausted and no further data is forthcoming under NRHP/CRHR Criterion D/4. For these reasons, the portion of P-34-001302 located within the Project site, the railroad spur and culvert, is not considered a resource under CEQA.

VUL-2

The site consists of remnant infrastructure associated with the C.B. Hobbs charcoal plant. Three extant abandoned features include: a sewer access portal consisting of a 32-inch-diameter, thick-walled, concrete manhole; a fire hydrant and water system with three pipes; and a pipe stand for a sprinkler system.

The historic-era archeological site is associated with processing agricultural by-products and charcoal manufacturing activities. While industrial pursuits are critical to the historical development of the region, California, and the nation as a whole, this resource does not embody any characteristics indicating it made significant contributions to these developments and therefore not recommended eligible for listing in the NRHP/CRHR under Criterion A/1. While records tie the company to C.B. Hobbs, this individual is not known to have made significant contributions to the history of Elk Grove, California, or the nation. As a result, it is recommended that VUL-2 is not eligible for listing in the NRHP/CRHR under Criterion B/2. The sewer access portal, a fire hydrant, and sprinkler stand components are generally plain and utilitarian in nature, utilizing construction materials and techniques ubiquitous in twentieth-century California. They do not embody a distinctive construction method/technique, architectural style, artistic values, or engineering characteristics, nor are they a distinguishing example of the work of a master and therefore not recommended eligible for listing in the NRHP/CRHR under Criterion C/3. Because the site is non-residential in nature, there is a low likelihood for subsurface deposits that would yield relevant data containing information important to our understanding of history. As a result, it is recommended that VUL-2 is not eligible for listing in the NRHP/CRHR under Criterion D/4. For these reasons, the site is not considered a resource under CEQA.

Tribal Cultural Resources

Native American Consultation

The City requested a tribal notification list from the NAHC; pursuant to AB 52, the City mailed notification letters to these tribal representatives on December 20, 2021:

- Lloyd Mathiesen, Chairperson, Chicken Ranch Rancheria of Me-Wuk Indians
- Rhonda Morningstar Pope, Chairperson, Buena Vista Rancheria of Me-Wuk Indians
- Clyde Prout, Chairperson, Colfax-Todds Valley Consolidated Tribe
- Sara A. Dutschke, Chairperson, Ione Band of Miwok Indians
- Charlene Nijmeh, Chairperson, Muwekma Ohlone Indian Tribe of the SF Bay Area
- Cosme A. Valdez, Chairperson, Nashville Enterprise Miwok-Maidu-Nishinam Tribe
- Katherine Erolinda Perez, Chairperson, North Valley Yokuts Tribe
- Regina Cuellar, Chairperson, Shingle Springs Band of Miwok Indians
- Corrina Gould, Chairperson, The Confederated Villages of Lisjan
- Gene Whitehouse, Chairperson, United Auburn Indian Community of the Auburn Rancheria
- Jesus G. Tarango Jr., Chairperson, Wilton Rancheria

Two tribes responded to the AB 52 notification letters. United Auburn Indian Community of the Auburn Rancheria responded on January 24, 2022, stating that they had no records of any previously documented tribal cultural resources in the Project site, but did request to be notified if any indigenous resources were later identified. Wilton Rancheria responded on January 19, 2022, requesting consultation and additional information about the Project and the cultural resources study. Wilton Rancheria also stated that although the tribe is not aware of any resources within the Project site, they do have concerns about the discovery of unknown resources due to known resources nearby. Requested mitigation measures are included in the impact discussion below.

A search of the NAHC Sacred Lands File database was requested, to identify tribally sensitive properties on file in or near the Project site. The NAHC responded on February 25, 2020, with negative results (Far Western 2020:24).

3.4.3 Impacts and Mitigation Measures

METHODOLOGY

The impact analysis for archaeological resources is based on the findings and recommendations of the *Cultural Resources Study of the Vulcan Aggregate and Asphalt Plant, Elk Grove, Sacramento County, California* (Far Western 2020). The analysis is also informed by the provisions and requirements of federal, State, and local laws and regulations that apply to cultural resources.

Public Resources Code Section 21083.2 defines a "unique archaeological resource" as an archeological artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets one or more of the following CRHR-related criteria: 1) It contains information needed to answer important scientific research questions, and there is a demonstrable public interest in that information; 2) it has a special and particular quality, such as being the oldest of its type or the best available example of its type; or 3) it is directly associated with a scientifically recognized important prehistoric or historic event or person. If an archaeological resource qualifies as a resource under CRHR criteria, then the resource is treated as a unique archaeological resource for the purposes of CEQA.

CEQA Section 21074 defines tribal cultural resources as "sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American Tribe" that are listed or determined eligible for listing in the CRHR, listed in a local register of historical resources, or otherwise determined by the lead agency to be a tribal cultural resource.

THRESHOLDS OF SIGNIFICANCE

An impact on cultural resources would be significant if implementation of the Project would:

- cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5 of the State CEQA Guidelines;
- cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5 of the State CEQA Guidelines;
- cause a substantial adverse change in the significance of a tribal cultural resource, defined in CEQA Section 21074 as either (a) 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 CRHR or in a local register of historical resources as defined in PRC Section 5020.1(k), or (b) a resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in PRC Section 5024.1(c), and in applying the criteria set forth in PRC Section 5024.1(c), the lead agency shall consider the significance of the resource to a California Native American tribe; or
- disturb any human remains, including those interred outside of dedicated cemeteries.

ISSUES NOT DISCUSSED FURTHER

As described above, no historic-age (at least 50 years old) structures or buildings have been identified on the Project site. Therefore, Project construction and operation would have no impact on historical resources. This issue is not analyzed further.

ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Impact 3.4-1: Cause a Substantial Adverse Change in the Significance of Archaeological Resources

Implementation of the Project would result in trenching, grading, the construction of ready-mix concrete facility and associated facilities and amenities. Although no known archaeological resources have been identified on the Project site, Project-related ground-disturbing activities may result in the discovery or damage of yet undiscovered archaeological resources as defined in State CEQA Guidelines Section 15064.5. Impacts would be **less than significant** with mitigation.

The NCIC search revealed that no resources had been previously documented within the Project site. A pedestrian survey of the Project site was conducted on January 28, 2020. No prehistoric archaeological sites were encountered during the pedestrian survey; however, two historic-era archaeological features were identified:

- a railroad spur and culvert associated with the Southern Pacific Railroad and the Hobbs charcoal plant (P-34-001302) and
- remnant infrastructure related to the Hobbs/Kingsford charcoal plant (VUL-2).

As described above, the two features were evaluated for NRHP and CRHR eligibility. The evaluation concluded that they are not associated with events that have made a significant contribution to history (NRHP/CRHR under Criterion A/1); are not associated with the lives of persons significant in our past (NRHP/CRHR under Criterion B/2); do not embody distinctive characteristics of a type, period, or method of installation, or represent the work of a master, or possess high artistic values (NRHP/CRHR Criterion C/3); and are not likely to yield any additional important information about our history (NRHP/CRHR under Criterion D/4). For these reasons, the two features are not considered resources under CEQA.

The potential for buried archaeological sites in the Project site was assessed based on the age and distribution of surface deposits combined with proximity to historic-era water sources. This method has successfully been used to estimate archaeological sensitivity throughout California. The highest potential for buried sites occurs where young surface deposits (Late Holocene-age or less) are adjacent to a water source. Buried-site potential diminishes with greater distance from a water source and increasing landform age. The Project site is not located near a historic-era water source and is situated on Pleistocene-age San Joaquin soils. For these reasons, the potential for buried sites on the Project site is estimated to be low to moderate (Far Western 2020:24).

As described in Chapter 2, "Project Description," implementation of the Project would include the installation of utilities; grading of approximately 14 acres; and construction of a ready-mix concrete facility, a recycling plant, a hot-mix asphalt facility, and ancillary structures. Earth-moving activities conducted before and during construction may damage or destroy previously undiscovered unique archaeological resources. Damage to or destruction of any archaeological materials, sites, or features would result in a substantial adverse change to the significance of the resource.

Implementation of Mitigation Measures 3.4-1a and 3.4-1b would reduce this impact to a **less-than-significant** level by requiring that a worker environmental awareness program be prepared and provided to all construction personnel and supervisors who will have the potential to encounter and alter archaeological resources, requiring construction to halt if potential archaeological resources are discovered, coordination with Native American groups (if applicable), implementation of preservation options (including data recovery, mapping, capping, or avoidance), and proper curation if significant artifacts are recovered. This would be consistent the General Plan Policy HR-2-1.

Mitigation Measures

Mitigation Measure 3.4-1a: Develop and Implement a Worker Environmental Awareness Program

The Applicant shall retain a qualified professional archaeologist (one who meets the Secretary of the Interior's Professional Qualification Standards for archaeologists) to prepare a worker environmental awareness program. The program shall be provided to all construction personnel and supervisors who will have the potential to encounter and alter heritage and cultural resources. A copy of the worker environmental awareness program shall be provided to the City Development Services Department before construction activities begin. The topics to be addressed in the worker environmental awareness program will include, at a minimum:

- types of cultural resources expected on the Project site;
- types of evidence that indicates cultural resources might be present (e.g., ceramic shards, lithic scatters);
- what to do if a worker encounters a possible resource;
- what to do if a worker encounters bones or possible bones; and
- penalties for removing or intentionally disturbing heritage and cultural resources, such as those identified in the Archaeological Resources Protection Act.

Mitigation Measure 3.4-1b: Implement Procedures to Address Discovery of Subsurface Archaeological Features and Tribal Cultural Resources

If any prehistoric or historic-era subsurface archaeological features or deposits (e.g., ceramic shard, trash scatters), including locally darkened soil ("midden"), which may conceal cultural deposits, are discovered during construction, all ground-disturbing activity within 100 feet of the resources shall be halted, and a qualified professional archaeologist (one who meets the Secretary of the Interior's Professional Qualification Standards for archaeology) shall be retained to assess the significance of the find. If the qualified archaeologist determines the archaeological material to be Native American in nature, the City shall contact the appropriate California Native American tribe. A tribal representative from a California Native American tribe that is traditionally and culturally affiliated with the Project area may make recommendations for further evaluation and treatment as necessary and provide input on the preferred treatment of the find. If the find is determined to be significant by the archaeologist or the tribal representative (i.e., because it is determined to constitute a unique archaeological resource or a tribal cultural resource, as appropriate), the archaeologist and tribal representative, as appropriate, shall develop, and the City shall implement, appropriate procedures to protect the integrity of the resource and ensure that no additional resources are affected. Procedures may include but would not necessarily be limited to preservation in place (which shall be the preferred manner of mitigating impacts on archaeological and tribal sites), archival research, subsurface testing, or contiguous block unit excavation and data recovery (pursuant to a data recovery plan). No work at the discovery location shall resume until all necessary investigation and evaluation of the resource has been satisfied. This requirement shall be placed on Project improvement plans and will be verified by the City's Development Services Department.

Significance after Mitigation

Less than significant.

Impact 3.4-2: Cause a Substantial Adverse Change in the Significance of a Tribal Cultural Resource

Tribal consultation, as required by law, has been completed and has not resulted in the identification of tribal cultural resources on the Project site. However, excavation activities associated with Project construction may disturb or destroy previously undiscovered significant subsurface tribal cultural resources. Impacts would be **less than significant** with mitigation.

As discussed under "Native American Consultation," above, the City of Elk Grove sent tribal consultation letters to 11 tribal representatives. Two tribes responded, neither of which identified any tribal cultural resources as defined by

PRC Section 21074 within the Project site. Wilton Rancheria additionally asked for further consultation and ultimately requested that a tribal monitor be present during ground-disturbing activities. Additionally, a search of the NAHC Sacred Lands File database was negative.

As described in Chapter 2, "Project Description," implementation of the Project would include the installation of utilities; grading of approximately 14 acres; and construction of a ready-mix concrete facility, a recycling plant, a hot-mix asphalt facility, and ancillary structures. Although past construction activities at the Project site may have damaged or removed subsurface tribal cultural resources, there is the potential for subsurface resources, including significant resources that would qualify as a tribal cultural resource, to be present where there has been less ground disturbance (e.g., subsurface resources that have been disturbed by previous development) or where native soils are still intact. Components of the Project and off-site improvements that require earth-moving and excavation may disturb or destroy previously undisturbed significant prehistoric tribal cultural deposits.

Implementation of Mitigation Measures 3.4-2a, 3.4-2b, and 3.4-2c would reduce impacts related to unknown tribal cultural resources to a **less-than-significant** level by requiring that a worker environmental awareness program be prepared and provided to all construction personnel and supervisors who will have the potential to encounter and alter heritage and cultural resources, requiring construction to halt if potential archaeological resources are discovered, coordination with Native American groups (if applicable), implementation of preservation options (including preservation in place, data recovery, mapping, capping, or avoidance), and proper curation if significant artifacts are recovered, and requiring the retention of a tribal monitor.

Mitigation Measures

Mitigation Measure 3.4-2a: Implement Mitigation Measure 3.4-1a

Mitigation Measure 3.4-2b: Implement Mitigation Measure 3.4-1b

Mitigation Measure 3.4-2c: Retain a Native American Tribal Monitor

The Applicant shall retain and compensate for the services of a Tribal monitor/consultant who is both approved by the Wilton Rancheria and is listed under the NAHC's Tribal Contact list for the Project area. The Applicant shall contact the Tribal representatives a minimum of seven days before beginning earthwork or other ground disturbing activities; construction activities will proceed without a monitor if no response is received 48 hours before ground disturbing activities. The Tribal monitor shall only be present onsite during the construction phases that involve ground disturbing activities for construction. The Tribal monitor shall complete daily monitoring logs that describe each day's activities, including construction activities, locations, soil, and any cultural materials identified. The onsite monitoring shall end when the grading and excavation activities are completed, or when the Tribal representatives and monitor have indicated that the site has a low potential for impacting tribal cultural resources.

Significance after Mitigation
Less than significant.

Impact 3.4-3: Disturb Human Remains

Based on documentary research, no evidence suggests that any prehistoric- or historic-era marked or unmarked human interments are present within or in the immediate vicinity of the Project site. However, ground-disturbing construction activities could uncover previously unknown human remains. Impacts would be **less than significant** with mitigation.

Based on documentary research, no evidence suggests that any prehistoric or historic-era marked or un-marked human interments are present within or in the immediate vicinity of the Project site. However, the location of grave sites and Native American remains can occur outside of identified cemeteries or burial sites. Therefore, there is a possibility that unmarked, previously unknown Native American or other graves could be present within the Project site and could be uncovered by Project-related construction activities. California law recognizes the need to protect Native American human burials, skeletal remains, and items associated with Native American burials from vandalism

and inadvertent destruction. The procedures for the treatment of Native American human remains are contained in California Health and Safety Code Section 7050.5 and PRC Section 5097.

Compliance with California Health and Safety Code Section 7050.5 and PRC Section 5097, as outlined in Mitigation Measure 3.4-3, would provide an opportunity to avoid or minimize the disturbance of human remains and to appropriately treat any remains that are discovered. Therefore, this impact would be **less than significant** with mitigation incorporated.

Mitigation Measures

Mitigation Measure 3.4-3: Implement Response Protocol If Human Remains Are Uncovered

Consistent with California Health and Safety Code Section 7050.5 and PRC Section 5097, if suspected human remains are discovered, ground-disturbing activities in the area of the remains shall be halted immediately, and the Sacramento County coroner shall be notified immediately. The responsibilities for acting upon notification of a discovery of Native American human remains are specifically identified in PRC Section 5097.94. If the remains are determined by the coroner to be Native American, the NAHC shall be notified within 24 hours, and the guidelines of the NAHC shall be adhered to in the treatment and disposition of the remains. Following the coroner's findings, the NAHC-designated MLD and the landowner shall determine the ultimate treatment and disposition of the remains and take appropriate steps to ensure that additional human interments, if present, are not disturbed. This requirement shall be included in Project improvement plans and will be verified by the City Development Services Department.

Significance after Mitigation

Less than significant.

3.5 GREENHOUSE GAS EMISSIONS, CLIMATE CHANGE, AND ENERGY

This section presents a summary of regulations applicable to greenhouse gas (GHG) emissions, a summary of climate change science and GHG sources in California, quantification of Project-generated GHG emissions and discussion about their contribution to global climate change, and analysis of the Project's resiliency to climate change–related risks. In addition, mitigation measures are recommended to reduce the Project's contribution to climate change.

This section also contains an energy analysis pursuant to Appendices F and G of the State CEQA Guidelines, which require that EIRs include a discussion of the potential energy impacts of projects. The analysis considers whether implementing the Project would result in an environmental impact from the inefficient, wasteful, and unnecessary consumption of energy or would conflict with a plan to promote renewable energy and energy efficiency.

In response to the NOP during the public scoping period, the Sacramento Metropolitan Air Quality Management District (SMAQMD) submitted a public comment recommending that the Draft EIR's climate change impact analysis adhere to SMAQMD's most recent *Guide to Air Quality Assessment in Sacramento County Guide*. The analysis below is consistent with SMAQMD's guidance.

3.5.1 Regulatory Setting

FEDERAL

Greenhouse Gas Emission Standards

In *Massachusetts et al. v. Environmental Protection Agency et al.,* 549 US 497 (2007), the Supreme Court of the United States ruled that carbon dioxide (CO_2) is an air pollutant as defined under the federal Clean Air Act (CAA) and that the US Environmental Protection Agency (EPA) has the authority to regulate GHG emissions. In 2010, EPA started to address GHG emissions from stationary sources through its New Source Review permitting program, including operating permits for "major sources" issued under Title V of the CAA.

In October 2012, EPA and the National Highway Traffic Safety Administration, on behalf of the US Department of Transportation, issued final rules to further reduce GHG emissions and improve corporate average fuel economy (CAFE) standards for light-duty vehicles for model years 2017 and beyond (77 *Federal Register* 62624). These rules would increase fuel economy to the equivalent of 54.5 miles per gallon, limiting vehicle emissions to 163 grams of CO_2 per mile for the fleet of cars and light-duty trucks by model year 2025 (77 *Federal Register* 62630).

On April 2, 2018, however, the EPA administrator announced a final determination that the current standards should be revised. On that date, the US Department of Transportation and EPA proposed the Safer Affordable Fuel-Efficient Vehicles Rule (SAFE Rule), which would amend existing CAFE standards for passenger cars and light-duty trucks by increasing the stringency of the standards by 1.5 percent per year from model years 2021–2026. With a change in federal administrations in early 2021, the SAFE Rule is now being reconsidered. On April 26, 2021, as directed in Executive Order 13990, "Protecting Public Health and the Environment and Restoring Science to Tackle the Climate Crisis," EPA announced plans to reconsider Part One of the SAFE Rule. At the time of preparing this document, EPA is seeking public input on its reconsideration of the action. The period to submit public comments on the notice of reconsideration closed on June 6, 2021, and a public hearing was held on June 2, 2021 (EPA 2021a). Nevertheless, at the time this Draft EIR was prepared, Part One of the SAFE Rule was in place, and it is unclear whether it will be revoked by EPA.

SAFE Rule Part Two was finalized on March 31, 2020, and went into effect on June 29, 2020. Part Two of the SAFE Rule requires that CAFE standards increase in stringency by 1.5 percent per year above model year 2020 levels for model years 2021–2026. These standards are less stringent than the previous CAFE standards, which required that stringency increase by 5 percent per year for these model years.

The CAA grants California the ability to enact and enforce more strict fuel economy standards through the acquisition of an EPA-issued waiver. Each time California adopts a new vehicle emission standard, the State applies to EPA for a

preemption waiver for those standards. However, Part One of the SAFE Rule, which became effective on November 26, 2019, revokes California's existing waiver to implement its own vehicle emission standard and established a standard to be adopted and enforced nationwide (84 *Federal Register* 51310). At the time this Draft EIR was prepared, the implications of the SAFE Rule on California's future emissions were contingent upon a variety of unknown factors, including legal challenges by California and other states to the revocation of California's waiver, direction provided by federal leadership, and future cabinet and administration appointments. However, the impact analysis included in this section assumes that the SAFE Rule would continue to be implemented, and it uses emissions factors developed by the California Air Resources Board (CARB) that account for the potential for a less fuel-efficient future vehicle fleet as a result of the SAFE Rule (CARB 2020).

In June 2019, EPA, under the authority of CAA Section 111(d), issued the Affordable Clean Energy rule, which provides guidance to states on establishing emission performance standards for coal-fired electric generating units. Under this rule, states are required to submit plans to EPA that demonstrate the use of specifically listed retrofit technologies and operating practices to achieve CO_2 emission reductions through heat rate improvement. Heat rate improvement is a measurement of power plant efficiency that EPA determined as part of this rulemaking to be the best system of emission reductions for CO_2 generated from coal-fired electric generating units (EPA 2021b).

Energy Policy Act of 1992 and 2005

The Energy Policy Act of 1992 (EPAct) was passed to reduce the country's dependence on foreign petroleum and improve air quality. It includes several parts intended to build an inventory of alternative fuel vehicles (AFVs) in large, centrally fueled fleets in metropolitan areas. The EPAct requires certain federal, state, and local government and private fleets to purchase a percentage of light-duty AFVs capable of running on alternative fuels each year. In addition, financial incentives are included in the EPAct. Federal tax deductions are allowed for businesses and individuals to cover the incremental cost of AFVs. States are also required by the act to consider a variety of incentive programs to help promote AFVs. The Energy Policy Act of 2005 provides renewed and expanded tax credits for electricity generated by qualified energy sources, such as landfill gas; provides bond financing, tax incentives, grants, and loan guarantees for clean renewable energy and rural community electrification; and establishes a federal purchase requirement for renewable energy.

STATE

Plans, policies, regulations, and laws established by the State agencies are generally presented in the order in which they were established.

Warren-Alquist Act

The 1974 Warren-Alquist Act established the California Energy Resources Conservation and Development Commission, now known as the California Energy Commission (CEC). The creation of the act occurred as a response to the State legislature's review of studies projecting an increase in statewide energy demand, which would potentially encourage the development of power plants in environmentally sensitive areas. The act introduced State policy for siting power plants to reduce potential environmental impacts and sought to reduce demand for these facilities by directing CEC to develop statewide energy conservation measures to reduce wasteful, inefficient, and unnecessary uses of energy. Conservation measures recommended establishing design standards for energy conservation in buildings, which ultimately resulted in the creation of the Title 24 Building Energy Efficiency Standards (California Energy Code). These standards are updated regularly and remain in effect today. The act additionally directed CEC to coordinate with the Governor's Office of Planning and Research, the California Natural Resources Agency, and other interested parties in ensuring that a discussion of wasteful, inefficient, and unnecessary consumption of energy is included in all CEQA-related environmental documents for projects undergoing environmental review.

Statewide GHG Emission Targets and the Climate Change Scoping Plan

Reducing GHG emissions in California has been the focus of the State government for approximately two decades. GHG emission targets established by the State legislature include reducing statewide GHG emissions to 1990 levels by

2020 (Assembly Bill 32 of 2006) and reducing them to 40 percent below 1990 levels by 2030 (Senate Bill [SB] 32 of 2016). Executive Order S-3-05 calls for statewide GHG emissions to be reduced to 80 percent below 1990 levels by 2050. Executive Order B-55-18 calls for California to achieve carbon neutrality by 2045 and achieve and maintain net negative GHG emissions thereafter. These targets are in line with the scientifically established levels needed in the United States to limit the rise in global temperature to no more than 2 degrees Celsius (°C), the warming threshold at which major climate disruptions, such as super droughts and rising sea levels, are projected; these targets also pursue efforts to limit the temperature increase even further to 1.5 degrees Celsius.

California's 2017 Climate Change Scoping Plan (2017 Scoping Plan), prepared by CARB, outlines the main strategies California will implement to achieve the legislated GHG emission target for 2030 and "substantially advance toward our 2050 climate goals" (CARB 2017). It identifies the reductions needed by each GHG emission sector (e.g., transportation, industry, electricity generation, agriculture, commercial and residential, pollutants with high global warming potential, and recycling and waste). CARB and other State agencies also released the *January 2019 Draft California 2030 Natural and Working Lands Climate Change Implementation Plan* consistent with the carbon neutrality goal of Executive Order B-55-18 (CalEPA et al. 2019).

On September 16, 2022, the state legislature passed AB 1279 which codified stringent emissions targets for the state of achieving carbon neutrality and an 85 percent reduction in 1990 emissions level by 2045. CARB released the *Final 2022 Scoping Plan for Achieving Carbon Neutrality* (2022 Scoping Plan) on November 16, 2022 as also directed by AB 1279 (CARB 2022). The 2022 Scoping Plan traces the pathway for the state to achieve its carbon neutrality and an 85 percent reduction in 1990 emissions goal by 2045 using a combined top down, bottoms up approach using various scenarios. CARB adopted the 2022 Scoping Plan on December 16, 2022.

The State has also passed more detailed legislation addressing GHG emissions associated with transportation, electricity generation, and energy consumption, as summarized below.

Transportation-Related Standards and Regulations

As part of its Advanced Clean Cars program, CARB established more stringent GHG emission standards and fuel efficiency standards for fossil fuel–powered on-road vehicles than EPA. In addition, the program's zero-emission vehicle (ZEV) regulation requires battery, fuel cell, and plug-in hybrid electric vehicles (EVs) to account for up to 15 percent of California's new vehicle sales by 2025 (CARB 2018a). In August 2022, CARB adopted the ACC II program, which sets sales requirements for ZEVs to ultimately reach the goal of 100 percent ZEV sales in the state by 2035.

Executive Order B-48-18, signed into law in January 2018, requires all State entities to work with the private sector to have at least 5 million ZEVs on the road by 2030, as well as 200 hydrogen-fueling stations and 250,000 EV-charging stations installed by 2025. It specifies that 10,000 of these charging stations must be direct-current fast chargers.

The Clean Air Act (CAA) requires that a waiver be provided by EPA for states to enact more stringent emissions standards for new cars, which was granted to CARB by EPA on June 14, 2011; however, in addition to the SAFE Rule, but as a separate action, on September 19, 2019, EPA issued a final action entitled the "One National Program Rule," which would institute a nationwide, uniform fuel economy and GHG standard for all automobiles and light-duty trucks. The action would include the revocation of California's waiver under the CAA, which would affect the enforceability of CARB's ZEV programs. Although EPA has issued an action to revoke the waiver, the outcome of any related lawsuits and how such lawsuits could delay or affect the SAFE Rule implementation or CARB's ZEV programs is unknown at this time.

CARB adopted the Low Carbon Fuel Standard (LCFS) in 2007 to reduce the carbon intensity (CI) of California's transportation fuels. Low-CI fuels emit less CO_2 than other fossil fuel–based fuels, such as gasoline and fossil diesel. The LCFS applies to fuels used by on-road motor vehicles and off-road vehicles, including construction equipment (Wade, pers. comm., 2017).

In addition to regulations that address tailpipe emissions and transportation fuels, the State legislature has passed regulations to address the amount of driving by on-road vehicles. Since passage of SB 375 in 2008, CARB requires metropolitan planning organizations (MPOs) to develop and adopt sustainable community strategies as a component of the federally prepared regional transportation plans to show reductions in GHG emissions from passenger cars and

light-duty trucks in their respective regions for 2020 and 2035. These plans link land use and housing allocation to transportation planning and related mobile-source emissions. The Sacramento Area Council of Governments (SACOG) serves as the MPO for Sacramento, Placer, El Dorado, Yuba, Sutter, and Yolo Counties, excluding those lands located in the Tahoe Basin. The Project site is in Sacramento County. Under SB 375, SACOG adopted a Metropolitan Transportation Plan/Sustainable Communities Strategy 2035 (MTP/SCS) in 2016. SACOG was tasked by CARB to achieve a 7-percent-per-capita reduction compared to 2012 emissions by 2020 and a 16-percent-per-capita reduction by 2035, both of which CARB confirmed the region would achieve by implementing the MTP/SCS (CARB 2016b). In March 2018, CARB promulgated revised targets tasking SACOG to achieve a 7-percent and a 19-percent-per-capita reduction by 2020 and 2035, respectively (CARB 2018b). SACOG completed and adopted its most recent 2020 MTP/SCS in November 2019 (SACOG 2019).

Legislation Associated with Electricity Generation

The State has passed legislation requiring the increasing use of renewables to produce electricity for consumers. California's Renewable Portfolio Standard Program was established in 2002 (SB 1078) with the initial requirement to generate 20 percent of utilities' electricity from renewables by 2017, 33 percent by 2020 (SB X1-2 of 2011), 52 percent by 2027 (SB 100 of 2018), 60 percent by 2030 (also SB 100 of 2018), and 100 percent by 2045 (also SB 100 of 2018).

Building Energy Efficiency Standards (Title 24, Part 6)

The energy consumption of new residential and nonresidential buildings in California is regulated by the California Energy Code. The code was established by CEC in 1978 in response to a legislative mandate to create uniform building codes to reduce California's energy consumption and provide energy-efficiency standards for residential and nonresidential buildings. CEC updates the California Energy Code every 3 years, typically including more stringent design requirements for reduced energy consumption, which results in the generation of fewer GHG emissions.

The 2019 California Energy Code was adopted by CEC on May 9, 2018, and applies to projects constructed after January 1, 2020. CEC estimates that the combination of required energy-efficiency features and mandatory solar panels in the 2019 California Energy Code will result in new residential buildings that use 53 percent less energy than those designed to meet the 2016 California Energy Code. CEC also estimates that the 2019 California Energy Code will result in new commercial buildings that use 30 percent less energy than those designed to meet the 2016 standards, primarily through the transition to high-efficacy lighting (CEC 2018). The 2022 California Energy Code goes into effect on January 1, 2023. The 2022 California Energy Code advances the onsite energy generation progress started in the 2019 California Energy Code by encouraging electric heat pump technology and use, establishing electric-ready requirements when natural gas is installed, expanding solar PV system and battery storage standards, and strengthening ventilation standards to improve indoor air quality. CEC estimates that the 2022 California Energy Code will save consumers $1.5 billion and reduce GHGs by 10 million metric tons of carbon dioxide-equivalent over the next 30 years (CEC 2021).

California Green Building Standards (Title 24, Part 11)

The California Green Building Standards, also known as CALGreen, is a reach code (i.e., optional standards that exceed the requirements of mandatory codes) developed by CEC that provides green building standards for statewide residential and nonresidential construction. The current version is the 2019 CALGreen Code, which took effect on January 1, 2020. As compared to the 2016 CALGreen Code, the 2019 CALGreen Code strengthened sections pertaining to EV and bicycle parking, water efficiency and conservation, and material conservation and resource efficiency, among other sections of the CALGreen Code. The CALGreen Code sets design requirements equivalent to or more stringent than those of the California Energy Code for energy efficiency, water efficiency, waste diversion, and indoor air quality. These codes are adopted by local agencies that enforce building codes and used as guidelines by State agencies for meeting the requirements of Executive Order B-18-12.

LOCAL

Sacramento Metropolitan Air Quality Management District

SMAQMD is the primary agency responsible for addressing air quality concerns in all of Sacramento County. Its role is discussed further in Section 3.2, "Air Quality," of this Draft EIR. SMAQMD also recommends methods for analyzing project-generated GHG emissions in CEQA analyses and offers multiple potential GHG reduction measures for land use development projects. SMAQMD has developed thresholds of significance to provide a uniform scale to measure the significance of GHG emissions from construction activities, and operation of land use and stationary source projects in compliance with CEQA (SMAQMD 2021).

City of Elk Grove General Plan

The City's current General Plan was amended in 2021. The General Plan goals, policies, and standards are based on the General Plan Vision Statement and supporting principles. The City of Elk Grove General Plan contains the following policies and standards related to climate change, which apply to the Project (City of Elk Grove 2021):

- **Policy NR-5-2**: Improve the health and sustainability of the community through improved regional air quality and reduction of greenhouse gas emissions that contribute to climate change.
- **Policy NR-6-1:** Promote energy efficiency and conservation strategies to help residents and businesses save money and conserve valuable resources.
- **Policy NR-6-3:** Promote innovation in energy efficiency.
- **Policy NR-6-5:** Promote energy conservation measures in new development to reduce on-site emissions and seek to reduce the energy impacts from new residential and commercial projects through investigation and implementation of energy efficiency measures during all phases of design and development.
- **Policy NR-6-6:** Encourage renewable energy options that are affordable and benefit all community members.
- **Policy NR-6-7:** Encourage the use of solar energy systems in homes, commercial businesses, and City facilities as a form of renewable energy.
- **Policy H-2-3:** Support energy-conserving programs in the production and rehabilitation of affordable housing to reduce household energy costs, improve air quality, and mitigate potential impacts of climate change in the region.
- **Policy ER-6-11:** Seek to provide the community with information relating to sustainability, climate change, and innovative development strategies.

City of Elk Grove Climate Action Plan

The City Climate Action Plan 2019 Update (CAP), adopted in February 2019 and amended in December 2019 by the City, was incorporated into the current General Plan (discussed above). The CAP includes GHG emission reduction targets, strategies, and implementation measures developed to help the City reach these targets. Reduction strategies address GHG emissions associated with transportation and land use, energy, water, waste management and recycling, agriculture, and open space. Through the deployment of measures included in the CAP, as well as reductions achieved by statewide regulatory schemes, consistent with direction from SB 32, the City would achieve a per capita emissions target of 4.1 metric tons of carbon dioxide equivalent ($MTCO_2e$) per year by 2030; however, based on projections within the CAP, the City would be expected to reduce per capita emissions to 3.0 $MTCO_2e$ per year by 2050, which exceeds the State's 2050 reduction target of 1.4 $MTCO_2e$ per year (City of Elk Grove 2019:4-3). As discussed in the CAP, "additional technological advances across multiple sectors would be required to reduce emissions further, combined with additional regulatory actions at the State or federal levels." Further, the City "would identify new or modified GHG reduction measures that would achieve longer-term, post-2030 targets that may be set by the State or others in the future" (City of Elk Grove 2019:5.7-37). The City is planning to update the CAP to be consistent with the CARB 2022 Scoping Plan.

3.5.2 Environmental Setting

THE PHYSICAL SCIENTIFIC BASIS OF GREENHOUSE GAS EMISSIONS, CLIMATE CHANGE, AND ENERGY

Certain gases in the earth's atmosphere, classified as GHGs, play a critical role in determining the earth's surface temperature. Solar radiation enters the atmosphere from space. A portion of the radiation is absorbed by the earth's surface, and a smaller portion of this radiation is reflected toward space. The absorbed radiation is then emitted from the earth as low-frequency infrared radiation. Most solar radiation passes through GHGs; however, infrared radiation is absorbed by these gases. As a result, radiation that otherwise would have escaped back into space is instead "trapped," resulting in a warming of the atmosphere. This phenomenon, known as the greenhouse effect, is responsible for maintaining a habitable climate on earth.

Prominent GHGs contributing to the greenhouse effect are CO_2, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. Human-caused emissions of these GHGs in excess of natural ambient concentrations are found to be responsible for intensifying the greenhouse effect and leading to a trend of unnatural warming of the earth's climate, known as global climate change or global warming. It is "extremely likely" that more than half of the observed increase in global average surface temperature from 1951 to 2010 was caused by the anthropogenic increase in GHG concentrations and other anthropogenic forcing (IPCC 2014).

Climate change is a global problem. GHGs are global pollutants, unlike criteria air pollutants and toxic air contaminants, which are pollutants of regional and local concern. Whereas most pollutants with localized air quality effects have relatively short atmospheric lifetimes (approximately 1 day), GHGs have long atmospheric lifetimes (1 year to several thousand years). GHGs persist in the atmosphere long enough to be dispersed around the globe. Although the lifetime of any GHG molecule depends on multiple variables and cannot be determined with any certainty, it is understood that more CO_2 is emitted into the atmosphere than is sequestered by ocean uptake, vegetation, and other forms of sequestration. Of the total annual human-caused CO_2 emissions, approximately 55 percent are estimated to be sequestered through ocean and land uptake every year, averaged over the last 50 years, whereas the remaining 45 percent of human-caused CO_2 emissions remain stored in the atmosphere (IPCC 2013).

The quantity of GHGs in the atmosphere responsible for climate change is not precisely known, but it is considered to be enormous. No single project alone would measurably contribute to an incremental change in the global average temperature or to global or local climates or microclimates. From the standpoint of CEQA, GHG impacts relative to global climate change are inherently cumulative.

GREENHOUSE GAS EMISSION SOURCES

As discussed previously, GHG emissions are attributable in large part to human activities. The total GHG inventory for California in 2019 was 418 million metric tons of carbon dioxide equivalent ($MMTCO_2e$) (CARB 2021). This is less than the 2020 target of 431 $MMTCO_2e$ (CARB 2021).

A GHG inventory for the City is provided in the City's CAP and summarized in Table 3.5-1. As shown below, on-road vehicles and residential, commercial, and industrial energy consumption constitute the greatest sources of emissions.

As shown in Table 3.5-1, the on-road vehicle and residential energy sectors are the largest GHG emission sectors in the City.

Emissions of CO_2 are byproducts of fossil fuel combustion. Methane, a highly potent GHG, primarily results from off-gassing (the release of chemicals from nonmetallic substances under ambient or greater pressure conditions) and is largely associated with agricultural practices, landfills, and forest fires. Nitrous oxide is also largely attributable to agricultural practices and soil management. CO_2 sinks, or reservoirs, include vegetation and the ocean, which absorb CO_2 through sequestration and dissolution (CO_2 dissolving into the water) and are two of the most common processes for removing CO_2 from the atmosphere.

Table 3.5-1 City of Elk Grove's Greenhouse Gas Emissions Inventory for 2013 and Business-as-Usual Forecast Years ($MTCO_2e$)

Emissions Sector	2013	2020	2030	2050
On-Road Vehicles	730,340	645,542	844,317	1,241,867
Residential Energy	231,400	257,171	310,017	413,560
Commercial/Industrial Energy	129,860	147,685	196,037	293,532
Off-Road Vehicles	93,340	102,776	123,896	165,275
Solid Waste	26,260	36,181	39,817	47,781
Wastewater	3,854	4,283	5,163	6,888
Water-Related	2,708	3,010	3,628	4,840
Agriculture	1,030	2,585	1,061	299
Total	918,790	1,199,232	1,523,936	2,174,042

Notes: Totals may not equal the sum of the numbers because of independent rounding.

$MTCO_2e$ = metric tons of carbon dioxide equivalent.

Source: City of Elk Grove 2019:Appendix B.

EFFECTS OF CLIMATE CHANGE ON THE ENVIRONMENT

According to the Intergovernmental Panel on Climate Change, which was established in 1988 by the World Meteorological Organization and the United Nations Environment Programme, global average temperature will increase by 3.7 to 4.8 degrees °C (6.7 to 8.6 degrees Fahrenheit [°F]) by the end of the century unless additional efforts to reduce GHG emissions are made (IPCC 2014:10). According to *California's Fourth Climate Change Assessment*, with global GHGs reduced at a moderate rate, California will experience average daily high temperatures that are warmer than the historic average by 2.5 °F from 2006 to 2039, by 4.4 °F from 2040 to 2069, and by 5.6 °F from 2070 to 2100, and if GHG emissions continue at current rates, then California will experience average daily high temperatures that are warmer than the historic average by 2.7 °F from 2006 to 2039, by 5.8 °F from 2040 to 2069, and by 8.8 °F from 2070 to 2100 (OPR et al. 2018).

Since its previous climate change assessment in 2012, California has experienced several of the most extreme natural events in its recorded history: a severe drought from 2012–2016, an almost nonexistent Sierra Nevada winter snowpack in 2014-2015, increasingly large and severe wildfires, and back-to-back years of the warmest average temperatures (OPR et al. 2018). According to California Natural Resource Agency's *Safeguarding California Plan: 2018 Update*, California experienced the driest 4-year statewide precipitation on record from 2012 through 2015; the warmest years on average in 2014, 2015, and 2016; and the smallest and second smallest Sierra snowpack on record in 2015 and 2014. According to the National Oceanic and Atmospheric Administration and the National Aeronautics and Space Administration, 2016, 2017, 2018, 2019, and 2020 were the hottest recorded years in history (NOAA 2022). In contrast, the northern Sierra Nevada experienced one of its wettest years on record during the 2016/2017 water year. The changes in precipitation exacerbate wildfires throughout California through a cycle of high vegetative growth coupled with dry, hot periods, which lower the moisture content of fuel loads. As a result, the frequency, size, and devastation of forest fires have increased. In November 2018, the Camp Fire completely destroyed the town of Paradise in Butte County and caused 85 fatalities, becoming the state's deadliest fire in recorded history, and the largest fires in the state's history have occurred in the 2018–2020 period. Moreover, changes in the intensity of precipitation events following wildfires can also result in devastating landslides. In January 2018, following the Thomas Fire, 0.5 inch of rain fell in 5 minutes in Santa Barbara, causing destructive mudslides formed from the debris and loose soil left behind by the fire, which caused 21 fatalities.

As temperatures increase, the amount of precipitation falling as rain rather than snow also increases, which could lead to increased flooding because water that would normally be held in the snowpack of the Sierra Nevada and Cascade Range until spring would flow into the Central Valley during winter rainstorm events. This scenario would

place more pressure on California's levee/flood control system (CNRA 2018). Furthermore, in the extreme scenario involving the rapid loss of the Antarctic ice sheet and the glaciers atop Greenland, the sea level along California's coastline is expected to rise 54 inches by 2100 if GHG emissions continue at current rates (OPR et al. 2018).

Temperature increases and changes to historical precipitation patterns will likely affect ecological productivity and stability. Existing habitats may migrate from climatic changes where possible, and those habitats and species that lack the ability to retreat will be severely threatened. Altered climate conditions will also facilitate the movement of invasive species to new habitats, where they will outcompete native species. Altered climatic conditions dramatically endanger the survival of arthropods (e.g., insects, spiders), which could have cascading effects throughout ecosystems (Lister and Garcia 2018). Conversely, a warming climate may support the populations of other insects, such as ticks and mosquitos, which transmit diseases harmful to human health, such as the Zika virus, West Nile virus, and Lyme disease (European Commission Joint Research Centre 2018).

Changes in temperature, precipitation patterns, extreme weather events, wildfires, and sea-level rise have the potential to threaten transportation and energy infrastructure, crop production, forests and rangelands, and public health (CNRA 2018; OPR et al. 2018). The effects of climate change will also have an indirect adverse impact on the economy as more severe natural disasters cause expensive, physical damage to communities and the state.

Additionally, adjusting to the physical changes associated with climate change can produce mental health impacts, such as depression and anxiety.

ELECTRICITY AND NATURAL GAS USE

Electric services are provided to the City from the Sacramento Municipal Utility District (SMUD). Natural gas is supplied to the City from Pacific Gas and Electric Company (PG&E). See Section 3.12, "Utilities and Service Systems," for more detailed information on electrical and natural gas infrastructure specifically serving the Project area.

California relies on a regional power system composed of a diverse mix of natural gas, renewable, hydroelectric, and nuclear generation resources. One-third of the energy consumed in California is natural gas. In 2019, approximately 43 percent of the natural gas consumed in the state was used to generate electricity. Large hydroelectric resources powered approximately 17 percent of the electricity used, and renewable energy from solar, wind, small hydroelectric, geothermal, and biomass combustion totaled 32 percent (CEC 2021).

In 2020, SMUD provided its customers with 34-percent eligible renewable energy (i.e., biomass combustion, geothermal, small-scale hydroelectric, solar, and wind) and 29 percent and 35 percent from large-scale hydroelectric and natural gas, respectively (SMUD 2021). The contribution of in- and out-of-state power plants depends on the precipitation that occurred in the previous year, the corresponding amount of hydroelectric power that is available, and other factors. SMUD is the primary electricity and natural gas service provider in Sacramento County.

The proportion of SMUD-delivered electricity generated from eligible renewable energy sources is anticipated to increase over the next three decades to comply with the SB 100 goals described in Section 3.5.1.

ENERGY USE FOR TRANSPORTATION

In 2019, the transportation sector was the largest end-use sector of energy in the state, totaling 39.3 percent, followed by the industrial sector at 23.2 percent, the commercial sector at 18.8 percent, and the residential sector at 18.7 percent (EIA 2022). On-road vehicles use about 90 percent of the petroleum consumed in California. CEC reported retail sales of 600 million and 41 million gallons of gasoline and diesel, respectively, in Sacramento County in 2019 (the most recent data available) (CEC 2020). The California Department of Transportation projects that 996 million gallons of gasoline and diesel will be consumed in Sacramento County in 2030 (Caltrans 2008).

3.5.3 Impacts and Mitigation Measures

METHODOLOGY

Greenhouse Gas Emissions

GHG emissions associated with the Project would be generated during Project construction and during operation after the Project is built. Estimated levels of construction- and operation-related GHG emissions are presented below. The Project is evaluated for its consistency with adopted regulations, plans, and policies aimed at reducing GHG emissions, including the 2017 Scoping Plan, SACOG's adopted MTP/SCS, and the City of Elk Grove General Plan and CAP, as well as the most recent guidance provided by SMAQMD.

The analysis in this section is consistent with the recommendations of SMAQMD's *Guide to Air Quality Assessment in Sacramento County* presented in Chapter 6, "Greenhouse Gas Emissions" (SMAQMD 2021). The analysis primarily focuses on the extent to which the Project would conflict with a plan for reduction of GHG emissions as defined by CEQA Guidelines Section 15183.5. Both short-term construction emissions and long-term operational emissions were calculated using the California Emissions Estimator Model (CalEEMod), version 2016.3.2, computer program, which constituted the most recent version of the CalEEMod computer program at the date of release of the NOP.

SMAQMD recommends that construction emissions be estimated for project-level emissions and compared to a bright-line significance threshold of significance of 1,100 $MTCO_2e$ per year. Construction of the Project is anticipated to occur over 7 months. Emissions were estimated for off-road equipment and haul trucks based on data provided by the Project applicant.

With respect to operational emissions, mobile source emissions were estimated using Project-estimated annual vehicle miles traveled (VMT) derived from the traffic study prepared for the Project (see Section 3.11, "Transportation"). EPA EGrid AP42 tables were used to calculate emissions from the asphalt plant, silo filling and loading, and hot-mix asphalt handling. Emissions from the hot oil heater were estimated based on the South Coast Air Quality Management District default emissions factors for natural gas combustion.

Additionally, a CAP consistency analysis has been prepared. The City updated its CAP in 2019. The CAP update is intended to carry out the 2021 General Plan goals and policies to reduce GHG emissions and address the impacts of climate change. The City's GHG emissions inventory and forecasts have been updated to reflect new activity data and both current and projected population, housing, and employment demographic information consistent with the General Plan. The CAP update includes new GHG emissions reduction targets of 7.6 $MTCO_2e$ per capita by 2020, and 4.1 $MTCO_2e$ per capita by 2030. These targets are consistent with guidance provided to local governments in the 2017 Scoping Plan on setting plan-level GHG reduction goals that are consistent with the State's efforts to achieve the 2030 target established by SB 32. Consistency with the 2019 CAP is evaluated in this analysis.

Detailed model assumptions and inputs for these calculations are presented in Appendix B.

Energy

Energy consumed by the Project during construction and operation would include gasoline and diesel fuel, measured in gallons. Fuel use estimates were calculated using the mobile-source emissions factors generated using CARB's EMFAC 2017 program and the estimated level of vehicle miles travelled (VMT) associated with the Project.

Refer to Appendix B for detailed assumptions and modeling results.

THRESHOLDS OF SIGNIFICANCE

Greenhouse Gas Emissions

State CEQA Guidelines Section 15064 and relevant portions of Appendix G recommend that a lead agency consider a project's consistency with relevant, adopted plans and discuss any inconsistencies with applicable regional plans,

including plans to reduce GHG emissions. Under Appendix G of the State CEQA Guidelines, implementing a project would result in a cumulatively considerable contribution to climate change if it would:

- generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment, or
- conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of GHGs.

The City of Elk Grove CAP includes several GHG measures that may reduce GHG emissions in the City from new development. The CAP's accompanying checklist may be used by project applicants to streamline climate change analyses during the environmental review process. However, CAPs are not generally applicable to stationary source projects, but rather are more applicable to land use development projects. Stationary sources are defined as point sources of pollution that are regulated by air districts and the California Air Resources Board through the permitting process and the Cap-and-Trade Program. Examples of stationary sources of pollution include, but are not limited to, manufacturing and processing facilities, wastewater treatment plants, and oil and gas extraction and refining facilities. Because the Project is considered a stationary source project that does not uniformly align with the GHG reduction measures of the City's CAP, SMAQMD guidance for evaluating GHG significance will be applied. Nevertheless, the applicable energy-related goals and policies of the CAP are used to address the project's potential energy projects (see Thresholds of Significance discussion below under the heading, "Energy").

SMAQMD, along with a committee of other regional air districts, has issued guidance for addressing GHG emissions in CEQA documents. The guidance outlines a numeric threshold for construction activities of 1,100 $MTCO_2e$ per year, which has been adopted by SMAQMD. Accordingly, annual construction emissions would be considered significant if they exceeded 1,100 $MTCO_2e$ per year.

SMAQMD has also adopted a bright-line threshold of significance for assessing impacts from stationary sources of pollution in Sacramento County of 10,000 $MTCO_2e$ per year. This emissions level is derived from the reporting requirements of the State's Cap-and-Trade Program, which targets emissions from the largest sources of GHGs and air pollution in the state. The State's Cap-and-Trade Program continues to be instrumental in assisting the State in meeting its long-term GHG reduction goals as set forth by AB 1279 (i.e., carbon neutrality and an 80 percent reduction in 1990 level GHG emissions by 2045) as identified in the 2022 Scoping Plan; therefore, SMAQMD's stationary source bright-line threshold can be applied to the project to demonstrate consistency with the 2022 Scoping Plan. The Project is not a land use development project and is characterized as a stationary source of GHGs. Therefore, the Project's operational emissions will be compared to SMAQMD's threshold of significance of 10,000 $MTCO_2e$ per year.

Based on these parameters, the Project would have a significant impact on climate change if it would:

- generate GHG emissions during construction that would exceed 1,100 $MTCO_2e$ per year or
- generate GHG emissions during operation that would exceed 10,000 $MTCO_2e$ per year,

Energy

The thresholds of significance were developed in consideration of the State CEQA Guidelines and other applicable policies and regulations. SMAQMD has not adopted a numerical threshold of significance for assessing energy impacts, nor has the State CEQA Guidelines adopted or endorsed any such numerical threshold.

The City of Elk Grove CAP includes several measures that promote energy efficiency and renewable energy for projects located in the City. In conjunction with adopting the CAP, the City developed a CAP Consistency Checklist (Checklist) to assess project consistency with its CAP. The Checklist provides a streamlined review process for new projects that are subject to discretionary review that triggers environmental review. Based on the criteria found in Appendix G and Appendix F of the CEQA Guidelines and the contents of the City's CAP and Checklist, the Project would have a significant impact on energy resources if it would:

- result in the wasteful, inefficient, or unnecessary consumption of energy during Project construction or operation, or
- conflict with or obstruct implementation of energy measures in the City of Elk Grove's CAP.

ISSUES NOT DISCUSSED FURTHER

All issues related to GHG emissions and energy have been evaluated in this analysis.

ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Impact 3.5-1: Generate GHG Emissions in Exceedance of Thresholds

Construction of the Project would generate 125 $MTCO_2e$ over seven months, which is below SMAQMD's 1,100 $MTCO_2e$ per year threshold of significance for evaluating construction-related climate change impacts. Additionally, operation of the Project would generate 5,575 $MTCO_2e$ per year, which is also below SMAQMD's bright-line threshold of significance (for evaluating stationary sources of GHGs in Sacramento County. Because the Project's construction and operational emissions would be below the applicable thresholds of significance of 1,100 $MTCO_2e$ per year and 10,000 $MTCO_2$ per year, respectively, as developed by SMAQMD, the Project would have a **less-than-significant** impact on GHG emissions.

Construction-related activities would generate emissions of GHGs from the operation of off-road equipment, material delivery, worker commute trips, and other miscellaneous activities. Construction activities in the modeling were assumed to occur over 7 months in 2022. Although the project would likely start construction in a later year; however, GHG emissions from construction equipment are anticipated to become progressively less as emissions factors for off-road construction equipment improve and the availability of higher tiered engines increase. For specific construction assumptions and modeling inputs, refer to Appendix B. Based on the modeling performed for the Project, construction of the Project would generate a total of 125 $MTCO_2e$ over seven months. This level of emissions would be below SMAQMD's construction threshold of significance of 1,100 $MTCO_2e$ per year.

Long-term operation of the Project would be generated from the hot-mix asphalt plant, ready mix plant, recycle plant, on-site and off-site haul truck exhaust, and employee-related on-road mobile source trips. Table 3.5-2 summarizes operational emissions from the Project.

Table 3.5-2 Summary of Maximum Operational Emissions of Greenhouse Gas Emissions from the Project (2023)

Emissions Source/Activity	GHG Emissions ($MTCO_2e$)[1]
Asphalt plant	4,548
Off-road mobile equipment	367
Truck travel on-site	110
Truck idling on-site	46
Truck travel off-site	485
Employee travel	19
Electricity	682
Total	5,574
SMAQMD threshold	10,000
Exceeds thresholds?	No

Notes: $MTCO_2e$ = metric tons of carbon dioxide equivalent; SMAQMD = Sacramento Metropolitan Air Quality Management District.

[1] Total values may not sum exactly because of rounding. See Appendix B for detailed input parameters and modeling results.

Source: Modeling performed by Taylor Environmental Services in 2021.

SMAQMD's project thresholds are derived from the minimum reporting requirements of 10,000 $MTCO_2e$ per year as established by the State's Cap-and-Trade Program, which covers emissions of approximately 85 percent of the State's total emissions inventory and is identified as a crucial program to assist the state in meeting it's long-term GHG reduction targets in the 2022 Scoping Plan. Indirect emissions associated with the Project, such as emissions

generated by electricity generation, also would be covered by the Cap-and-Trade Program. For this reason, and because the Project's construction and operational emissions would be below SMAQMD's applicable bright-line thresholds of significance of 1,100 $MTCO_2e$ per year and 10,000 $MTCO_2$ per year, for construction and operation, respectively, the Project's contribution to GHG emissions would be **less than significant** and would not conflict with the 2022 Scoping Plan.

Mitigation Measures

No mitigation is required for this impact.

Impact 3.5-2: Conflict with or Obstruct Implementation of Greenhouse Gas Reduction Measures or Energy Measures in the City of Elk Grove's Climate Action Plan

The Project would be consistent with the relevant greenhouse gas reduction and energy measures from the City of Elk Grove's CAP that pertain to nonresidential development, which includes commercial and industrial land uses. Because the Project would incorporate relevant measures as Project design features, as shown using the City's CAP consistency checklist, the Project would not conflict with or obstruct implementation of the City of Elk Grove's CAP. This impact would be **less than significant**.

As discussed in Section 3.5.1, "Regulatory Setting," the City of Elk Grove adopted its most recent CAP in February 2019 and amended it in December 2019. The CAP includes GHG emission reduction targets, strategies, and implementation measures developed to help the City reach these targets. Reduction strategies address GHG emissions associated with transportation and land use, water, waste management and recycling, agriculture, open space, and energy. To assess whether the Project would conflict with implementation of the City's CAP, the City of Elk Grove Climate Action Plan Consistency Review Checklist (City's Checklist), has been used to determine whether the Project would be consistent with relevant measures. The City's Checklist, in conjunction with the CAP, provides a streamlined review process for proposed new development projects that are subject to discretionary review that triggers environmental review pursuant to CEQA. The CAP is a plan for the reduction of GHG emissions in accordance with CEQA Guidelines Section 15183.5. Pursuant to CEQA Guidelines Sections 15064(h)(3), 15130(d), and 15183(b), a project's incremental contribution to cumulative GHG emissions may be determined to be less than significant if it complies with the applicable measures in a "plan for the reduction of GHG emissions" (e.g., CAP). Under these provisions, if a project can show consistency with applicable GHG reduction measures, the level of analysis for the project required under CEQA with respect to GHG emissions can be reduced considerably (i.e., a detailed analysis of project-level GHG emissions and potential climate change impacts is not needed). The Checklist is provided in Appendix B.

The first step in determining CAP consistency for a discretionary development project is to assess the project's consistency with the land use designations in the City's General Plan and zoning districts of EGMC Title 23, which were used to calculate the future GHG emissions forecasts and targets for the CAP. If a proposed project is consistent with applicable General Plan land use designations and zoning districts, a proposed project may be determined to be within the scope of emissions covered under the CAP. If General land use designations and zoning districts consistency is demonstrated, the project would still need to demonstrate consistency with all applicable measures in the Checklist. Based on this criterion, the project is consistent with the existing General Plan land use designations and zoning districts as an industrial land use.

Section C of the Checklist contains applicable measures from the CAP that could apply to residential and nonresidential development projects. Based on Section C of the Checklist and as incorporated as Project design features, the following measures from the CAP have been included in the Project description:

- **Measure TACM-8. Tier 4 Final Construction Equipment.** Require all construction equipment used in Elk Grove to achieve EPA-rated Tier 4 Final diesel engine standards by 2030 and encourage the use of electrified equipment where feasible. The Project would use Tier 4 Final diesel engines during Project construction for 25 percent of the construction fleet.

- **Measure BE-4. Building Stock: Encourage or Require Green Building Practices in New Construction.** The Project would comply with CALGreen Tier 1 nonresidential standards, including a 15 percent improvement over minimum Title 24 Part 6 Building Energy Efficiency Standards.
- **Measure BE-7. Building Stock: Solar Photovoltaics in New and Existing Residential and Commercial Development.** The Project has demonstrated that future on-site rooftop and solar canopy installations are infeasible and will, therefore, automatically enroll into SMUD's 50 percent renewable energy option as part of SMUD's Greenergy program.

Because the Project would be consistent with applicable measures found in the City's CAP using the Checklist developed by the City; the Project would be consistent with the City's CAP and would not conflict with or obstruct implementation of GHG reduction or energy measures in the CAP. This impact would be **less than significant.**

Mitigation Measures

No mitigation is required for this impact.

Impact 3.5-3: Result in Wasteful, Inefficient, or Unnecessary Consumption of Energy during Project Construction or Operation

The Project would be consistent with the relevant measures from the City of Elk Grove's CAP that pertain to nonresidential development, which includes commercial and industrial land uses. Using the City's CAP consistency checklist (Appendix B), the Project demonstrates consistency with the CAP. Also, the Project would not use energy for construction that would be considered wasteful or unnecessary, as that energy expenditure would facilitate operation of the Project and achievement of Project goals. The Project would be automatically enrolled in the SMUD's Greenergy program, which would provide the Project site with 50 percent renewable energy. For these reasons, the Project's energy consumption would not be considered wasteful, inefficient, or unnecessary. This impact would be **less than significant**.

Most of the Project's construction-related energy consumption would be associated with the use of off-road equipment and the transport of equipment and materials using on-road haul trucks. An estimated 12,000 gallons of gasoline and 78,000 gallons of diesel fuel would be used during construction of the Project (see Appendix B for a summary of construction calculations). The energy needs for Project construction would occur over a 7-month construction period and are not anticipated to require additional capacity or substantially increase peak or base period demands for electricity and other forms of energy. Gasoline and diesel would also be consumed during worker commute trips. Energy would be required to transport demolition waste and excavated materials. The one-time energy expenditure required to construct the Project (spread over the buildout period) would be nonrecoverable. There is no atypical construction-related energy demand associated with the Project. Nonrenewable energy would not be consumed in a wasteful, inefficient, or unnecessary manner when compared to other construction activity in the region. Additionally, on-road gasoline and diesel fuel consumption associated with construction activity would go down every year as the vehicle fleet becomes more fuel-efficient over time.

Implementing the Project would result in the consumption of gasoline and diesel fuel from employees and vendors driving to and from the Project site. In total, the Project would generate vehicle activity that would consume 2,755 and 635 gallons of gasoline and diesel fuel, respectively. This level of gasoline and diesel fuel consumption would facilitate access to the Project site for the manufacturing of asphalt, which is a primary objective of the Project. Additionally, as discussed under Impact 3.5-2 above and Chapter 2, "Project Description," the Project would automatically enroll in SMUD's 50-percent renewable energy option as part of SMUD's Greenergy program. Also, as stated previously, neither the City nor SMAQMD has adopted numerical thresholds of significance for evaluating energy impacts. Therefore, energy consumption would not be considered wasteful, inefficient, or unnecessary. This impact would be **less than significant**.

Mitigation Measures

No mitigation is required for this impact.

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3.6 HAZARDS AND HAZARDOUS MATERIALS

This section describes the potential for existing hazards on the Project site and provides a qualitative evaluation of the Project's potential to create a significant hazard for the public or the environment, conflict with airspace or adopted emergency response plans, or expose people to wildland fires. The analysis presents a summary of relevant regulations and includes a description of the existing environmental conditions related to hazards and hazardous materials, the methods used for assessment, and the potential direct and indirect hazards and hazardous materials impacts of Project implementation. The evaluation provided in this section is based, in part, on review of the Phase I Environmental Site Assessment (ESA) prepared by Haley & Aldrich, Inc., dated March 2020. Section 3.2, "Air Quality," evaluates potential impacts from toxic air contaminant emissions, and Section 3.7, "Hydrology and Water Quality," evaluates potential flooding risks and hazards related to water quality.

No comments regarding hazards and hazardous materials were received in response to the NOP during the public scoping period.

3.6.1 Regulatory Setting

In California, the US Environmental Protection Agency (EPA) has granted most enforcement authority over federal hazardous materials regulations to the California Environmental Protection Agency (CalEPA). In turn, the Hazardous Materials Division of the Sacramento County Environmental Management Department (EMD) has been granted authority by the State to enforce most regulations pertaining to hazardous materials in the City.

FEDERAL

Hazardous Materials Management

Hazardous materials, as defined in the CFR, are listed in 49 CFR 172.101. Applicable regulations are contained mainly in Titles 29, 40, and 49 of the CFR. Management of hazardous materials is governed by the following laws:

- **Toxic Substances Control Act of 1976:** The Toxic Substances Control Act of 1976 (15 US Code [USC] Section 2601 et seq.) regulates the manufacturing, inventory, and disposition of industrial chemicals, including hazardous materials. Section 403 of the Toxic Substances Control Act establishes standards for lead-based paint hazards in paint, dust, and soil.
- **Resource Conservation and Recovery Act of 1976:** The Resource Conservation and Recovery Act of 1976 (RCRA) (42USC 6901 et seq.) established a federal regulatory program for the generation, transport, and disposal of hazardous substances. Under RCRA, EPA regulates the generation, transportation, treatment, storage, and disposal of hazardous substances. RCRA was amended by the Hazardous and Solid Waste Amendments of 1984, which banned the disposal of hazardous waste on land and strengthened EPA's reporting requirements.
- **Comprehensive Environmental Response, Compensation, and Liability Act of 1980:** Also called the Superfund Act, the Comprehensive Environmental Response, Compensation, and Liability Act (42 USC 9601 et seq.) provided broad federal authority and created a trust fund for addressing releases and threatened releases of hazardous substances that could endanger public health or the environment. EPA is responsible for compiling the National Priorities List for known or threatened release sites of hazardous substances, pollutants, or contaminants (commonly referred to as "Superfund sites"). EPA provides oversight of, and supervision for, Superfund investigation/remediation projects, evaluates remediation technologies, and develops hazardous materials disposal restrictions and treatment standards.
- **Superfund Amendments and Reauthorization Act of 1986:** Also called SARA Title III or the Emergency Planning and Community Right-to-Know Act of 1986, the Superfund Amendments and Reauthorization Act (Public Law 99-499; USC Title 42, Chapter 116) imposes hazardous materials planning requirements to help protect local communities in the event of accidental release.

- **Clean Air Act:** Regulations under the Clean Air Act (42 USC 7401 et seq., as amended) are designed to prevent accidental releases of hazardous materials. The regulations require facilities that store a threshold quantity or greater of regulated substances to develop a risk management plan that includes hazard assessments and response programs to prevent accidental releases of listed chemicals.
- **Spill Prevention, Control, and Countermeasure Rule:** The Spill Prevention, Control, and Countermeasure (SPCC) rule includes requirements for oil spill prevention, preparedness, and response to prevent oil discharges to navigable waters and adjoining shorelines. The rule requires specific facilities to prepare, amend, and implement SPCC plans. The SPCC rule is part of the Oil Pollution Prevention regulation, which also includes the Facility Response Plan rule.

Transportation of Hazardous Materials (49 USC 5101 et seq.)

The US Department of Transportation regulates transport of hazardous materials between states and is responsible for protecting the public from dangers associated with such transport. The basic statute regulating transport of hazardous materials in the United States, addressed in 49 USC 5101 et seq. (formerly the Hazardous Materials Transportation Act, 49 USC 1801 et seq.), regulates intrastate and interstate transport by rail car, aircraft, motor vehicle, and vessel and includes requirements related to the appropriate packaging and labeling of the hazardous material for transit. There are registration requirements for individuals that offer and accept hazardous wastes, and hazardous materials must be properly classed, described, packaged, marked, and labeled. Hazardous materials transport regulations are enforced by the Federal Highway Administration, the US Coast Guard, the Federal Railroad Administration, and Federal Aviation Administration.

Occupational Safety and Health Administration Worker Safety Requirements

The Occupational Safety and Health Administration (OSHA) is responsible for ensuring workplace safety. OSHA sets federal standards for implementation of workplace training, exposure limits, and safety procedures for handling hazardous substances and addressing other potential industrial hazards. OSHA also establishes criteria by which each state can implement its own health and safety program. The Hazard Communication Standard (CFR Title 29, Part 1910) requires that workers be informed of the hazards associated with the materials they handle. Workers must be trained in the safe handling of hazardous materials, use of emergency response equipment, and building emergency response plans and procedures. Containers must be labeled appropriately, and material safety data sheets must be available in the workplace.

Clean Water Act

EPA is the lead federal agency responsible for water quality management. The Clean Water Act (CWA) is the primary federal law that governs and authorizes water quality control activities by EPA, as well as the states. Certain elements of the CWA also have co-benefits related to hazards and hazardous materials and are discussed below. A full description of the various elements of the CWA is provided in Section 3.7, "Hydrology and Water Quality."

National Pollutant Discharge Elimination System Permit Program

The National Pollutant Discharge Elimination System (NPDES) permit program was established in the CWA to regulate municipal and industrial discharges to surface waters of the United States. NPDES permit regulations have been established for broad categories of discharges, including point source waste discharges and nonpoint source stormwater runoff. Each NPDES permit identifies limits on allowable concentrations and mass emissions of pollutants contained in the discharge. Sections 401 and 402 of the CWA contain general requirements regarding NPDES permits.

"Nonpoint source" pollution originates over a wide area rather than from a definable point. Nonpoint source pollution often enters receiving water in the form of surface runoff and is not conveyed by way of pipelines or discrete conveyances. Two types of nonpoint source discharges are controlled by the NPDES program: discharges caused by general construction activities and the general quality of stormwater in municipal stormwater systems. The goal of the NPDES nonpoint source regulations is to improve the quality of stormwater discharged to receiving waters to the maximum extent practicable. The regional water quality control boards (RWQCBs) in California are responsible for implementing the NPDES permit system (see the "Porter-Cologne Water Quality Control Act" section, below).

STATE

The Hazardous Waste Control Act

The Hazardous Waste Control Act (Health and Safety Code Section 25100 et seq.) is the seminal hazardous waste control law in California. It establishes standards for regulating the generation, handling, processing, storage, transportation, and disposal of hazardous wastes. The hazardous waste control program is administered by the California Department of Toxic Substances Control (DTSC) and local Certified Unified Program Agencies (CUPAs). Within CalEPA, DTSC is primarily responsible for regulating the generation, transport, and disposal of hazardous substances under the authority of the Hazardous Waste Control Act; enforcement is delegated to local jurisdictions. Regulations implementing the Hazardous Waste Control Act list hazardous chemicals and common substances that may be hazardous; establish criteria for identifying, packaging, and labeling hazardous substances; prescribe hazardous substances management; establish permit requirements for the treatment, storage, disposal, and transportation of hazardous substances; and identify hazardous substances prohibited from landfills. These regulations apply to the protection of human health and the environment during construction.

Unified Hazardous Waste and Hazardous Materials Management Regulatory Program

CalEPA has adopted regulations implementing the Unified Hazardous Waste and Hazardous Materials Management Regulatory Program (Unified Program). The six program elements of the Unified Program are hazardous waste generation and on-site treatment, underground storage tanks (USTs), aboveground storage tanks (ASTs), hazardous material release response plans and inventories, risk management and prevention programs, and Uniform Fire Code hazardous materials management plans and inventories. The program is implemented at the local level by a local agency, referred to as the CUPA, which is responsible for consolidating the administration of the six program elements within its jurisdiction. Sacramento County EMD is the CUPA for Sacramento County and its incorporated cities, including Elk Grove.

Aboveground Petroleum Storage Act

The Aboveground Petroleum Storage Act (APSA) regulates tank facilities that are subject to the federal SPCC rule or tank facilities with an aggregate storage capacity of 1,320 gallons or more of petroleum in aboveground storage containers or tanks with a shell capacity equal to or greater than 55 gallons. The APSA also regulates tank facilities with less than 1,320 gallons of petroleum if they have one or more stationary tanks in an underground area with a shell capacity of 55 gallons or more of petroleum.

Under the APSA, "petroleum" refers to crude oil, or a fraction thereof, that is liquid at 60 degrees Fahrenheit and 14.7 pounds per square inch absolute pressure. Examples of petroleum under the APSA include crude oil, gasoline, diesel, biofuel blends, motor oil, and used oil. Liquefied petroleum gas or propane, liquefied natural gas, hot-mix asphalt, and asphalt cement do not meet the definition of "petroleum" under the APSA. The APSA does not regulate nonpetroleum products.

Emergency Response and Evacuation Plans

The State of California Emergency Plan was adopted on October 1, 2017, and describes how State government mobilizes and responds to emergencies and disasters in coordination with partners in all levels of government, the private sector, nonprofits, and community-based organizations. The plan also works in conjunction with the California Emergency Services Act and outlines a robust program of emergency preparedness, response, recovery, and mitigation for all hazards, both natural and human-caused. All local governments with a certified disaster council are required to develop their own emergency operations plan for their jurisdiction that meet State and federal requirements. Local emergency operations plans contain specific emergency planning considerations, such as evacuation and transportation, sheltering, hazard specific planning, regional planning, public-private partnerships, and recovery planning.

Transportation of Hazardous Materials Regulations

The State of California has adopted US Department of Transportation regulations for the movement of hazardous materials originating within the State and passing through the State; State regulations are contained in 26 CCR. State

agencies with primary responsibility for enforcing State regulations and responding to hazardous materials transportation emergencies are the California Highway Patrol and the California Department of Transportation. Together, these agencies determine container types used and license hazardous waste haulers to transport hazardous waste on public roads.

Emergency Response to Hazardous Materials Incidents

California has developed an emergency response plan to coordinate emergency services provided by federal, State, and local governments and private agencies. Response to hazardous material incidents is one part of this plan. The plan is managed by the California Emergency Management Agency, which coordinates the responses of other agencies, including CalEPA, the California Highway Patrol, the California Department of Fish and Wildlife, and RWQCBs.

California Government Code Section 65962.5 (Cortese List)

The provisions of California Government Code Section 65962.5 are commonly referred to as the "Cortese List" (after the legislator who authored the law). The Cortese List is a planning document used by State and local agencies to comply with CEQA requirements in providing information about the location of hazardous materials release sites. The list, or a site's presence on the list, has bearing on the local permitting process. DTSC is responsible for a portion of the information contained in the Cortese List. Other State and local government agencies in California, such as the State Water Resources Control Board (SWRCB), also must provide additional release information.

Government Code Section 65962.5 requires CalEPA to develop an updated Cortese List at least annually. However, because this statute was enacted more than 20 years ago, some of the provisions refer to agency activities that are no longer being implemented, and in some cases, the information to be included in the Cortese List does not exist. Further, although Government Code Section 65962.5 makes reference to the preparation of a "list," many changes have occurred related to web-based information access since 1992, and this information is now largely available on the internet sites of the responsible organizations. A centralized list is no longer compiled.

California Hazardous Materials Release Response Plans and Inventory Law

The California Hazardous Materials Release Response Plans and Inventory Law requires preparation of Hazardous Materials Business Plans and disclosure of hazardous materials inventories by certain types of businesses. Such plans must describe hazardous materials and hazardous waste management procedures and emergency response procedures, including emergency spill cleanup supplies and equipment, as well as employee training (Health and Safety Code, Division 20, Chapter 6.95, Article 1). The business plan program is administered by the California Emergency Management Agency.

California Accidental Release Prevention Program

The goal of the California Accidental Release Prevention Program (CCR Title 19, Division 2, Chapter 4.5) is to reduce the likelihood and severity of consequences of any releases of extremely hazardous materials. Any business that handles regulated substances (chemicals that pose a major threat to public health and safety or the environment because they are highly toxic, flammable, or explosive, including ammonia, chlorine gas, hydrogen, nitric acid, and propane) must prepare a risk management plan. The risk management plan is a detailed engineering analysis of the potential accident factors present at a business and the measures that can be implemented to reduce this accident potential. The plan must provide safety information, hazard data, operating procedures, and training and maintenance requirements. The list of regulated substances is found in Article 8, Section 2770.5 of the program regulations.

Porter-Cologne Water Quality Control Act

Through the Porter-Cologne Water Quality Control Act and the NPDES program, RWQCBs have the authority to require proper management of hazardous materials during project construction. For a detailed description of the Porter-Cologne Water Quality Control Act, the NPDES program, and the role of the Central Valley RWQCB, see Section 3.7, "Hydrology and Water Quality."

SWRCB adopted the Statewide NPDES General Permit in August 1999. The State requires that projects disturbing more than 1 acre of land during construction file a notice of intent with the RWQCB to be covered under this permit.

Construction activities subject to the general permit include clearing, grading, stockpiling, and excavating. Dischargers are required to eliminate or reduce nonstormwater discharges to storm sewer systems and other waters. A stormwater pollution prevention plan must be developed and implemented for each site covered by the permit. The plan must identify best management practices (BMPs) designed to prevent construction pollutants from contacting stormwater and keep products of erosion from moving off-site into receiving waters throughout the construction and life of the project; the BMPs must address source control and, if necessary, pollutant control.

California Occupational Safety and Health Administration Worker Safety Requirements

The California Occupational Safety and Health Administration (Cal/OSHA) assumes primary responsibility for developing and enforcing workplace safety regulations in California. Cal/OSHA regulations for the use of hazardous materials in the workplace (CCR Title 8) require safety training, available safety equipment, accident and illness prevention programs, hazardous substance exposure warnings, and preparation of emergency action and fire prevention plans. Cal/OSHA enforces regulations on hazard communication programs and mandates specific training and information requirements. These requirements include procedures for identifying and labeling hazardous substances, providing hazard information about hazardous substances and their handling, and preparing health and safety plans to protect workers and employees at hazardous waste sites. Employers must make material safety data sheets available to employees and document employee information and training programs.

California Fire Code

The California Fire Code (CFC) is Chapter 9 of CCR Title 24. It is the primary means for authorizing and enforcing procedures and mechanisms to ensure the safe handling and storage of any substance that may pose a threat to public health and safety. The CFC regulates the use, handling, and storage requirements for hazardous materials at fixed facilities. The CFC and the California Building Code use a hazard classification system to determine what protective measures are required to protect life and provide fire safety. These measures may include applying construction standards, requiring separation between structures and property lines, and using specialized equipment. To ensure that these safety measures are met, the CFC employs a permit system based on hazard classification. The CFC is updated every 3 years.

California Code of Regulations, Section 5204, Occupational Exposures to Respirable Crystalline Silica

Section 5204 of the CCR applies to all occupational exposures to respirable crystalline silica and includes standards adopted to protect workers from the health effects of silica, such as those found in concrete. These standards cover all general industries except agriculture, which is exempt from the general industry standard. The general industry standards became effect on June 23, 2018.

LOCAL

Sacramento County Environmental Management Department

Sacramento County EMD is responsible for promoting a safe and healthy environment in Sacramento County and enforcing hazardous waste laws and regulations at a local level. As the local CUPA, Sacramento County EMD oversees the proper use, storage, and cleanup of hazardous materials; monitoring wells; removal of leaky USTs; and permits for the collection, transport, use, or disposal of refuse. Sacramento County EMD's hazardous materials business plan program, which is administered throughout Sacramento County and its incorporated cities, is an element of the county's CUPA program. Businesses are required to prepare and submit a hazardous materials business plan for safe storage and use of chemicals above reportable quantities (55 gallons for liquids, 500 pounds for solids and 200 cubic feet for compressed gases).

The Sacramento County EMD is also responsible for implementation, enforcement, and administration of the APSA program throughout the county and its incorporated cities. The APSA program is an element within the CUPA program and is intended to protect public health, the environment and groundwater from potential contamination or adverse effects associated with unintended releases from the aboveground storage of petroleum-based hazardous

materials and wastes. All facilities that have ASTs (including 55-gallon drums) within an aggregate storage capacity of 1,320 gallons or greater of petroleum are subject to the APSA.

Sacramento County Evacuation Plan

The Sacramento County Evacuation Plan is developed as an annex to the Sacramento County 2008 All-Hazards Emergency Operations Plan. The purpose of this evacuation plan is to document the agreed-upon strategy for the county's response to emergencies that involve the evacuation of persons from an affected area to a safe area. This involves coordination and support for the safe and effective evacuation of the general population and for those who need additional support to evacuate. Focus areas detailed in the evacuation plan include public alert and warning, transportation, and care and shelter.

Primary evacuation routes are established for each of the seven Sacramento County sheriff districts. These include major interstates, highways, and prime arterials in Sacramento County. Local jurisdictions will work with the county, and especially the Operations Section, Law Enforcement Branch, and the Evacuation Movement Unit, to identify and update evacuation routes and evacuation transfer points. The primary evacuation routes usually will be major interstates and other highways, and major roadways within and out of the county, unless otherwise determined by the Sacramento County Department of Transportation. During an evacuation, Sacramento County Department of Transportation traffic engineers would be able to quickly calculate traffic flow capacity and decide which of the available traffic routes should be used to move people in the correct directions. In many cases, the traffic engineers will need to reevaluate and recalculate best traffic routes based on situational data. Interstate 5, which is located immediately west of the Project site, is identified as a key evacuation route.

Sacramento County Local Hazard Mitigation Plan

The City participates in the multijurisdictional Sacramento County Local Hazard Mitigation Plan (LHMP), last updated in 2021. The purpose of the plan is to guide hazard mitigation planning to better protect the people and property of the county from the effects of hazard events, such as flood, drought, earthquake, and severe weather. This plan also ensures that Sacramento County and participating jurisdictions, including the City, continue to be eligible for federal disaster assistance, including the Federal Emergency Management Agency's Hazard Mitigation Grant Program, Pre-Disaster Mitigation Program, and Flood Mitigation Assistance Program. The LHMP provides policies and programs for participating jurisdictions to implement that reduce the risk of hazards and protect public health, safety, and welfare.

City of Elk Grove Emergency Operations Plan

The City's Emergency Operations Plan (EOP) provides a strategy for the City to coordinate and conduct emergency response. The EOP establishes an Emergency Management Organization and assigns functions and tasks consistent with California's Standardized Emergency Management System and the National Incident Management System. The intent of the EOP is to provide direction on how to respond to an emergency from the initial onset, through an extended response, and into the recovery process. The EOP integrates and coordinates the planning efforts of multiple jurisdictions. This plan was reviewed and approved by representatives from each City department, local special districts with emergency services responsibilities in the City, and the Sacramento County Office of Emergency Services. The content is based on guidance approved and provided by the State of California, Federal Emergency Management Agency, and US Department of Homeland Security.

Cosumnes Community Services District Fire Department

The Cosumnes Community Services District (CCSD) Fire Department provides emergency services such as fire suppression, emergency medical services, technical rescue, and arson and explosion investigations in a 157-square-mile service area covering Elk Grove, Galt, and a portion of unincorporated southern Sacramento County.

City of Elk Grove General Plan

The City's current General Plan was amended in 2021. The General Plan goals, policies, and standards are based on the General Plan Vision Statement and supporting principles. The City of Elk Grove General Plan contains the following policies and actions related to hazards and hazardous materials that apply to the Project (City of Elk Grove 2021).

- **Policy EM-1-1:** Seek to maintain acceptable levels of risk of injury, death, and property damage resulting from reasonably foreseeable safety hazards.
- **Policy ER-1-1:** In considering the potential impact of hazardous facilities on the public and/or adjacent or nearby properties, the City will consider the hazards posed by reasonably foreseeable events. Evaluation of such hazards will address the potential for events at facilities to create hazardous physical effects at off-site locations that could result in death, significant injury, or significant property damage. The potential hazardous physical effects of an event need not be considered if the occurrence of an event is not reasonably foreseeable as defined in Policy ER-1-2. Hazardous physical effects shall be determined in accordance with Policy ER-1-3.
- **Policy ER-1-2:** For the purpose of implementing Policy ER-1-1, the City considers an event to be "reasonably foreseeable" when the probability of the event occurring is as indicated in Table 8-1 [shown as Table 3.6-1 below].

Table 3.6-1 Acceptable Probability of Reasonably Foreseeable Risks to Individuals by Land Use

Land Use	Risk of Death over 265 Days of Exposure
Agriculture, Light Industrial and Industrial Uses involving continuous access and the presence of limited number of people but easy evacuation, e.g., open space, warehouses, manufacturing plants	Between 100 in one million and 10 in one million (10^{-4} to 10^{-5})
Commercial Uses involving continuous access but easy evacuation, e.g., commercial uses, offices	Between 10 in one million and 1 in one million (10^{-5} to 10^{-6})
Residential All other land uses without restriction including institutional uses, residential areas, etc.	1 in one million and less (10^{-6})

- **Policy ER-1-3:** For the purpose of implementing Policy ER-1-1, use the Threshold of Exposure standards shown in Table 8-2 [shown as Table 3.6-2 below] to determine the potential "hazardous physical effect" from either:

  (a) Placing a use near an existing hazardous facility which could expose the new use to hazardous physical effects, or

  (b) Siting a hazardous facility that could expose other nearby uses to hazardous physical effects.

  Reasonably foreseeable level of risk standards may be considered by the City when supported by substantial evidence.

Table 3.6-2 Policy Threshold of Exposure Criteria for Agricultural, Residential, and Nonresidential Land Uses

Land Use	Maximum Policy Threshold of Expose			
	Overpressure	Airborne Toxic Substances	Radiant Heat	Shrapnel
Agriculture	3.4 psig	Dose = ERPG-2(b) ppm for 60 min Exposure time = 60 min For example: chlorine ERPG-2 = 3 ppm Dose = 3 ppm x 60 min = 180 ppm-min Target concentration = dose/exposure time Target concentration = (180 ppm-min) / 60 min Target concentration = 3 ppm chlorine	Radiant dose = 200 kJ/m^2 Exposure time = 30 sec Target radiant energy = radiant dose/exposure time Target radiant energy = (200 kJ/m^2) / 30 sec Target radiant energy = 6.67 kW/m^2	All uses will be located such that the possibility of injury to an unprotected person due to shrapnel released by a reasonably foreseeable event(d) is less than 1/10-6 (1/1,000,000)
Residential	1.0 psig			
Office/ Commercial	1.0 psig			
Light Industrial	1.25 psig	Dose = ERPG-2 ppm for 60 min Exposure time = 30 min For example: chlorine ERPG-2 = 3 ppm Dose = 3 ppm x 60 min = 180 ppm-min Target concentration = dose/exposure time Target concentration = (180 ppm-min) / 30 min Target concentration = 6 ppm chlorine	Radiant dose = 200 kJ/m^2 Exposure time = 15 sec Target radiant energy = radiant dose/exposure time Target radiant energy = (200 kJ/m^2) / 15	

Land Use	Maximum Policy Threshold of Expose			
	Overpressure	Airborne Toxic Substances	Radiant Heat	Shrapnel
Industrial	3.4 psig	Dose = ERPG-2 ppm for 60 min Exposure time = 15 min For example: chlorine ERPG-2 = 3 ppm Dose = 3 ppm x 60 min = 180 ppm-min Target concentration = dose/exposure time Target concentration = (180 ppm-min) / 15 min Target concentration = 12 ppm chlorine	sec Target radiant energy = 13.34 kW/m^2	

- **Policy ER-1-4:** Work to identify and eliminate hazardous waste releases from both private companies and public agencies.
- **Policy ER-1-5:** Storage of hazardous materials and waste will be strictly regulated, consistent with State and federal law.
- **Policy ER-1-7:** To the extent feasible, uses requiring substantial transport of hazardous materials should be located such that traffic is directed away from the City's residential and commercial areas.

City of Elk Grove Municipal Code Section 23.60.030 (Hazardous Materials)

The City has developed the following standards to ensure that the use, handling, storage, and transport of hazardous materials comply with all applicable State laws (Section 65850.2 of the Government Code and Health and Safety Code Section 25505 et seq.) and that appropriate information is reported to the fire department as the regulatory authority:

A. Reporting Requirements. All businesses required by State law (HSC Section 6.95) to prepare hazardous materials release response plans and hazardous materials inventory statements shall, upon request, submit copies of these plans, including any revisions, to the Fire Department.

B. Underground Storage. Underground storage of hazardous materials shall comply with all applicable requirements of state law (HSC Section 6.7 and Articles 679 and 680 of the California Fire Code, or as subsequently amended). Businesses that use underground storage tanks shall comply with the following procedures:

   1. Notify the CCSD Fire Department of any unauthorized release of hazardous materials prescribed by City, county, state and federal regulations;
   2. Notify the Fire Department and the Sacramento County Health Department of any proposed abandoning, closing or ceasing operation of an underground storage tank and actions to be taken to dispose of any hazardous materials; and
   3. Submit copies of the closure plan to the Fire Department.

City of Elk Grove Construction Specifications Manual

The City maintains its Construction Specifications Manual for use by the development industry as well as the City's capital improvement program, with the latest version dated June 2020. The manual covers several topics that must be adhered to during the bidding process and throughout construction. Sections of the manual that are applicable to hazards and hazardous materials include Section 6-13, "Public Safety and Traffic Control"; Section 6-14, "Traffic Control Plans"; Section 10-7, "Contaminated and Hazardous Materials or Environments"; and Section 12, "Construction Area Traffic Control." Each of these is described briefly below:

- Section 6-13, "Public Safety and Traffic Control," identifies several policies and safety standards that are the responsibility of the project contractor, including maintaining emergency access, safe movement of construction equipment entering and leaving the project site, and traffic controls and signage during construction.
- Section 6-14, "Traffic Control Plans," establishes the contractor's requirement to develop and submit a traffic control plan to the City in order to demonstrate appropriate traffic handling for vehicles, bicyclists, and pedestrians affected by construction.

- Section 10-7, "Contaminated and Hazardous Materials or Environments," identifies the contractor's requirements for handling, storage, and disposal of contaminated and hazardous materials, as well as requirements for work in hazardous environments.
- Section 12, "Construction Area Traffic Control," identifies specific actions that must be implemented for traffic control to ensure safety for motorists and workers.

Cosumnes Community Services District Fire Department Fire Prevention Standards

The CCSD Fire Department maintains fire prevention standards that must be incorporated into project design. Standards applicable to hazards and hazardous materials include the Fire Apparatus Access Standards, which include requirements for the construction and identification of fire apparatus access roads, streets, driveways, and the like to meet the emergency access requirements of the CFC and Cosumnes CSD Fire Department fire code ordinance, as well as the Emergency Access Gates and Barriers standards, which apply to all gates and barriers installed across fire access roads within the jurisdiction of the Cosumnes CSD Fire Department. All such gates and barriers shall be approved by Cosumnes CSD Fire Department before their installation.

3.6.2 Environmental Setting

This section describes the existing conditions for hazardous materials and sites, airport and airstrip hazards, schools, and wildland fire hazards.

HAZARDOUS MATERIALS AND SITES

For purposes of this section, the term "hazardous materials" refers to both hazardous substances and hazardous wastes. A "hazardous material" is defined in the CFR as "a substance or material that…is capable of posing an unreasonable risk to health, safety, and property when transported in commerce" (49 CFR 171.8). California Health and Safety Code Section 25501 defines a hazardous material as follows:

> "Hazardous material" means any material that, because of its quantity, concentration, or physical, or chemical characteristics, poses a significant present or potential hazard to human health and safety or to the environment if released into the workplace or the environment. "Hazardous materials" include hazardous substances, hazardous waste, and any material which a handler or the administering agency has a reasonable basis for believing that it would be injurious to the health and safety of persons or harmful to the environment if released into the workplace or the environment.

"Hazardous wastes" are defined in California Health and Safety Code Section 25141(b) as wastes that:

> because of the quantity, concentration, or physical, chemical, or infectious characteristics, [may either] [c]ause, or significantly contribute to an increase in mortality or an increase in serious illness [or] [p]ose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, disposed of, or otherwise managed.

The Project site is currently vacant, consisting of grasslands and an aging rail spur that roughly bisects the property. The site is zoned heavy industrial and was historically used primarily for industrial purposes by various businesses before becoming vacant. A Phase I ESA was prepared for the Project site (Haley & Aldrich 2020) to assess the potential presence of known or suspected recognized environmental conditions (REC), historical RECs (HREC), or controlled RECs (CREC), in accordance with American Society for Testing and Materials (ASTM) standards. RECs are defined in the ASTM standards (ASTM E 1527-13 Standard) as "the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property: (1) due to any release to the environment; (2) under conditions indicative of a release to the environment; or under conditions that pose a material threat of a future release to the environment." The evaluation considered existing reports/documentation (e.g., previous Phase I ESAs, agency-issued letters), site history, interviews, existing observable conditions, current uses at the site, current and former uses of adjoining properties, and potential releases at surrounding properties that may affect the Project site.

According to the Phase I ESA, historical uses at the Project site include agriculture, a former Kingsford Charcoal Briquets Plant, a self-storage facility, and a cold batch asphalt plant. Surrounding uses have also changed over time, but currently consist of mixed-use commercial, industrial, and residential properties, as well as vacant and agricultural land. The Phase I ESA also included an environmental database records search to identify properties that may be listed in the referenced agency records, located within the ASTM-specified approximate minimum search distances. Additionally, several State and local government agencies were contacted, and applicable online databases were searched to supplement the environmental records search.

No RECs or CRECs were identified in connection with the Project site.

The results of the database searches indicate that two HRECs are associated with the Project site: the Kingsford Plant Fire and the Kingsford Plant UST:

- **Kingsford Plant Fire:** The Kingsford plant burned down on November 27, 1988. A representative from Sacramento County Environmental Management Department (SCEMD) was present during the fire and was concerned that water used to extinguish the fire may have leached some of the mineral spirits from the plant and/or briquettes, contaminating soil and the drainage collection system. The Central Valley RWQCB, SCEMD, and the California Department of Health Services determined an investigation was warranted. Soil samples were collected, and no significant contamination was identified. On November 15, 1989, a closure letter stating that no further remedial actions were necessary was issued by SCEMD.
- **Kingsford Plant UST:** Several USTs and their associated piping were removed and investigated during site closure. Approximately 5,300 cubic yards of contaminated material was either hauled off-site or spread out on-site to aerate. Approximately 10–20 cubic yards were left in place. The concentrations of total petroleum hydrocarbons left in place were 200 milligrams per kilogram (mg/kg) at 6 feet below ground surface (bgs), 36 mg/kg at 36 feet bgs, and 17 mg/kg at 40 feet bgs. According to a document discovered during file review, the soil was left in situ because of the proximity of the excavation to an active railroad spur. On January 17, 1996, and May 3, 1994, respectively, the Central Valley RWQCB and SCEMD issued closure letters to Clorox (owners of Kingsford) stating that no further remedial actions were required at the Project site.

The Phase I ESA contained a list of potential environmental concerns, including potential methyl tert-butyl ether (MTBE) in soils if the subsurface is disturbed, the possible presence of a 500-gallon UST, a solvent spill that ran across the western side of the Project site from World Petroleum, and a case that was reopened by the Central Valley RWQCB for the adjacent Conoco Asphalt Terminal south of the Project site.

AIRPORT AND AIRSTRIP HAZARDS

There are no active public airports or private airstrips within 2 miles of the Project site. The closest public airport is Franklin Field, located at 12480 Bruceville Road, approximately 7 miles southwest of the Project site. Franklin Field is a public use airport owned and operated by Sacramento County. It has two paved runways, one 204 feet long and the other 100 feet long. The facility does not have an air traffic control tower or any personnel, and it serves the general aviation community exclusively. Sacramento International Airport, the nearest major airport, is located approximately 25 miles northwest of the Project site.

SCHOOLS

Children are particularly susceptible to long-term effects from emissions of hazardous materials. Therefore, locations where children spend extended periods, such as schools, are sensitive to hazardous air emissions and accidental release associated with the handling of extremely hazardous materials, substances, or wastes. This risk is considered substantial where the potential release is within 500 feet of a school (CARB 2005); however CEQA Appendix G recommends considering effects on schools within 0.25 mile of the project. No existing or proposed schools are within 0.25 mile of the Project site. The nearest school is Florence Markofer Elementary School, located approximately 0.60 mile northwest of the Project site.

WILDLAND FIRE HAZARDS

Although all of California is subject to some degree of wildfire hazard, specific features make certain areas more hazardous. The California Department of Forestry and Fire Protection (CAL FIRE) is required by law to map areas of significant fire hazards based on fuels, terrain, weather, and other relevant factors (PRC Sections 4201–4204 and Government Code Sections 51175–51189). Factors that increase an area's susceptibility to fire hazards include slope, vegetation type and condition, and atmospheric conditions. When development spreads into less densely populated, often hilly areas, it increases the number of people living in areas that are prone to wildfire. There are no Moderate, High, or Very High Fire Hazard Severity Zones identified by CAL FIRE in the City (City of Elk Grove 2021).

The Project site is within a Local Responsibility Area (i.e., an area under the jurisdiction of a local entity) that is not mapped by CAL FIRE as a Very High Fire Hazard Severity Zone (CAL FIRE 2008). Additionally, the site is vacant and mostly devoid of any vegetation except for grassland. Surrounding properties consist of light and heavy industrial uses, as well as resource management and conservation lands. For these reasons, the Project site and surrounding area generally do not contain fire-prone conditions. The Cosumnes CSD Fire Department is responsible for providing fire protection services to the Project site.

3.6.3 Impacts and Mitigation Measures

METHODOLOGY

The following evaluation is based on a review of documents and publicly available information about hazardous and potentially hazardous conditions in the Project area to determine the potential for Project implementation to result in an increased health or safety hazard to people or the environment. These resources include City and county planning documents and SWRCB and DTSC hazardous materials database information, as well as the Phase I ESA prepared for the Project (Haley & Aldrich 2020).

THRESHOLDS OF SIGNIFICANCE

An impact related to hazards and hazardous materials would be significant if implementation of the Project would:

- create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials;
- create a significant hazard to the public or the environment through reasonably foreseeable upset and/or accident conditions involving the release of hazardous materials into the environment;
- emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school;
- be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would create a significant hazard to the public or the environment;
- for a project located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area; or
- expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires.

ISSUES NOT DISCUSSED FURTHER

Emission or Handling of Hazardous Materials, Substances, or Wastes within 0.25 Mile of an Existing or Proposed School

There are no existing or proposed schools within 0.25 mile of the Project site. As discussed in Section 3.6.2, the existing school closest to the Project site is Florence Markofer Elementary School, located approximately 0.60 mile to the northwest. Although implementing the Project would result in pollutant emissions, including toxic air contaminants, associated with operation of the proposed aggregate processing facility, these emissions would not result in a substantial risk to students in the area given the distance between the Project site and the closest school. For this reason, there would be no impact on existing or proposed schools associated with the handling or emission of hazardous materials during construction or operation of the Project. Therefore, this impact is not discussed further.

Hazards Related to Proximity to Existing Sites of Known Contamination

Neither SWRCB's GeoTracker nor DTSC's EnviroStor databases identified sites of known contamination on or near the Project site (SWRCB 2022; DTSC 2022). Additionally, the Project site was not identified on any other databases searched as part of the Phase I ESA prepared for the Project. For these reasons, the Project site is not included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5, and there is no potential to create a significant hazard to the public or the environment. Therefore, this impact is not discussed further.

Safety Hazard or Excessive Noise Related to Proximity to an Airport

The Project site is not located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport. As a result, there would be no impact associated with exposing future employees to potential safety hazards or excessive noise generated by established aviation uses in the area. Therefore, this impact is not discussed further.

Loss, Injury, or Death from Wildland Fire

The Project site is located in a Local Responsibility Area where fire protection is provided by the Cosumnes CSD Fire Department. In the event of a nearby grass fire, the Cosumnes CSD Fire Department would respond. (See Section 3.10, "Public Services," for further discussion of the Cosumnes CSD Fire Department facilities and response times.) CAL FIRE has not designated the area as a Very High Fire Hazard Severity Zone, which is defined as an area that is not prone to intense, damaging wildfires. New construction on-site is subject to the CFC, which includes safety measures to minimize the threat of fire. Title 24 of the CCR sets forth the minimum development standards for emergency access, fuel modification, setback, signage, and water supply, which help prevent damage to structures or people by reducing wildfire hazards. Construction and operation of the Project would not increase the potential for wildland fire on or near the Project site, and there would be no impact associated with exposing people or structure to wildland fire. Therefore, this impact is not discussed further.

ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Impact 3.6-1: Create a Hazard to the Public or Environment through the Routine Transport, Use, or Disposal of Hazardous Materials

Project construction and operation would involve the use of materials that may create a hazard if released into the environment. Use, transport, and disposal of these materials in compliance with established regulations would effectively address hazards associated with these materials. This impact would be **less than significant**.

Construction

Common hazardous materials used in construction include fuels, solvents, caulking, tar, concrete curing compounds, asphalt products, paints, asbestos-containing building materials, architectural coatings, light bulbs, and batteries. Construction-related activities, such as pumping, pouring, emptying, injecting, spilling, and dumping, may also release hazardous materials into the environment. The severity of potential effects varies with the activity conducted

and with the concentration and type of hazardous material present. Generally, incidents involving construction-related hazardous materials are small fuel or oil spills that would have a negligible impact on public health. All hazardous materials would be stored, handled, and disposed of according to the manufacturers' recommendations, and spills would be cleaned up in accordance with applicable regulations.

Further, the Project would be required to obtain coverage under the SWRCB Construction General Permit (2009-0009 DWQ) because it would involve more than 1 acre of ground disturbance during construction. The SWRCB Construction General Permit (2009-0009 DWQ) requires spill prevention and containment plans to avoid spills and releases of hazardous materials and wastes into the environment. Inspections would be conducted to verify consistent implementation of general construction permit conditions and the BMPs intended to avoid and minimize the potential for spills and releases and to ensure a response to them, including their immediate cleanup. BMPs include, for example, the designation of special storage areas and labeling, containment berms, coverage from rain, and concrete washout areas. Compliance with the Construction General Permit would minimize the potential risk of a spill or accidental release of hazardous materials during construction.

Trucks transporting construction-related hazardous materials use many of the same freeways, arterials, and local streets as other traffic, which creates a risk of accidents and associated release of hazardous materials for other drivers and for people along these routes. Although the transport of hazardous materials may result in accidental spills, leaks, toxic releases, fire, or explosion, the US Department of Transportation Office of Hazardous Materials Safety prescribes regulations for the safe transportation of hazardous materials, as described in Title 49 of the CFR, that specify packaging and labeling requirements for hazardous materials. The standard accident and hazardous materials recovery training and procedures are enforced by the State and followed by private State-licensed-certified and -bonded transportation companies and contractors.

The use, storage, and transportation of hazardous materials are subject to local, State, and federal regulations, the intent of which is to minimize risks to human health and the environment. General Plan Policies EM-1-1, ER-1-1, ER-1-4, and ER-1-5 support these regulations by maintaining acceptable levels of risk from reasonably foreseeable safety hazards, considering the potential of hazards posed by reasonably foreseeable events, identifying and eliminating hazardous waste releases, and regulating storage of hazardous materials and waste. Thus, risks to human health and the environment would be minimized through implementation of General Plan policies and applicable regulations described above. This impact would be **less than significant**.

Operation

As discussed in Section 3.6.1, "Regulatory Setting," the use, storage, and transportation of hazardous materials is also regulated on the federal and State level. Facilities that store or use certain types or quantities of hazardous materials are required to obtain permits and comply with appropriate regulatory standards designed to avoid hazardous material releases, as well as appropriate actions to take in the event of an accidental release. These regulations include the hazardous materials business plan requirements, US Department of Transportation requirements, OSHA, and Toxic Substances Control Act. The California Accidental Release and Prevention Program (CCR Title 19, Division 2, Chapter 4.5) ensures that accidental release scenarios are considered and that measures are included to reduce the risk of accidental spills.

Various types of hazardous materials would be stored and used on-site during Project operations, including petroleum-based oils, lubricants, and solvents. Petroleum-based fuels and oils would be used to operate on-site trucks, vehicles, and certain plant equipment, as well as for routine maintenance. Operation of the Project would also involve the transport of raw aggregate materials to the site for use in the production of hot-mix asphalt and ready-mix concrete. Aggregate materials would be transported to the site from Vulcan's aggregate mine, located approximately 11 miles northeast of the site. Additionally, the facility would recycle asphalt and concrete from local demolition projects, which would then be used in the production of new asphalt and concrete onsite. The on-site recycling plant would be connected to a crushed reclaimed asphalt pavement area and the crushed miscellaneous base area to the west via a series of conveyor belts. An asphalt rubble pile area and concrete rubble pile area are proposed just north of the recycling plant.

The operation of businesses that use, create, or dispose of hazardous materials is regulated and monitored by federal, State, and local regulations that provide protection to the public and the environment from hazardous materials. CalEPA oversees the regulation and management of hazardous materials on a statewide level through DTSC. Use of hazardous materials requires permits and monitoring through the local CUPA to avoid hazardous waste release. As discussed in Section 3.6.1, businesses are required to prepare and submit a hazardous materials business plan for safe storage and use of chemicals above reportable quantities (55 gallons for liquids, 500 pounds for solids, and 200 cubic feet for compressed gases). Facilities that have ASTs (including 55-gallon drums) with an aggregate storage capacity of 1,320 gallons or greater of petroleum are also subject to the APSA. The Project would include 30,000-gallon ASTs for storing oil that would be used in the production of asphalt. For these reasons, a hazardous materials business plan would be required for the Project, which would be submitted to the Sacramento County EMD for review and approval. The facility would also prepare a risk management plan consistent with the California Accidental Release Prevention Program. Plans for materials storage would be consistent with CFC regulations related to hazardous materials management and would be subject to review by the Sacramento County EMD. Additionally, because the Project would include a petroleum storage capacity greater than 1,320 gallons, an SPCC plan that meets the current federal SPCC rule standards would be required in accordance with the APSA. The SPCC plan would describe the procedures, methods, and equipment in place at the Project site to prevent discharges of petroleum from reaching navigable waters. Further, RCRA, Title 22 of the CCR, and the Hazardous Waste Control Act regulate the generation, transport, treatment, storage, and disposal of hazardous waste. These laws impose regulatory systems for handling hazardous waste in a manner that protects human health and the environment, including requirements for the classification of materials, packaging, and hazard communication. General Plan Policies EM-1-1, ER-1-1, ER-1-4, and ER-1-5 support these regulations, and risks to human health and the environment would be minimized through implementation of General Plan policies and applicable regulations. For example, Policy ER-1-4 requires industries that store and process hazardous or toxic chemicals to provide a buffer zone sufficient to protect public safety. The adequacy of the buffer zone is to be determined by the City. Policy ER-1-5 requires the storage of hazardous materials and waste to be strictly regulated and consistent with federal and State law. These policies would ensure that hazardous materials and waste are safely stored on-site and reduce the potential for risks to public safety. Therefore, compliance with these federal, State, and local regulations, as well as implementation of General Plan policies, would ensure that operational impacts would be **less than significant**.

Mitigation Measures

No mitigation is required for this impact.

Impact 3.6-2: Create a Hazard to the Public or Environment through Reasonably Foreseeable Upset or Accident Conditions

Construction-related activities could result in the disturbance and subsequent release of hazardous materials into the environment, which would pose a hazard to human health if construction workers were exposed. Implementation of Mitigation Measure 3.6-2a requires the proper management of hazardous materials that are accidentally discovered during construction. Additionally, Mitigation Measure 3.6-2b requires the contractor to prepare and implement a site-specific worker health and safety plan during Project construction. This impact would be reduced to **less than significant** with mitigation incorporated.

Construction

The Project site is currently vacant but was historically used primarily for industrial purposes by various businesses. According to the Phase I ESA prepared for the Project site (Haley & Aldrich 2020), historical uses at the Project site include agriculture, a former Kingsford Charcoal Briquets Plant, a self-storage facility, and a cold batch asphalt plant. No RECs or CRECs were identified in connection with the Project site, and case closure letters were on file for the two HRECs identified on the site. However, the Phase I ESA identified multiple potential environmental concerns, including potential MTBE in soils if the subsurface is disturbed, the possible presence of a 500-gallon UST, a solvent spill that ran across the western side of the Project site from World Petroleum, and a case that was reopened by the Central Valley RWQCB for the adjacent Conoco Asphalt Terminal south of the Project site. Given the presence of these potential environmental concerns, grading or excavation activities associated with construction of the Project could

result in the disturbance and subsequent release of hazardous materials into the environment, which would also pose a hazard to human health if construction workers were exposed.

Potential hazards to human health include ignition of flammable liquids or vapors potentially present in the soil; inhalation of toxic vapors in confined spaces, such as trenches; and skin contact with contaminated soil or runoff. If hazardous materials were discovered through the construction process, existing regulations provide prescriptive requirements for ceasing work, notifying appropriate government agencies, and providing remediation if necessary. Federal and State laws require that soils and groundwater having concentrations of contaminants such as lead, gasoline, or industrial solvents at levels that are higher than certain acceptable levels be handled and disposed of as hazardous waste during excavation, transportation, and disposal. Title 22 of the CCR, Sections 66261.20–66261.24, contains technical descriptions of characteristics that would cause soil to be classified as a hazardous waste. However, despite these regulations, construction activities associated with the Project could result in exposure of construction workers, the general public, or the environment to hazards from the disturbance of hazardous materials that occur on the site.

Implementation of Mitigation Measure 3.6-2a would require the proper management of hazardous materials that are accidentally discovered during construction. Additionally, Mitigation Measure 3.6-2b would require the contractor to prepare and implement a site-specific worker health and safety plan during Project construction. The health and safety plan would include site-specific information, requirements, and guidelines to be followed while activities that may disturb the existing hazardous materials of concern are conducted. Implementation of these mitigation measures during construction would reduce potential impacts associated with the disturbance and release of hazardous materials into the environment and public to **less than significant**.

Operation

As discussed under Impact 3.6-1, the operation of businesses that use, create, or dispose of hazardous materials is regulated and monitored by federal, State, and local regulations that provide protection to the public and the environment from hazardous materials. In compliance with these regulations, the Project would be required to prepare a hazardous materials business plan, a risk management plan, and an SPCC plan. Further, RCRA, Title 22 of the CCR, and the Hazardous Waste Control Act regulate the generation, transport, treatment, storage, and disposal of hazardous waste. These laws impose regulatory systems for handling hazardous waste in a manner that protects human health and the environment. Compliance with these regulations would ensure that hazardous materials and waste are properly used on-site to reduce the potential for upset or accident conditions associated with Project operation. Operational impacts would be **less than significant.**

Mitigation Measures

Mitigation Measure 3.6-2a: Manage Accidental Discovery of Hazardous Materials

If previously unknown contaminated soils or potentially hazardous materials are discovered during earthmoving activities, all ground-disturbing activities within 50 feet of the discovery will be halted until a qualified City employee can assess the conditions on the site. The City will notify the appropriate enforcement agency (e.g., Sacramento County EMD, California Department of Toxic Substances Control, and Central Valley Regional Water Quality Control Board), if appropriate, to determine the actions needed to remediate any potentially hazardous conditions. Actions to remediate potentially hazardous conditions include sampling potentially contaminated soils and excavating and removing contaminated soils and/or other potentially hazardous materials.

Mitigation Measure 3.6-2b: Prepare and Implement Site-Specific Worker Health and Safety Plan

Before construction begins, the contractor shall prepare a Project-specific worker health and safety plan. The plan shall include site-specific information, requirements, and guidelines to be followed while activities that may disturb the existing hazardous materials of concern are conducted. These activities may include grading, excavation, trenching, boring, dewatering, stockpiling, reusing, handling, or disposing of wastes, as well as other applicable site activities. The worker health and safety plan shall be prepared in accordance with the federal and State OSHA Hazardous Waste Operations and Emergency Response (HAZWOPER) standards (29 CFR 1910.120 and 8 CCR 5192) and implemented throughout the duration of ground-disturbing construction activities. The worker health and safety plan shall include

contingencies (i.e., if unknown or unanticipated environmental conditions may exist at the site) for a variety of situations that may arise. The plan shall ensure that site workers potentially exposed to site contamination in soil, groundwater, or vapor are trained, equipped, and monitored during site activity. The training, equipment, and monitoring activities shall ensure that workers are not exposed to contaminants above personnel exposure limits established by Table Z, 29 CFR 1910.1000. The worker health and safety plan shall be signed by and implemented under the oversight of a California State Certified Industrial Hygienist.

Significance after Mitigation
Less than significant.

Impact 3.6-3: Impair Implementation of, or Physically Interfere with, an Adopted Emergency Response Plan or Emergency Evacuation Plan

The Project would not impair the implementation of the City's EOP emergency response or evacuation plans, and it would not permanently alter the capacity of key transportation routes. Temporary road closures during construction, if required, would not be expected to substantially impair evacuation and response. Access to SR 99 would not be affected. This impact would be **less than significant**.

The City of Elk Grove participates in the multijurisdictional Sacramento County Local Hazard Mitigation Plan (LHMP). The purpose of the plan is to guide hazard mitigation planning to better protect the people and property of the county from the effects of hazard events. The Sacramento County LHMP includes policies and programs for participating jurisdictions to implement that reduce the risk of hazards and protect public health, safety, and welfare. The City's EOP provides a strategy for the City to coordinate and conduct emergency response. The intent of the EOP is to provide direction on how to respond to an emergency from the initial onset, through an extended response, and into the recovery process.

The Sacramento County Evacuation Plan identifies key evacuation routes as major interstates, highways, and major roadways. The plan indicates that specific evacuation routes would be established for individual situations based on the geographical location and magnitude of the emergency, as well as the time of day and day of the week. During an evacuation, Sacramento County Department of Transportation staff would calculate traffic flow capacity and decide which of the available traffic routes should be used to move people in the correct directions.

In the event of an emergency that would require citizens to evacuate, including those citizens who live in the City, Sacramento County would implement its EOP, evacuation plan, and mass care and shelter plan. The emergency evacuation plan identifies SR 99 as a key evacuation route but is adapted to specific situations and updated in response to changes in growth patterns and development.

Construction activities may result in temporary lane closures along Waterman Road associated with roadway striping, increased truck traffic, and other roadway effects that may impede emergency vehicles, temporarily increasing response times and impeding existing services. The Project would be required to meet all City requirements related to construction activities, including provisions set forth in the City of Elk Grove Construction Specifications Manual Section 6-13, "Public Safety and Traffic Control," identifies several policies and safety standards that are the responsibility of the Project contractor, including maintaining emergency access, safe movement of construction equipment entering and leaving the Project site, and traffic controls and signage during construction. Additionally, Section 6-14, "Traffic Control Plans," establishes the contractor's requirement to develop and submit a traffic control plan to the City to demonstrate appropriate traffic handling for vehicles, bicyclists, and pedestrians affected by construction. Section 12, "Construction Area Traffic Control," of the City's Construction Specifications Manual also identifies specific actions that must be implemented for traffic control to ensure safety for motorists and workers. These requirements must be stated in the general notes on Project improvement plans, which is confirmed by City staff during plan review. Compliance with these requirements would ensure that construction activities do not have the potential to substantially hinder emergency response activities or physically interfere with established evacuation routes.

Further, access to the Project site would be designed in compliance with the City's and Cosumnes CSD Fire Department's design standards pertaining to emergency access. These include the Cosumnes CSD Fire Department's Fire Apparatus Access Standards, which include requirements for the construction and identification of fire apparatus access roads, streets, driveways, and the like to meet the emergency access requirements of the CFC and Cosumnes CSD Fire Department fire code ordinance, as well as the Emergency Access Gates and Barriers standards, which apply to all gates and barriers installed across fire access roads within the jurisdiction of the Cosumnes CSD Fire Department. All such gates and barriers shall be approved by the Cosumnes CSD Fire Department before their installation. The Project would provide a dedicated emergency access gate on the western boundary of the Project site for emergency vehicle access from the adjacent undeveloped area, as well as a paved extension from the main entrance roadway off Waterman Road. The proximity of the Project site to SR 99 would facilitate worker evacuation if required.

Therefore, the impact associated with the Project's potential to impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan would be **less than significant**.

Mitigation Measures

No mitigation is required for this impact.

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3.7 HYDROLOGY AND WATER QUALITY

This section identifies the applicable regulations related to hydrology and water quality, describes the existing hydrologic and water quality conditions at the Project site, and evaluates potential hydrology and water quality impacts of the Project. Potential impacts on the capacity of City of Elk Grove water supply, sewer/wastewater, and drainage/stormwater facilities are addressed in Section 3.12, "Utilities and Service Systems."

In response to the NOP during the public scoping period, the Central Valley RWQCB submitted a comment letter describing its responsibility of protecting surface water and groundwater quality in the state and provided a list of regulations that may apply to the Project.

3.7.1 Regulatory Setting

FEDERAL

Clean Water Act

The US Environmental Protection Agency (EPA) is the lead federal agency responsible for water quality management. The Clean Water Act (CWA) is the primary federal law that governs and authorizes water quality control activities by EPA as well as the states. Various elements of the CWA address water quality. These are discussed below.

CWA Water Quality Criteria/Standards

Pursuant to federal law, EPA has published water quality regulations under Title 40 of the Code of Federal Regulations (CFR). Section 303 of the CWA requires states to adopt water quality standards for all surface waters of the United States. As defined by the act, water quality standards consist of designated beneficial uses of the water body in question and criteria that protect the designated uses. Section 304(a) requires EPA to publish advisory water quality criteria that accurately reflect the latest scientific knowledge on the kind and extent of all effects on health and welfare that may be expected from the presence of pollutants in water. Where multiple uses exist, water quality standards must protect the most sensitive use. As described in the discussion of State regulations below, the State Water Resources Control Board (State Water Board) and its nine regional water quality control boards (RWQCBs) have designated authority in California to identify beneficial uses and adopt applicable water quality objectives (WQOs).

CWA Section 303(d): Impaired Waterbodies List

Under Section 303(d) of the CWA, states are required to develop lists of water bodies that do not attain WQOs after implementation of required levels of treatment by point source dischargers (municipalities and industries). Section 303(d) requires that the State develop a total maximum daily load (TMDL) for each of the listed pollutants. The TMDL is the amount of the pollutant that the water body can receive and still comply with WQOs. The TMDL is also a plan to reduce loading of a specific pollutant from various sources to achieve compliance with WQOs. In California, implementation of TMDLs is achieved through water quality control plans, known as Basin Plans, of the State RWQCBs. See "State Plans, Policies, Regulations, and Laws," below.

Section 402: National Pollutant Discharge Elimination System Permit Program

The National Pollutant Discharge Elimination System (NPDES) permit program was established in the CWA to regulate municipal and industrial discharges to surface waters of the United States. NPDES permit regulations have been established for broad categories of discharges including point source waste discharges and nonpoint source stormwater runoff. Each NPDES permit identifies limits on allowable concentrations and mass emissions of pollutants contained in the discharge.

"Nonpoint source" pollution originates over a wide area rather than from a definable point. Nonpoint source pollution often enters receiving water in the form of surface runoff and is not conveyed by way of pipelines or discrete conveyances. Two types of nonpoint source discharges are controlled by the NPDES program: discharges

caused by general construction activities and the general quality of stormwater in municipal stormwater systems. The goal of the NPDES nonpoint source regulations is to improve the quality of stormwater discharged to receiving waters to the maximum extent practicable. The RWQCBs in California are responsible for implementing the NPDES program.

National Flood Insurance Act

The Federal Emergency Management Agency (FEMA) is tasked with responding to, planning for, recovering from and mitigating against disasters. The Federal Insurance and Mitigation Administration within FEMA is responsible for administering the National Flood Insurance Program (NFIP) and administering programs that aid with mitigating future damages from natural hazards.

FEMA prepares Flood Insurance Rate Maps (FIRMs) that delineate the regulatory floodplain to assist local governments with the land use planning and floodplain management decisions needed to meet the requirements of NFIP. Floodplains are divided into flood hazard areas, which are areas designated per their potential for flooding, as delineated on FIRMs. Special Flood Hazard Areas are the areas identified as having a one percent chance of flooding in each year (otherwise known as the 100-year flood). In general, the NFIP mandates that development is not to proceed within the regulatory 100-year floodplain, if the development is expected to increase flood elevation by 1 foot or more.

STATE

Porter-Cologne Water Quality Control Act of 1970

California's primary statute governing water quality and water pollution issues with respect to both surface waters and groundwater is the Porter-Cologne Water Quality Control Act of 1970 (Porter-Cologne Act). The Porter-Cologne Act grants the State Water Board and each of the nine RWQCBs power to protect water quality, and is the primary vehicle for implementation of California's responsibilities under the Clean Water Act. The applicable RWQCB for the Project is the Central Valley RWQCB. The State Water Board and the Central Valley RWQCB have the authority and responsibility to adopt plans and policies, regulate discharges to surface and groundwater, regulate waste disposal sites, and require cleanup of discharges of hazardous materials and other pollutants. The Porter-Cologne Act also establishes reporting requirements for unintended discharges of any hazardous substances, sewage, or oil or petroleum products.

Under the Porter-Cologne Act, each RWQCB must formulate and adopt a water quality control plan (known as a "Basin Plan") for its region. The Basin Plan for the Central Valley Region, or the Sacramento River and the San Joaquin River Basin Plan, includes a comprehensive list of waterbodies within the region and detailed language about the components of applicable WQOs. The Basin Plan recognizes natural water quality, existing and potential beneficial uses, and water quality problems associated with human activities throughout the Sacramento and San Joaquin River Basins. Through the Basin Plan, the Central Valley RWQCB executes its regulatory authority to enforce the implementation of TMDLs, and to ensure compliance with surface WQOs. The Basin Plan includes both narrative, and numerical WQOs designed to provide protection for all designated and potential beneficial uses in all its principal streams and tributaries. Applicable beneficial uses include municipal and domestic water supply, irrigation, non-contact and contact water recreation, groundwater recharge, fresh water replenishment, hydroelectric power generation, and preservation and enhancement of wildlife, fish, and other aquatic resources.

The Central Valley RWQCB also administers the adoption of waste discharge requirements (WDRs), manages groundwater quality, and adopts projects within its boundaries under the NPDES General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities (Construction General Permit) (Order 2009-0009-DWQ, as amended by Order 2010-0014-DWQ and Order 2012-006-DWQ).

NPDES Construction General Permit for Stormwater Discharges Associated with Construction Activity

The SWRCB adopted the statewide NPDES Construction General Permit (Order 2009-0009-DWQ, as amended by Order 2010-0014-DWQ and Order 2012-006-DWQ) in August 1999. The State requires that projects disturbing more than one acre of land during construction file a Notice of Intent with the RWQCB to be covered under this permit. Construction activities subject to the General Permit include clearing, grading, stockpiling, and excavation. Dischargers are required to eliminate or reduce non stormwater discharges to storm sewer systems and other waters. A stormwater pollution prevention plan (SWPPP) must be developed and implemented for each site covered by the permit. The SWPPP must include best management plans (BMPs) designed to prevent construction pollutants from contacting stormwater and keep products of erosion from moving off-site into receiving waters throughout the construction and life of the project; the BMPs must address source control and, if necessary, pollutant control.

NPDES Stormwater Permit for Discharges from Small Municipal Separate Storm Sewer Systems

The Municipal Stormwater Permitting Program regulates stormwater discharges from municipal separate storm sewer systems (MS4s). Stormwater is runoff from rain or snow melt that runs off surfaces such as rooftops, paved streets, highways or parking lots and can carry with it pollutants such as oil, pesticides, herbicides, sediment, trash, bacteria and metals. The runoff can then drain directly into a local stream, lake or bay. Often, the runoff drains into storm drains which eventually drain untreated into a local waterbody.

The City is an MS4 co-permittee with the cities of Citrus Heights, Folsom, Galt, Rancho Cordova, and Sacramento and the County of Sacramento. NPDES permit terms are 5 years. The current regionwide permit (Order No. R5-2016-0040), adopted by the Central Valley RWQCB in June 2016, allows each permittee to discharge urban runoff from MS4s in its respective municipal jurisdiction, and it requires Phase I MS4 permittees to enroll under the regionwide permit as their current individual permits expire. Regional MS4 permit activities are managed jointly by the Sacramento Stormwater Quality Partnership, which consists of the seven jurisdictions covered by the permit.

Under the permit, each permittee is also responsible for ensuring that stormwater quality management plans are developed and implemented that meet the discharge requirements of the permit. Under the 2016 permit, measures should be included in the stormwater quality management plan that demonstrate how new development would incorporate low-impact development (LID) design in projects. The new permit also includes requirements for addressing TMDLs. The City Department of Public Works is responsible for ensuring that its specific MS4 permit (Order No. R5-2016-0040-005) requirements are implemented. Compliance with the MS4 permit is regulated through Chapter 15.12 of the City Municipal Code.

Industrial General Permit

The Statewide General Permit for Stormwater Discharges Associated with Industrial Activities (Industrial General Permit) (Order 2014-0057-DWQ, as amended in 2015 and 2018) implements the federally required stormwater regulations in California for stormwater associated with industrial activities discharging to waters of the United States. The Industrial General Permit regulates discharges associated with 9 federally defined categories of industrial activities, and stormwater discharges associated with industrial sites must comply with the regulations contained in the Industrial General Permit.

California Water Code

The California Water Code is enforced by the California Department of Water Resources (DWR). The mission of DWR is "to manage the water resources of California in cooperation with other agencies, to benefit the State's people, and to protect, restore, and enhance the natural and human environments." DWR is responsible for promoting California's general welfare by ensuring beneficial water use and development statewide.

Groundwater Management

Groundwater management is outlined in the California Water Code, Division 6, Part 2.75, Chapters 1-5, Sections 10750 through 10755.4. The Groundwater Management Act was first introduced in 1992 as Assembly Bill (AB) 3030, and has since been modified by Senate Bill (SB) 1938 in 2002, AB 359 in 2011, and the Sustainable Groundwater Management

Act (SGMA) (SB 1168, SB 1319, and AB 1739) in 2014. The intent of the Acts is to encourage local agencies to work cooperatively to manage groundwater resources within their jurisdictions and to provide a methodology for developing a Groundwater Management Plan.

The SGMA became law on January 1, 2015, and applies to all groundwater basins in the state (Water Code Section 10720.3). By enacting the SGMA, the legislature intended to provide local agencies with the authority and the technical and financial assistance necessary to sustainably manage groundwater within their jurisdiction (Water Code Section 10720.1).

Pursuant to the SGMA, any local agency that has water supply, water management, or land use responsibilities within a groundwater basin may elect to be a "groundwater sustainability agency" for that basin (Water Code Section 10723). The Sacramento Central Groundwater Authority has notified DWR that it has elected to become a GSA pursuant to Water Code Section 10723.8, and intends to undertake sustainable groundwater management in the area roughly coincident with the Sacramento Valley Groundwater Basin, South American Subbasin. The Groundwater Sustainability Agencies that consists of the SCGA, Omochumne-Hartnell Water District (OHWD), Sloughhouse Resource Conservation District (SRCD), North Delta GSAs (NDGSA), Reclamation District 551 (RD 551), and Sacramento County adopted the 2021 *South American Subbasin Groundwater Sustainability Plan* (SASb GSP) in compliance with SGMA. The SASb GSP identifies that the long-term average annual sustainable groundwater yield of the South American Subbasin is 235,000 AFY. Project and management actions that would contribute to the achievement of the sustainability goal of the SASb GSP include the following:

- Existing projects that include diversification of water supplies (Freeport Regional Water Project, Vineyard Surface Water Treatment Plant, and conjunctive use improvements).
- Near-term planned project that include the Sacramento Regional County Sanitation District Harvest Water project, OHWD Groundwater Recharge Project, Regional Conjunctive Use Program, and Sacramento Area Flood Control Agency Flood-MAR. (Northern Delta Groundwater Sustainability Agency et al. 2021: 4-1 – 4-22).

The SASb GSP is currently under review by the California Department of Water Resources.

Central Valley Flood Protection Act

The Central Valley Flood Protection Act of 2008 establishes the 200-year flood event as the minimum level of protection for urban and urbanizing areas. As part of the State's FloodSAFE program, those urban and urbanizing areas protected by flood control project levees must receive protection from the 200-year flood event level by 2025. The DWR and Central Valley Flood Protection Board (CVFPB) collaborated with local governments and planning agencies to prepare the Central Valley Flood Protection Plan (CVFPP), which the CVFPB first adopted on June 29, 2012. The objective of the 2012 CVFPP was to create a State systemwide investment approach to flood management and protection improvements for the Central Valley and San Joaquin Valley. Since then, the CVFPP was updated and adopted in August 2017 in accordance with the Central Valley Flood Protection Act, which requires the CVFPP to be updated every 5-years. The 2017 CVFPP refines the State systemwide investment approach of the 2012 plan that provided a road map for Central Valley flood risk management. At the time of preparation of this Draft EIR, the 2022 Update to the Central Valley Flood Protection Plan is in preparation, but has not been adopted.

State Plan of Flood Control

Section 9110(f) of the California Water Code defines the State Plan of Flood Control as follows:

> State Plan of Flood Control" means the state and federal flood control works, lands, programs, plans, policies, conditions, and mode of maintenance and operations of the Sacramento River Flood Control Project described in Section 8350, and of flood control projects in the Sacramento River and San Joaquin River watersheds authorized pursuant to Article 2 (commencing with Section 12648) of Chapter 2 of Part 6 of Division 6 for which the board or the department has provided the assurances of nonfederal cooperation to the United States, and those facilities identified in Section 8361.

The State Plan of Flood Control encompasses a wide network of facilities, which range from major structures such as levees, drainage pumping plants, drop structures, dams and reservoirs, and major channel improvements, to minor components such as stream gauges, pipes, and bridges.

LOCAL

Sacramento Regional Stormwater Quality Design Manual

The Sacramento Areawide NPDES Municipal Stormwater Permit is a Phase I permit and applies to the County of Sacramento along with the Cities of Citrus Heights, Elk Grove, Folsom, Galt, Rancho Cordova and Sacramento. The Stormwater Quality Design Manual for the Sacramento Region outlines a consistent set of stormwater quality management design standards for many new and redevelopment projects in the urbanized parts of Sacramento County. It provides planning and design tools for use by planners, architects, landscape architects, engineers, and environmental professionals.

Sacramento Central Groundwater Authority

SCGA manages groundwater in the Central Basin portion of the South American Subbasin. SCGA was formed in 2006 through a joint powers agreement signed by the Cities of Elk Grove, Folsom, Rancho Cordova, and Sacramento and Sacramento County. Among its many purposes, SCGA is responsible for managing the use of groundwater in the Central Basin to ensure long-term sustainable yield and for facilitating a conjunctive use program. The framework for maintaining groundwater resources in the Central Basin is the Sacramento County Water Agency (SCWA) Groundwater Management Plan, which includes specific goals, objectives, and an action plan to manage the basin.

Pursuant to the SGMA, SCGA prepared a Groundwater Sustainability Plan (GSP) for the South American Subbasin, which was submitted to DWR on January 27, 2022. The GSP is available for public comment until April 30, 2022. The five objectives defined by the Central Sacramento County Groundwater Management Plan help ensure viable groundwater resources for beneficial uses. The goals of the GSP are aligned with the goals of the Elk Grove General Plan in establishing sustainable management of water resources within the SASb and promoting a reliable and safe water supply. Implementation of the GSP will help achieve the goals, objectives, and policies identified in the Elk Grove General Plan.

In addition, UWMP is required to promote efficient use of water supply and support GSP goals of providing a long-term sustainable supply of groundwater for beneficial uses. In their respective UWMPs, urban water suppliers must do the following:

- Assess the reliability of water sources over a 20-year planning horizon.
- Describe demand management measures and water shortage contingency plans.
- Report progress toward meeting a targeted 20 percent reduction in per-capita urban water consumption by 2020.
- Discuss the use and planned use of recycled water.

The Project is located within EGWD's Service Area 1, the demand and supply of which is discussed in the 2020 EGWD Urban Water Management Plan (EGWD 2021). The EGWD 2015 UWMP, as well as the 2015 and 2020 actual water demands are factored into the GSP (Northern Delta Groundwater Sustainability Agency, Omochumne-Hartnell Water District, Reclamation District 551, Sacramento Central Groundwater Authority, Sacramento County Sloughhouse Resource Conservation District 2021).

City of Elk Grove General Plan

The City's current General Plan was adopted in 2021 and consisted of a comprehensive update of the previous General Plan. The General Plan goals, policies, and standards are based on the General Plan Vision Statement and supporting principles. The City of Elk Grove General Plan (City of Elk Grove 2021) contains the following policies related to hydrology and water quality:

- **Policy NR-3-1:** Ensure that the quality of water resources (e.g., groundwater, surface water) is protected to the extent possible.
- **Policy NR-3-2:** Integrate sustainable stormwater management techniques in site design to reduce stormwater and control erosion.
- **Policy NR-3-3:** Implement the City's NPDES permit through the review and approval of development project and other activities regulated by the permit.
- **Policy NR-3-5:** Continue to coordinate with public and private water users, including users of private wells, to maintain and implement a comprehensive groundwater management plan.
- **Policy NR-3-6:** Support and coordinate with the efforts of the Sacramento Central Groundwater Authority in the development, adoption and ongoing implementation of the Groundwater Sustainability Plan for the South American Subbasin.
- **Policy ER-2-2:** Require that all new projects not result in new or increased flooding impacts on adjoining parcels or on upstream and downstream areas.
- **Policy ER-2-6:** Development shall not be permitted on land subject to flooding during a 100-year event, based on the most recent floodplain mapping prepared by FEMA or updated mapping acceptable to the City of Elk Grove. Potential development in areas subject to flooding may be clustered onto portions of a site which are not subject to flooding, consistent with other policies of this General Plan.
- **Policy ER-2-8:** The City will not enter into a development agreement, approve a building permit or entitlement, or approve a tentative or parcel map for a project located within an urban level of flood protection area, identified in Figure 8-2 [of the General Plan], unless it meets one or more established flood protection findings. Findings shall be based on substantial evidence, and substantial evidence necessary to determine findings shall be consistent with criteria developed by DWR.

  The four potential findings for a development project within the 200-year floodplain, as shown on Figure 8-2 [of the General Plan], are: 1) the project has an urban level of flood protection from flood management facilities that is not reflected in the most recent map of the 200-year floodplain; 2) conditions imposed on the project will provide for an urban level of flood protection; 3) adequate progress has been made toward construction of a flood protection system to provide an urban level of flood protection for the project, as indicated by the Central Valley Flood Protection Board; or 4) the project is a site improvement that would not result in the development of any structure, and would not increase risk of damage to neighboring development or alter the conveyance area of a watercourse in the case of a flood.
- **Policy ER-2-9:** Ensure common understanding and consistent application of urban level of flood protection criteria and conditions.
- **Policy ER-2-10:** Work with regional, county, and State agencies to develop mechanisms to finance the design and construction of flood management and drainage facilities to achieve an urban level of flood protection in affected areas.
- **Policy ER-2-17:** Require all new urban development projects to incorporate runoff control measures to minimize peak flows of runoff and/or assist in financing or otherwise implementing comprehensive drainage plans.
- **Policy ER-2-18:** Drainage facilities should be properly maintained to ensure their proper operation during storms.
- **Policy ER-6-8:** Continue to participate in the Sacramento Stormwater Quality Partnership to educate and inform the public about urban runoff pollution, work with industries and businesses to encourage pollution prevention, require construction activities to reduce erosion and pollution, and require developing projects to include pollution controls that will continue to operate after construction is complete.
- **Policy LU-5-12:** Integrate sustainable stormwater management techniques in site design to reduce stormwater runoff and control erosion.

City of Elk Grove Storm Drainage Master Plan

The City's comprehensive Storm Drain Master Plan identifies drainage concepts for upgrading the existing storm drainage and flood control collection system. It identifies and analyzes existing drainage deficiencies throughout the City, provides a range of drainage concepts for the construction of future facilities required to serve the City at buildout of the existing General Plan, and establishes criteria for selecting and prioritizing projects. The Storm Drain Master Plan may also be used for the development of a capital drainage financing program (City of Elk Grove 2011).

City of Elk Grove Municipal Code

Municipal Code Chapter 15.12: Stormwater Management and Discharge Control

Municipal Code Chapter 15.12 provides authority to the City for inspection and enforcement related to control of illegal and industrial discharges to the City storm drainage system and local receiving waters. It also addresses the requirement for BMPs and regulations to reduce pollutants in the City's stormwater.

Municipal Code Chapter 16.44: Land Grading and Erosion Control

Municipal Code Chapter 16.44 establishes administrative procedures, standards for review and implementation, and enforcement procedures for controlling erosion, sedimentation, other pollutant runoff, and the disruption of existing drainage and related environmental damage to ensure compliance with the City's NPDES permit. The chapter requires, before grading activities begin, that a detailed set of plans be developed that include measures to minimize erosion, sediment, and dust created by development activities.

3.7.2 Environmental Setting

HYDROLOGY AND DRAINAGE

Regional Hydrology

The Project site is situated in the southeastern portion of the City, in the southern end of the Sacramento Valley, approximately 30 miles northeast of the confluence of the San Joaquin and Sacramento Rivers. The Sacramento and San Joaquin Valleys make up the Great Valley geomorphic province of California, bounded by the Sierra Nevada to the east and the Coast Ranges to the west. The two rivers join in the Sacramento–San Joaquin Delta (the Delta), a massive complex of wetlands, marshes, and channels, and enter the Pacific Ocean at the San Francisco Bay.

The Sacramento River is the largest river and watershed system in California. Its watershed covers about 27,000 square miles and carries about 31 percent of the State's total surface water runoff. Primary tributaries include the Pit, Feather, and American Rivers (SRWP 2010). The mouth of the Sacramento River is at Suisun Bay near Antioch, where it combines with the San Joaquin River. Following winter rains and Sierra snowmelt, the Sacramento River and its tributaries would historically rise and inundate their broad floodplains. This dynamic system deposited rich alluvial soil, changing the river's course and creating oxbow lakes and backwater, clearing debris and streambeds, and supporting miles of wetlands and riparian forest (USFWS 2007).

Development began in the lower portions of the Sacramento River watershed in the mid-1800s to take advantage of the proximity of two large rivers and fertile soils. Reclamation districts began to form in the early 1900s to construct canal and levee systems as a means for controlling or preventing natural flood events in the low-lying areas adjacent to the river. However, the river channel and levees could not contain the floodwaters from larger storm events. In 1917, after the massive floods of 1907 and 1909, the State of California developed the Sacramento River Flood Control Project. This project involved a system of weirs (lowered and armored sections of levees design to be overtopped by high flows) that release floodwaters into a bypass system when flows exceed the downstream capacity of the river channel.

Local Hydrology

Surface water resources in the City are part of the Morrison Creek Stream Group, and include Elder, Elk Grove, Laguna, Morrison, Strawberry, and Whitehouse Creeks. The Morrison Creek Stream Group drainage basin covers 192

square miles. The nine creeks that drain into Morrison Creek flow southwest and eventually drain into the Beach-Stone Lakes area west of Interstate 5 (I-5). The Project site is approximately 0.2 mile south of Elk Grove Creek and is within the Elk Grove Creek West watershed. Similar to other creeks in the City, Elk Grove Creek has been altered by development and consists of a concrete lined channel in the vicinity of the Project site. Additionally, the Cosumnes River and its floodplain generally form the southeastern boundary of the City, approximately 2.3 miles south of the Project site, and is part of the San Joaquin River watershed.

Stormwater Drainage

Urban runoff is created by stormwater draining from impervious surfaces in developed areas. As stormwater flows from individual sites, it is traditionally collected in curb and gutter drainage systems and directed to larger storm drains that eventually drain to surface waters. Urban runoff within the City is conveyed through a storm drainage and flood control collection system that includes nearly 400 miles of underground piping and 60 miles of natural and constructed channels (City of Elk Grove 2018). The City owns and operates these facilities and channels, including pump stations, levees, detention basins, and other flood control features.

The Project site is currently vacant, dominated by grassland, and an aging rail spur roughly bisects the property. Stormwater currently flows as sheet flow to the northwest from south of the Project site (Munselle Civil Engineering 2021). There are no existing storm drain facilities on the Project site.

Flood Conditions

The Project site is located outside of the 100-year flood zone and any special flood hazard areas as delineated by FEMA FIRM 06067C0338H. Additionally, it is located outside of the 200-year floodplain as determined by DWR and the City (City of Elk Grove 2018).

Dams

"Dam inundation" refers to flooding that occurs when dams fail. Dam failure can occur from overtopping of a dam during extreme storm events, water seepage through earthen embankments causing internal soil erosion, or damage caused by seismic activities. The Project site is within the inundation area of a failure at Folsom Dam. Folsom Dam, constructed between 1948 and 1956, is a series of earthen dams that flank a central concrete dam. Large storms in 1986 and 1997 forced dam operators to discharge high water flows into the lower American River to avoid overtopping of the dam. However, these high river flows stress river levees that protect the Sacramento area. An auxiliary spillway was construction adjacent to Folsom Dam's main concrete dam in 2017. The gates of the new spillway structure sit 50 feet lower than the main spillway, which allows the dam manager to better react to large floods by safely releasing water earlier in a storm event (Reclamation 2020). Currently, Folsom Dam is undergoing a 5-year effort to raise the height of the dam by 3.5 feet to increase flood protection for downstream residents. The work involves packing rock, gravel, dirt, and pavement on top of the earthen portions of the Folsom Dam and dike system. The central concrete dam is already taller than the adjacent earthen dams and will not be raised. The Project will increase the dam capacity by 4 percent (Bizjak 2020).

Climate Change

Climate change forecasts indicate that more intense rainfall events, generating more frequent or extensive runoff and flooding, will occur in the future. Extreme weather events, such as high-intensity storms, could breach levees along the Sacramento and American Rivers, especially where levees have not yet been upgraded or do not meet the minimum FEMA requirements. Furthermore, as peak flow patterns increase as a result of more rapid snowmelt, the levees currently protecting the Sacramento region from flooding events come under greater stress from long-term increases in peak, high-volume runoff. The increased pressure and flow of the Sacramento and American Rivers will exacerbate the Sacramento region's existing vulnerability to severe flooding (Ascent Environmental 2017). For these reasons, areas within floodplains will be more vulnerable to heightened flooding threats (City of Elk Grove 2021).

Groundwater Hydrology

The Central Valley of California contains the largest basin-fill aquifer system in the state. From north to south, the aquifer system is divided into the Sacramento Valley, Sacramento–San Joaquin Delta, and San Joaquin Valley subregions. The City of Elk Grove is situated within the Sacramento Valley Groundwater Basin, South American Subbasin. Within the larger South American Subbasin, there are three groundwater basins—North, Central, and South—in Sacramento County. The Project site is located within the Central Basin, which includes the City of Elk Grove and areas of Sacramento County and the City of Sacramento (City of Elk Grove 2018). Groundwater in the Central Basin generally occurs in a shallow aquifer zone (Modesto Formation) or in an underlying deeper aquifer zone (Mehrten Formation). Groundwater in the shallow aquifer is generally located between 20 and 100 feet below the ground surface (bgs) depending on where and when the measurement is taken and extends to approximately 200 to 300 feet bgs (SCWA 2006). The deep aquifer is separated from the shallow aquifer by a discontinuous clay layer that partially isolates the two water sources. There is some potential for movement of groundwater between the two aquifers, usually the result of heavy groundwater pumping. The base of the potable water portion of the deep aquifer averages approximately 1,400 feet bgs. Water in this aquifer typically has higher concentrations of total dissolved solids, iron, and manganese (SCWA 2006).

Older municipal wells and all domestic wells have been constructed in the shallow aquifer zone to avoid treatment. However, the policies and practices of SCWA in the Central Basin have led to the construction of larger municipal wells that target the Mehrten Formation where higher production rates can be achieved and less impact on private domestic wells would occur. This policy has in turn led to California Department of Health Services (now the California Department of Health Care Services) requiring treatment of all municipal wells to meet primary and secondary drinking water quality standards (SCWA 2006).

Intensive use of groundwater over the past 60 years has resulted in a general lowering of groundwater elevations centered near Elk Grove. This localized lowering of the groundwater table is called a cone of depression. The Elk Grove cone of depression was first identified in the *Central Sacramento County Groundwater Management Plan* (SCWA 2006).

Local Groundwater

According to the Phase I Environmental Site Assessment (ESA) prepared for the Project (Haley & Aldrich, Inc. 2020), the monitoring wells in the area measured groundwater level to be 160 feet below ground surface (bgs) according to the State Water Resources Control Board's (SWRCB) Groundwater Ambient Monitoring and Assessment Program. Additionally, the environmental database search completed as part of the Phase I ESA referenced 10 groundwater level measurements taken from 1966-1982 at a northwestern adjacent well with depth to water ranging from approximately 97 to 118 feet bgs (Haley & Aldrich, Inc. 2020).

Groundwater Management

The Project site is located in Service Area 1 of the Elk Grove Water District (EGWD). This area is supplied by seven groundwater wells with an operational capacity of approximately 12 million gallons per day and treated by the EGWD's water treatment plant, which has a maximum daily capacity of 10.4 million gallons per day (EGWD 2021). The system includes the treatment plant, two storage tanks, production wells serving the plant, and various distribution system pipes and appurtenances. Groundwater is delivered to the plant from EGWD's deep production wells, which is then treated and delivered to customers. The groundwater production from the wells within Service Area 1 has been relatively stable, with approximately 4,077 acre-feet per year (AFY) produced in 2020.

The EGWD *2020 Urban Water Management Plan* provides projections of groundwater supplies in normal, single dry, and five consecutive dry years through 2045, and indicates that groundwater supply potential is approximately 8,000 AFY during all year types (EGWD 2021). The EGWD 2015 UWMP, as well as the 2015 and 2020 actual water demands are factored into the GSP (Northern Delta Groundwater Sustainability Agency, Omochumne-Hartnell Water District, Reclamation District 551, Sacramento Central Groundwater Authority, Sacramento County Sloughhouse Resource Conservation District 2021).

WATER QUALITY

Surface Water Quality

Water quality in the portions of the Sacramento River and the northern Delta waterways has been affected by historical gold mining activities along tributaries, agricultural runoff, and discharges of industrial and urban waste. In recent decades, treatment of wastewater and management of urban stormwater have improved greatly (SRWP 2010). Industrial dischargers and municipalities now provide at least secondary treatment of wastewater, and many cities have implemented urban stormwater programs to reduce the effects of urban runoff on adjacent waterways (SRWP 2010).

In 1990, the Central Valley RWQCB identified the Delta as impaired by mercury because levels of mercury in fish posed a risk of human and wildlife consumers. Mercury in the Delta comes from historic mining activities; naturally occurring mercury in soils; and atmospheric deposition from the burning of coal, natural gas, and petroleum (EPA 2015). Methylmercury is the most hazardous form of mercury in the environment and can cause neurological symptoms and developmental concerns for children exposed in utero. It also can cause reduced reproductive success in wildlife. Because mercury is absorbed from food sources and accumulates in the tissues of organisms as they age (referred to as bioaccumulation), mercury concentrations increase in higher levels of the food chain.

Around the time when it identified the issue with mercury, the Central Valley RWQCB also found that north Delta waterways were contaminated with high levels of organophosphate agricultural pesticides (particularly diazinon and chlorpyrifos). To address this issue, limitations were placed on the concentration of these pesticides allowed in discharges. Over the past 25 years, this has resulted in changes in agricultural practices so that levels of organophosphate pesticides meet WQOs in most samples (Central Valley RWQCB 2014).

Water quality in North and South Stone Lakes is affected by drainage that originates in urban and agricultural areas and empties into the lakes and surrounding wetlands (USFWS 2007). Baseline water quality data collected between 1997 and 2000 found high levels of selenium in both North and South Stone Lakes. Temperature, pH, dissolved oxygen, and conductivity were within normal levels; however, approximately half of the samples had elevated levels of copper and one-quarter of the samples had high levels of lead. Nearly all sites had concentrations of pesticide diazinon above recommended chronic criteria (USFWS 2007). The Stone Lakes National Wildlife Refuge developed a water quality monitoring plan in 2019; however, data are not yet available.

Groundwater Quality

Groundwater quality can be affected by many things, but the chief controls on the characteristics of groundwater quality are the source and chemical composition of recharge water, properties of the host sediment, and history of discharge or leakage of pollutants. Groundwater quality in the South American Subbasin is considered to be good with the exception of arsenic detections in a few locations (EGWD 2021). According to EGWD's *2020 UWMP* (EGWD 2021), water produced specifically from the Laguna Formation and the Mehrten Formation is considered generally good quality with low total dissolved solids. Water produced from the Laguna Formation frequently meets all water quality standards, but exceeds the Maximum Contaminant Level (MCL) for arsenic within some areas of the Central Basin. The Mehrten Formation frequently contains manganese and odor, which exceed the MCLs. The upper portion of the Mehrten Formation, (between 300 feet to 700 feet within the EGWD's boundaries), occasionally exceeds the MCL for arsenic within the Central Basin. The lower portion of the Mehrten Formation, (between 700 feet to 1,300 within the EGWD's boundaries) generally has concentrations of arsenic that are below the MCL, but still require treatment to remove manganese and odor. Additionally, the quality of groundwater supplied by EGWD meets the drinking water standards (EGWD 2021).

3.7.3 Impacts and Mitigation Measures

METHODOLOGY

Evaluation of potential hydrology and water quality impacts is based on a review of existing documents and studies that address water resources in the vicinity of the Project. This includes Project site plans and the Stormwater Quality Design Report prepared for the Project (Munselle Civil Engineering 2021). Information obtained from these sources was reviewed and summarized to describe existing conditions and to identify potential environmental effects, based on the thresholds of significance presented below. In determining the level of significance, the analysis assumes that the Project would comply with relevant federal, State, and local laws, ordinances, and regulations.

THRESHOLDS OF SIGNIFICANCE

An impact on hydrology or water quality would be significant if implementation of the Project would:

- violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water 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, in a manner that would:
  - result in substantial erosion or siltation on- or off-site,
  - result in flooding on-site or off-site,
  - 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, or
  - impede or redirect flood flows;
- in flood hazard, tsunami, or seiche zones, risk release of pollutants due to Project inundation; or
- conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.

ISSUES NOT DISCUSSED FURTHER

Impede or Redirect Flood Flows

As discussed above, the Project site is not within a 100-year flood zone or any special flood hazard areas delineated by FEMA, nor is it within a 200-year floodplain as delineated by DWR and the City. For these reasons, the Project would not have the potential to impede or redirect flood flows, and this issue is not discussed further in this EIR.

Release of Pollutants from Floods, Tsunamis, or Seiches

The Project site is not within a 100-year flood zone or any special flood hazard areas delineated by FEMA, nor is it within a 200-year floodplain as delineated by DWR and the City. Additionally, the Project site is not within any tsunami or seiche zones, because it is located inland and is not in the vicinity of any enclosed water bodies. Therefore, potential flood and contamination hazards associated with these events are not discussed further in this EIR.

ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Impact 3.7-1: Violate Any Water Quality Standards or Waste Discharge Requirements or Substantially Degrade Surface Water or Groundwater Quality

Runoff from construction sites and developed areas can carry pollutants and sediment, which can be potentially harmful to downstream receiving waters. Project site construction activities would consist of ground-disturbing and excavation activities that would expose soils to wind and water erosion and potentially transport pollutants to surface water bodies, particularly during storm events. In addition, accidental spills of construction-related fuels, oils, hydraulic fluid, and other hazardous substances may contaminate stormwater flows, resulting in the potential degradation of surface water quality downstream of the disturbance area. The potential for erosion and transport of sediment and pollutants would be addressed through compliance with City Municipal Code Chapter 16.44, which requires all projects to implement erosion control measures to minimize erosion, sediment, dust, and other pollutant runoff created by improvement activities. Additionally, the Project would be required to obtain coverage under the Construction General NPDES permit, including completion of a SWPPP. Upon completion of Project construction, the total area of impervious surfaces would be increased compared to existing conditions. However, the Project would incorporate LID measures, which are included in the stormwater quality management plan consistent with the MS4 permit, to maintain pre-Project runoff quantities. All pollution control measure would be designed in accordance with the Sacramento Region Stormwater Quality Design Manual and enforced through the City permitting process. Because the Project would comply with existing regulations, the impact associated with the Project's potential to violate water quality standards or waste discharge requirements or otherwise degrade surface water or groundwater would be **less than significant**.

Construction

Construction of the Project would involve vegetation removal, grading, excavation, temporary stockpiling of soils, infrastructure installation, and building construction. Construction could expose soils to wind and water erosion and potentially allow transport of pollutants to surface water bodies, particularly during storm events. Furthermore, accidental spills of construction-related fuels, oils, hydraulic fluid, and other hazardous substances may contaminate stormwater flows, resulting in the potential degradation of surface water quality downstream of the disturbance area.

During construction, water quality would be protected through compliance with all permits and stormwater management requirements in accordance with all federal, State, and local laws applicable at the time of construction. Improvement plans provided to the City before authorization of each construction phase would be required to conform to provisions of Municipal Code Chapter 16.44 (Land Grading and Erosion Control) and Chapter 15.12 (Drainage Control) that are in effect at the time of submittal. Because Project construction would disturb more than 1 acre of soil, the Project would be subject to the Construction General Permit from the Central Valley RWQCB.

Compliance with these requirements would include the preparation of a SWPPP. A SWPPP has two major objectives: (1) to help identify the sources of sediment and other pollutants that 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 and nonstormwater discharges. The SWPPP would be prepared by a qualified SWPPP practitioner and/or a qualified SWPPP developer, would identify water quality controls consistent with the Central Valley RWQCB requirements, and would ensure that runoff quality meets WQOs and maintains the beneficial uses of the affected waterways. The SWPPP would describe the site controls, erosion and sediment controls, means of waste disposal, implementation of approved local plans, control of postconstruction sediment and erosion control measures, and management controls unrelated to stormwater. The BMPs identified in the SWPPP would be implemented during all site development activities. The SWPPP would have the following required elements:

- Temporary BMPs would be identified to prevent the transport of earthen materials and other construction waste materials from disturbed land areas, stockpiles, and staging areas during periods of precipitation or runoff. BMPs may include using filter fences, fiber rolls, erosion control blankets, mulch (such as wood chips), temporary drainage swales, settling basins, and other erosion-control methods.

- Temporary BMPs would be identified to prevent the tracking of earthen materials and other waste materials from the Project site to off-site locations. BMPs may include using stabilized points of entry/exit for construction vehicles/equipment and designated vehicle/equipment rinse stations, as well as sweeping.
- Temporary BMPs would be identified to prevent wind erosion of earthen materials and other waste materials from the Project site. BMPs may include routine application of water to disturbed land areas and covering of stockpiles with plastic or fabric sheeting.
- A spill prevention and containment plan would be prepared and implemented to protect surface water and groundwater resources. Project contractors would be responsible for storing on-site materials and implementing temporary BMPs capable of capturing and containing pollutants from fueling operations, fuel storage areas, and other areas used for the storage of hydrocarbon-based materials. This would include maintaining materials on-site (such as oil-absorbent booms and sheets) for the cleanup of accidental spills, using drip pans beneath construction equipment, training site workers in spill response measures, immediately cleaning up spilled materials in accordance with directives from the Central Valley RWQCB, and properly disposing of waste materials at an approved off-site location that is licensed to receive such wastes.
- Temporary BMPs would be identified to capture and contain pollutants generated by concrete construction, including using lined containment for rinse water to collect runoff from washing of concrete delivery trucks and equipment.
- Temporary BMPs would be identified for the containment and removal of drilling spoils generated from construction of bridge foundations and abutments.
- Daily inspection and maintenance of temporary BMPs would be required. The prime contractor would be required to maintain a daily log of temporary construction BMP inspections and keep the log on-site during Project construction for review by the Central Valley RWQCB.
- Tree removal activities, including the dropping of trees, would be confined to the construction limit boundaries.
- Construction boundary fencing would be required to limit disturbance and prevent access to areas not under active construction.
- Postconstruction BMPs and the BMP maintenance schedule would be identified. Postconstruction BMPs must address water quality, channel protection, overbank flood protection, and extreme flood protection.
- Disturbed areas would be revegetated with approved native seed mixes.
- Daily visual monitoring of stormwater and nonstormwater discharges would be required. Additional effluent monitoring for pH and turbidity may be required for some sites.

The SWPPP described above would be submitted to the City and the Central Valley RWQCB in conjunction with submission of the improvement and grading plans and NPDES permit coverage. City staff would review the SWPPP against the requirements of the Municipal Code. During construction, City staff would conduct regular inspections of the site to verify that effective stormwater BMPs are implemented and maintained.

Construction activities for Project implementation would result in ground disturbance that could potentially affect water quality. However, with proper implementation, the water quality protections required in accordance with NPDES, WDRs, and City permitting processes would reduce the potential for construction activities to adversely affect water quality. Therefore, during construction impacts associated with the Project's potential violation of water quality standards or waste discharge requirements or otherwise degrade surface water or groundwater quality would be **less than significant**.

Operation

Following Project implementation, the Project site would have a total impervious surface area of approximately 189,940 square feet (sf), resulting in an increase of approximately 171,806 sf of impervious surfaces compared to the existing conditions. The amount of stormwater runoff generated from an area is affected by development through conversion of vegetated or other pervious surfaces to impervious surfaces and by the development of drainage

systems that connect these impervious surfaces to streams or other water bodies. In this way, development can increase the rate of runoff and eliminate storage and infiltration that would naturally occur along drainage paths. As water runs off the land surface, it collects and carries materials and sediment, which can be potentially harmful to downstream receiving waters. Contaminants may affect the quality of surface waters if stormwater runoff is not captured and infiltrated. Additionally, runoff from impervious surfaces can become concentrated, causing erosion and increased sediment transport.

The Project site is within the boundary of the Phase 1 MS4 permit for the City and other co-permittees. In compliance with this MS4 permit, General Plan Policies NR-3-2, NR-3-3, and LU-5-12, and Municipal Code Chapter 15.12, the City must require projects within the permit boundary to implement sustainable stormwater management techniques in site design to reduce stormwater runoff and control erosion, low impact development (LID) practices and BMPs to control stormwater runoff and protect water quality. LID uses site design and stormwater management to maintain the site's predevelopment runoff rates and volumes. The goal of LID is to mimic a site's predevelopment hydrology by using design techniques that infiltrate, filter, store, evaporate, and detain runoff close to the source of rainfall. LID practices and standards are described in the 2018 Sacramento Region Stormwater Quality Design Manual.

The first priority for LID development is to control potential sources of pollution and prevent the contamination of rainwater runoff. This is referred to as source control and is accomplished through proper site design. The Stormwater Quality Design Manual requires the following source control measures for all projects:

- using efficient irrigation that does not generate runoff or overspray;
- protecting fueling areas to isolate spills and prevent contamination of runoff;
- incorporating natural depressions, rain gardens, or swales into the design to maximize natural water storage and infiltration;
- designing loading and unloading areas to minimize the chance of leaks and to keep any spilled or leaked materials out of the storm drain system;
- designing outdoor work areas, outdoor storage areas, and waste management and recycling storage areas to prevent rain, runoff, and other site water from washing pollutants into the storm drainage system;
- locating and designing vehicle wash areas so that wash water does not enter the storm drain system; and
- permanently marking storm drain inlets with "no dumping" messages.

The Project would include a sediment basin, a flat-bottom swale, disconnected pavement, and disconnected roof drains, consistent with the Sacramento County Storm Water Quality Design Manual. All stormwater from the site would be captured, stored, and infiltrated to maintain pre-Project runoff quantities. Runoff from the aggregate processing and recycling facility would be directed to a sediment basin that would be located near the southwestern portion of the Project site. After suspended sediment settles, runoff would be further treated in a bioretention pond, north of the sediment basin, before being released to a dry well to allow for percolation of the treated water. A second bioretention basin would be located near the entrance gate at Waterman Road. This bioretention basin would be used to treat runoff from the entry area before it is released into the City storm drain system. Therefore, although there would be an increase in impervious areas with the proposed improvements, the Project would maintain the overall runoff patterns compared to pre-Project conditions by dispersing runoff from new impervious surfaces into a sediment basin and bioretention area, thereby reducing the potential for contaminated runoff to affect water quality.

Additionally, it is anticipated that the Project would be required to obtain coverage under the Industrial General Permit, which regulates stormwater discharges associated with industrial activities. As required under the Industrial General Permit, dischargers must prepare and maintain an operational SWPPP as well as demonstrate conformance with applicable industrial BMPs. The operational SWPPP is required to contain a site map that identifies the site perimeter, areas where industrial activities would occur, stormwater collection and discharge points, and drainage patterns across the site. BMPs must be implemented and maintained to prevent pollutants from entering stormwater discharges or at reduced levels.

Therefore, compliance with these existing regulatory requirements would ensure that operation of the Project would not violate water quality standards or waste discharge requirements or otherwise degrade surface water or groundwater quality. As a result, Project operation would not violate the Water Quality Control Plan for the Sacramento River Basin and San Joaquin River Basin (Basin Plan). This impact would be **less than significant.**

Mitigation Measures

No mitigation is required for this impact.

Impact 3.7-2: Substantially Decrease Groundwater Supplies or Interfere Substantially with Groundwater Recharge Such That the Project May Impede Sustainable Groundwater Management

Implementation of the Project would increase the total extent of impervious area at the site but would allow for recharge of shallow groundwater systems by maintaining pre-Project conditions. Although implementing the Project would increase water demand relative to existing conditions, this change represents a small percentage of the overall demand in EGWD's Service Area 1 and would not substantially decrease groundwater supplies or impede sustainable groundwater management. This impact would be **less than significant**.

Impervious surfaces can intercept rainwater and inhibit infiltration that would recharge local groundwater systems. Over time, this can lead to declines in aquifer levels. This effect is especially pronounced in urban areas where stormwater runoff from large and continuous impervious areas is collected and routed away from the site through the storm drain system. As discussed for Impact 3.7-1, the Project would increase the total area of impervious surfaces at the site; however, stormwater systems would be designed to maintain pre-Project conditions. Specifically, runoff from the aggregate processing and recycling facility would be directed to a sediment basin that would be located near the southwestern portion of the Project site. After suspended sediment settles, runoff would be further treated in a bioretention pond, north of the sediment basin, before being released to a dry well to allow for percolation of the treated water. These changes would allow for recharge of local shallow groundwater systems.

Groundwater supply can also be affected by water demand if the water supplier relies on groundwater sources. As described in Section 3.7.2, "Environmental Setting," the Project site is served by EGWD through its Service Area 1 water system, which is entirely dependent on groundwater for supplies. Under existing conditions, groundwater production capacity available to EGWD is 8,000 AFY. As discussed in EGWD's *2020 UWMP*, EGWD's water supplies are stable and reliable and have remained so over the last two decades. Under the Central Sacramento County Groundwater Management Plan, long-term groundwater quantity and quality protective measures have been performed throughout the basin by various agencies, including EGWD, to preserve groundwater assets. Additionally, EGWD's groundwater supplies account for approximately 8,000 AFY from the Central Basin's estimated sustainable groundwater yield of 273,000 AFY. The 2020 UWMP concludes that this quantity of available groundwater is more than sufficient to meet existing and projected future water demand within EGWD's service area (EGWD 2021). The EGWD 2015 UWMP, as well as the 2015 and 2020 actual water demands are factored into the GSP (Northern Delta Groundwater Sustainability Agency, Omochumne-Hartnell Water District, Reclamation District 551, Sacramento Central Groundwater Authority, Sacramento County Sloughhouse Resource Conservation District 2021). Upon Project completion, the total annual water demand for the Project would be approximately 6 million gallons, or approximately 22 AFY, which could be met through the available groundwater production capacity associated with EGWD Service Area 1. See Section 3.12, "Utilities" for more information related to water supply for the Project.

Although implementing the Project would increase water demand at the site relative to existing conditions, the change represents a small percentage of the service volume for the area and would not substantially decrease groundwater supplies. or impede sustainable groundwater management. In addition, because the GSP factored in water demands associated with the EGWD 2015 UWMP, as well as the 2015 and 2020 actual water demands, the Project would be consistent with the GSP and would not impede sustainable groundwater management. This impact would be **less than significant**.

Mitigation Measures

No mitigation is required for this impact.

Impact 3.7-3: Increase Localized Flooding Risk Because of Changes in Site Drainage

Implementation of the Project would increase the total area of impervious surfaces compared to existing conditions. The volume and rate of stormwater runoff generated from an area is affected by development through conversion of vegetated or other pervious surfaces to impervious surfaces and by the development of drainage systems that connect these impervious surfaces to streams or other water bodies. In this way, development can increase the rate of runoff and eliminate storage and infiltration that would naturally occur along drainage paths and increase the potential for localized flooding risk. However, the Project would incorporate LID measures, which are included in the stormwater quality management plan under the MS4 permit, to maintain pre-Project runoff quantities. This impact would be **less than significant**.

The volume and rate of stormwater runoff generated from an area is affected by development through conversion of vegetated or other pervious surfaces to impervious surfaces and by the development of drainage systems that connect these impervious surfaces to streams or other water bodies. In this way, development can increase the rate of runoff and eliminate storage and infiltration that would naturally occur along drainage paths creating a potential for localized flooding. As discussed for Impact 3.7-1, implementation of the Project would increase the total area of impervious surfaces compared to existing conditions. However, the Project would incorporate LID measures, which are included in the stormwater quality management plan under the MS4 permit, to maintain pre-Project runoff quantities. The Project would include a sediment basin, a flat-bottom swale, disconnected pavement, and disconnected roof drains, consistent with the Sacramento Region Storm Water Quality Design Manual Stormwater. Therefore, although there would be an increase in impervious areas with the proposed improvements, the Project would maintain the overall runoff patterns compared to pre-Project conditions by dispersing runoff from new impervious surfaces into a sediment basin and bioretention area. Therefore, for the same reasons discussed above for Impact 3.7-1, implementation of the Project would have a **less-than-significant** impact relative to drainage and localized flooding.

Mitigation Measures

No mitigation is required for this impact.

3.8 LAND USE AND PLANNING

This land use analysis evaluates consistency of the Project with applicable land use plans and policies. The physical environmental effects associated with the Project, many of which pertain to issues of land use compatibility (e.g., noise, aesthetics, air quality), are evaluated in other sections of Chapter 3 of this Draft EIR.

No comments regarding land use and planning were received in response to the NOP during the public scoping period.

3.8.1 Regulatory Setting

FEDERAL

No federal plans, policies, regulations, or laws related to land use are applicable to the Project.

STATE

California Code of Regulations Title 24

The California Code of Regulations (CCR) Title 24 regulates design and safety of commercial and public buildings and facilities. Title 24 includes the California Building Code (CBC), the California Electric Code (CEC), the California Mechanical Code (CMC), green building standards code, plumbing code, and energy code. The CBC contains general building design and construction requirements relating to fire and life safety, structural safety, and access compliance. CBC provisions provide minimum standards to protect public health and safety and property by regulating and controlling the design, construction, quality of materials, use and occupancy, location and maintenance of all buildings and structures and certain equipment. The (CEC) contains electrical design and construction standards. Provisions contained in the CEC provide minimum standards to regulate and control the design, construction, installation, quality of materials, location and operation of electrical equipment, wiring, and systems. The (CMC) contains mechanical design and construction standards. Provisions contained in the CMC provide minimum standards to regulate and control the design, construction, installation, quality of materials, location, operation, and maintenance or use of heating, ventilating, cooling, refrigeration systems, incinerators, and other miscellaneous heat-producing appliances (DGS 2021).

LOCAL

Elk Grove General Plan

The City's current General Plan was updated in 2021.. The General Plan goals, policies, and standards are based on the General Plan Vision Statement and supporting principles.

The City's Vision Statement describes the values and aspirations for Elk Grove in the future:

> The City of Elk Grove is…
>
> A great place to make a home, a great place to work, and a great place to play. Our community is diverse, healthy, safe, and family-oriented, with thriving schools and plentiful parks, shops, and places to work. Agriculture, rural homes, and urban life flourish together. Our natural resources, including water and open spaces, are protected and offer a variety of recreational opportunities. Community members travel easily by automobile, by bicycle, on foot, or using transit. The City is proactive in making daily life healthy and sustainable—considering the needs of future generations while protecting what is valued today.

> Well-maintained infrastructure and the right mix of services and amenities draw new and dynamic businesses and development to Elk Grove. Development is guided to ensure responsible growth and opportunities for a diversity of individuals who call Elk Grove home.

The nine supporting principles support the Vision Statement:

- Regional Goals & Influence – Our Regional Neighbors Know Us & Our Contributions
- Infill Development & Outward Expansion – Development Fills in the Gaps & Expansion Occurs with Purpose
- Economic Vitality – Our Economy is Diverse & Balanced & Enhances Quality of Life
- Community Identity – City Core, Heritage & Well-Known Neighborhoods
- Rural Areas – Protecting Our Farming Heritage & Rural Life
- Open Space & Resource Management – Outdoor Recreation Is Right Outside Our Door
- Multimodal & Active Transportation – Moving Around Anywhere, Any Way
- Sustainable & Healthy Community – Clean, Green Practices & Healthy Living
- Coordinated Services, Technology, & Infrastructure –Services for the Needs of All Residents

The Project site is located in an infill area as denoted by Figure 4-1, Potential Activity and Infill Areas in Elk Grove, in the General Plan (City of Elk Grove 2021). It is not located in any community plan or Land Use Policy Area, Special Planning Area, or Specific Plan Area (City of Elk Grove 2021: Figure 4-2).

The City of Elk Grove General Plan contains the following policies and actions related to land use that apply to the Project:

- **Policy LU-1-2**: Foster development patterns that will achieve a complete community in Elk Grove, particularly with respect to increasing jobs and economic development and increasing the City's jobs-to-employed resident ratio while recognizing the importance of housing and a resident workforce.
- **Policy LU-1-4:** Land uses in the vicinity of areas designated as Heavy Industry should include transitions in intensity, buffers, or other methods to reduce potential impacts on residential uses. Buffers may include land designated for other uses, such as light industry, commercial, or open spaces.
- **Policy LU-1-9:** Encourage employee-intensive commercial and industrial uses to locate within walking distance of fixed transit stops. Encourage regional public transit providers to provide or increase coordinated services to areas with high concentrations of residents, workers, or visitors.
- **Policy LU-2-3:** Prioritize and incentivize development in infill areas identified in Figure 4-1.
- **Policy LU-2-4:** Require new infill development projects to be compatible with the character of surrounding areas and neighborhoods, support increased transit use, promote pedestrian and bicycle mobility, and increase housing diversity.
- **Policy ED-1-1:** Allow for a variety of sizes and types of commercial development in order to attract a diverse range of job opportunities and types.
- **Policy ED-1-3:** Encourage the full and efficient use of vacant and underutilized parcels in appropriately designated areas to support the development and expansion of targeted commercial uses.
- **Policy ED-1-4:** Use public/private partnerships as a means to revitalize existing employment and/or retail spaces, and to catalyze development of vacant sites.
- **Policy ED-1-5:** Support existing and prospective businesses that contribute to meeting Elk Grove's strategic economic goals and facilitate their relocation and expansion as appropriate.
- **Policy ED-2-1**: Continue to improve Elk Grove's jobs/housing ratio by expanding local employment opportunities, with an emphasis on attracting jobs in sectors and industries that are well matched for the skills of the local workforce.
- **Policy ED-2-2:** Maximize the use of nonresidential land for employment-generating and revenue-generating uses.

Elk Grove Municipal Code - Zoning

Zoning districts are established to classify, regulate, designate, and distribute the uses of land and buildings; to regulate and restrict the height and bulk of buildings; to regulate the area of yards and other open spaces around buildings; and to regulate the density of population. The Elk Grove Municipal Code (EGMC) includes the City's zoning cide (Title 23). The City of Elk Grove is divided into zoning districts that are grouped into two categories called base zoning districts, and overlay zoning districts. Chapter 23.24 of the EGMC, "Establishment of Zoning Districts," and Chapter 23.27, "Allowed Uses and Required Entitlements" establish the definitions and allowed uses for each zoning district within the City. These districts conform to and implement the City's General Plan land use.

The proposed Project is zoned Heavy Industrial (HI). Chapter 23.24 of the EGMC, "Establishment of Zoning Districts," and Chapter 23.27 establish the definitions and allowed uses for land use designations and zoning districts within the City. EGMC describes the HI district as follows (EGMC 23.24.020):

- Heavy Industrial (HI). The heavy industrial district is intended to accommodate a broad range of manufacturing and industrial uses. Permitted activity may vary from medium to higher intensity uses that involve the manufacture, fabrication, assembly, or processing of raw and/or finished materials. Sites designated for heavy industrial uses should not be located near residential development. Furthermore, residential uses of any kind are prohibited in this district with the exception of a caretaker residence. Development standards are designed to limit noise, odors, traffic, hazardous materials, and other health and safety risks as well as ensure safe, functional, and environmentally sound development. Development should be auto-accommodating with sufficient and clearly defined parking and loading areas.

3.8.2 Environmental Setting

PROJECT SITE

The Project site is approximately 25-acres and is located in an industrial setting in the southeastern quadrant of the City of Elk Grove, in Sacramento County (Figures 2-1 and 2-2). It is located at 10000 Waterman Road (Assessor's Parcel Numbers 134-0181-001, 134-0181-002 and 134-0181-003), approximately 3,000 feet north of Grant Line Road. The Project site is currently vacant, and contains an old railroad spur. The project site has a Heavy Industrial land use designation and zoning district.

SURROUNDING USES

The Project site is bordered to the north by light and heavy industrial lands, including a storage facility. To the south is an existing asphalt oil storage/processing facility with three large tanks, production facilities, and a railroad spur. To the east, across Waterman Road, are resource management and conservation lands under a triple 500-kilovolt Pacific Gas and Electric Company transmission line right-of-way, as well as light industrial lands. Approximately 700 feet east of the Project site is a low-density, residential community. To the west, is the Union Pacific Railroad's 300-foot-wide right-of-way, which separates the Project site from heavy and light industrial land uses, a park, and low-density residential areas.

A description of the visual character of the Project site and the surrounding area is provided in Section 3.1 of this document, "Aesthetics."

3.8.3 Impacts and Mitigation Measures

METHODOLOGY

Evaluation of potential land use impacts is based on a review of the planning documents and policies pertaining to the Project site, including the Elk Grove General Plan and the zoning ordinance (EGMC Title 23, Chapter 23), and review of available aerial imagery. The analysis discusses whether the Project would be consistent with applicable land use plans and policies that were adopted for the purpose of avoiding or mitigating an environmental effect. Land use policies in the General Plan pertain to the type, location, and physical form of new development. For this analysis, policies "adopted for the purpose of avoiding or mitigating an environmental effect" are considered those that, if implemented and adhered to, would avoid or mitigate physical impacts on the environment. For each potential impact, the analysis compares the impact to the thresholds of significance listed below and determines the impact's level of significance under CEQA. The reader is referred to the other sections of this EIR for evaluations of Project consistency with City and State policies and regulations related to environmental issue areas beyond land use.

The discussion also addressed the potential to affect an established community by considering the existing land uses on the site and surrounding the site.

THRESHOLDS OF SIGNIFICANCE

A land use impact would be significant if implementation of the Project would:

- physically divide an established community or
- 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.

ISSUES NOT DISCUSSED FURTHER

The Project consists of a construction aggregate production and recycling facility. It would not physically divide an established community and does not involve the development of new residences. The Project site is surrounded by industrial uses, with the exception of one residence located across the street on Waterman Road. Because the project site is not part of an established community and it would not physically affect existing residential structure, it would not physically divide an established community. This issue is not discussed further.

ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Impact 3.8-1: Cause a Significant Environmental Impact Related to a Conflict with Any Land Use Plan, Policy, or Regulation Adopted for the Purpose of Avoiding or Mitigating an Environmental Effect

The Project involves construction and operation of an asphalt and cement recycling and processing facility with associated industrial equipment and storage, as well as supporting structures, such as a commercial shop, a lab, an employee facility, and an associated parking lot. The Project would be consistent with the site's existing land use designation and zoning. This impact would be **less-than-significant**.

The Project would involve construction and operation of a ready-mix concrete facility, an asphalt and concrete recycling plant with associated equipment, and a hot-mix asphalt facility comprising two tankers, five 47-foot-tall silos (total height of 78 feet), and a drum plant. Other structures would include a 1,200 square foot (sf) commercial shop, a 1,200 sf lab, a 1,200 sf employee facility, and a 10 space associated parking lot. As described above, the Project site is designated for Heavy Industrial (HI) land use pursuant to the City's 2021 General Plan.

The land use of the Project would be industrial and commercial in nature and may be described as manufacturing and recycling. According to the City's zoning ordinance, EGMC Title 23, Zoning, major manufacturing (aggregate) requires a conditional use permit and recycling is permitted in an HI zoning district. The applicant has submitted a Conditional Use Permit application to the City for approval of the proposed manufacturing and recycling uses.

As described above, General Plan Policy LU-1-4 states that land uses surrounding heavy industrial uses should include transitions in intensity, buffers, or other methods to reduce potential impacts on residential uses. Buffers may include land designated for other uses, such as light industry, commercial, or open space. Properties adjacent to the Project site are zoned for Office Park (MP), Open Space (O), Heavy Industrial (HI), Light Industrial (LI), Residential (RD-5), and Parks and Recreation (PR) uses. One of the parcels, to the east, contains a water retention pond and a residence. The residence is approximately 300 feet from the Project site, on the east side of Waterman Road. The other two parcels are currently vacant. Pursuant to Policy LU-1-4, these parcels meet the zoning requirements to provide buffer space between the Project and the surrounding residential communities. The specific, physical environmental effects associated with the Project, many of which pertain to issues of land use compatibility (e.g., noise, aesthetics, air quality) are evaluated in other sections of Chapter 3 of this Draft EIR. As described in those other sections, there would be no significant and unavoidable impacts on residential land uses related to implementation of the Project. Therefore, this impact would be **less than significant**.

Mitigation Measures

No mitigation is required for this impact.

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3.9 NOISE

This section includes a summary of applicable regulations related to noise and vibration, a description of ambient-noise conditions, and an analysis of potential short-term construction and long-term operational-source noise impacts associated with the Project. Mitigation measures are recommended as necessary to reduce significant noise impacts. Additional data are provided in Appendix D.

No comments regarding noise were received in response to the NOP during the public scoping period.

3.9.1 Regulatory Setting

FEDERAL

US Environmental Protection Agency Office of Noise Abatement and Control

The US Environmental Protection Agency (EPA) Office of Noise Abatement and Control was originally established to coordinate Federal noise control activities. In 1981, EPA administrators determined that subjective issues such as noise would be better addressed at more local levels of government. Consequently, in 1982 responsibilities for regulating noise control policies were transferred to state and local governments. However, documents and research completed by the EPA Office of Noise Abatement and Control continue to provide value in the analysis of noise effects.

Federal Interagency Committee on Aviation Noise

The Federal Interagency Committee on Aviation Noise (FICAN) has provided estimates of the percentage of people expected to be awakened when exposed to specific Sound Exposure Levels (SELs) inside a home (FICAN 1997). However, FICAN did not recommend a threshold of significance based on the percent of people awakened. According to the FICAN study, 10 percent of the population is estimated to be awakened when the SEL interior noise level exceeds 81 dBA. An estimated 5 to 10 percent of the population is affected when the SEL interior noise level is between 65 and 81 dBA, and few sleep awakenings (less than 5 percent) are predicted if the interior SEL is less than 65 dBA.

Federal Transit Administration

To address the human response to ground vibration, the Federal Transit Administration (FTA) has set forth guidelines for maximum-acceptable vibration criteria for different types of land uses. These guidelines are presented in Table 3.9-1.

Table 3.9-1 Ground-Borne Vibration (GBV) Impact Criteria for General Assessment

Land Use Category	GVB Impact Levels (VdB re 1 micro-inch/second)		
	Frequent Events[1]	Occasional Events[2]	Infrequent Events[3]
Category 1: Buildings where vibration would interfere with interior operations.	65 [4]	65 [4]	65 [4]
Category 2: Residences and buildings where people normally sleep.	72	75	80
Category 3: Institutional land uses with primarily daytime uses.	75	78	83

Notes: VdB = vibration decibels referenced to 1 µ inch/second and based on the root mean square (RMS) velocity amplitude.

[1] "Frequent Events" is defined as more than 70 vibration events of the same source per day.

[2] "Occasional Events" is defined as between 30 and 70 vibration events of the same source per day.

[3] "Infrequent Events" is defined as fewer than 30 vibration events of the same source per day.

[4] This criterion is based on levels that are acceptable for most moderately sensitive equipment such as optical microscopes. Vibration-sensitive manufacturing or research would require detailed evaluation to define acceptable vibration levels.

Source: FTA 2018.

STATE

California Department of Transportation

In 2013, Caltrans published the Transportation and Construction Vibration Manual (Caltrans 2013a). The manual provides general guidance on vibration issues associated with construction and operation of projects in relation to human perception and structural damage. Table 3.9-2 presents recommendations for levels of vibration that could result in damage to structures exposed to continuous vibration.

Table 3.9-2 Caltrans Recommendations Regarding Levels of Vibration Exposure

PPV (in/sec)	Effect on Buildings
0.4-0.6	Architectural damage and possible minor structural damage
0.2	Risk of architectural damage to normal dwelling houses
0.1	Virtually no risk of architectural damage to normal buildings
0.08	Recommended upper limit of vibration to which ruins and ancient monuments should be subjected
0.006-0.019	Vibration unlikely to cause damage of any type

Notes: PPV= Peak Particle Velocity; in/sec = inches per second

Source: Caltrans 2020.

LOCAL

City of Elk Grove General Plan

The City's current General Plan was updated in 2021. The General Plan goals, policies, and standards are based on the General Plan Vision Statement and supporting principles. The City of Elk Grove General Plan contains the following policies and actions related to noise that apply to the Project (City of Elk Grove 2021):

- **Policy N-1-1:** New development of the uses listed in Table 8-3 [presented as Table 3.9-3 of this Draft EIR] shall conform with the noise levels contained in the table. All indoor and outdoor areas shall be located, constructed, and/or shielded from noise sources in order to achieve compliance with the City's noise standards.
- **Policy N-1-2:** Where noise mitigation measures are required to achieve the standards of Tables 8-3 and 8-4 [presented as Tables 3.9-3 and 3.9-4, respectively, in this Draft EIR], 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, including the use of distance from noise sources, have been integrated into the project.
- **Policy N-1-4:** Protect noise-sensitive land uses, identified in Table 8-3 [presented as Table 3.9-3 in this Draft EIR], from noise impacts.
- **Policy N-1-8:** For development projects that are subject to discretionary review, the City may require applicants to assess potential construction noise impacts on nearby sensitive uses and to minimize impacts on those uses.
- **Policy N-1-9:** For projects involving the use of major vibration-generating equipment (e.g., pile drivers, vibratory rollers) that could generate groundborne vibration levels in excess of 0.2 in/sec ppv, the City may require a project-specific vibration impact assessment to analyze potential groundborne vibrational impacts and may require measures to reduce ground vibration levels.

Table 3.9-3 Maximum Allowable Noise Exposure, Transportation Noise Sources

Land Use	Outdoor Activity Areas[1,2] L_{dn}	Interior Spaces	
		L_{dn}	L_{eq}[3]
Residential	60[4,7]	45	-
Residential subject to noise from railroad tracks, aircraft overflights, or similar noise sources which produce clearly identifiable, discrete noise events (the passing of a single train, as opposed to relatively steady noise sources as roadways)	60[4,7]	40[6]	-
Transient Lodging	60[5,7]	45	-
Hospitals, Nursing Homes	60[4,7]	45	-
Theaters, Auditoriums, Music Halls	-	-	35
Churches, Meeting Halls	60[4,7]	-	40
Office Buildings	-	-	45
Schools, Libraries, Museums	-	-	45

[1] Where the location of outdoor activity areas is unknown, the exterior noise level standards shall be applied to the property line of the receiving land use. Where it is not practical to mitigate exterior noise levels at patios or balconies of apartment complexes, a common area such as a pool or recreation area may be designated as the outdoor activity area.

[2] Transportation projects subject to California Department of Transportation review or approval shall comply with the Federal Highway Administration noise standards for evaluation and abatement of noise impacts.

[3] As determined for a typical worst-case hour during periods of use.

[4] Where it is not possible to reduce noise in outdoor activity areas to 60 dB L_{dn} or less using a practical application of the best available noise reduction measures, an exterior noise level of up to 65 dB L_{dn} may be allowed provided that available exterior noise level reduction measures have been implemented and interior noise levels are in compliance with this table.

[5] In the case of hotel/motel facilities or other transient lodging, outdoor activity areas such as pool areas may not be included in the project design. In these cases, only the interior noise level criterion will apply.

[6] The intent of this noise standard is to provide increased protection against sleep disturbance for residences located near railroad tracks.

[7] In cases where the existing ambient noise level exceeds 60 dB, the maximum allowable project-related permanent increase in ambient noise levels shall be 3 dB L_{dn}.

Source: City of Elk Grove 2021:8-57.

- **Policy N-2-1:** Noise created by new proposed non-transportation noise sources shall be mitigated so as not to exceed the noise level standards of Table 8-4 [presented as Table 3.9-4 in this Draft EIR], as measured immediately within the property line of lands designated for noise-sensitive uses.
- **Policy N-2-2:** The following criteria shall be used as CEQA significance thresholds for transportation and stationary noise sources:
  - Where existing ambient noise levels are less than 60 dB L_{dn} at the outdoor activity areas of noise-sensitive uses, a +5 dB L_{dn} increase in noise levels shall be considered significant; and
  - Where existing ambient noise levels range between 60 and 65 dB L_{dn} at the outdoor activity areas of noise-sensitive uses, a +3 dB L_{dn} increase in noise levels shall be considered significant; and
  - Where existing ambient noise levels are greater than 65 dB L_{dn} at the outdoor activity areas of noise-sensitive uses, a +1.5 dB L_{dn} increase in noise levels shall be considered significant. Public roadway improvements to alleviate traffic congestion and safety hazards shall utilize FHWA [Federal Highway Administration] noise standards to allow a reasonable dollar threshold per dwelling to be used in the evaluation and abatement of impacts.
  - The standards outlined in Table 8-4 [presented as Table 3.9-4 in this Draft EIR] shall not apply to public projects to alleviate traffic congestion and safety hazards.
- **Policy N-2-4:** Where sound walls or noise barriers are constructed, strongly encourage and consider requiring a combination of berms and walls to reduce the apparent height of the wall and produce a more aesthetically appealing streetscape.

Table 3.9-4 Noise Level Performance Standards for New Projects Affected by or Including Non-Transportation Noise Sources*

Performance Standards for Stationary Sources	Noise Level Descriptor	Daytime (7 a.m. to 10 p.m.)	Nighttime (10 p.m. to 7 a.m.)
Performance Standards for Typical Stationary Noise Sources[1]	Hourly L_{eq}, dB	55[3,4]	45[3,4]
Performance Standards for Stationary Noise Sources Which Are Tonal, Impulsive, Repetitive, or Consist Primarily of Speech or Music[2]	Hourly L_{eq}, dB	50[3,4]	40[3,4]

* Applies to noise-sensitive land uses only.

[1] These standards will apply generally to noise sources that are not tonal, impulsive, or repetitive in nature. Typical noise sources in this category would include HVAC systems, cooling towers, fans, and blowers.

[2] These standards apply to noises which are tonal in nature, impulsive, repetitive, or which consist primarily of speech or music (e.g., humming sounds, outdoor speaker systems). Typical noise sources in this category include pile drivers, drive-through speaker boxes, punch presses, steam valves, and transformer stations. HVAC/pool equipment are exempt from these standards.

[3] These noise levels do not apply to residential units established in conjunction with industrial or commercial uses (e.g., caretaker dwelling). HVAC/pool equipment are exempt from these standards.

[4] The City may impose noise level standards which are more or less restrictive based upon determination of existing low or high ambient noise levels.

Source: City of Elk Grove 2021:8-58.

City of Elk Grove Municipal Code

Chapter 6.32 of the Elk Grove Municipal Code addresses noise generation in the City. Section 6.32.080 of the Elk Grove Municipal Code contains exterior noise standards for sensitive receptors, outlined in Table 6.32-1 (presented as Table 3.9-5 in this Draft EIR). The metric of these standards is L_{eq} because they are identical to the noise level performance standards included in the General Plan presented in Table 3.9-4.

Table 3.9-5 Exterior Noise Standards for Sensitive Receptors[1]

	7:00 am to 10:00 pm	10:00 pm to 7:00 am
Stationary noise sources, generally	55 dB	45 dB
Stationary noise sources which are tonal, impulsive, repetitive, or consist primarily of speech or music	50 dB	40 dB

[1] Sensitive receptors are defined as receiving premises used for residential purposes and for nonresidential purposes that are sensitive to noise, including, but not limited to, residential dwellings, schools, hospitals, hotels, and community care facilities.

Source: Section 6.32.080 of the Elk Grove Municipal Code.

In the case that the measured ambient noise level exceeds the noise levels identified in Table 6.32-1 (presented as Table 3.9-5 in this Draft EIR), a maximum increase of 5-dBA is allowed where the ambient noise level is above that shown in the table but less than 60 dB. Where the ambient noise level is between sixty (60) dB and sixty-five (65) dB, inclusive, a maximum increase of three (3) dB above the ambient noise level is allowed. Finally, where the ambient noise level is greater than sixty-five (65) dB, a maximum increase of one and one-half (1.5) dB above the ambient noise level is allowed.

Section 6.32.100 of the Elk Grove Municipal Code provides the several exemptions to all noise regulations specified within Section 6.32.100 of the Code. Relevant to the Project, the exemption includes:

- noise sources associated with construction, repair, remodeling, demolition, paving, or grading of any real property, provided said activities only occur between the hours of 7:00 a.m. and 7:00 p.m. when located in close proximity to residential uses. Noise associated with these activities not located in close proximity to residential uses may occur between the hours of 6:00 a.m. and 8:00 p.m. However, when an unforeseen or unavoidable condition occurs during a construction project and the nature of the project necessitates that work in process be continued until a specific phase is completed, the contractor or owner shall be allowed to continue work after 7:00 p.m. and to operate machinery and equipment necessary until completion of the specific work in progress can be brought to conclusion under conditions which will not jeopardize inspection acceptance or create undue financial hardships for the contractor or owner;

- noise sources associated with the authorized collection of solid waste (e.g., refuse and garbage); and
- noise sources associated with the minor maintenance and operation of residential real property, including but not limited to pool equipment and heating and air conditioning units. Additionally, yard maintenance equipment and other power tools may be allowed provided the activities take place between the hours of 7:00 a.m. and 10:00 p.m.

City of Elk Grove Construction Specifications Manual

The Elk Grove Construction Specifications Manual (City of Elk Grove 2020) includes the following standards that are applicable to the Project and noise:

- Section 7-8.01: Allowable Times and Hours of Work. Unless otherwise noted in the Special Provisions or approved by the City, no work shall be done between the hours of 6 p.m. and 7 a.m., or on Saturdays, Sundays, or legal holidays. Unless otherwise noted in the Special Provisions or approved by the City, no lane of traffic shall be closed to the public during the peak hours of 7:00 a.m. to 8:30 a.m. and 3:00 p.m. to 6:00 p.m., except as necessary for the proper care and protection of work already performed or in case of an emergency repair as defined below. Exceptions are allowed only with the City's review with the conditional use permit.
- Section 7-8.02: Off-Period Work. A written request to work between 6 p.m. and 7 a.m. or on Saturdays, Sundays, or legal holidays, or to close a lane of traffic during peak hours must be submitted at least two (2) Working Days in advance of the intended work. The City will evaluate the Contractor's request to determine if there is a benefit to the City, a nuisance or a hazard to the public, the project, or the area surrounding the site, and if the Contractor should pay any City overtime costs related to the off-period work. The City may place conditions on any approval of off-period work based on this analysis.
- Section 10-6: Noise Control. The Contractor shall comply with all local noise control and noise level rules, regulations, and ordinances that apply to the Work. The Special Provisions may contain specific or additional requirements. Internal combustion engines used for any purpose on the Work must be equipped with a muffler recommended by the manufacturer.

3.9.2 Environmental Setting

ACOUSTIC FUNDAMENTALS

Before discussing the noise setting for the Project, background information about sound, noise, vibration, and common noise descriptors is needed to provide context and a better understanding of the technical terms referenced throughout this section.

Sound, Noise, and Acoustics

Sound can be described as the mechanical energy of a vibrating object transmitted by pressure waves through a liquid or gaseous medium (e.g., air) to a human ear. Noise is defined as loud, unexpected, annoying, or unwanted sound.

In the science of acoustics, the fundamental model consists of a sound (or noise) source, a receiver, and the propagation path between the two. The loudness of the noise source and obstructions or atmospheric factors affecting the propagation path to the receiver determines the sound level and characteristics of the noise perceived by the receiver. The field of acoustics deals primarily with the propagation and control of sound.

Frequency

Continuous sound can be described by frequency (pitch) and amplitude (loudness). A low-frequency sound is perceived as low in pitch. Frequency is expressed in terms of cycles per second, or hertz (Hz) (e.g., a frequency of 250 cycles per second is referred to as 250 Hz). High frequencies are sometimes more conveniently expressed in kilohertz, or thousands of hertz. The audible frequency range for humans is generally between 20 Hz and 20,000 Hz.

Sound Pressure Levels and Decibels

The amplitude of pressure waves generated by a sound source determines the loudness of that source. Sound pressure amplitude is measured in micro-Pascals (mPa). One mPa is approximately one hundred billionth (0.00000000001) of normal atmospheric pressure. Sound pressure amplitudes for different kinds of noise environments can range from less than 100 to 100,000,000 mPa. Because of this large range of values, sound is rarely expressed in terms of mPa. Instead, a logarithmic scale is used to describe sound pressure level (SPL) in terms of decibels (dB).

Addition of Decibels

Because decibels are logarithmic units, SPLs cannot be added or subtracted through ordinary arithmetic. Under the decibel scale, a doubling of sound energy corresponds to a 3-dB increase. In other words, when two identical sources are each producing sound of the same loudness at the same time, the resulting sound level at a given distance would be 3 dB higher than if only one of the sound sources was producing sound under the same conditions. For example, if one idling truck generates an SPL of 70 dB, two trucks idling simultaneously would not produce 140 dB; rather, they would combine to produce 73 dB. Under the decibel scale, three sources of equal loudness together produce a sound level approximately 5 dB louder than one source.

A-Weighted Decibels

The decibel scale alone does not adequately characterize how humans perceive noise. The dominant frequencies of a sound have a substantial effect on the human response to that sound. Although the intensity (energy per unit area) of the sound is a purely physical quantity, the loudness or human response is determined by the characteristics of the human ear.

Human hearing is limited in the range of audible frequencies as well as in the way it perceives the SPL in that range. In general, people are most sensitive to the frequency range of 1,000–8,000 Hz and perceive sounds within this range better than sounds of the same amplitude with frequencies outside of this range. To approximate the response of the human ear, sound levels of individual frequency bands are weighted, depending on the human sensitivity to those frequencies. Then, an "A-weighted" sound level (expressed in units of A-weighted decibels) can be computed based on this information.

The A-weighting network approximates the frequency response of the average young ear when listening to most ordinary sounds. When people make judgments of the relative loudness or annoyance of a sound, their judgment correlates well with the A-scale sound levels of those sounds. Thus, noise levels are typically reported in terms of A-weighted decibels. All sound levels discussed in this section are expressed in A-weighted decibels. Table 3.9-6 describes typical A-weighted noise levels for various noise sources.

Table 3.9-6 Typical A-Weighted Noise Levels

Common Outdoor Activities	Noise Level (dBA)	Common Indoor Activities
	— 110 —	Rock band
Jet fly-over at 1,000 feet	— 100 —	
Gas lawn mower at 3 feet	— 90 —	
Diesel truck at 50 feet at 50 miles per hour	— 80 —	Food blender at 3 feet, Garbage disposal at 3 feet
Noisy urban area, daytime, Gas lawn mower at 100 feet	— 70 —	Vacuum cleaner at 10 feet, Normal speech at 3 feet
Commercial area, Heavy traffic at 300 feet	— 60 —	
Quiet urban daytime	— 50 —	Large business office, Dishwasher next room
Quiet urban nighttime	— 40 —	Theater, large conference room (background)
Quiet suburban nighttime	— 30 —	Library, Bedroom at night
Quiet rural nighttime	— 20 —	
	— 10 —	Broadcast/recording studio
Lowest threshold of human hearing	— 0 —	Lowest threshold of human hearing

Source: Caltrans 2013b: Table 2-5.

Human Response to Changes in Noise Levels

The doubling of sound energy results in a 3-dB increase in the sound level. However, given a sound level change measured with precise instrumentation, the subjective human perception of a doubling of loudness will usually be different from what is measured.

Under controlled conditions in an acoustical laboratory, the trained, healthy human ear can discern 1-dB changes in sound levels when exposed to steady, single-frequency ("pure-tone") signals in the mid-frequency (1,000–8,000 Hz) range. In general, the healthy human ear is most sensitive to sounds between 1,000 and 5,000 Hz and perceives both higher and lower frequency sounds of the same magnitude with less intensity (Caltrans 2013b:2-18). In typical noisy environments, changes in noise of 1–2 dB are generally not perceptible. However, it is widely accepted that people can begin to detect sound level increases of 3 dB in typical noisy environments. Further, a 5-dB increase is generally perceived as a distinctly noticeable increase, and a 10-dB increase is generally perceived as a doubling of loudness (Caltrans 2013b:2-10). Therefore, a doubling of sound energy (e.g., doubling the volume of traffic on a highway) that would result in a 3-dB increase in sound would generally be perceived as barely detectable.

Sleep Disturbance and Single-Event Noise

A single event is an individual distinct loud activity, such as a blasting event, an aircraft overflight, a train or truck passage, or any other brief and discrete noise-generating activity. Noise exposure quantified in terms of 24-hour-averaged descriptors, such as L_{dn} or CNEL, can mask the potential for annoyance or sleep disturbance associated with individual loud events due to the averaging process.

Extensive studies have been conducted regarding the effects of single-event noise on sleep disturbance, with the SEL metric being a common metric used for such assessments. SEL represents the entire sound energy of a given single-event normalized into a one-second period regardless of event duration. As a result, the single-number SEL metric contains information pertaining to both event duration and intensity. Another descriptor utilized to assess single-event noise is the maximum, or L_{max}, noise level associated with the event. A problem with utilizing L_{max} to assess single events is that the duration of the event is not considered.

Due to the wide variation in test subjects' reactions to noises of various levels (some test subjects were awakened by indoor SEL values of 50 dB, whereas others slept through indoor SEL values exceeding 80 dB), no definitive consensus has been reached with respect to a universal criterion to apply to environmental noise assessments. The Federal Interagency Committee on Aviation Noise (FICAN) has provided estimates of the percentage of people expected to be awakened when exposed to specific SEL inside a home (FICAN 1997). According to the FICAN study, an estimated 5 to 10 percent of the population is affected when interior SEL noise levels are between 65 and 81 dB, and few sleep awakenings (less than 5 percent) are predicted if the interior SEL is less than 65 dB.

Indirect adverse health effects from noise exposure include effects associated with sleep disturbance, which can impair cognitive performance, and alteration of hormone levels, heart rate, sleep patterns, and mood. Other potential health impacts from exposure to excessive noise levels include increased levels of hypertension, high blood pressure, and cardiovascular disease (King et al. 2012:1018, as cited in Governor's Office of Planning and Research 2017:137), as well as strokes and ulcers and other digestive disorders (Caltrans 2011:D-34). Other adverse health effects from environmental noise include cognitive impairment in children, and tinnitus (a perception of noise or "ringing" in the ears) (World Health Organization 2018:2).

Vibration

Vibration is the periodic oscillation of a medium or object with respect to a given reference point. Sources of vibration include natural phenomena (e.g., earthquakes, volcanic eruptions, sea waves, landslides) and those introduced by human activity (e.g., explosions, machinery, traffic, trains, construction equipment). Vibration sources may be continuous, (e.g., operating factory machinery) or transient in nature (e.g., explosions). Vibration levels can be depicted in terms of amplitude and frequency, relative to displacement, velocity, or acceleration.

Vibration amplitudes are commonly expressed in peak particle velocity (PPV) or root-mean-square (RMS) vibration velocity. PPV and RMS vibration velocity are normally described in inches per second (in/sec) or in millimeters per second. PPV is defined as the maximum instantaneous positive or negative peak of a vibration signal. PPV is typically

used in the monitoring of transient and impact vibration and has been found to correlate well to the stresses experienced by buildings (FTA 2006:7-5, Caltrans 2013b:6).

Although PPV is appropriate for evaluating the potential for building damage, it is not always suitable for evaluating human response. It takes some time for the human body to respond to vibration signals. In a sense, the human body responds to average vibration amplitude. The RMS of a signal is the average of the squared amplitude of the signal, typically calculated over a 1-second period. As with airborne sound, the RMS velocity is often expressed in decibel notation as vibration decibels (VdB), which serves to compress the range of numbers required to describe vibration (FTA 2006:7-4; Caltrans 2013a:7). This is based on a reference value of 1 micro inch per second.

The typical background vibration-velocity level in residential areas is approximately 50 VdB. Ground vibration is normally perceptible to humans at approximately 65 VdB. For most people, a vibration-velocity level of 75 VdB is the approximate dividing line between barely perceptible and distinctly perceptible levels (FTA 2006:7-8; Caltrans 2013a:27).

Typical outdoor sources of perceptible ground vibration are construction equipment, steel-wheeled trains, and traffic on rough roads. If a roadway is smooth, the ground vibration is rarely perceptible. The range of interest is from approximately 50 VdB, which is the typical background vibration-velocity level, to 100 VdB, which is the general threshold where minor damage can occur to fragile buildings. Construction activities can generate sufficient ground vibrations to pose a risk to nearby structures. Constant or transient vibrations can weaken structures, crack facades, and disturb occupants (FTA 2006:7-5).

Vibrations generated by construction activity can be transient, random, or continuous. Transient construction vibrations are generated by blasting, impact pile driving, and wrecking balls. Continuous vibrations are generated by vibratory pile drivers, large pumps, and compressors. Random vibration can result from jackhammers, pavement breakers, and heavy construction equipment.

Table 3.9-7 summarizes the general human response to different ground vibration-velocity levels.

Table 3.9-7 Human Response to Different Levels of Ground Noise and Vibration

Vibration-Velocity Level	Human Reaction
65 VdB	Approximate threshold of perception.
75 VdB	Approximate dividing line between barely perceptible and distinctly perceptible. Many people find that transportation-related vibration at this level is unacceptable.
85 VdB	Vibration acceptable only if there are an infrequent number of events per day.

Notes: VdB = vibration decibels referenced to 1 µ inch/second and based on the root mean square (RMS) velocity amplitude.

Source: FTA 2006:7-8.

Common Noise Descriptors

Noise in our daily environment fluctuates over time. Various noise descriptors have been developed to describe time-varying noise levels. The following are the noise descriptors used throughout this section.

Equivalent Continuous Sound Level (L_{eq}): L_{eq} represents an average of the sound energy occurring over a specified period. In effect, L_{eq} is the steady-state sound level containing the same acoustical energy as the time-varying sound level that occurs during the same period (Caltrans 2013b:2-48). For instance, the 1-hour equivalent sound level, also referred to as the hourly L_{eq}, is the energy average of sound levels occurring during a 1-hour period and is the basis for noise abatement criteria used by California Department of Transportation (Caltrans) and Federal Transit Administration (FTA) (Caltrans 2013b:2-47; FTA 2006:2-19).

Maximum Sound Level (L_{max}): L_{max} is the highest instantaneous sound level measured during a specified period (Caltrans 2013b:2-48; FTA 2006:2-16).

Day-Night Level (L_{dn}): L_{dn} is the energy average of A-weighted sound levels occurring over a 24-hour period, with a 10-dB "penalty" applied to sound levels occurring during nighttime hours between 10 p.m. and 7 a.m. (Caltrans 2013b:2-48; FTA 2006:2-22).

Community Noise Equivalent Level (CNEL): CNEL is the energy average of the A-weighted sound levels occurring over a 24-hour period, with a 10-dB penalty applied to sound levels occurring during the nighttime hours between 10 p.m. and 7 a.m. and a 5-dB penalty applied to the sound levels occurring during evening hours between 7 p.m. and 10 p.m. (Caltrans 2020).

Sound Exposure Level (SEL): SEL represents the entire sound energy of a given single-event normalized into a one-second period, regardless of the noise even duration. This metric is commonly used to assess the potential for sleep disturbance.

Sound Propagation

When sound propagates over a distance, it changes in level and frequency content. The manner in which a noise level decreases with distance depends on the factors discussed below.

Geometric Spreading

Sound from a localized source (i.e., a point source) propagates uniformly outward in a spherical pattern. The sound level attenuates (or decreases) at a rate of 6 dB for each doubling of distance from a point source. Roads and highways consist of several localized noise sources on a defined path and hence can be treated as a line source, which approximates the effect of several point sources, thus propagating at a slower rate in comparison to a point source. Noise from a line source propagates outward in a cylindrical pattern, often referred to as cylindrical spreading. Sound levels attenuate at a rate of 3 dB for each doubling of distance from a line source.

Ground Absorption

The propagation path of noise from a source to a receiver is usually very close to the ground. Noise attenuation from ground absorption and reflective-wave canceling provides additional attenuation associated with geometric spreading. Traditionally, this additional attenuation has also been expressed in terms of attenuation per doubling of distance. This approximation is usually sufficiently accurate for distances of less than 200 feet. For acoustically hard sites (i.e., sites with a reflective surface between the source and the receiver, such as a parking lot or body of water), no excess ground attenuation is assumed. For acoustically absorptive or soft sites (i.e., those sites with an absorptive ground surface between the source and the receiver, such as soft dirt, grass, or scattered bushes and trees), additional ground-attenuation value of 1.5 dB per doubling of distance is normally assumed. When added to the attenuate rate associated with cylindrical spreading, the additional ground attenuation results in an overall drop-off rate of 4.5 dB per doubling of distance. This would hold true for point sources, resulting in an overall drop-off rate of up to 7.5 dB per doubling of distance.

Atmospheric Effects

Receivers located downwind from a source can be exposed to increased noise levels relative to calm conditions, whereas locations upwind can have lowered noise levels, as wind can carry sound. Sound levels can be increased over large distances (e.g., more than 500 feet) from the source because of atmospheric temperature inversion (i.e., increasing temperature with elevation). Other factors such as air temperature, humidity, and turbulence can also affect sound attenuation.

Shielding by Natural or Human-Made Features

A large object or barrier in the path between a noise source and a receiver attenuate noise levels at the receiver. The amount of attenuation provided by shielding depends on the size of the object and the frequency content of the noise source. Natural terrain features (e.g., hills and dense woods) and human-made features (e.g., buildings and walls) can substantially reduce noise levels. A barrier that breaks the line of sight between a source and a receiver will typically result in at least 5 dB of noise reduction (Caltrans 2013b:2-41; FTA 2006:5-6, 6-25). Barriers higher than the line of sight provide increased noise reduction (FTA 2006:2-12). Vegetation between the source and receiver is rarely effective in reducing noise because it does not create a solid barrier unless there are multiple rows of vegetation (FTA 2006:2-11).

EXISTING NOISE ENVIRONMENT

Existing Noise- and Vibration-Sensitive Land Uses

Noise-sensitive land uses are generally considered to include those uses where noise exposure could result in health-related risks to individuals, as well as places where quiet is an essential element of their intended purpose. Residential dwellings are of primary concern because of the potential for increased and prolonged exposure of individuals to both interior and exterior noise levels, and because of the potential for nighttime noise to result in sleep disruption. Additional land uses such as schools, transient lodging, historic sites, cemeteries, and places of worship are also generally considered sensitive to increases in noise levels. These land use types are also considered vibration-sensitive land uses in addition to commercial and industrial buildings where vibration would interfere with operations within the building, including levels that may be well below those associated with human annoyance.

The nearest noise-sensitive receptors are single family homes located on Falcon Creek Circle in the Casa Grande neighborhood. The eastern boundary of the Project site is located approximately 800 feet from residences on Trebbiano Circle, Roan Ranch Circle, and Oreo Ranch Circle in the Sonoma Creek neighborhood., and Hampton Oak Drive and Jennie McConnell Park to the west of the Project site. Additionally, single family residences are located on Provencial Court and Quarter Ranch Court to the east of the Project site. These locations are shown below in Figure 3.9-1.

Existing Noise Sources and Ambient Levels

To characterize the existing ambient noise environment at the Project site, long-term (24-hour continuous) and short-term ambient noise level measurements were conducted at two locations in the Project area on April 26, 2016 (see Figure 3.9-2). A Larson Davis Laboratories Model 820 precision integrating sound level meter was used for the ambient noise level measurement surveys. The meters were calibrated before use with Larson Davis Laboratories Model CAL200 acoustical calibrators to ensure measurement accuracy. The measurement equipment meets all pertinent specifications of the American National Standards Institute.

Monitoring site 1 was selected to be generally representative of typical noise exposure at residential development to the west of the Project site. Because the residences to the west of the site are not as affected by local traffic as the residences to the east of the Project site, Monitoring site 1 was monitored for a period of 6 consecutive hours.

Monitoring site 2 was selected to be generally representative of typical noise exposure at the nearest existing residence to the east of the Project site. Because the ambient noise environment at the residences to the east are more influenced by local traffic noise, two 15-minute traffic noise measurements were conducted with concurrent truck classification counts at Site 2. That data was used to calibrate the traffic noise prediction model for the prediction of baseline traffic noise levels at the nearest residences to the east of the Project site.

The results of the ambient noise measurement survey are summarized in Table 3.9-8.

Table 3.9-8 Summary of Existing Ambient Noise Measurements

Location[1]	Description	A-Weighted Sound Level (dB)	
		L_{eq}	L_{max}
Site 1	Western Portion of the Project Area – 200 feet from the Railroad Tracks	59	83
Site 2	Eastern Portion of the Project Area – 200 feet from the Waterman Road centerline	58	71

[1] Refer to Figure 3.9-2 for ambient noise level measurement locations.

Source: Data collected by Bollard Acoustical Consultants in 2021.

Source: Image produced by Bollard Acoustical Consultants, Inc. in 2021, adapted by Ascent Environmental in 2022.

Figure 3.9-1 Representative Nearest Sensitive Receptor Locations

The predominant noise source in the Project area is vehicle traffic on the surrounding roadway network. Existing traffic noise levels on roadway segments in the Project area (i.e., Waterman Road, Grant Line Road, and SR 99) modeled using calculation methods consistent with FHWA Traffic Noise Model, Version 2.5 and using average daily traffic (ADT) volumes provided in the traffic analysis conducted by Fehr & Peers and summarized in Section 3.11, "Transportation" (FHWA 2004). Table 3.9-9 summarizes the modeled existing traffic noise levels at 100 feet from the centerline of each area roadway segments, and lists distances from each roadway centerline to the 70, 65, and 60 L_{dn} traffic noise contours. For further details on traffic-noise modeling inputs and parameters, refer to Appendix D.

Table 3.9-9 Summary of Modeled Existing Traffic Noise Levels

Roadway Segment/Segment Description	Segment	L_{dn} (dB)	Distance (feet) from Roadway Centerline to L_{dn} Contour		
			70	65	60
Waterman Road	North of Project Site	67	39	85	183
	Project Site to Grant Line	58	29	63	137
Grant Line Road	East of Waterman	70	82	176	379
	Waterman to State Route 99	70	98	211	454
	West of State Route 99	70	66	142	306
State Route 99	North of Grant Line	77	424	914	1,969
	South of Grant Line	76	403	867	1,869

Notes: L_{dn} = Day-Night Level, dB = decibel

All modeling assumes average pavement, level roadways (less than 1.5% grade), constant traffic flow, and does not account for shielding of any type or finite roadway adjustments. All noise levels are reported as A-weighted noise levels. For additional details, refer to Appendix D for detailed traffic data, and traffic-noise modeling input data and output results.

Source: Modeled by Bollard Acoustical Consultants in 2021.

Source: Image produced by Bollard Acoustical Consultants, Inc. in 2021, adapted by Ascent Environmental in 2022.

Figure 3.9-2 Project Area

3.9.3 Impacts and Mitigation Measures

The following resources were used in this analysis:

- FTA's *Guide on Transit Noise and Vibration Impact Assessment* methodology (FTA 2018),
- FHWA's *Roadway Construction Noise Model User's Guide* (FHWA 2006),
- FHWA's *Traffic Noise Model Version 2.5* (FHWA 2004), and
- Environmental Noise and Vibration Assessment conducted by Bollard Acoustical Consultants (Bollard Acoustical Consultants 2021) included as Appendix D of this Draft EIR.

METHODOLOGY

Construction Noise and Vibration

To assess potential short-term (construction-related) noise and vibration impacts, sensitive receptors and their relative exposure were identified. Project-generated construction source noise and vibration levels were determined based on methodologies, reference emission levels, and usage factors from FTA's *Guide on Transit Noise and Vibration Impact Assessment* methodology (FTA 2018) and FHWA's *Roadway Construction Noise Model User's Guide* (FHWA 2006). Reference levels for noise and vibration emissions for specific equipment or activity types are well documented in the field of acoustics.

Operational Noise and Vibration

With respect to non-transportation-related (e.g., stationary) noise sources associated with Project implementation, the assessment of long-term (operation-related) impacts was based on reconnaissance data, reference noise emission levels, measured noise levels for activities and equipment associated with Project operation (e.g., asphalt mixing, use of batch plants, delivery activity), and standard attenuation rates and modeling techniques.

To assess potential long-term (operation-related) noise impacts related to Project-generated increases in traffic, noise levels were estimated using calculations consistent with FHWA's *Traffic Noise Model Version 2.5* (FHWA 2004) and Project-specific traffic data (Appendix D). The analysis is based on the reference noise emission levels for automobiles, medium trucks, and heavy trucks, with consideration given to vehicle volume, vehicle speed, roadway configuration, distance to the receiver, and ground attenuation factors. Truck use and vehicle speeds on area roadways were estimated from field observations and information in the Project-specific traffic report. Note that the modeling conducted does not account for any natural or human-made shielding (e.g., the presence of walls or buildings) or reflection off building surfaces.

To quantify the vibration generation of the proposed operations, reference vibration level data collected at an existing ready-mix concrete, concrete and asphalt recycle, and asphalt processing facility in recent years were used. A Larson Davis Laboratories Model 831 precision integrating sound level meter fitted with a PCB Electronics vibration transducer was used for the vibration surveys. The equipment was calibrated before use with a PCB Electronics vibration calibrator to ensure the accuracy of the measurements. The equipment used meets all pertinent specifications of the American National Standards Institute for precision vibration monitoring systems.

THRESHOLDS OF SIGNIFICANCE

For projects undertaken by the City of Elk Grove, City noise standards are reasonable and appropriate thresholds for determining the level of significance. A noise impact would be significant if implementation of the Project would:

- result in construction-generated noise levels at residential receptors exceeding the standards set forth in the Chapter 6.32 of the Elk Grove Municipal Code;

- result in long-term, traffic-generated noise levels exceeding the outdoor (i.e., 60 dB L_{dn}) and interior noise standards (i.e., 40-45 dB L_{dn} or 35-45 dB L_{eq}, depending on land use designation) for transportation noise sources as specified in Table 3.9-3 or an increase in ambient-noise levels of more than the allowable noise increment at nearby existing noise-sensitive land uses as specified in Policy N-2-2 in the City's General Plan;
- result in long-term noise levels generated by stationary or area sources that exceed City standards (Chapter 6.32 of the Elk Grove Municipal Code) for fixed noise sources, shown in Table 3.9-5 (i.e., 55 dB from 7:00 a.m. to 10:00 p.m. and 45 dB from 10:00 p.m. to 7:00 a.m.), at existing noise-sensitive land uses;
- result in interior SEL levels that exceed 65 dBA SEL, from operational truck traffic and stationary sources, during sensitive times of the day;
- Generation of a substantial temporary or permanent increase in noise levels above existing ambient levels that could result in an adverse effect on humans;
- result in construction-generated or operational vibration levels exceeding Caltrans's recommended standards with respect to the prevention of structural building damage, shown in Table 3.9-2 (i.e., 0.2 in/sec PPV) or human response, shown in Table 3.9-1, at nearby vibration-sensitive land uses;
- Be located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, expose people residing or working in the project area to excessive noise levels; or
- Expose people residing or working in the project area to excessive noise levels from a private airstrip.

ISSUES NOT DISCUSSED FURTHER

The public airports located closest to the Project site are Franklin Field, Sacramento Executive Airport, and Sacramento International Airport, all of which have noise contours that do not extend into the City of Elk Grove (City of Elk Grove 2018) . Sky Way Estates Airport and Borges-Clarksburg Airport are the private use airports closest to the Project site; however, they are not located within 2 miles of the site. As a result, noise impacts related to proximity to public and private airports and airstrips are not discussed further.

ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Impact 3.9-1: Expose Noise-Sensitive Receptors to Excessive Construction-Generated Noise Levels

Proposed construction areas are located close to existing noise-sensitive receptors. Noise-generating construction activity would be performed during daytime hours, when construction noise is exempt from noise standards by the Section 6.32.100 of the Elk Grove Municipal Code. Accounting for simultaneous equipment operation, proximity to existing sensitive receptors, which consist of single-family homes east and west of the Project site, and typical attenuation rates for noise levels associated with the loudest construction activities, noise levels would not result in exceedance of City noise standards at any nearby receptors or result in a substantial increase in noise levels that would impact area residents. This impact would be **less than significant.**

Short-term construction noise levels near the Project site would fluctuate depending on the type of equipment used, the number of pieces of equipment used, and the duration of use. The effects of construction noise largely depend on the type of construction activities being performed; noise levels generated by those activities; distances to noise-sensitive receptors; the relative locations of noise-attenuating features, such as vegetation and existing structures; and existing ambient noise levels. Construction generally occurs in several discrete stages, each phase requiring a specific complement of equipment with varying equipment type, quantity, and intensity. These variations in the operational characteristics of the equipment change the effect they have on the noise environment of a Project site and in the surrounding area for the duration of the construction period.

As discussed in Chapter 2, "Project Description," various pieces of heavy-duty equipment would be required for construction activities. Table 3.9-10 presents a list of construction equipment anticipated to be used for the Project, along with associated reference noise (i.e., L_{max}) levels associated with each type.

Table 3.9-10 Noise Emission Levels from Construction Equipment

Equipment Type	Typical Noise Level (dBA) at 50 feet
Drill rig (auger)	85
Compressor	80
Concrete mixer	85
Concrete pump truck	82
Concrete saw	90
Crane	85
Dozer	85
Grader	85
Excavator	85
Loader/backhoe/bobcat/forklift	80
Lifts (boom/man/scissor)	85
Paver	85
Pickup trucks	55
Roller	85
Scraper	85
Tractor	84
Truck	84
Welder	75
Pneumatic tools	85

Notes: All equipment is assumed to be fitted with a properly maintained and operational noise control device, pursuant to manufacturer specifications. Noise levels listed are manufacturer-specified noise levels for each piece of heavy construction equipment.

Source: FTA 2018.

Because of the different equipment types associated with various construction activities and the overlapping of phases, construction noise levels may vary throughout the phases of the Project depending on what components are constructed simultaneously. Material hauling and staging activities would generate noise associated with vehicle movement and would generally occur throughout the duration of construction activities. Construction activity would occur during daytime hours (i.e., 7:00 a.m. to 7:00 p.m.), consistent with Section 6.32.100 of the Elk Grove Municipal Code. Thus, construction noise was estimated for site preparation, building construction, and staging activities at the locations of the receptors shown in Figure 3.9-1 in Section 3.9.2, "Environmental Setting." Based on reference noise levels included in Table 3.9-10, assumed simultaneous operation of five pieces of equipment combining to affect the same receptor, and considering the types of equipment that are used during each phase, construction noise levels, by receptor location, are presented in Table 3.9-11.

Table 3.9-11 Noise Emission Levels from Construction Activities

Receptor	Noise Level (L_{eq} dBA) at 50 feet	Daytime Noise Standard (L_{eq}, dBA)
1	49	55
2	48	55
3	46	55
4	44	55
5	53	55
6	46	55
7	45	55
8	47	55

Notes: All equipment is assumed to be fitted with a properly maintained and operational noise control device, pursuant to manufacturer specifications. Noise levels listed are manufacture-specified noise levels for each piece of heavy construction equipment.
Source: Modeled by Bollard Acoustical Consultants in 2021.

Based on the modeling conducted, the resulting noise from Project construction would be highest at the site of receptor 5, but would be similar to existing ambient noise conditions in the Project area (see Table 3.9-8). No resulting noise would exceed the City of Elk Grove daytime noise standard of 55 dBA. In addition, construction activity would not occur outside the 7:00 a.m. to 7:00 p.m. construction period established by the City's Municipal Code. Therefore, this impact would be **less than significant**.

Mitigation Measures

No mitigation is required for this impact.

Impact 3.9-2: Generate Short-Term Construction-Related and Long-Term Operational Vibration Levels

The Project would entail the use of construction equipment and operational equipment that would generate groundborne vibration in the Project area.. During construction and operation of the Project, the nearest sensitive receptors are located approximately 1,000 feet or more from where construction would occur and the location of the proposed asphalt, ready-mix, and recycling facilities. At that distance, vibration levels would be well below the thresholds for annoyance or damage to residential structures (0.2 in/sec PPV). This impact would be **less than significant**.

Construction

Construction activities would require the use of various types of equipment, such as a loader, a dozer/tractor, a scraper, an excavator, a backhoe, a grader, a pump, a generator, and trucks (haul and passenger). Table 3.9-12 shows the maximum ground vibration levels generated by these types of equipment and activities. The construction activities may result in varying degrees of temporary ground vibration, depending on the specific construction equipment used and activities involved.

Table 3.9-12 Representative Ground Vibration and Noise Levels for Construction Equipment and Activity

Equipment or Activity	PPV at 25 feet (in/sec)	Approximate L_v (VdB) at 25 feet
Blasting	1.13	109
Large dozer	0.089	87
Caisson drilling	0.089	87
Loaded trucks	0.076	86
Rock breaker	0.059	83
Jackhammer	0.035	79
Small dozer	0.003	58

Notes: PPV = peak particle velocity; L_V = the root mean square velocity expressed in vibration decibels, assuming a crest factor of 4; VdB = vibration decibels.
Source: FTA 2018.

The vibration standards in Table 3.9-2 are used as significance thresholds for analyzing vibration impacts. As stated in the table, a vibration of 0.2 in/sec PPV or less typically will not result in structural damage. This same threshold also represents the level at which vibration would be potentially annoying to people in buildings (Caltrans 2002). For most construction projects, groundborne vibration levels would not pose a significant risk to nearby structures or occupants. Pile drivers are the most common piece of construction equipment that generates the greatest level of construction-related groundborne vibration; however, the Project would not involve the use of a pile driver.

The closest sensitive noise receptor is located more than 1,000 feet from the Project site. As shown above in Table 3.9-12, the highest level of vibration that would be generated from construction of the Project would be 1.13 in/sec PPV at a distance of 25 feet from blasting activities. Based on FTA's 2018 guidance, blasting activities would meet the threshold of 0.2 in/sec PPV at a distance of 80 feet from the source. The receptor distances (more than 1,000 feet) would be farther than this distance of 80 feet. Thus, no sensitive receptors would be exposed to excessive vibration. Construction-related impact to vibration would be **less than significant**.

Operation

To quantify the amount of vibration that would be generated during proposed operations, reference vibration level data collected at existing ready-mix concrete, concrete and asphalt recycling, and asphalt processing plant sites in recent years were used (Appendix D). These operations are located on interior portions of the site. The results of the vibration surveys indicate that vibration levels below 60 VdB can be expected at locations beyond 100 feet from the operating equipment. The nearest sensitive receptors are located approximately 1,000 feet or more from the proposed asphalt, ready-mix, and recycling facilities proposed at the Project site. At that distance, vibration levels would be well below the thresholds for annoyance or damage to residential structures identified in Table 3.9-2.

Implementation of Mitigation Measure 3.9-4 would reduce stationary-source noise impacts to a **less-than-significant** level by ensuring that operation of the project would not exceed identified noise standards through the requirement to demonstrate compliance with noise standards prior to operation. In addition, the measure would reduce noise level exposure by limiting recycling plant and aggregate sales operational hours, requiring the use of electric-powered generators in lieu of diesel-powered generations, ensuring proper lubrication of conveyors, and requiring other operational features such that processes that produce high levels of are located in areas that would minimize expose of receptors to high levels of noise.

As a result, the long-term operation impact of vibration would be **less than significant**.

Mitigation Measures

No mitigation is required for this impact.

Impact 3.9-3: Increased Traffic Noise

Vehicle trips generated by operation of the Project would not result in traffic noise increases that exceed the City's incremental noise increase criteria for transportation noise sources or expose receptors to perceptible increases in traffic noise (Table 3.9-3). In addition, the occasional nighttime operation of the facility would result in increased noise associated with haul trucks on nearby roads; however, based on the modeling conducted truck pass-by noise events would not result in an increased potential for sleep disturbance. Thus, buildout of the Project would not result in substantially more mobile source–related noise. This impact would be **less than significant**.

Implementing the Project would result in new vehicle trips that would increase traffic volumes along affected local roadways in and near the Project area. This traffic would include passenger vehicles and delivery trucks. The traffic volume increases generated by the Project would result in increases in traffic noise levels along affected roadways (Waterman Road and Grant Line Road). The maximum Project throughput is estimated to be 1,706,000 tons of product per year, which would result in an average heavy-duty truck trip generation of 454 daily trips with an a.m. peak hour heavy-duty truck generation of approximately 46 trucks.

Table 3.9-13 summarizes the existing and existing plus Project noise levels

As shown in Table 3.9-13, predicted increases in traffic noise levels associated with development under the Project would not exceed any of the City's incremental noise increase standards, which are shown in Table 3.9-3. Moreover, none of the traffic noise increases would be perceptible because they would not exceed 3 dB.

Table 3.9-13 Summary of Modeled Existing and Existing Plus Project Traffic Noise Levels

Roadway Segment	L_{dn} at 75 feet from Center of Near Direction of Travel (dB)		Increase (dB)
	Existing Conditions	Existing-Plus-Buildout Conditions	
Waterman Road north of Project site	67.3	67.6	0.3
Waterman Road to Grant Line Road	57.5	60.1	2.6
Grant Line Road east of Waterman Road	70.1	70.7	0.6
Waterman Road to State Route 99	69.9	70.1	0.2
West of State Route 99	70.1	70.1	0.1
State Route 99 north of Grant Line Road	76.8	76.8	0.0
State Route 99 south of Grant Line Road	76.4	76.4	0.0

Notes: L_{dn} = day-night noise level; dB = decibels.

All modeling assumes average pavement, level roadways (less than 1.5% grade), and constant traffic flow and does not account for shielding of any type or finite roadway adjustments. Refer to Appendix F for detailed traffic data and traffic-noise modeling input data and output results.

Source: Modeled by Bollard Acoustical Consultants in 2021.

In addition, the truck use during the nighttime hours was evaluated for the potential to cause sleep disturbance at existing residents located along likely operational truck routes. During nighttime operations of the asphalt and ready-mix concrete plants, heavy truck traffic would be higher than normal traffic on the local roadway network utilized by project traffic. More specifically, Waterman Road between the project site access and Grant Line Road would experience higher than normal numbers of nighttime truck trips. The nearest existing noise-sensitive receptors to the segment of Waterman Road most heavily utilized by project traffic are receptors 5 and 8 shown on Figure 3.9-1. These residences are located approximately 175 to 200 feet from the centerline of Waterman Road. The FHWA Model reports that a heavy truck travelling 40 mph generates a sound exposure level of approximately 75 dBA SEL at a distance of 175 feet from the roadway centerline. Given this reference noise level, and considering that the nearest receptor along Waterman Road is located 175 feet from the roadway centerline, exterior noise levels at these receptors would also be 75 dBA SEL. Typical building construction can achieve an exterior-to-interior attenuation of 20 dB, with windows closed (Caltrans 2011). Applying this estimate results in an interior noise level of 55 dBA, below the applicable threshold of 65 dBA SEL used for this analysis.

As discussed above, project-generated traffic noise levels would not result in a perceptible increase in noise, thus, would not result in a substantial permanent increase in noise. Further, the estimated project-induced SEL levels at nearby residential uses would not exceed the applicable criteria of 65 dBA SEL, used for determining a potential to result in sleep disturbance. Therefore, this impact would be **less than significant**.

Mitigation Measures

No mitigation is required for this impact.

Impact 3.9-4: Generate On-Site Stationary Noise

Operation of the Project would involve the operation of an asphalt and ready-mix plant and a recycling facility, as well as movement of on-site vehicles associated with the sale of future aggregate products. Predicted daytime and nighttime noise levels from the operation of the noise sources would not exceed the City's noise standards of 60 L_{eq} dBA and 50 L_{eq} dBA for daytime and nighttime hours, respectively. Nevertheless, due to uncertainties surrounding the timing and intensity of use of on-site equipment at the facility, these noise standards could be exceeded from Project operation as well as generate single event noise conditions that could create sleep disturbance for sensitive receptors in the area. Impacts would be **less than significant** with mitigation.

On-site activities that would generate stationary noise include asphalt plant and ready-mix production, recycle activities, and sales. To quantify the noise generation of the proposed on-site equipment, noise level data provided by the Project applicant and reference noise level data for other recycle and ready-mix plants were used. Estimates of daytime noise levels assumed full operation of all on-site noise sources (i.e., asphalt, ready-mix, and recycling plants) and 42 heavy-duty truck trips occurring on the site every hour. Estimates of nighttime noise levels assumed concurrent operation of the asphalt and ready-mix plants only (i.e., no recycling activities would be occurring, such as crushing or the use of conveyor belts) and 16 heavy-duty truck trips occurring on the Project site every hour.

The predicted noise levels at the receptors nearest to the Project site are provided in Table 3.9-14.

Table 3.9-14 Noise Emission Levels from On-Site Stationary Sources

Receptor	Predicted Daytime (L_{eq}, dBA)	Predicted Nighttime (L_{eq}, dBA)
1	50	45
2	49	44
3	47	42
4	44	40
5a[1]	40	37
5b[1]	45	44
6	48	43
7	46	42
8	44	41

[1] Receptor 5a represents the backyard area of Residence 5, located behind the residence. Receptor 5b represents the interior space of Residence 5, and the predicted noise emission level conservatively assumes 15 dBA of noise attenuation between the building façade exterior and interior.

Source: Modeled by Bollard Acoustical Consultants in 2021.

The values presented above indicate that operation of the asphalt and ready-mix equipment, recycling activities, and sales would not generate noise to the degree that the City's noise standards for daytime and nighttime hours, respectively, would be exceeded. Nighttime sleep disturbance potential was evaluated separately, below.

As noted in the Thresholds of Significance, sleep disturbance impacts would be considered potentially significant if the single-event noise level resulting from the project would exceed 65 dB SEL within interior areas of residences not currently exposed to appreciable nighttime single-event noise. Sleep disturbance impacts at the nearest residences were evaluated for nighttime asphalt plant operations and nighttime ready-mix concrete plant operations.

Nighttime Asphalt Plant Operations

Asphalt plants typically generate steady-state noise levels due to the continuous operation of the asphalt burner, drum, and baghouses. As a result, single-event noise is generally not a substantial component of overall asphalt plant operational noise. For this assessment, the maximum noise levels generated by a front-loader feeding the asphalt plant hoppers were used to evaluate single-event noise levels at the nearest noise-sensitive receptors. Specifically, a maximum noise level of 80 dBA L_{max} at a reference of 50 feet from the loader feeding the hoppers was utilized based on FHWA data. Given this maximum noise level, the estimated SEL for loader operations would be approximately 90 dBA SEL at a reference distance of 50 feet from the loader. The nearest residences (receptor 1 and 5 – See Figure 3.9-1), are located approximately 1,300 feet to the front-loader operating area at the asphalt plant. At the exterior building facades of those residential receptors, single event noise from nighttime front-loader operations would be reduced to approximately 60 dB SEL due to the effects of distance and atmospheric absorption. Considering exterior SEL levels would be 60 dBA, interior SEL levels would be below the applied threshold level of 65 dBA SEL.

Nighttime Ready-Mix Plant Operations

Like asphalt plants, ready-mix concrete plants typically generate fairly steady-state noise levels while in operation. As a result, single-event noise is generally not a substantial component of overall ready-mix plant operational noise. For

this assessment, the maximum noise generation of the ready-mix plant is identified as being 80 dBA at a reference distance of 50 feet from the plant (a sound power level of 114 dBA as reported in Appendix E). Given this maximum noise level, the estimated SEL for typical concrete batch operations would be approximately 90 dBA SEL at a reference distance of 50 feet from the plant, similar to single-event levels generated by the asphalt plant. The nearest residence (receptor 5 – See Figure 3.9-1), is located approximately 1,000 feet from the ready-mix plant. At the exterior building facade of this nearest residence, single event noise from nighttime ready-mix operations would be reduced to approximately 62 dB SEL due to the effects of distance and atmospheric absorption. Considering exterior SEL levels would be 60 dBA, interior SEL levels would be below the applied threshold level of 65 dBA SEL.

Summary

As described above, anticipated noise levels from the onsite stationary equipment would not exceed the adjusted City day/night noise standards or available criteria used for the purpose of evaluating sleep disturbance. However, it is difficult to precisely account for all variables in the noise modeling process, and uncertainty remains regarding actual noise levels at nearby receptors, and associated sensitivity to the specific receptors that would be most affected. Specific variables include the types of activities that could occur onsite, with varying numbers of equipment used at the same time, with varying levels of noise generated by each. Thus, given the sensitivity of the nearby residential receptors and the proposed periodic nighttime operation of the asphalt and ready-mix plants and uncertainty surrounding the schedule and timing of when components of the Project would be operational, it is possible that operation of the facility's on-site equipment could result in noise levels in exceedance of the City's noise standards or generate noise levels during the sensitive time of the day that result in disturbance to nearby sensitive land uses. This impact would be **significant**.

Mitigation Measures

Mitigation Measure 3.9-4: Implement Noise Control Measures

The Project applicant shall implement the following noise control measures to ensure that operation of the Project would not generate stationary noise that would exceed the City's noise standards:

- Limit recycle operations to daytime hours (7:00 a.m. – 10:00 p.m.).
- Limit aggregate sales to daytime hours as proposed (7:00 a.m. – 10:00 p.m.).
- Ensure that all processing area conveyors are properly lubricated at all times.
- Use electric power rather than generators for on-site power.
- Design and maintain recycle area aggregate stockpiles such that they maximize shielding of onsite noise sources in the directions of the nearby residences. This may include solid barriers such as concrete masonry walls, existing structures, or topography, such that the barrier breaks the line of sight between the receiver and the stockpile location.
- Equip all mobile plant area equipment with acoustic "growler-type" backup warning systems, rather than conventional "beepers."
- Limit asphalt and ready-mix operations to daytime hours unless construction contracts specifically require the delivery of materials during nighttime hours.
- Upon completion of project construction but prior to issuance of authority to operate, the onsite equipment and operations shall be subject to a sound level measurement by an acoustical professional to ensure that City daytime and nighttime noise standards, as well as the 65 dBA SEL interior level for sleep disturbance, are not exceeded at any nearby sensitive receptor. In the event that noise monitoring indicates that the Project noise generation would exceed either the City's daytime (i.e., 60 dBA L_{eq}) or nighttime (i.e., 50 dBA L_{eq}) noise standards or create noise levels at nighttime that could disturb sleep at nearby sensitive receptors, additional noise control measures shall be implemented until such compliance is achieved. Operation of the facility shall not be allowed until a noise operational analysis, submitted to the City for review and approval, can verify that noise standards are in compliance. If any identified noise standard is not being met, additional analysis of the noise monitoring

results shall be conducted to determine the sources of noise responsible for any exceedances and noise control measures shall be targeted for those sources. The following noise control options have been successfully implemented at aggregate facilities and should be considered for this facility if needed and as feasible:

- Suspension of acoustic curtains as close as possible to significant noise sources.
- Installation of acoustic silencers on the asphalt plant bag house exhaust fans.
- Construct localized barriers adjacent to significant noise sources.
- Relocation of aggregate stockpiles as feasible to provide additional screening of processing area noise sources from view of nearby residences.
- Pre-loading of asphalt plant and ready-mix feed hoppers before nighttime operations to reduce the degree of nighttime loading required.

Significance after Mitigation

Less than significant.

3.10 PUBLIC SERVICES

This section provides an overview of relevant regulations and existing public services in the City and evaluates the potential for implementation of the Project to affect the availability, service level, and capacity of public services, including fire protection services, police protection services, public schools, and parks and recreation. If such an effect is determined to occur, this section states whether new or expanded facilities would be required that could result in a potentially significant impact on the environment.

No comments regarding public services were received in response to the NOP during the public scoping period.

3.10.1 Regulatory Setting

FEDERAL

No federal laws or regulations apply to the Project.

STATE

California Fire Code

The 2022 California Fire Code, contains regulations related to the construction, maintenance, and use of buildings. Topics addressed in the California Fire Code include fire department access, fire hydrants, automatic sprinkler systems, fire alarm systems, fire and explosion hazards safety, hazardous materials 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 California Fire Code also contains specialized technical regulations related to fire and life safety.

California Health and Safety Code

State fire regulations are set forth in Section 13000 et seq. of the California Health and Safety Code, which includes regulations for building standards (as 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.

Leroy F. Greene School Facilities Act

The Leroy F. Greene School Facilities Act (Chapter 407, Statutes of 1998) places limitations on cities and counties with respect to mitigation requirements for school facilities. It permits school districts to levy fees, based on justification studies, for the purposes of funding construction of school facilities, subject to established limits. The act further states that payment of these fees by a development project is considered adequate to reduce impacts of that project on schools to a less-than-significant level for the purposes of CEQA review and compliance.

School districts that can establish a need by completing an annually updated fee justification study are authorized to collect school impact fees on new residential and commercial/industrial development in accordance with Education Code Section 17620 and Government Code Section 65995. The development school impact fees are intended to provide the local school district's 50-percent share of the cost of new school construction.

The Elk Grove Unified School District (EGUSD) has established school mitigation fees for residential development at $6.43 per square foot and $0.61 per square foot for commercial/industrial development.

LOCAL

City of Elk Grove General Plan

The City's current General Plan was amended in 2021. The General Plan goals, policies, and standards are based on the General Plan Vision Statement and supporting principles. The City General Plan (City of Elk Grove 2021) contains the following policies relevant to public services and the Project:

- **Policy ER-4-1**: Cooperate with the Cosumnes Community Services District (CSD) Fire Department to reduce fire hazards, assist in fire suppression, and promote fire safety in Elk Grove.
- **Policy ER-4-2:** Work with the Cosumnes CSD to develop a fire prevention plan that lists major fire hazards, proper handling and storage procedures for hazardous materials, potential ignition sources and their control, and the type of fire protection equipment necessary to control each major hazard.
- **Policy SAF-1-3:** Coordinate with the Cosumnes CSD Fire Department to ensure that new station siting and resources are available to serve local needs.
- **Policy SAF-1-4:** Expand emergency response services as needed due to community growth.
- **Policy INF-1-2:** Require that water flow and pressure be provided at sufficient levels to meet domestic, commercial, industrial, and firefighting needs.
- **Policy IFP-1-7:** New development shall fund its fair share portion of impacts to all public facilities and infrastructure as provided for in State law.
- **Policy IFP-1-8:** Infrastructure improvements must be financed and/or constructed concurrent with or prior to completion of new development.
- **Policy IFP-1-10:** Except when prohibited by state law, the City will endeavor to ensure that sufficient capacity in all public services and facilities will be available on time to maintain desired service levels and avoid capacity shortages, traffic congestion, or other negative effects on safety and quality of life.

City of Elk Grove Municipal Code

The following chapters of the City of Elk Grove Municipal Code are relevant to public services and the Project:

- **Chapter 16.85: Elk Grove Fire Fee**: The City established a fire fee to fund the cost of capital facilities (fire protection facilities and equipment) to meet fire protection service needs by the Cosumnes CSD. This fee is paid at the issuance of building permits.
- **Chapter 17.04: California Fire Code**: The City adopted the 2022 California Fire Code with some local amendments as set forth in Section 17.04.010. Section 17.04.020 designates the chief of the Cosumnes CSD Fire Department or authorized designee the authority to enforce this chapter of the Municipal Code.

3.10.2 Environmental Setting

FIRE PROTECTION

The Cosumnes CSD Fire Department provides fire prevention, fire protection, and emergency medical and rescue services to the City, including the Project site; the City of Galt; and surrounding southern Sacramento County communities. The department's service area covers more than 157 square miles and a population of more than 207,000 (Cosumnes CSD Fire Department n.d.a).

Under the direction of the fire chief, the department is divided into seven branches or divisions: Administration Branch, Operations Branch, Emergency Medical Services Division, Fire Prevention Division, Fleet Maintenance Division, Training Division, and Special Operations Division. The Cosumnes CSD Fire Department also shares common jurisdictional boundaries and participates in a regional automatic/mutual aid agreement with the Sacramento

Metropolitan Fire District and the City of Sacramento Fire Department. The Cosumnes CSD Fire Department also has a mutual aid agreement with the surrounding volunteer fire districts in southern Sacramento County, including the Wilton, Courtland, Walnut Grove, and Herald Fire Districts. As a result of the existing automatic and mutual aid agreements, the closest unit available is dispatched to an incident regardless of fire district boundaries.

The department operates from eight separate fire stations and engine companies throughout its service area. The department also has an additional facility for training and for the department's headquarters. Six of eight fire stations are located within the City.

The fire stations closest to the Project site are (Cosumnes CSD Fire Department n.d.b):

- the Department Headquarters, located at 10573 E. Stockton Boulevard, approximately 2.1 miles south of the Project site;
- Station 71, located at 8760 Elk Grove Boulevard, approximately 2.5 miles northeast of the Project site;
- Station 73, located at 9607 Bond Road, approximately 3.0 miles northwest of the Project site; and
- Station 76, located at 8545 Sheldon Road, approximately 5 miles northeast of the Project site.

In addition to the stations listed above, the Cosumnes CSD Fire Department is planning to open a new fire station, Station 77, at 8350 Poppy Ridge Road, approximately 5.0 miles from the Project site (Cosumnes CSD Fire Department n.d.c).

Station 71 would be the first-due station for the Project site; it is staffed with two engines, one water tender, and a paramedic ambulance (Cosumnes CSD Fire Department n.d.b). The established response time goal for the department is 6 minutes, following receipt of the 911 call into the dispatch center, 90 percent of the time. Currently, response times to the vicinity of the Project site are meeting the 6-minute response time goal approximately 20 percent of the time (Cosumnes CSD Fire Department n.d.d).

LAW ENFORCEMENT

California Highway Patrol

The California Highway Patrol Valley Division provides services to the south Sacramento region from the division's south Sacramento office, located at 6 Massie Court, Sacramento, approximately 9.5 miles northeast of the Project site. The office patrols sections of Interstate 5, SR 99, US Highway 50, and Business 80, as well as 500 miles of unincorporated county roadways. In addition, the office offers programs to keep residents safe on roadways, such as child restraint seat checks; Smart Start classes, which are targeted at newly licensed teen drivers and their parents; and Age Well, Drive Smart classes, which are targeted at drivers over the age of 65 (CHP 2022).

Elk Grove Police Department

Police protection services are provided for areas in the City by the Elk Grove Police Department (EGPD). The EGPD headquarters is located at 8400 Laguna Palms Way, approximately 4 miles northeast of the Project site. EGPD is divided into four divisions: the Field Services Division (Patrol), the Investigative Services Division, the Administrative Services Division, and the Support Services Division. The Field Services Division (Patrol) responds to the vast majority of calls for service and is made up of patrol teams, a traffic bureau, traffic and hit-and-run investigators, a K-9 unit, and community service officers. The Investigative Services Division is responsible for most follow-up investigations (e.g., homicide, assaults, robbery, burglary, and juvenile crimes). The Administrative Services Division is made up of the Chief's Office, Dispatch, Professional Standards, Fleet, Finance, and Information Technology. The Support Services Division, which supports the community and all units and bureaus of the department, is composed of the Communications, Records, and Property and Evidence Bureau (EGPD 2019). The City is divided into five beats. The Project site is located in Beat 5 (EGPD 2009). There are a total of 64 patrol officers and 10 community service officers assigned to patrol all five beats (EGPD n.d.:8).

EGPD has approximately 254 full-time employees: 108 civilian staff and 146 sworn officer positions (EGPD 2019). The City's population was estimated to be 178,997 in July 2021 (US Census Bureau 2021). That year, the department

responded to 56,386 dispatched calls for service (EGPD n.d.:8). In 2020, EGPD's average response time to Priority 1 calls was 4.8 minutes (EGPD n.d.:8). Priority 1 calls are defined as in-progress felonies, in-progress crimes against a person, and incidents where there is a high risk of harm to a person.

SCHOOLS

EGUSD provides educational services, including elementary, middle, and high schools, to the City, including the Project site. The area served by EGUSD covers 320 square miles and consists of 68 schools: 43 elementary schools, nine middle schools, nine high schools, five alternative education schools, one adult school, one charter school, and a virtual academy. The district serves approximately 63,947 students (EGUSD 2021).

LIBRARIES

The Sacramento Public Library system serves the Elk Grove community and provides services through two branches or locations: the Elk Grove Library and the Franklin Community Library. The Elk Grove library is located approximately 2 miles from the Project site at 8900 Elk Grove Boulevard and is planned for relocation to 9260 Elk Grove Boulevard. The second branch, the Franklin Community Library, is located at 10055 Franklin High Road, approximately 6.8 miles west of the Project site.

PARKS AND RECREATION

The Cosumnes CSD Parks and Recreation Department provides park and recreational services to the City and maintains more than 90 parks that, together, encompass more than 1,000 acres of parks, corridors, creeks, and trails in the Elk Grove community. Several parks maintained by the Cosumnes CSD Parks and Recreation Department are located approximately 1 mile from the Project site. Berns Park is located approximately 2,700 feet southwest of the site, Jennie McConnell Park is located approximately 2,000 feet southwest of the site, Elk Grove Regional Park is located 1 mile west of the site, Smedberg Park is located approximately 4,000 feet northeast of the site, and Al Gates Park is located approximately 4,000 feet northwest of the site. Each of these facilities contains playgrounds, lawns for recreational use, and benches. Elk Grove Regional, Jennie McConnell, and Al Gates Parks contain additional recreational facilities, such as soccer fields, basketball courts, softball fields, and trails for use by pedestrians and bikes. Elk Grove Regional Park also contains an outdoor amphitheater and aquatic features. A community garden is located adjacent to Jennie McConnell Park.

3.10.3 Impacts and Mitigation Measures

METHODOLOGY

Evaluation of potential public service impacts was based on a review of documents pertaining to the Project, including the City of Elk Grove General Plan and EGPD's 2020 Annual Report; consultation with appropriate public service providers, such as the Cosumnes CSD Fire Department; and review of aerial imagery of the Project area and surroundings. In addition, information was obtained through submittal of the conditional use permit (CUP) application with the City and related correspondence, including with the Cosumnes CSD Fire Department. For example, coordination with the fire department occurred in part through the City's entitlement process. Impacts on public services that would result from the Project were identified by comparing existing service capacity and facilities against future demand associated with Project implementation.

THRESHOLDS OF SIGNIFICANCE

A public services impact would be significant if implementation of the Project would:

- result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:
  - fire,
  - police protection,
  - schools,
  - parks, and
  - 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; or
- include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment.

ISSUES NOT DISCUSSED FURTHER

Plant operation may be up to 24 hours a day, 7 days a week, and operation may require approximately 15 employees on-site at any time. It is anticipated that new jobs may be filled by the existing regional and local labor force and would therefore not result in an increase in the City's population. Because implementing the Project would not result in substantial student population growth and existing schools have available capacity, the Project would not affect performance objectives for schools and would not require the construction or expansion of educational facilities. In addition, the Project would be required to pay school impact fees to EGUSD. Government Code Section 65995(h) states that the payment or satisfaction of a fee, charge, or other requirement levied or imposed pursuant to Section 17620 of the Education Code is deemed to be full and complete mitigation of the impacts for the planning, use, development, or provision of adequate school facilities. This issue is not discussed further.

Because implementing the Project would not result in substantial population growth and the Project is industrial in nature, implementing the Project would not result in increased demand for school, park, or library services. The Project also would not increase the use of, or affect performance standards for, park and library services. These issues are not discussed further.

ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Impact 3.10-1: Result in Substantial Adverse Physical Construction-Related Impacts Associated with the Provision or the Need for New or Physically Altered Fire Facilities, to Maintain Acceptable Service Ratios and Response Times

The Project would construct an industrial facility on a vacant lot within the existing boundaries of Cosumnes CSD Fire Department. Because the Project would adhere to all applicable requirements related to fire protection and would not create a substantial demand for fire protection services such that service ratios, response times, or other performance objectives would not be substantially affected, Project implementation would not require the need for new or expanded fire protection facilities. This impact would be **less than significant.**

The Project involves development of a construction aggregate recycling and production facility. As part of the multiple entitlement application, the Applicant has agreed to several Project requirements in coordination with the

Cosumnes CSD Fire Department. These conditions of approval, which would meet Cosumnes CSD Fire Department Standards, include: fire hydrants throughout the site, noncombustible fencing and vehicle gates into the wetlands, two points of fire access, compliance with California Fire Code, and establish funding for Cosumnes CSD.

Given the close proximity to existing fire stations and the addition of building and site equipped fire prevention infrastructure and equipment, as described above, implementation of the Project would not place a substantial demand on fire protection resources and would not interfere with existing services. No new or expanded fire-fighting facilities are proposed, except for Station 77. Implementation of the Project would not create a substantial demand for fire protection resources and would not interfere with existing services. Consequently, no new or expanded services would be needed to provide fire protection for the Project.

Because the Project would adhere to all applicable requirements related to fire protection and would not create a substantial demand for fire protection services such that service ratios, response times, or other performance objectives would not be substantially affected, Project implementation would not require the need for new or expanded fire protection facilities. Impacts would be **less than significant**.

Mitigation Measures

No mitigation is required for this impact.

Impact 3.10-2: Result in Substantial Adverse Physical Construction-Related Impacts Associated with the Provision or the Need for New or Physically Altered Police Facilities, to Maintain Acceptable Service Ratios and Response Times

The Project involves construction of an industrial facility on a vacant lot. Implementation of the Project would not create a substantial demand for police protection resources and would not interfere with existing services. Because the Project would adhere to all applicable requirements related to police protection and would not create a substantial demand for police protection services, Project implementation would not require the need for new or expanded police protection facilities. This impact would be **less than significant.**

As previously described, the Project involves construction and operation of an aggregate recycling and production facility. No new or expanded police facilities are proposed. The Project would adhere to all applicable requirements related to police protection, and implementation of the Project would not create a substantial demand for police protection resources or interfere with existing services. Consequently, no new or expanded services would be needed to provide police protection for the Project. Further, Project implementation would result in additional tax revenue for the county, including property and sales tax revenue as well as Capital Facilities Fees, to help fund existing and future police protection needs.

Because the Project would adhere to all applicable requirements related to police protection and would not create a substantial demand for police protection services, Project implementation would not require the need for new or expanded police protection facilities. This impact would be **less than significant**.

Mitigation Measures

No mitigation is required for this impact.

3.11 TRANSPORTATION

This section describes the applicable federal, State, and local transportation regulations and policies; discusses the existing roadway network and transportation facilities in the vicinity of the Project site; and analyzes the potential impacts on transportation from implementation of the Project. Where applicable, mitigation measures that would reduce impacts are also discussed.

The analysis presented in this section is based on the analysis and findings of the transportation study for the Project (Transportation Study) prepared by Fehr & Peers in September 2020, which evaluates the environmental effects of the Project based on the City of Elk Grove CEQA significance thresholds contained within the City's General Plan and *Transportation Analysis Guidelines*. The Transportation Study, which is included as Appendix E, provides additional data, modeling, and information related to the transportation analysis.

In response to the NOP during the public scoping period, commenters addressed requests for a safety queuing analysis, truck volume and trip distribution information, and a vehicle miles traveled (VMT) analysis. These issues are addressed below.

3.11.1 Regulatory Setting

FEDERAL

Federal Highway Administration

The Federal Highway Administration (FHWA), an agency of the US Department of Transportation, provides stewardship over the construction and preservation of the nation's highways, bridges, and tunnels. FHWA also conducts research and provides technical assistance to State and local agencies to improve safety, mobility, and livability and to encourage innovation in these areas. FHWA also provides regulation and guidance related to work zone safety, mobility, and temporary traffic control device implementation.

STATE

California Department of Transportation

The California Department of Transportation (Caltrans) is the State agency responsible for the design, construction, maintenance, and operation of the California State Highway System, as well as the segments of the Interstate Highway System that lie within California. Caltrans District 3 is responsible for the operation and maintenance of State Route (SR) 99 in the vicinity of the Project site. Caltrans requires a transportation permit for any transport of heavy construction equipment or materials that necessitates the use of oversized vehicles on State highways.

The Caltrans Transportation Impact Study Guide (TISG) was prepared to provide guidance to Caltrans districts, lead agencies, tribal governments, developers, and consultants regarding Caltrans review of a land use project or plan's transportation analysis using a VMT metric. This guidance is not binding on public agencies; the guide is intended to be a reference and informational document. The TISG replaces the Guide for the Preparation of Traffic Impact Studies and is for use with local land use projects, not for transportation projects in the State Highway System (Caltrans 2020).

California Department of Transportation Statewide Transportation Improvement Program

The California Statewide Transportation Improvement Program (STIP) is a multiyear, statewide, intermodal program of transportation projects that is consistent with the statewide transportation plan and planning processes and with metropolitan plans. The STIP is prepared by Caltrans in cooperation with the metropolitan planning organizations and regional transportation planning agencies. The STIP contains all capital and noncapital transportation projects or identified phases of transportation projects for funding under the Federal Transit Act and Title 23 of the US Code.

California Department of Transportation Interregional Transportation Improvement Program

Caltrans's 5-year Interregional Transportation Improvement Program is prepared pursuant to Government Code 14526, Streets and Highways Code Section 164, and the California Transportation Commission's STIP Guidelines. Regional agencies work with Caltrans to identify projects that will address improvements to the interregional transportation system and improve the movement of people, vehicles, and goods between regions.

LOCAL

City of Elk Grove General Plan

The City's current General Plan was adopted in 2021 and consisted of a comprehensive update of the previous General Plan. The General Plan goals, policies, and standards are based on the General Plan Vision Statement and supporting principles. The "Mobility" chapter of the General Plan contains policies designed to further the City's mobility strategy. It incorporates and expands the City's complete streets policies; supports key implementation tools, such as the Bicycle, Pedestrian, and Trails Master Plan (BPTMP), the *Transportation Analysis Guidelines*, and the Climate Action Plan; and identifies measures to support alternative transportation investments, as well as transit-friendly and active transportation-friendly development (City of Elk Grove 2021a).

A project's effect on automobile delay is no longer a consideration when identifying a significant impact under CEQA; thus, City General Plan policies related to intersection and roadway performance are not included in this section. However, the Transportation Study, included as Appendix E, addresses and analyzes the effects of the Project on intersection and roadway performance.

The following policies and standards related to transportation are relevant to the CEQA analysis of the Project:

- Policy MOB-1-1: Achieve State-mandated reductions in VMT by requiring land use and transportation projects to comply with the following metrics and limits. These metrics and limits shall be used as thresholds of significance in evaluating projects subject to CEQA.

  Projects that do not achieve the daily VMT limits outlined below shall be subject to all feasible mitigation measures necessary to reduce the VMT for, or induced by, the project to the applicable limits. If the VMT for or induced by the project cannot be reduced consistent with the performance metrics outlined below, the City may consider approval of the project, subject to a statement of overriding considerations and mitigation of transportation impacts to the extent feasible, provided some other stated form of public objective including specific economic, legal, social, technological or other considerations is achieved by the project.

  (a) New Development – Any new land use plans, amendments to such plans, and other discretionary development proposals (referred to as "development projects") are required to demonstrate a 15 percent reduction in VMT from existing (2015) conditions. To demonstrate this reduction, conformance with the following land use and cumulative VMT limits is required:

  i. Land Use – Development projects shall demonstrate that the VMT produced by the project at buildout is equal to or less than the VMT limit of the project's General Plan land use designation, as shown in Table 6-1 [presented as Table 3.11-1 in this Draft EIR], which incorporates the 15 percent reduction from 2015 conditions.

  ii. Cumulative for Development Projects in the Existing City – Development projects within the existing (2017) City limits shall demonstrate that cumulative VMT within the City including the project would be equal to or less than the established Citywide cumulative limit of 6,367,833 VMT (total daily VMT).

  iii. Cumulative for Development Projects in Study Areas – Development projects located in Study Areas shall demonstrate that cumulative VMT within the applicable Study Area would be equal to or less than the established limit shown in Table 6-2 [presented as Table 3.11-2 in this Draft EIR].

Table 3.11-1 Vehicle Miles Traveled by Land Use Designation

Land Use Designation	VMT Limit (Daily Per Service Population)
Commercial and Employment Land Use Designations	
Community Commercial	41.6
Regional Commercial	44.3
Employment Center	47.1
Light Industrial/Flex	24.5
Light Industrial	24.5
Heavy Industrial	39.5
Mixed Land Use Designations	
Village Center Mixed Use	41.6
Residential Mixed Use	21.2
Public/Quasi-Public and Open Space Land Use Designations	
Parks and Open Space[1]	0.0
Resource Management and Conservation[1]	0.0
Public Services	53.1
Residential Land Use Designations	
Rural Residential	34.7
Estate Residential	49.2
Low Density Residential	21.2
Medium Density Residential	20.9
High Density Residential	20.6
Other Land Use Designations	
Agriculture	34.7

Notes: VMT = vehicles miles traveled.

[1] These land use designations are not anticipated to produce substantial VMT, because they have no residents and few to no employees. These land use designations therefore have no limit and are exempt from analysis.

Source: City of Elk Grove 2021a.

Table 3.11-2 Study Area Total Vehicle Miles Traveled Daily Limits

Study Area	VMT Limit (Total VMT at Buildout)
North Study Area	37,622
East Study Area	420,612
South Study Area	1,311,107
West Study Area	705,243

Note: VMT = vehicles miles traveled.

Source: City of Elk Grove 2021a.

- **Policy MOB-1-2:** Consider all transportation modes and the overall mobility of these modes when evaluating transportation design and potential impacts during circulation planning.
- **Policy MOB-1-3:** Strive to implement the roadway performance targets (RPT) for operations of roadway segments and intersections, while balancing the effectiveness of design requirements to achieve the targets with the character of the surrounding area as well as the cost to complete the improvement and ongoing maintenance

obligations. The Transportation Network Diagram reflects the implementation of the RPT policy at a macro level; the City will consider the specific design of individual segments and intersections in light of this policy and the guidance in the Transportation Network Diagram.

To facilitate this analysis, the City shall use the following guidelines or targets. Deviations from these metrics may be approved by the approving authority (e.g., Zoning Administrator, Planning Commission, City Council).

(a) **Vehicular Design Considerations** – The following targets apply to vehicular mobility:

i. **Intersection Performance** – Generally, and except as otherwise determined by the approving authority or as provided in this General Plan, the City will seek to achieve, to the extent feasible and desired, the peak-hour delay targets identified in [General Plan] Table 6-3. [See Appendix E for an analysis of Project consistency with these requirements.]

ii. **Roadway Performance** - Generally, and except as otherwise determined by the approving authority or as provided in this General Plan, the City will seek to achieve, to the extent feasible and desired, the average daily traffic design targets identified in [General Plan] Table 6-4. [See Appendix E for an analysis of Project consistency with these requirements.]

iii. **Pedestrian and Bicycle Performance** – The City will seek the lowest stress scores possible for pedestrian and bicycle performance after considering factors including design limitations and financial implications.

- **Policy MOB-3-1:** Implement a balanced transportation system using a layered network approach to building complete streets that ensure the safety and mobility of all users, including pedestrians, cyclists, motorists, children, seniors, and people with disabilities.
- **Policy MOB-3-2:** Support strategies that reduce reliance on single-occupancy private vehicles and promote the viability of alternative modes of transport.
- **Policy MOB-3-3:** Whenever capital improvements that alter street design are being performed within the public right-of-way, retrofit the right-of-way to enhance multimodal access to the most practical extent possible.
- **Policy MOB-3-7:** Develop a complete and connected network of sidewalks, crossings, paths, and bike lanes that are convenient and attractive, with a variety of routes in pedestrian-oriented areas.
- **Policy MOB-3-10:** Design and plan roadways such that the safety of the most vulnerable user is considered first using best practices and industry design standards.
- **Policy MOB-4-1:** Ensure that community and area plans, specific plans, and development projects promote context-sensitive pedestrian and bicycle movement via direct, safe, and pleasant routes that connect destinations inside and outside the plan or project area. This may include convenient pedestrian and bicycle connections to public transportation.
- **Policy MOB-4-5:** Encourage employers to offer incentives to reduce the use of vehicles for commuting to work and increase commuting by active transportation modes. Incentives may include a cash allowance in lieu of a parking space and on-site facilities and amenities for employees such as bicycle storage, shower rooms, lockers, trees, and shaded seating areas.
- **Policy MOB-6-4:** Regulate truck travel as appropriate for the transport of goods, consistent with circulation, air quality, congestion management, and land use goals.
- **Policy MOB-6-5:** Safely accommodate truck traffic serving the City's industrial areas.
- **Policy MOB-7-4:** Require new development projects to provide funding or to construct roadway/intersection improvements to implement the City's Transportation Network Diagram. The payment of adopted roadway development or similar fees, including the City Roadway Fee Program and the voluntary I-5 Subregional Fee, shall be considered compliant with the requirements of this policy with regard to those facilities included in the fee program, provided the City finds that the fee adequately funds required roadway and intersection improvements. If

payment of adopted fees is used to achieve compliance with this policy, the City may also require the payment of additional fees if necessary to cover the fair share cost of facilities not included in the fee program.

- **Policy NR-4-4**: Promote pedestrian/bicycle access and circulation to encourage residents to use alternative modes of transportation in order to minimize direct and indirect emissions of air contaminants.
- **Policy NR-4-5:** Emphasize demand management strategies that seek to reduce single-occupant vehicle use in order to achieve State and federal air quality plan objectives.

City of Elk Grove Transportation Analysis Guidelines

The City of Elk Grove *Transportation Analysis Guidelines* (City of Elk Grove 2019a) establishes the protocol for transportation analysis studies and reports based on the current state-of-the-practice in transportation planning and engineering. The *Transportation Analysis Guidelines* include guidance for transportation analysis as it pertains to the City General Plan VMT policy significance thresholds (i.e., General Plan Policy MOB-1-1) for CEQA analysis of future projects. They also include guidance and requirements for project-level VMT analysis, including project screening, analysis methodology, significance criteria, impact assessment, and mitigation strategies.

The *Transportation Analysis Guidelines* includes a VMT Screening Map that identifies areas in the City that are exempt from analysis. These areas include sites that have been prescreened through Citywide VMT analysis. Prescreened areas are shown in white and have been determined to result in VMT 15 percent below the average service population established for that land use designation if built to the specifications of the Land Use Plan. The *Transportation Analysis Guidelines* also include VMT screening criteria for land use and transportation projects. The screening criteria indicate that a project is exempt if it is:

- a residential project with fewer than 10 dwelling units;
- a commercial, office, or industrial project of less than 50,000 square feet;
- a mixed-use project containing fewer than 10 dwelling units and less than 50,000 square feet of commercial, office, or industrial space; or
- a project that is high-density low-income housing on a high-density housing site as designated in the Housing Element (City of Elk Grove 2019a:6).

City of Elk Grove Bicycle, Pedestrian, and Trails Master Plan

In May 2021, the City Council adopted the BPTMP (City of Elk Grove 2021b). The BPTMP updates the 2014 plan to establish a long-term vision for improving walking, bicycling, and equestrian uses in Elk Grove and identify a short-term action plan of implementable projects, programs, and policies. The BPTMP provides a strategy to develop Citywide walking, bicycling, and equestrian networks that provide access between residential neighborhoods, schools, transit, and jobs (City of Elk Grove 2021b). These network improvements are combined with a menu of options for recommended education, encouragement, and evaluation programs to provide a holistic approach to improving active transportation in Elk Grove (City of Elk Grove 2021b). Additionally, the BPTMP identifies a plan to implement these projects and programs through prioritization and phasing to ensure implementation is manageable and achievable.

City of Elk Grove Climate Action Plan

The City Climate Action Plan 2019 Update (CAP) was adopted in February 2019 by the City and was incorporated into the current General Plan. Subsequently, the CAP was updated in December 2019. The CAP includes greenhouse gas emission reduction targets, strategies, and implementation measures developed to help the City reach these targets. CAP Measure TACM-3 (Intercity Transportation Demand Management) focuses on the implementation of transportation demand measure (TDM) strategies to reduce the use of single-occupancy vehicle trips, with a target of achieving a 15-percent reduction in local commute traffic.

City of Elk Grove Transportation Demand Management Plan Guidelines

To aid the development of TDM plans, the City developed the TDM Plan Guidelines (City of Elk Grove 2019b). As detailed in the TDM Plan Guidelines, new nonresidential and mixed-use projects with greater than 50,000 square feet of nonresidential use may be required to develop TDM plans that promote the use of alternative transportation modes and reduce single-occupancy vehicle trips by employees.

These guidelines identify TDM measures according to categories that include marketing and promotion, bike facilities, transit benefits, commuter benefits, and parking facilities. The TDM Plan Guidelines outline the requirements for each TDM plan and identify the following for each TDM measure:

- Measure requirements describe the transportation amenity being provided, the amount/frequency of the amenity, and the property owner's responsibilities. Each TDM measure is assigned a point value between 1 and 5. The higher the value, the more effective the measure is at reducing vehicle travel.
- Compliance requirements identify the required actions and obligations of the applicant or property owners for compliance with the TDM measure during the development review phase of a project.
- The TDM Plan Annual Progress Report identifies the annual reporting requirement for the property owners' TDM coordinator, which includes the number of employees participating in the plan (i.e., by measure) and the commute mode share of employees, along with other performance measures that demonstrate performance.

City of Elk Grove Improvement Standards

The City of Elk Grove Improvement Standards provide guidance and design standards primarily for the purpose of helping land developers with their subdivision projects. These standards (amended June 22, 2020) require a 5-foot bike lane on minor arterials and an 8-foot sidewalk with new development along minor arterial roadways.

3.11.2 Environmental Setting

This section describes the existing environmental setting, which is the baseline scenario upon which Project-specific impacts are evaluated. The environmental setting for transportation includes descriptions of roadway, transit, bicycle, and pedestrian facilities.

ROADWAY SYSTEM

The roadway network serving the City consists of the following roadway classifications:

- **Principal arterials:** Principal arterials provide limited access on high-speed roads with a limited number of driveways and intersections. Principal arterials also allow bicycles, and pedestrians may be permitted in limited locations. Principal arterials are generally designed for longer trips at the county or regional level.
- **Major arterials:** Major arterials provide controlled access for all transportation modes to enter and leave the urban area. In addition, significant intra-area travel, such as between residential areas and commercial or business areas, should be served by this system. Major arterials can include sidewalks for pedestrian connections, linking land uses to transit. They may have street parking or bike lanes. Arterials range in size from two to eight lanes. Major arterials in the rural area are subject to the separate Rural Roads Improvement Standards and may have separate pedestrian pathways but no sidewalks.
- **Minor arterials/collectors:** Minor arterials/collectors are two-lane roadways providing access to all transportation modes, with a focus on local access. Pedestrian connections link land uses to local destinations and transit. The right-of-way associated with arterials/collectors may feature medians, parking lanes, and bike lanes. Arterials/collectors in the rural area are subject to the separate Rural Roads Improvement Standards and may have separate pedestrian and multiuse pathways but no sidewalks and may have reduced speed requirements. This classification also includes primary and secondary residential streets.

- **Local roads:** Local roads provide direct access to most properties and provide access to the higher roadway classifications described above. They are generally designed to discourage through traffic. Local roads are typically two lanes and are designed for low vehicle speeds. In the urban area of the City, they include pedestrian sidewalks. In rural areas, there are no sidewalks.

Access to the Project site is provided by the following key roadways:

- **SR 99** is a north-south freeway that traverses California and connects Tehama County in the north and Kern County to the south. Near the Grant Line Road interchange, SR 99 is a six-lane freeway that transitions to a four-lane freeway.
- **Elk Grove Boulevard** is an east-west road extending from Interstate 5 (I-5) to Grant Line Road. Elk Grove Boulevard is six lanes from I-5 to East Stockton Boulevard, four lanes from East Stockton Boulevard to Elk Grove-Florin Road, and two lanes from Elk Grove-Florin Road to Grant Line Road. Elk Grove Boulevard is constructed to its General Plan designation between I-5 and Waterman Road. Elk Grove Boulevard is designated in the General Plan as a four-lane arterial between Waterman Road and Bradshaw Road and a two-lane arterial/collector east of Bradshaw Road.
- **Waterman Road** is a north-south roadway that extends from Calvine Road to Grant Line Road in the City. Waterman Road is generally two lanes but extends to three or four lanes along certain segments. Waterman Road is designated in the General Plan as a two-lane arterial/collector between Calvine Road and Elk Grove Boulevard and a four-lane arterial from Elk Grove Boulevard to Grant Line Road.
- **Grant Line Road** traverses the City in a southwest to northeast direction. Grant Line Road extends from SR 99 through the City to White Rock Road in Rancho Cordova. Grant Line Road is six lanes between SR 99 and East Stockton Boulevard. Between East Stockton and Waterman Road, Grant Line Road is four lanes. East of Waterman Road, Grant Line Road is two lanes. Grant Line Road is designated in the General Plan as an eight-lane arterial between SR 99 and Bradshaw Road and as a four-lane arterial east of Bradshaw Road.
- **Mosher Road** is a two-lane northwest-southeast collector that connects Waterman Road and Grant Line Road. Mosher Road provides access to the Sonoma Creek residential subdivision and is consistent with the General Plan designation as a two-lane roadway.
- **Bradshaw Road** is a two-lane north-south roadway extending from Folsom Boulevard in Sacramento County to Grant Line Road in Elk Grove. Bradshaw Road is designated in the General Plan as a four-lane arterial.
- **Bond Road** is an east-west roadway that extends from SR 99 to Grant Line Road. Bond Road is six lanes from SR 99 to East Stockton Boulevard (i.e., at the SR 99 Interchange) and four lanes from East Stockton Boulevard to Bradshaw Road. East of Bradshaw Road, Bond Road is two lanes, which is consistent with the General Plan designation.
- **Wilton Road** is a two-lane northwest-southeast collector that connects Grant Line Road in the City of Elk Grove to the town of Wilton. Wilton Road is designated in the General Plan as a two-lane collector.

TRANSIT SYSTEM

The City of Sacramento Regional Transit (SacRT) provides fixed-route local, commuter and paratransit services and maintenance operations for Elk Grove. E-tran service operates both local and commuter services, and routes are coordinated with buses, light rail, and South County Transit/Link to areas outside Elk Grove. E-tran operates seven local routes in Elk Grove and 10 commuter routes with service to downtown Sacramento and Rancho Cordova. E-tran also operates a paratransit service called e-van that addresses federal Americans with Disabilities Act (ADA) requirements for fixed-route service and primarily serves ADA-eligible passengers.

In the vicinity of the Project site, e-tran operates the following bus routes:

- Commuter Route 16: Commuter Route 16 provides northbound service from the City of Elk Grove to downtown Sacramento from approximately 6:00 a.m. to 8:00 a.m. and southbound service from downtown Sacramento to the City of Elk Grove from approximately 4:00 p.m. to 6:00 p.m. Commuter routes provide service Monday through Friday and do not operate on weekends or major holidays.

- Local Route 116: Local Route 116 provides services from southeast Elk Grove to Cosumnes River College with stops on Elk Grove Boulevard and Bruceville Road. Hourly service is provided Monday through Friday from approximately 6:00 a.m. to 7:40 p.m. Hourly service is provided on Saturday from approximately 7:20 a.m. to 6:20 p.m. No services are provided on Sunday or major holidays.

The transit stops nearest to the proposed Project site (by drive/bike/walk distance) are located on Elk Grove Boulevard near the Elk Grove Boulevard/Waterman Road intersection, just over 1 mile north of the Project site. Additional routes serve the study area west of the Project site along Elk Grove-Florin Road approximately 2 miles from the Project site. Existing transit facilities are shown in Figure 3.11-1.

BICYCLE AND PEDESTRIAN SYSTEM

The bicycle network serving the City consists of the following bicycle facility classifications as described in the *Bicycle, Pedestrian, & Trails Master Plan*:

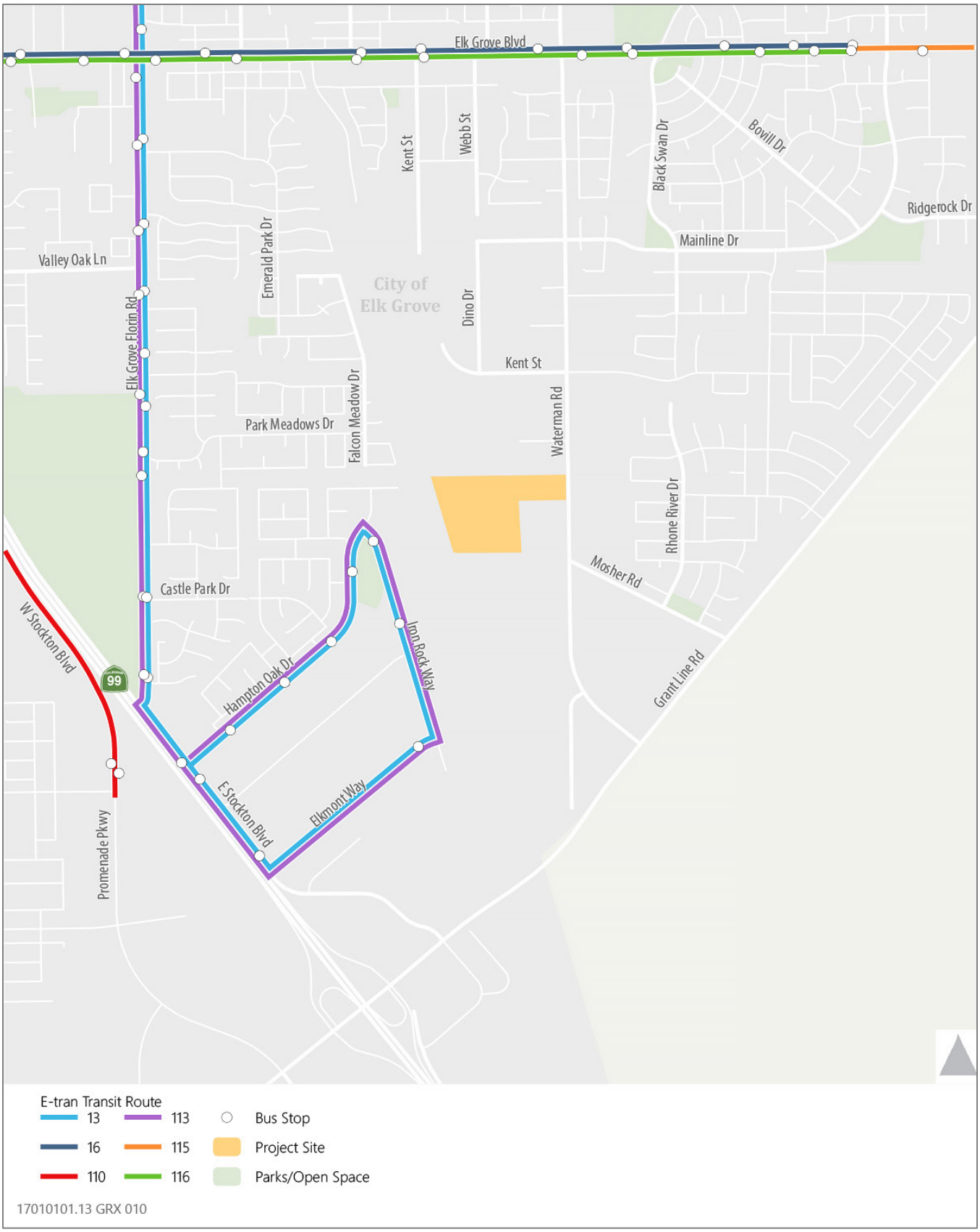
- **Class I Shared Use Paths:** Class I shared use paths are paved trails completely separate from the street. They allow two-way travel by people walking and bicycling and are considered the most comfortable facilities for children and inexperienced bicyclists because there are few potential conflicts with people driving.
- **Class II Bicycle Lanes:** Class II bicycle lanes are striped preferential lanes in the roadway for one-way bicycle travel. Some bicycle lanes include a striped buffer on one or both sides of the lane to increase separation from the traffic lane or from parked cars, where people may open doors into the bicycle lane.
- **Class III Bicycle Routes:** Class III bicycle routes are signed routes where people bicycling share a travel lane or shoulder with people driving. Because they are shared facilities, bicycle routes are typically appropriate only on quiet, low-speed streets with relatively low traffic volumes.

  Some bicycle routes include shared lane markings or "sharrows" that recommend proper bicycle positioning in the center of the travel lane and alert drivers that bicyclists may be present. Others include more robust traffic-calming features to promote safety and comfort for people bicycling and are known as "bicycle boulevards."
- **Class IV Separated Bikeways:** 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 vehicle parking aisle. They can allow for one- or two-way travel on one or both sides of the roadway.

The City's bicycle network consists of 35.2 miles of Class I shared use paths, 91.6 miles of Class II bicycle lanes, 11.2 miles of Class III bicycle routes, and 0.5 mile of Class IV separated bikeways (City of Elk Grove 2021b:14).

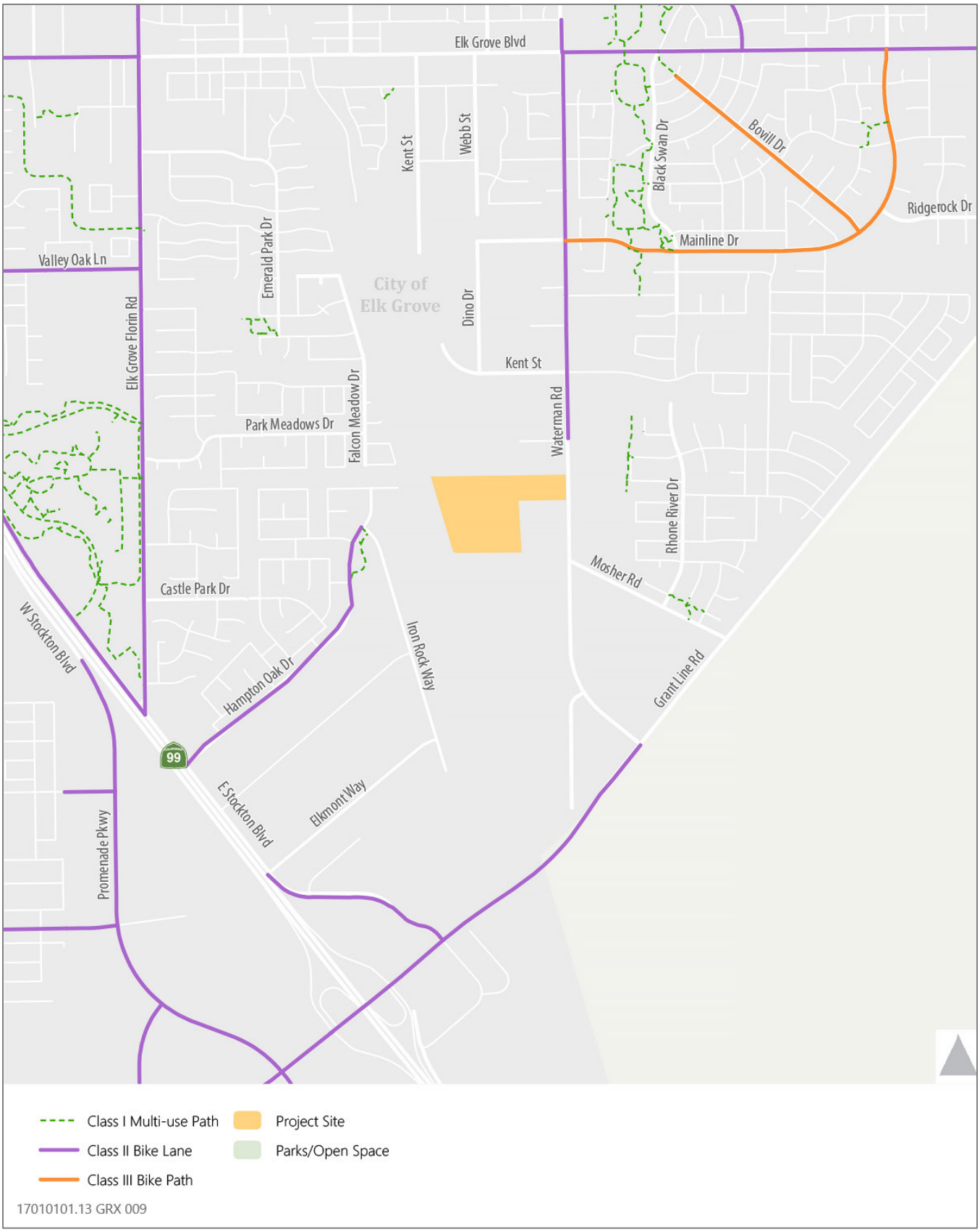
Class II bike lanes exist along the western frontage of Waterman Road north of the Project site. There are no bicycle facilities along the undeveloped parcel frontages adjacent to Waterman Road. Existing bicycle facilities are shown in Figure 3.11-2. The City of Elk Grove General Plan identifies a proposed bike lane south of the Project site to Grant Line Road, and the City of Elk Grove Improvement Standards require a 5-foot bike lane on minor arterials.

Sidewalks are present on Waterman Road north of the Project site along the western side of the roadway. Most of the land on the east and west side of Waterman Road between the Project site and Grant Line Road and on the east side of Waterman Road between the Project site and Charolais Way is undeveloped and lacks sidewalks. Existing pedestrian facilities are shown in Figure 3.11-3.



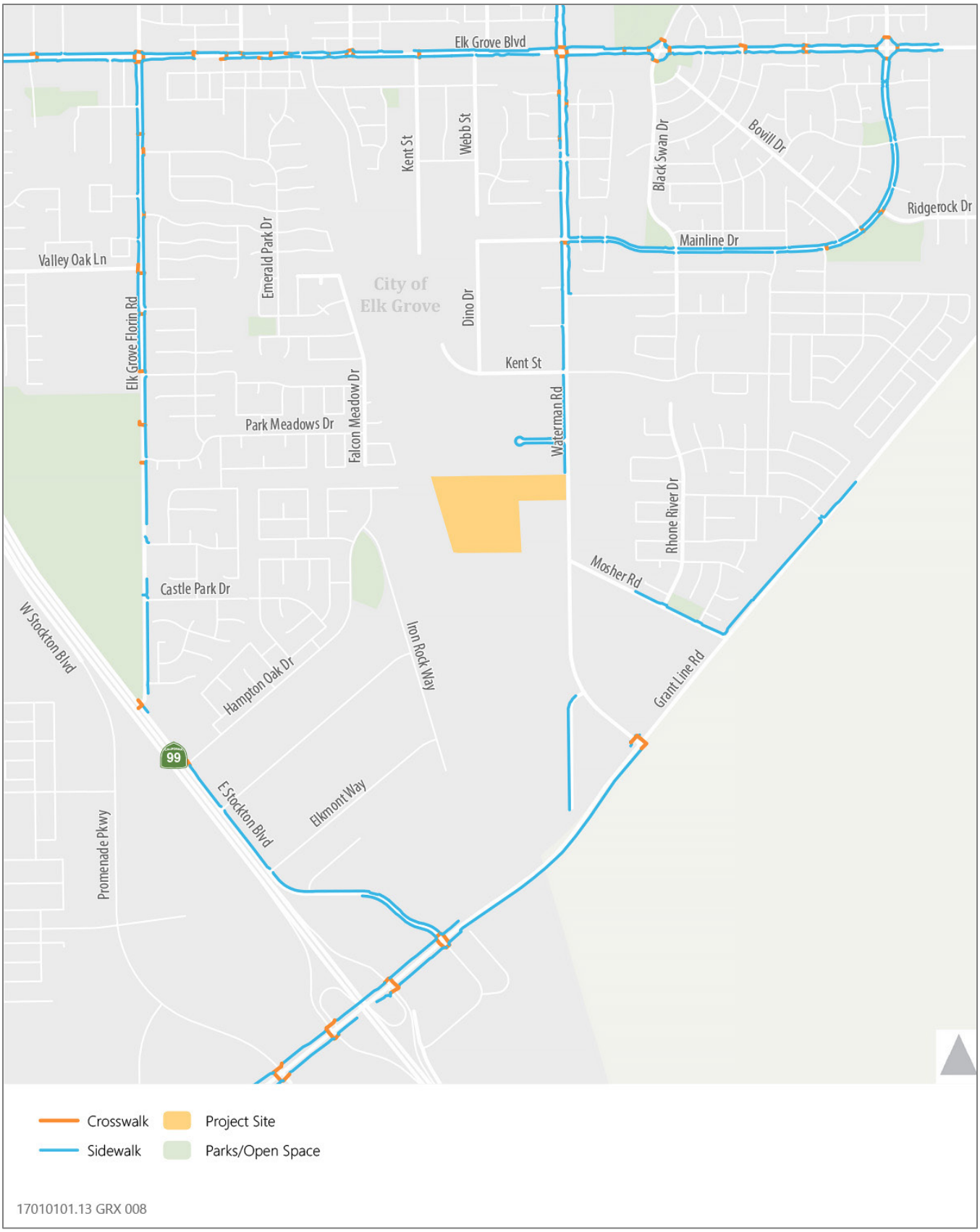
Source: Produced by Fehr & Peers in 2020, adapted by Ascent Environmental in 2022.

Figure 3.11-1 Existing Transit Facilities



Source: Produced by Fehr & Peers in 2020, adapted by Ascent Environmental in 2022.

Figure 3.11-2 Existing Bicycle Facilities



Source: Produced by Fehr & Peers in 2020, adapted by Ascent Environmental in 2022.

Figure 3.11-3 Existing Pedestrian Facilities

3.11.3 Impacts and Mitigation Measures

This section describes the analysis techniques, assumptions, and results used to identify potential significant impacts of the Project on the transportation system. Transportation impacts are described and assessed, and mitigation measures are recommended for impacts identified as significant or potentially significant.

METHODOLOGY

The following methodologies were used to evaluate the impacts of the Project.

Bicycle and Pedestrian Analysis

The bicycle and pedestrian analysis evaluates whether implementing the Project would disrupt existing or planned bicycle or pedestrian facilities or conflict with adopted City nonauto plans, guidelines, policies, or standards. The CUP planning application was reviewed by City's Trail Committee at a public meeting in November 2021. The Trails Committee voted unanimously in favor of the Project and requested to reduce interference on the bike lane by planting low profile plants and creating a smooth transition to the sidewalk at the curb to the gutter.

Transit Analysis

The transit analysis evaluates whether implementing the Project would disrupt existing or planned transit facilities and services or conflict with adopted City BPTMP, guidelines, policies, or standards.

VMT Analysis

The City uses VMT per service population and total daily VMT as the basis for VMT analysis. The two VMT metrics and their intended application to project-level VMT analysis are described in Section 3.11.1, "Regulatory Setting," above.

The City desires to achieve a reduction in VMT and has developed a VMT analysis process for land use projects. The VMT analysis process for land use projects includes the following four steps:

- Step 1 (Project Type) – Determine whether the project is ministerial or discretionary or whether the project is exempt from VMT analysis. Because its size exceeds the exemption limits, the Project is not exempt from VMT analysis.
- Step 2 (Project Location) – Determine whether VMT analysis is necessary based on project location, and determine the project's VMT limit by land use designation. The Project site would require a General Plan amendment to change land use designations from Community Commercial and Light Industrial to Employment Center. Therefore, the Project is not eligible for prescreening based on project location.
- Step 3 (Project VMT Analysis) – Determine the project's VMT and compare it to the VMT limit by land use designation (from Step 2) to determine whether VMT mitigation is necessary.
- Step 4 (Project VMT Limit Compliance) – Identify VMT reduction mitigation measures and the significance of VMT impacts with mitigation.

The City of Elk Grove *Transportation Analysis Guidelines* were reviewed to determine what level of VMT analysis was necessary for the Project. Specifically, the Land Use Project VMT Analysis Process and VMT Screening Map were reviewed. Additional details related to the VMT quantification process and potential limitations of the model are included in Appendix E. This analysis is based on the Transportation Study (Appendix E).

Transportation Hazards and Emergency Access

This analysis evaluates whether Project operations could create transportation hazards or inadequate emergency access from Project site design. This analysis is based on the Transportation Study (Appendix E).

THRESHOLDS OF SIGNIFICANCE

The significance criteria used to evaluate Project impacts on transportation under CEQA are based on Appendix G of the State CEQA Guidelines, as well as thresholds of significance adopted in the City General Plan and the City *Transportation Analysis Guidelines*.

The following describes the significance criteria used to identify Project-specific impacts on the transportation and circulation system.

Bicycle and Pedestrian Facilities

An impact on bicycle facilities would be significant if implementation of the Project would:

- disrupt existing or planned bicycle facilities or conflict with adopted City nonauto plans, guidelines, policies, or standards or
- disrupt existing or planned pedestrian facilities or conflict with adopted City nonauto plans, guidelines, policies, or standards.

Transit Facilities

An impact on transit facilities would be significant if implementation of the Project would:

- create demand for public transit services above the crush load capacity that is provided or planned or
- disrupt existing or planned transit facilities and services or conflict with adopted City nonauto plans, guidelines, policies, or standards.

Vehicle Miles Traveled

An impact on VMT would be significant if implementation of the Project would:

- result in an exceedance of VMT per service population limits outlined in General Plan Policy MOB-1: Development projects shall demonstrate that the VMT produced by the project at buildout is equal to or less than the VMT limit of the project's General Plan land use designation, as shown in Table 6-1 [presented as Table 3.11-1 in this EIR], which incorporates the 15 percent reduction from 2015 conditions.

Transportation Hazards Related to a Geometric Design Feature or Incompatible Uses

An impact on transportation hazards related to a geometric design feature would be significant if implementation of the Project would:

- result in designs for on-site circulation, access, and parking areas that fail to meet City or industry standard design guidelines or
- fail to provide adequate accessibility for heavy vehicles on-site.

Emergency Access

An impact on emergency access would be significant if implementation of the Project would:

- result in inadequate emergency access.

ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Impact 3.11-1: Conflict with Bicycle, Pedestrian, and Transit Programs, Plans, or Ordinances

The Project includes the implementation of off-site bicycle and pedestrian facilities along the Project frontage on Waterman Road, consistent with the City of Elk Grove General Plan, BPTMP, and Improvement Standards. Additionally, the Project is not expected to increase ridership such that the existing transit system does not have the capacity to accommodate demand. Additionally, the Project would not permanently alter the physical transportation network external to the Project site such that the bus stops serving these routes would be adversely affected. Thus, this impact on bicycle, pedestrian, and transit facilities would be **less than significant**.

Bicycle and Pedestrian Facilities

Currently, there are no existing bicycle or pedestrian facilities along Waterman Road, which is located adjacent to and east of the Project site. Waterman Road provides access to the Project site and runs along the eastern frontage of the site. The City of Elk Grove General Plan identifies a proposed bike lane along Waterman Road from Kent Street to Grant Line Road. The City of Elk Grove Improvement Standards require a 5-foot bike lane on minor arterials (Fehr & Peers 2020:20). The Project site plan includes Class II bicycle lanes along the Project frontage on Waterman Road, which would be required to meet the City's standards for bike lane design and development as a condition of approval.

A sidewalk is present on the west side of Waterman Road north of the Project site and terminates just south of the IN Self Storage facility south of Brinkman Court. City Improvement Standards require an 8-foot sidewalk with new development along minor arterial roadways (Fehr & Peers 2020:17). Additionally, the *Bicycle, Pedestrian, & Trails Master Plan* identifies proposed pedestrian facilities along Waterman Road from where the existing sidewalk ends north of the Project site, south to Grant Line Road (City of Elk Grove 2021b:Figure 13). As detailed in the Project site plan, the Project would include minimum 4-foot-wide pedestrian facilities along the Project frontage on Waterman Road pursuant to City Standard Drawing ST-31, consistent with the City standards for a two-lane roadway.

Transit Services

E-tran operates Routes 16 and 116, which have stops near the intersection of Elk Grove Boulevard and Waterman Road, approximately 1 mile north of the Project site. The Project would not permanently alter the physical transportation network external to the Project site such that the bus stops serving these routes would be adversely affected, because the existing stops are beyond the boundaries of the Project. Further, there are no planned transit services or facilities in the vicinity of the Project site, and the Project would not conflict with adopted City nonauto (i.e., bicycle, pedestrian, and trail) plans, guidelines, policies, or standards.

Finally, because of the character of the proposed land use (i.e., industrial project with total of 15 on-site employees) and geographic context (outskirts of the City), the Project is not expected to create new demand for public transit services and thus would not create demand that would exceed the crush load capacity of the transit system.

Conclusion

The Project includes the construction of bicycle and pedestrian facilities along the Project frontage on Waterman Road, consistent with the City General Plan, BPTMP, and Improvement Standards. Additionally, the Project would not adversely affect any existing transit stops in the vicinity of the Project site, and the existing transit system has available capacity to accommodate any new ridership generated by the Project. For these reasons, the impact on bicycle, pedestrian, and transit facilities would be **less than significant**.

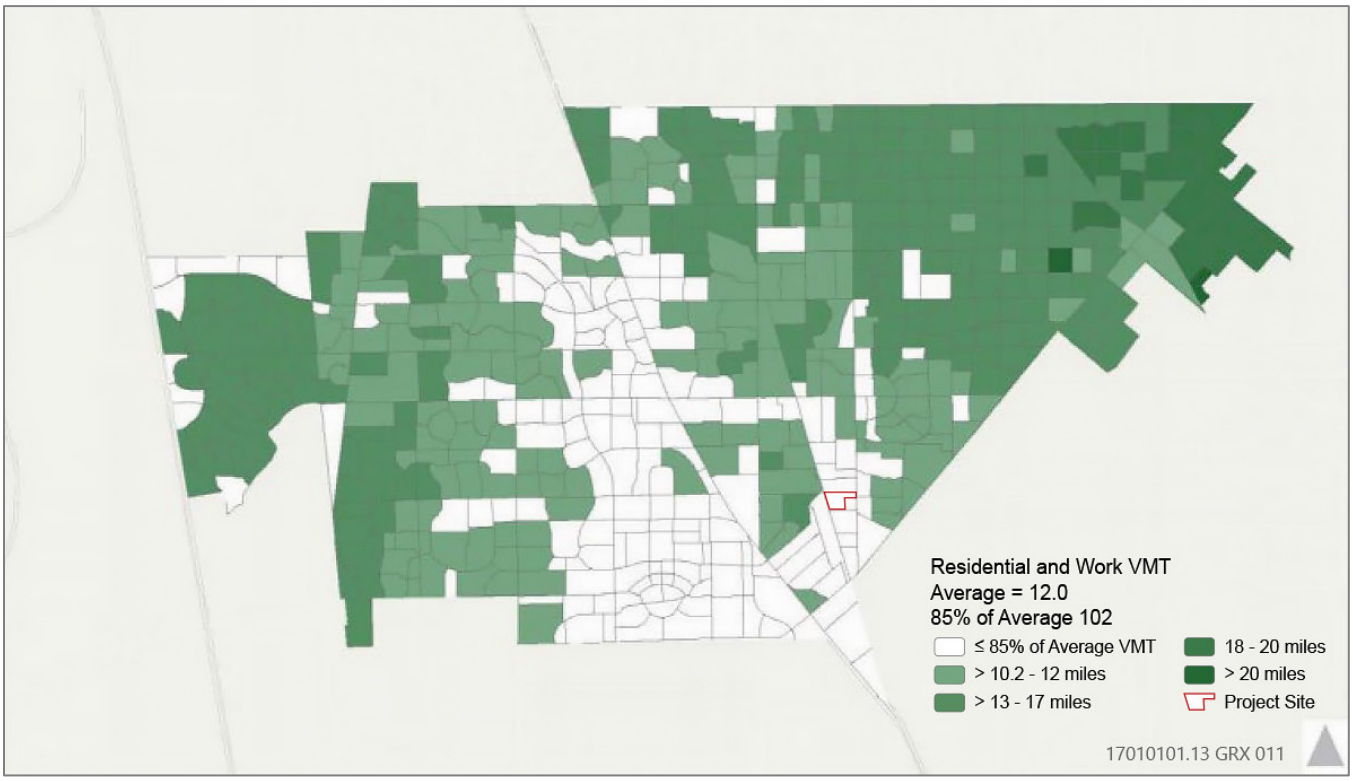
Mitigation Measures

No mitigation is required for this impact.

Impact 3.11-2: Result in an Exceedance of City of Elk Grove General Plan VMT Thresholds

The Project is located in a prescreened area of the City of Elk Grove where it has been determined that VMT for that land use designation would not exceed the City's designated threshold of 15 percent below the average service population established for that land use designation if it is built to the specifications of the VMT transportation guidelines included in the City of Elk Grove *Transportation Analysis Guidelines*. Additionally, the Project's building footprint would not exceed 50,000 square feet; thus, the Project is exempt from further VMT analysis pursuant to the City of Elk Grove Land Use Project VMT Analysis Process and is presumed to result in a less-than-significant impact on VMT. The impact would be **less than significant**.

The City of Elk Grove *Transportation Analysis Guidelines* were used to determine the level of VMT analysis needed for the Project. The Land Use Project VMT Screening Map (Figure 2 in the *Transportation Analysis Guidelines*) identifies areas in the City where it has been determined that development would result in VMT 15 percent below the average service population established for that land use designation if it is built to the specifications of the VMT transportation guidelines included in the City's *Transportation Analysis Guidelines*(City of Elk Grove 2019a:7). As shown in Figure 3.11-4 the Project is located in a prescreened area for VMT (pre-screened areas are shown in white and have been determined to result in 15 percent or below the average service population VMT established for that land use designation if built to the specifications of the Land Use Plan.). The Project site is designated Heavy Industrial (City of Elk Grove 2021a: Figure 3-4), consistent with the proposed uses involved in operation of the Project; thus, the Project is exempt from further VMT analysis.



Source: Produced by Fehr & Peers in 2020, adapted by Ascent Environmental in 2022.

Figure 3.11-4 VMT Screening Map

Additionally, as discussed above in the "Regulatory Setting" section, the *Transportation Analysis Guidelines* identifies a four-step Land Use Project VMT Analysis Process. According to Step 1 of this process, a project is exempt from VMT analysis and presumed to result in a less-than-significant impact if it is a commercial, office, or industrial project of less than 50,000 square feet. The Project is an industrial development less than 50,000 square feet and is thus exempt from VMT analysis.

Because the Project is located within a prescreened area (see Figure 3.11-4), is consistent with the General Plan land use designation, and would occupy less than 50,000 square feet, the Project is exempt from VMT analysis pursuant to the City *Transportation Analysis Guidelines* and is presumed to result in a less-than-significant impact on VMT. Therefore, the impact on VMT would be **less than significant**.

Mitigation Measures

No mitigation is required for this impact.

Impact 3.11-3: Substantially Increase Hazards Related to a Geometric Design Feature (e.g., Sharp Curves or Dangerous Intersections) or Incompatible Uses (e.g., Farming Equipment)

The Project would be subject to, and constructed in accordance with, applicable roadway design and safety guidelines. The driveway width from Waterman Road does not meet City of Elk Grove Standard Drawing ST-20 minimum width dimensions, which may affect safe access to the project site. Implementation of Mitigation Measure 3.11-3 would reduce the impact related to transportation hazards to a **less-than-significant** level because it would require consistency with the City of Elk Grove Standard Drawing ST-20 minimum width dimensions, which support safe access to the Project site .

Construction

Project construction activities are expected to occur over approximately 7 months. Construction would take place on weekdays from 7:00 a.m. to 6:00 p.m., and construction staging would be located on-site. The Project would be required to meet all City requirements related to construction activities, including provisions set forth in the *City of Elk Grove Construction Specifications Manual* (2020). Section 6-13, "Public Safety and Traffic Control," identifies several policies and safety standards that are the responsibility of the Project contractor, including maintaining emergency access, safe movement of construction equipment entering and leaving the Project site, and traffic controls and signage during construction. Additionally, Section 6-14, "Traffic Control Plans," establishes the contractor's requirement to develop and submit a traffic control plan to the City to demonstrate appropriate traffic handling for vehicles, bicyclists, and pedestrians affected by construction.

Operations

All roadway and access improvements associated with development of the Project would be subject to, and constructed in accordance with, applicable City and/or industry standard roadway design and safety guidelines. As part of the Transportation Study completed by Fehr & Peers, site access and circulation were analyzed, and recommendations related to design and truck access were provided. The Transportation Study compared the Project's proposed improvements to the City of Elk Grove Improvement Standards Manual to assess the Project's consistency with City design standards.

Access to the Project site would be provided via Waterman Road. The proposed driveway from Waterman Road includes a throat depth of approximately 60 feet, exceeding the City's minimum requirement of 50 feet. The existing site plan for the Project indicates a driveway apron per City of Elk Grove Standard Drawing ST-20. The driveway width as proposed is measured at 40 feet; however, the City's minimum requirement is 45 feet. Therefore, the Transportation Study recommends widening the proposed driveway width to 45 feet to meet City standards.

A driveway to the nearest residence is approximately 100 feet south of the Project's entry point on the east side of Waterman Road. As noted in the Transportation Study completed by Fehr & Peers, during the early stages of the project heavy vehicles making a northbound left turn into the Project driveway may queue in the northbound travel lane and block the resident's driveway. However, based on existing traffic volumes (northbound traffic and opposing southbound traffic) along Waterman Road, there would be sufficient gaps in southbound traffic to enable heavy vehicles making a northbound left turn into the Project driveway to do so without blocking the residential driveway for an extended period of time (Lum, pers. comms., 2022). Additionally, under cumulative year conditions, the buildout of Waterman Road would include two northbound through lanes and a 12-foot median/turn lane, which

would eliminate any potential blockage that could occur. Therefore, the Project would not result in an impact on roadway safety.

Conclusion

The Project would be required to follow all City and industrywide standards related to construction activities and safety hazards, including regulations specified in the *City of Elk Grove Construction Specifications Manual*. Additionally, the Project would be required to meet local design standards. The Transportation Study identifies inconsistencies between the Project site plan and the minimum dimensions requirements for driveways indicated in the City of Elk Grove Improvement Standards Manual. Implementation of Mitigation Measure 3.11-3 would reduce the impact related to transportation hazards to **less than significant** because the driveway to the Project site would be designed such that it would allow for safe access.

Mitigation Measures

Mitigation Measure 3.11-3: Design Internal Roadways and Site Access to Be Consistent with City of Elk Grove Design Standards

The Project applicant shall ensure that Project design meets City of Elk Grove Standard Drawing ST-20 minimum width dimensions and minimizes all transportation hazards to its greatest ability by implementing the following measure:

- The Project applicant shall ensure that the driveway design for Project site access from Waterman Road meets standards for four-lane facilities as designated by the General Plan. Therefore, the driveway width shall be a minimum of 45 feet, consistent with City of Elk Grove Standard Drawing ST-20. The driveway shall be constructed to accommodate heavy vehicles making a southbound right turn onto the Project site and an eastbound right turn out of the Project site safely and without difficulty.

All improvements shall meet requirements set forth in the City of Elk Grove Improvement Standards Manual and shall be reviewed and approved by the City's Engineering Services Division as a condition of approval to ensure the safe movement of heavy vehicles accessing and exiting the Project site.

Significance after Mitigation

Less than significant.

Impact 3.11-4: Result in Inadequate Emergency Access

The Project would be required to meet standards and regulations identified in the 2022 California Fire Code as adopted by the City of Elk Grove, including provisions related to maintaining emergency access during construction and operations. Additionally, the Project design would be subject to review by City emergency services and responsible agencies, thus ensuring that the Project would be designed to meet all applicable emergency access requirements. For these reasons, implementing the Project would not result in inadequate emergency access. Therefore, the impact would be **less than significant**.

Construction

As discussed for Impact 3.11-3, above, during construction, the contractor would be required to follow all safety protocols as detailed in the *City of Elk Grove Construction Specifications Manual*, including Section 6-13.03, which provides that uninterrupted passage of emergency vehicles through the work zone be maintained regardless of the controlled traffic conditions in place at the time (City of Elk Grove 2020:51). Additionally, the contractor would be required to submit a traffic control plan to the City that demonstrates the safe traffic handling for all modes of transportation during construction activities, including providing adequate emergency access to the Project site.

Operations

As detailed for Impact 3.11-3, above, the Project would be designed in accordance with City design standards established in the Improvement Standards Manual. Additionally, the Project improvements would be required to

comply with the 2019 California Fire Code (Title 24, Part 9), adopted by reference in the City of Elk Grove Municipal Code, Section 17.04.010. Appendix D of the 2019 California Fire Code provides additional requirements for fire apparatus access roads, including minimum dimensions to allow adequate access and turning radii for emergency vehicles accessing the Project site during operations. Additionally, the Project would be subject to review by the City's emergency services and responsible agencies, ensuring that the Project is equipped to provide adequate access for emergency responders.

Summary

The Project would be required to follow all State and City standards and regulations, which would ensure that any potential impacts on emergency vehicles would be minimized during construction and operations. Thus, implementing the Project would not result in inadequate emergency access. Therefore, the impact on emergency access would be **less than significant**.

Mitigation Measures

No mitigation is required for this impact.

3.12 UTILITIES AND SERVICE SYSTEMS

This section evaluates the availability of existing utility and infrastructure systems (water, stormwater, wastewater, solid waste, energy, and telecommunications) to serve the Project and the impact of the Project on these systems. The analysis is based on documents obtained from the City of Elk Grove and utilities agencies and on information provided by the applicant.

In response to the NOP during the public scoping period, the Sacramento Municipal Utility District (SMUD) submitted a comment letter that addressed construction work near and access to existing electricity facilities. Concerns associated with these comments would be included as conditions of approval for the Project.

3.12.1 Regulatory Setting

FEDERAL

Safe Drinking Water Act

As mandated by the Safe Drinking Water Act (Public Law 93-523), passed in 1974, the US Environmental Protection Agency (EPA) regulates contaminants of concern to domestic water supply. Such contaminants are defined as those that pose a public health threat or alter the aesthetic acceptability of the water. These types of contaminants are regulated by EPA's primary and secondary maximum contaminant levels (MCLs). MCLs and the process for setting these standards are reviewed every 3 years. Amendments to the Safe Drinking Water Act enacted in 1986 established an accelerated schedule for setting drinking water MCLs. EPA has delegated responsibility for California's drinking water program to the State Water Resources Control Board Division of Drinking Water (SWRCB-DDW). SWRCB-DDW is accountable to EPA for program implementation and for adoption of standards and regulations that are at least as stringent as those developed by EPA.

NPDES Stormwater Permit for Discharges from Small Municipal Separate Storm Sewer Systems

The Municipal Stormwater Permitting Program regulates stormwater discharges from municipal separate storm sewer systems (MS4s). Stormwater is runoff from rain or snowmelt that runs off surfaces such as rooftops, paved streets, highways, or parking lots and can carry with it pollutants such as oil, pesticides, herbicides, sediment, trash, bacteria, and metals. The runoff can then drain directly into a local stream, lake, or bay. Often, the runoff drains into storm drains that eventually drain untreated runoff into a local water body.

The City of Elk Grove is an MS4 co-permittee with the Cities of Citrus Heights, Folsom, Galt, Rancho Cordova, and Sacramento and the County of Sacramento. National Pollutant Discharge Elimination System (NPDES) permits are issued for 5-year terms. The current regionwide permit (Order No. R5-2016-0040), adopted by the Central Valley Regional Water Quality Control Board (Central Valley RWQCB) in June 2016, allows each permittee to discharge urban runoff from MS4s in its respective municipal jurisdiction and requires Phase I MS4 permittees to enroll under the regionwide permit as their current individual permits expire. Regional MS4 permit activities are managed jointly by the Sacramento Stormwater Quality Partnership, which consists of the seven jurisdictions covered by the permit.

Under the permit, each permittee is also responsible for ensuring that stormwater quality management plans are developed and implemented that meet the permit's discharge requirements. Under the 2016 permit, measures include implementation of stormwater quality management plans that demonstrate how new development would incorporate low-impact development design in projects. The permit also includes requirements for addressing total maximum daily loads. The City Department of Public Works is responsible for ensuring that its specific MS4 permit (Order No. R5-2016-0040-005) requirements are implemented. Compliance with the MS4 permit is regulated through Chapter 15.12, "Stormwater Management and Discharge Control," of the Elk Grove Municipal Code.

STATE

Urban Water Management Plan

In 1983, the California Legislature enacted the Urban Water Management Planning Act (UWMPA) (California Water Code Sections 10610–10656). The UWMPA states that every urban water supplier that provides water to 3,000 or more customers, or that provides more than 3,000 acre-feet of water annually, should make every effort to ensure that the level of reliability in its water service is sufficient to meet the needs of its various categories of customers during normal, dry, and multiple-dry years. This effort includes the adoption of an urban water management plan by every urban water supplier and an update of the plan every 5 years on or before December 31 of every year ending in a 5 or 0. The UWMPA has been amended several times since 1983, with the most recent amendment occurring with Senate Bill 318 in 2004. With the passage of Senate Bill 610 in 2001, additional information is required to be included as part of an urban water management plan if groundwater is identified as a source of water available to the supplier. An urban water supplier is required to include in the plan a description of all water supply projects and programs that may be undertaken to meet total projected water use.

California Water Code

Division 6, Part 2.10 (1995) of the California Water Code (Water Code) requires coordination between land use lead agencies and public water purveyors. The purpose of this coordination is to ensure that prudent water supply planning has been conducted and that planned water supplies are adequate to meet both existing demands and demands of planned development.

Water Code Sections 10910–10915 (inclusive) require land use lead agencies to (1) identify the responsible public water purveyor for a proposed development project and (2) request a water supply assessment (WSA) from the responsible purveyor. The objective of a WSA is to demonstrate the sufficiency of a purveyor's water supplies to satisfy the water demands of a proposed development project while still meeting the current and projected water demands of existing customers. Water Code Sections 10910–10915 delineate specific information that must be included in a WSA.

NPDES Permit for the Sacramento Regional Water Treatment Plant

The quality of the effluent that can be discharged to waterways in the Sacramento area by the Sacramento Regional Wastewater Treatment Plant (SRWTP) is established by the Central Valley RWQCB through waste discharge requirements (WDRs) that implement the NPDES permit. WDRs are updated at least every 5 years. A new permit must be issued in the event of a major change or expansion of the facility. In April 2016, the Central Valley RWQCB issued Order No. R5-2016-0020, NPDES No. CA 0077682, to the Sacramento Regional County Sanitation District (Regional San) for its Sacramento Regional Wastewater Treatment Plant (SRWTP), which treats wastewater from its service area before discharging the treated effluent into the Sacramento River. The water quality objectives established in the Central Valley RWQCB Basin Plan are protected, in part, by Order No. R5-2016-0020, NPDES No. CA 0077682. Currently, the SRWTP is permitted for a discharge of up to 181 million gallons per day (mgd) of treated effluent into the Sacramento River.

California Integrated Waste Management Act

To minimize the amount of solid waste that must be disposed of in landfills, the State Legislature passed the California Integrated Waste Management Act of 1989 (Assembly Bill [AB] 939) (Chapter 1095, Statutes of 1989), effective January 1990. According to AB 939, all cities and counties were required to divert 25 percent of all solid waste from landfill facilities by January 1, 1995, and 50 percent by January 1, 2000. Through other statutes and regulations, this 50-percent diversion rate also applies to State agencies. In order of priority, waste reduction efforts must promote source reduction, recycling and composting, and environmentally safe transformation and land disposal.

In 2011, AB 341 (Chapter 476, Statutes of 2011) modified the act and directed the California Department of Resources Recycling and Recovery to develop and adopt regulations for mandatory commercial recycling. The resulting Mandatory Commercial Recycling Regulation (2012) requires that on and after July 1, 2012, certain businesses that generate 4 cubic yards or more of commercial solid waste per week must arrange recycling services. To comply with this requirement, businesses may either separate recyclables and self-haul them or subscribe to a recycling service

that includes mixed waste processing. AB 341 also established a statewide recycling goal of 75 percent; the 50-percent disposal reduction mandate still applies for cities and counties under AB 939.

California Building Energy Efficiency Standards (Title 24, Part 6)

The energy consumption of new nonresidential buildings in California is regulated by the California Energy Code (CCR Title 24 Part 6). The California Energy Code was established by the California Energy Commission (CEC) in 1978 in response to a legislative mandate to create uniform building codes to reduce California's energy consumption and to provide energy efficiency standards for residential and nonresidential buildings. CEC updates the California Energy Code every 3 years with more stringent design requirements for reduced energy consumption, which results in the generation of fewer greenhouse gas emissions.

The 2022 California Energy Code, , applies to projects constructed after January 1, 2023. Nonresidential buildings constructed after that date are anticipated to consume 30 percent less energy as compared to nonresidential buildings constructed under the 2016 California Energy Code, primarily through prescriptive requirements for high-efficiency lighting. The Energy Code is enforced through the local plan check and building permit process. Local government agencies may adopt and enforce additional energy standards for new buildings as reasonably necessary related to local climatologic, geologic, or topographic conditions, provided that these standards exceed those provided in the California Energy Code.

LOCAL

Sacramento Area Sewer District Standards and Specifications

The Sacramento Area Sewer District's (SASD's) Standards and Specifications establish minimum standards for the SASD public sewer collection system. These standards apply to planning, design, construction, and rehabilitation of the public sewer collection system that SASD operates and maintains. In addition the standards ensure that SASD assets are consistently designed and constructed. The Standards and Specifications were approved by the SASD Board of Directors on March 13, 2019.

Sacramento Regional County Sanitation District

Regional San is responsible for collection by interceptors (sanitary sewers that are designed to carry flows in excess of 10 mgd) and for wastewater treatment in Sacramento County. It owns, operates, and is responsible for the collection, trunk, and interceptor sewer systems throughout the county, as well as the SRWTP, located west of Elk Grove.

Regional San sets forth requirements for use of its wastewater collection and treatment system, provides for the enforcement of these requirements, establishes penalties for violations, and establishes the rates and fees for users of the Regional San's sewer facilities.

City of Elk Grove General Plan

The City's current General Plan was amended in 2021.. The General Plan goals, policies, and standards are based on the General Plan Vision Statement and supporting principles. The following City General Plan (2021) policies are applicable to the Project. The reader is referred to Section 3.7, "Hydrology and Water Quality," for a discussion of General Plan policies related to groundwater and water quality:

- **Policy LU-3-33:** Ensure infrastructure and facilities are planned and designed to meet projected future demands.
- **Policy LU-3-34:** Ensure backbone infrastructure and facility improvements are installed concurrent with projected development demands to meet adopted City or agency service standards or adopted work level standards.
- **Policy LU-5-12:** Integrate sustainable stormwater management techniques in site design to reduce stormwater runoff and control erosion, during and after construction.
- **Policy ER-2-17:** Require all new development projects to incorporate runoff control measures to minimize peak flows of runoff and/or assist in financing or otherwise implementing comprehensive drainage plans.
- **Policy ER-2-18:** Drainage facilities shall be properly maintained to ensure their proper operation during storms.

- **Policy NR-3-4:** Ensure adequate water supply is available to the community by working with water providers on facilities, infrastructure, and appropriate allocation.
- **Policy NR-3-9:** Reduce the amount of water used by residential and nonresidential uses by requiring compliance with adopted water conservation measures.
- **Policy NR-3-10:** Promote the use of greywater systems and recycled water for irrigation purposes.
- **Policy NR-3-13:** Advocate for native and/or drought-tolerant landscaping in public and private projects.
  - **Standard NR-3-13.a:** Require the planting of native and/or drought-tolerant landscaping in landscaped medians and parkway strips to reduce water use and maintenance costs.
- **Policy ER-6-8:** Continue to participate in the Sacramento Stormwater Quality Partnership to educate and inform the public about urban runoff pollution, work with industries and businesses to encourage pollution prevention, require construction activities to reduce erosion and pollution, and require developing projects to include pollution controls that will continue to operate after construction is complete.
- **Policy INF-1-1:** Water supply and delivery systems shall be available in time to meet the demand created by new development.
  - **Standard INF-1-1.a:** The following shall be required for all subdivisions to the extent permitted by State law:
    - Proposed water supply and delivery systems shall be available at the time of tentative map approval to the satisfaction of the City. The water agency providing service to the project may use several alternative methods of supply and/or delivery, provided that each is capable individually of delivering water to the project.
    - The agency providing water service to the subdivision shall demonstrate prior to the City's approval of the Final Map that sufficient capacity shall be available to accommodate the subdivision plus existing development, and other approved projects in the same service area, and other projects that have received commitments for water service.
    - Off-site and on-site water infrastructure sufficient to provide adequate water to the subdivision shall be in place prior to the approval of the Final Map or their financing shall be assured to the satisfaction of the City, consistent with the requirements of the Subdivision Map Act.
    - Off-site and on-site water distribution systems required to serve the subdivision shall be in place and contain water at sufficient quantity and pressure prior to the issuance of any building permits. Model homes may be exempted from this policy as determined appropriate by the City, and subject to approval by the City.
- **Policy INF-1-2:** Require that water flow and pressure be provided at sufficient levels to meet domestic, commercial, industrial, and firefighting needs.
- **Policy INF-1-3:** Protect the quality and quantity of groundwater resources, including those which serve households and businesses which rely on private wells. The City shall support and participate in local efforts to implement the State's Sustainable Groundwater Management Act.
- **Policy INF-1-4:** Work with Regional San and SCWA to expand recycled water infrastructure for residential, commercial, industrial, and recreational facilities and support the use of reclaimed water for irrigation wherever feasible.
- **Policy INF-2-1:** Sewage conveyance and treatment capacity shall be available in time to meet the demand created by new development.
  - **Standard INF-2-1.a**: The following shall be required for all development projects, excluding subdivisions:
    - Sewer/wastewater treatment capacity shall be available at the time of project approval.
    - All required sewer/wastewater infrastructure for the project shall be in place at the time of project approval, or shall be assured through the use of bonds or other sureties to the City's satisfaction.
- **Policy CIF-1-1:** Facilitate recycling, reduction in the amount of waste, and reuse of materials to reduce the amount of solid waste sent to landfill from Elk Grove.

- **Policy CIF-1-2:** Reduce municipal waste through recycling programs and employee education.
  - **Standard CIF-1-2.a:** Recycle waste materials for all municipal construction and demolition projects.
- **Policy CIF-1-3:** Encourage businesses to emphasize resource efficiency and environmental responsibility and to minimize pollution and waste in their daily operations.
- **Policy CIF-2-2:** Require that new utility infrastructure for electrical, telecommunication, natural gas and other services avoid sensitive resources, be located so as to not be visually obtrusive, and, if possible, be located within roadway rights-of-way or existing utility easements.
- **Policy CIF-2-3:** To minimize damage to roadways and reduce inconvenience to residents and businesses, the City shall seek to coordinate roadway utility efforts so that they are installed in a single operation whenever possible. Multiple installations, in which separate utilities are installed at different times and/or in different trenches, are specifically discouraged.
- **Policy CIF-2-4:** Maintain, improve, and modernize existing facilities and services when necessary to meet the needs of Elk Grove residents and businesses.
- **Policy IFP-1-10:** Except when prohibited by state law, the City will endeavor to ensure that sufficient capacity in all public services and facilities will be available on time to maintain desired service levels and avoid capacity shortages, traffic congestion, or other negative effects on safety and quality of life.

City of Elk Grove Storm Drainage Master Plan

The City's comprehensive Storm Drainage Master Plan identifies drainage concepts for upgrading the existing storm drainage and flood control collection system. The plan identifies and analyzes existing drainage deficiencies throughout the City, provides a range of drainage concepts for the construction of future facilities required to serve the City at buildout of the existing General Plan, and establishes criteria for selecting and prioritizing projects. The plan may also be used for the development of a capital drainage financing program (City of Elk Grove 2011).

City of Elk Grove Source Reduction and Recycling Element

The City Source Reduction and Recycling Element implements AB 939 and consists of policies and programs designed to achieve the State's waste reduction mandates. The element projects the amount of disposal capacity needed to accommodate the waste generated within the City for a 15-year period.

City of Elk Grove Municipal Code

The following chapters of the City of Elk Grove Municipal Code are relevant to utilities and service systems and the Project:

- **Municipal Code Chapter 14.10: Water Efficient Landscape Requirements**: Municipal Code Chapter 14.10 identifies water management practices and water waste prevention for existing landscapes. It specifies requirements for planning, designing, installing, maintaining, and managing water efficient landscapes in new construction and rehabilitated projects.
- **Municipal Code Chapter 15.12: Stormwater Management and Discharge Control**: Municipal Code Chapter 15.12 provides authority to the City for inspection and enforcement related to control of illegal and industrial discharges to the City storm drainage system and local receiving waters. It also addresses the requirement for best management practices (BMPs) and regulations to reduce pollutants in the City's stormwater.
- **Municipal Code Title 30: Solid Waste Management**: Municipal Code Chapter 30.50 identifies requirements for commercial hauling such as required qualifications, vehicle specifications, and transportation specifications. Chapter 30.70 identifies requirements related to debris reduction, reuse, and recycling for new construction and demolition projects in the City. Specifically, Chapter 30.70 identifies requirements to recycle or divert no less than 65 percent of construction material and complete a waste management plan. Chapter 30.90 identifies space allocation and enclosure design guidelines for trash and recycling. For example, guidelines are provided for location and dimension of commercial trash and recycling enclosures.

3.12.2 Environmental Setting

WATER SUPPLY

The Project site is located within the Elk Grove Water District (EGWD) boundary. The EGWD is a department of the Florin Resource Conservation District and operates the EGWD's water system. The EGWD provides service to residents and businesses within an approximately 13-square-mile area within the current City limits. The service area is bounded to the north by Sheldon Road, to the east by Grant Line Road, to the south by Union Industrial Park, and to the west by SR 99. The Sheldon/Rural Area Community Plan and Eastern Elk Grove Community Plan areas are in the eastern part of the EGWD service area boundary, although no services are provided in the Sheldon/Rural Area.

The EGWD's service area is separated into two subareas: Service Area 1 and Service Area 2. Service Area 1 relies entirely on groundwater. Service Area 2 is served by water purchased from the Sacramento County Water Agency. There are approximately 12,890 residential, commercial/institutional, irrigation, and industrial service connections (EGWD 2021: 2-1). The Project site is located within Service Area 1.

EGWD's Service Area 1 is an independent system that is currently served wholly through groundwater deliveries from seven active wells with an operational capacity of approximately 12 mgd. This translates to an approximate total pumping capacity of 8,000 acre-feet per year (afy) with the consideration of a typical diurnal demand pattern. The groundwater system makes the supplies available in Service Area 1 100-percent reliable in all year types (i.e., normal, dry, and multiple-dry years). Although the supply of 8,000 afy is the available supply based on the groundwater basin's sustainable yield and EGWD's system capacity, EGWD would produce only as much water as it needs to meet demands in a particular location (EGWD 2021). Table 3.12-1 presents the last 5 years of historical supply produced by the Service Area 1 wells.

Table 3.12-1 EGWD Service Area 1 Wells Historical Production (2016–2020)

Year	Groundwater Production Capacity (af)	Groundwater Produced (af)
2016	8,000	3,398
2017	8,000	3,665
2018	8,000	4,036
2019	8,000	4,131
2020	8,000	4,077

Note: af = acre-feet.

Source: EGWD 2021.

WATER SUPPLY INFRASTRUCTURE

As discussed above, the Project site is located within EGWD's Service Area 1. Service Area 1 is supplied by several groundwater wells that deliver water to a potable groundwater treatment plant owned and operated by EGWD. The system includes the treatment plant, two storage tanks, production wells serving the plant, and various distribution system pipes and appurtenances. The water treatment plant, referred to as the Railroad Street Treatment and Storage Facility, has a maximum daily capacity of 10.4 mgd. The facility can pump up to 16,000 gallons per minute. Groundwater is delivered to the plant from EGWD's deep production wells, where it is treated before being delivered to customers (EGWD 2021).

WASTEWATER

Sacramento Regional County Sanitation District

The Sacramento Regional County Sanitation District (Regional San) provides wastewater treatment for the City. It serves approximately 1.4 million residents and industrial and commercial customers, and it owns and operates the

regional wastewater conveyance system. Regional San manages wastewater treatment, major conveyance, and wastewater disposal (Regional San 2020).

Sacramento Area Sewer District

SASD serves as one contributing agency to Regional San. It provides wastewater collection and conveyance services in the urbanized unincorporated area of Sacramento County; in the Cities of Citrus Heights, Elk Grove, and Rancho Cordova; and in a portion of the Cities of Sacramento and Folsom. SASD owns, operates, and maintains a network of 4,600 miles of main line and lower lateral pipes (SASD 2022).

SASD trunk sewer pipes function as conveyance facilities to transport the collected wastewater flows to the Regional San interceptor system. The existing City trunk line extends southeast from the SRWTP influent diversion structure to Laguna Boulevard, then parallel to SR 99 along East Stockton Boulevard, extending close to the southern City boundary.

Sacramento Regional Wastewater Treatment Plant

The SRWTP, operated by Regional San, is located on 900 acres of a 3,550-acre site between Interstate 5 and Franklin Boulevard, north of Laguna Boulevard. The remaining 2,650 acres on the site serve as a "bufferland" between the SRWTP and nearby residential areas.

The SRWTP has 169 miles of pipeline. Wastewater is treated by accelerated physical and natural biological processes before it is discharged to the Sacramento River (Regional San 2020).

An upgrade of the SRWTP is currently under way. The upgrade, known as the EchoWater Project, must be built by 2023 to meet new water quality requirements that were issued by the Central Valley RWQCB as part of Regional San's 2010 NPDES permit. The requirements are designed primarily to help protect the Sacramento–San Joaquin Delta ecosystem downstream by removing most of the ammonia and nitrates and improving the removal of pathogens from wastewater discharge. The upgrade will include deployment of new treatment technologies and facilities and will increase the quality of effluent discharged into the Sacramento River and ensure that the SRWTP discharge constituents are below permitted discharge limits specified in the NPDES permit. Flows to the SRWTP have decreased as a result of water conservation efforts over the last 10 years. Further, adequate capacity for wastewater treatment is anticipated well into the future. Flows in 2014 were approximately 141 mgd, compared to the current permitted capacity of 181 mgd. It is not anticipated that Regional San will need to consider further improvements to the SRWTP until after 2050.

SOLID WASTE COLLECTION AND DISPOSAL

Solid waste generated by commercial developments is collected and disposed of by registered commercial haulers, county-authorized recyclers, and hazardous waste materials handlers. Solid waste generated in the City is taken to a variety of landfills (City of Elk Grove 2018). Table 3.12-2 shows landfills used by the City and the permitted and remaining capacities of those landfills. As shown, most of the landfills serving City waste haulers have more than 70 percent of their capacity remaining.

Table 3.12-2 Disposal Facilities and Remaining Capacities

Facility	Total Estimated Permitted Capacity (in cubic yards)	Remaining Estimated Capacity Cubic Yards	Remaining Estimated Capacity Percentage	Estimated Closure Year
Altamont Landfill & Resource Recovery (01-AA-0009)	124,400,000	65,400,000	52.6%	2025
Foothill Sanitary Landfill (39-AA-0004)	138,000,000	125,000,000	90.6%	2082
Sacramento County Landfill (Kiefer) (34-AA-0001)	117,400,000	112,900,000	96.2%	2064
L and D Landfill Co. (34-AA-0020)	20,500,000	3,115,900	15.2%	2023
Bakersfield Metropolitan SLF (15-AA-0273)	53,000,000	32,808,260	61.9%	2046
North County Landfill (39-AA-0022)	41,200,000	35,400,000	85.9%	2048
Recology Hay Road (48-AA-0002)	37,000,000	30,433,000	82.3%	2077
Keller Canyon Landfill (07-AA-0032)	75,018,280	63,408,410	91%	2030
Forward Landfill, Inc. (39-AA-0015)	59,160,000	24,720,669	43.2%	2020
Potrero Hills Landfill (48-AA-0075)	83,100,000	13,872,000	16.7%	2048

Source: CalRecycle 2022.

ENERGY

Electricity

SMUD provides all electric services in Elk Grove. SMUD is an independent operator of power and generates, transmits, and distributes electricity to an approximately 900-square-mile area with 10,473 miles of power lines located mostly in Sacramento County and small portions of Placer and Yolo Counties.

Natural Gas

Natural gas is provided to the City of Elk Grove by Pacific Gas and Electric Company.

TELECOMMUNICATIONS

Telecommunication (e.g., phone and internet) facilities are provided to City through existing underground infrastructure facilities from various service providers (AT&T, Consolidated Communications, Frontier, Comcast).

3.12.3 Impacts and Mitigation Measures

METHODOLOGY

The evaluation of utility extension and service impacts is based on review of existing public agency documentation, wastewater generation rates derived from Sacramento County guidance (Sacramento County 2013), and estimates for water demand and solid waste generation provided by the applicant. The impact analysis considers whether there is adequate capacity to serve the Project and whether infrastructure impacts would be required that could result in physical environmental impacts. The reader is referred to Section 3.5, "Greenhouse Gas Emissions, Climate Change, and Energy," for estimated energy demands of the Project and to Section 3.7, "Hydrology and Water Quality," for further analysis of water quality, groundwater, and flooding impacts.

THRESHOLDS OF SIGNIFICANCE

A utilities and service systems impact would be significant if implementation of the Project would:

- require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects;
- result in insufficient 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 that serves or may serve the Project that it has inadequate 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;
- negatively affect the provision of solid waste services or impair the attainment of solid waste reduction goals; or
- fail to comply with federal, State, and local management and reduction statutes and regulations related to solid waste.

ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Impact 3.12-1: Expansion of Infrastructure that Could Cause Adverse Environmental Effects

Infrastructure associated with the water, wastewater, stormwater, electricity, and natural gas requirements of the Project would be expanded as needed before development of the site, as a condition of approval for the Project. Connections to existing infrastructure would be expected to occur within the new on-site driveway and paved areas and would be limited to areas within the Project site. The environmental impacts related to these connections are discussed throughout this EIR in the relevant resource sections because this work would be part of the grading and construction phase of the Project. No additional utility infrastructure would be needed off-site to adequately serve the Project. This impact would be **less than significant**.

As discussed in Section 2.5.8, "Utilities," water would be provided to the Project site by EGWD via a 16-inch water main that is planned for construction on the west side of the Union Pacific Railroad track and a 12-inch water main that would extend across the railroad track and parallel to the east side of the track for a total of 1,001 linear feet. The cost of the new water main would be split, between the applicant, developer to the north of the Project site, and the Elk Grove Water District. located in Waterman Road. In addition, wastewater pipelines would be connected to the local sewer system, SMUD would provide electricity to the Project site from existing 12-kilovolt facilities located at the northwestern corner of the site, Pacific Gas and Electric Company would supply natural gas to the site, and. stormwater from a small bioretention facility would be conveyed to the City's system along Waterman Road.

Connections to existing infrastructure would be expected to be made within the new on-site driveway and paved areas and would be limited to areas on the Project site. The environmental effects related to these connections are discussed throughout this EIR in the relevant resource sections because this work would be part of the grading and construction phase of the Project. No additional utility infrastructure would be needed off-site to adequately serve the Project. This impact would be **less than significant**.

Mitigation Measures

No mitigation is required for this impact.

Impact 3.12-2: Provision of Sufficient Water Supplies

The Project's water demand would be associated with concrete production, as well as on-site dust control, landscaping, and potable water for staff. Implementation of the Project would create demand for 6 million gallons of water per year, or approximately 22 afy, which could be met through the available groundwater production capacity associated with EGWD Service Area 1. This water supply is reliable during normal, dry, and multiple-dry years. This impact would be **less than significant**.

The Project site is located in EGWD Service Area 1. The water demand associated with producing ready-mix concrete is approximately 300 gallons per cubic yard of concrete. Assuming a maximum production of 200,000 cubic yards of concrete per year, approximately 6 million gallons per year of water would be required. In addition, some water would be required for dust control, landscaping, as well as potable water for the approximately 15 staff.

As discussed above in Section 3.12.2, "Environmental Setting," EGWD Service Area 1 relies entirely on groundwater. Under existing conditions, groundwater production capacity available to EGWD is 8,000 afy, approximately half of which is produced annually (Table 3.12-3). Implementation of the Project would create demand for 6 million gallons of water per year, or approximately 22 afy, which could be met through the available groundwater production capacity associated with EGWD Service Area 1.

Table 3.12-3 Existing and Project Water Supply (acre-feet)

Groundwater Produced from EGWD Service Area 1	Project Water Demand	Current Plus Project Groundwater Demand	Groundwater Production Capacity
4,077	22	4,099	8,000

Source: EGWD 2021; data compiled by Ascent in 2022

As shown in Table 3.12-3, the current water demand (2020) from EGWD's Service Area 1 and Project-related water demands would not exceed groundwater production capacity (8,000 afy). This water supply is 100-percent reliable during normal, dry, and multiple-dry years (EGWD 2021). Thus, the impact related to water supply would be **less than significant**.

Refer to Section 3.7, "Hydrology and Water Quality," for a discussion related to the effects on water demand on groundwater sustainability.

Mitigation Measures

No mitigation is required for this impact.

Impact 3.12-3: Availability of Wastewater Treatment Capacity

The Project would have a wastewater generation rate of approximately 0.000225 mgd, which would result in a minimal increase over existing wastewater treatment volumes (141 mgd). This increased volume would be within the SRWTP's permitted capacity of 181 mgd. Therefore, the Project's wastewater generation would be accommodated within the existing and planned treatment capacity of the SRWTP. This impact would be **less than significant.**

The Project's wastewater generation rate would be associated with the 15 on-site employees. With a generation rate of 15 gallons per day (gpd) per employee (Sacramento County 2013), the Project is estimated to generate approximately 225 gallons per day, or 0.000225 mgd (15 gpd/employee x 15 employees). Regional San treats an average of 141 mgd of wastewater. The Project's wastewater generation would be minimal compared to the existing wastewater treatment volumes. It is not anticipated that Regional San would need to consider further improvements to the SRWTP until after 2050 (Regional San 2008). Therefore, the Project's wastewater generation would be accommodated within the existing and planned treatment capacity of the SRWTP. This impact would be **less than significant**.

Mitigation Measures

No mitigation is required for this impact.

Impact 3.12-4: Provision of Adequate Capacity at Solid Waste Facilities and Compliance with Regulations Related to Solid Waste

Waste generated at the Project site, which would consist of office-related refuse and recycled oil and organics, may be collected by several permitted haulers, and wastes would be hauled to a permitted landfill for disposal as selected by the hauler. There is substantial remaining capacity in the landfills serving local waste haulers, with an average remaining capacity of more than 70 percent. Therefore, because the Project would not generate solid waste in excess of State or local standards or in excess of the capacity of the local infrastructure, negatively affect the provisions of solid waste services, or interfere with the attainment of solid waste reduction goals, this impact would be **less than significant**.

Waste generated at the Project site would consist of office-related refuse and recycled oil and organics. The Project applicant has prepared a recycling and waste management plan, as required by the City of Elk Grove. As described in the plan, waste generated at the Project site may be accommodated by several permitted haulers, and waste would be hauled to a permitted landfill for disposal as selected by the hauler (Vulcan Materials Company 2021). Municipal solid waste, recyclable materials, and compostable food waste would be separated on-site and collected by a contracted waste hauler.

As shown in Table 3.12-2, there is substantial remaining capacity in the landfills serving local waste haulers, with an average remaining capacity of more than 70 percent. Therefore, the Project would be served by solid waste management companies and landfills with sufficient capacity to serve the future development. The Project would be required to comply with all applicable solid waste regulations identified in Section 3.12.1 "Regulatory Setting," which would be ensured through the development review process. Therefore, because the Project would not generate solid waste in excess of State or local standards or in excess of the capacity of the local infrastructure, negatively affect the provisions of solid waste services, or interfere with the attainment of solid waste reduction goals, this impact would be **less than significant**.

Mitigation Measures

No mitigation is required for this impact.

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4 ALTERNATIVES

4.1 INTRODUCTION

The California Code of Regulations (CCR) Section 15126.6(a) (State CEQA Guidelines) requires EIRs to describe "… a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives. An EIR need not consider every conceivable alternative to a project. Rather, it must consider a range of potentially feasible alternatives that will avoid or substantially lessen the significant adverse impacts of a project, and foster informed decision making and public participation. An EIR is not required to consider alternatives that are infeasible. The lead agency is responsible for selecting a range of project alternatives for examination and must publicly disclose its reasoning for selecting those alternatives. There is no ironclad rule governing the nature or scope of the alternatives to be discussed other than the rule of reason." This section of the State CEQA Guidelines also provides guidance regarding what the alternatives analysis should consider. Subsection (b) further states the purpose of the alternatives analysis is as follows:

> Because an EIR must identify ways to mitigate or avoid the significant effects that a project may have on the environment (Public Resources Code [PRC] Section 21002.1), the discussion of alternatives shall focus on alternatives to the project or its location which are capable of avoiding or substantially lessening any significant effects of the project, even if these alternatives would impede to some degree the attainment of the project objectives, or would be more costly.

The State CEQA Guidelines require that the EIR include sufficient information about each alternative to allow meaningful evaluation, analysis, and comparison with the proposed project. If an alternative would cause one or more significant effects in addition to those that would be caused by the project as proposed, the significant effects of the alternative must be discussed, but in less detail than the significant effects of the project as proposed (CCR Section 15126.6[d]).

The State CEQA Guidelines further require that the "no project" alternative be considered (CCR Section 15126.6[e]). The purpose of describing and analyzing a no project alternative is to allow decision makers to compare the impacts of approving a proposed project with the impacts of not approving the proposed project. If the no project alternative is the environmentally superior alternative, CEQA requires that the EIR "…shall also identify an environmentally superior alternative among the other alternatives." (CCR Section 15126[e][2]).

In defining "feasibility" (e.g., "… feasibly attain most of the basic objectives of the project …"), CCR Section 15126.6(f) (1) states, in part:

> Among the factors that may be taken into account when addressing the feasibility of alternatives are site suitability, economic viability, availability of infrastructure, general plan consistency, other plans or regulatory limitations, jurisdictional boundaries (projects with a regionally significant impact should consider the regional context), and whether the proponent can reasonably acquire, control or otherwise have access to the alternative site (or the site is already owned by the proponent). No one of these factors establishes a fixed limit on the scope of reasonable alternatives.

In determining what alternatives should be considered in the EIR, it is important to consider the objectives of the project, the project's significant effects, and unique project considerations. These factors are crucial to the development of alternatives that meet the criteria specified in Section 15126.6(a). Although, as noted above, EIRs must contain a discussion of "potentially feasible" alternatives, the ultimate determination as to whether an alternative is feasible or infeasible is made by the lead agency's decision-making body. (See PRC Sections 21081.5, 21081[a] [3].)

4.2 CONSIDERATIONS FOR SELECTION OF ALTERNATIVES

4.2.1 Attainment of Project Objectives

As described above, one factor that must be considered in selection of alternatives is the ability of a specific alternative to attain most of the basic objectives of the Project (CCR Section 15126.6[a]). Chapter 2, "Project Description," articulates the following Project objectives:

- develop a concrete and asphalt recycling facility to serve construction projects in Elk Grove and the surrounding areas,
- develop a project that creates an industrial use on vacant land that is compatible with existing surrounding industrial uses,
- plan and develop underutilized lots in the City,
- increase the diversion of concrete and asphalt materials from landfills, and
- provide employment opportunities for residents in the City.

4.2.2 Environmental Impacts of the Project

Sections 3.1 through 3.12 of this Draft EIR address the environmental impacts of implementation of the Project. Potentially feasible alternatives were developed with consideration of avoiding or lessening the significant, and potentially significant, adverse impacts of the Project, as identified in Chapter 3 of this Draft EIR and summarized below. If an environmental issue area analyzed in this Draft EIR is not addressed below, it is because no significant impacts were identified for that issue area. No significant and unavoidable environmental impacts resulting from the Project were identified.

AIR QUALITY

- Implementation of the Project would generate construction emissions of ROG, NOx, PM_{10}, and $PM_{2.5}$ from material and equipment delivery trips, worker commute trips, and other miscellaneous activities. Emissions of NOx would not exceed SMAQMD's threshold of significance of 85 lb/day; however, unmitigated emissions of PM_{10} and $PM_{2.5}$ would exceed SMAQMD's threshold of significance of 0 lb/day before the implementation of best management practices (BMPs). With implementation of the BMPs listed in Mitigation Measure 3.2-1, fugitive dust PM_{10} and $PM_{2.5}$ emissions would be decreased by approximately 54 percent to approximately 8 and 4 lb/day, respectively. Because construction emissions of PM_{10} and $PM_{2.5}$ would be less than SMAQMD's thresholds of be 80 and 82 lb/day, respectively, the impacts would be less than significant under Project and cumulative conditions (see Impact 3.2-1 and 4-4).
- Operation of the Project would not generate emissions of ROG or NO_X in exceedance of SMAQMD's daily mass emissions thresholds of significance. However, operation would generate emissions of PM_{10} and $PM_{2.5}$ in exceedance of SMAQMD's 0 lb/day threshold before the implementation of BACT and BMPs. Implementation of the BACT contained in Mitigation Measure 3.2-2 would adjust SMAQMD's thresholds of significance for PM_{10} and $PM_{2.5}$ to 80 and 82 lb/day, respectively. These levels of emissions are below SMAQMD's operational emissions thresholds of significance (80 PM_{10} and 82 lb/day $PM_{2.5}$) used following implementation of best management practices (BMP) and best available control technology (BACT). Additionally, the reductions achieved from implementation of Mitigation Measure 3.2-2 would reduce the total number of potential adverse health incidences. Therefore, operational emissions would be **less than significant** under Project and cumulative conditions (see Impact 3.2-2 and 4-5).
- Construction and operation of the Project would not result in ROG or NOx emissions in exceedance of SMAQMD's mass emissions thresholds. ROG and NOx are precursor emissions to the formation of ground-level ozone, and SMAQMD's thresholds are tied to long-term regional air quality planning. Therefore, emissions of ROG and NOx would not interfere with the Sacramento Regional 2008 NAAQS 8-Hour Ozone Attainment and Reasonable Further Progress Plan. Construction and operation emissions of PM_{10} and $PM_{2.5}$ would exceed

SMAQMD's 0 lb/day thresholds before implementation of BACT and BMPs. Therefore, emissions of PM_{10} and $PM_{2.5}$ could conflict with long-term regional air quality planning in the SVAB with respect to PM. Implementation of the BACT and BMPs contained in Mitigation Measures 3.2-1 and 3.2-2 would adjust SMAQMD's thresholds of significance for PM_{10} and $PM_{2.5}$ to 80 and 82 lb/day, respectively. These levels of emissions are below SMAQMD's operational emissions thresholds of significance (80 PM_{10} and 82 lb/day $PM_{2.5}$) used following implementation of BMPs and BACT. Therefore, operational emissions would be **less than significant** under Project and cumulative conditions (see Impact 3.2-3 and 4-5).

BIOLOGICAL RESOURCES

- Project implementation could lead to potential loss of western spadefoot breeding habitat fill of seasonal wetlands and disturbance from construction activities. Mitigation Measure 3.3-1 has been identified to reduce this impact to **less than significant** under Project and cumulative conditions (see Impact 3.3-3 and 4-6).
- Project implementation could lead to potential loss of special-status birds or their nests due to disturbance from construction activities. Loss of nests could include nest abandonment, failure, and/or mortality of chicks or eggs. Implementation could also result in loss of foraging habitat. Mitigation Measures 3.3-2a, 3.3-2b, and 3.3-2c have been identified to reduce this impact to **less than significant** under Project and cumulative conditions (see Impact 3.3-2 and 4-6).
- Implementation of the Project would result in the removal or fill of jurisdictional waters of the United States, including wetlands subject to USACE jurisdiction under the federal Clean Water Act and waters of the state. Implementation of Mitigation Measure 3.3-3 has been identified to reduce this impact to **less than significant** under Project and cumulative conditions (see Impacts 3.3-3 and 4-6).
- The Project could remove two trees designated as trees of local importance under City of Elk Grove Municipal Code Chapter 19.12: Tree Preservation and Protection: the northern California black walnut and one of the valley oak trees. Therefore, Project implementation could conflict with a local ordinance protecting trees. Implementation of Mitigation Measure 3.3-5 would reduce this impact to **less than significant** by ensuring that a permit would be acquired for tree removal, trees removed would be replaced, and other trees not subject to removal would be protected during construction activities (see Impact 3.3-4). No cumulatively considerable impacts would occur.

CULTURAL RESOURCES AND TRIBAL CULTURAL RESOURCES

- Project-related ground-disturbing activities could result in the discovery of or damage to yet undiscovered archaeological resources as defined in State CEQA Guidelines Section 15064.5. Mitigation (Mitigation Measures 3.4-1a and 3.4-1b) has been identified to reduce this impact to **less than significant** under Project and cumulative conditions (see Impacts 3.4-1 and 4-7).
- Tribal consultation, as required by law, has been completed and has not resulted in the identification of tribal cultural resources on the Project site. However, excavation activities associated with Project construction may disturb or destroy previously undiscovered significant subsurface tribal cultural resources. Mitigation Measures 3.4-2a, 3.4-2b, and 3.4-2c have been identified to reduce this impact to **less than significant** under Project and cumulative conditions (see Impacts 3.4-2 and 4-7).
- Based on documentary research, no evidence suggests that any prehistoric- or historic-era marked or unmarked human interments are present within or in the immediate vicinity of the Project site. However, ground-disturbing construction activities could uncover previously unknown human remains. Mitigation Measure 3.4-3 has been identified to reduce this impact to **less than significant** under Project and cumulative conditions (see Impacts 3.4-2 and 4-7).

HAZARDS AND HAZARDOUS MATERIALS

- Construction-related activities could result in the disturbance and subsequent release of hazardous materials into the environment, which would also pose a hazard to human health if construction workers were exposed.

Mitigation Measure 3.6-2a and Mitigation Measure 3.6-2b have been identified to reduce this impact to **less than significant** under Project conditions (Impact 3.6-2). No cumulatively considerable impacts would occur.

NOISE

- Operation of the Project would involve the operation of an asphalt and ready-mix plant and a recycling facility, as well as movement of on-site vehicles associated with the sale of future aggregate products. Predicted daytime and nighttime noise levels from the operation of the noise sources would not exceed the City's noise standards of 60 L_{eq} dBA and 50 L_{eq} dBA for daytime and nighttime hours, respectively. Nevertheless, due to uncertainties surrounding the timing and intensity of use of on-site equipment at the facility, these noise standards could be exceeded from project operation. Mitigation Measure 3.9-4 has been identified to reduce this impact to **less than significant** under Project conditions and cumulative conditions (Impact 3.6-2 and 4-16).

TRANSPORTATION

- Due to the design of the Project's driveway from Waterman Road there could result in a traffic safety impact related to access to the site. Mitigation Measure 3.11-3 has been identified to reduce this impact to **less than significant** under Project conditions (see Impacts 3.11-3). No cumulatively considerable impacts would occur.

4.3 ALTERNATIVES CONSIDERED BUT NOT EVALUATED FURTHER

As described above, State CEQA Guidelines Section 15126.6(c) provides that the range of potential alternatives for the project shall include those that could feasibly accomplish most of the basic objectives of the project, and could avoid or substantially lessen one or more of the significant effects. Alternatives that fail to meet the fundamental project purpose need not be addressed in detail in an EIR. (*In re Bay-Delta Programmatic Environmental Impact Report Coordinated Proceedings* (2008) 43 Cal.4th 1143, 1165-1167.)

In determining what alternatives should be considered in the EIR, it is important to acknowledge the objectives of the project, the project's significant effects, and unique project considerations. These factors are crucial to the development of alternatives that meet the criteria specified in Section 15126.6(a). Although, as noted above, EIRs must contain a discussion of "potentially feasible" alternatives, the ultimate determination as to whether an alternative is feasible or infeasible is made by lead agency decision-maker(s). (See Pub. Resources Code, Section 21081(a)(3).) At the time of action on the project, the decision-maker(s) may consider evidence beyond that found in this EIR in addressing such determinations. The decision-maker(s), for example, may conclude that a particular alternative is infeasible (i.e., undesirable) from a policy standpoint, and may reject an alternative on that basis provided that the decision-maker(s) adopts a finding, supported by substantial evidence, to that effect, and provided that such a finding reflects a reasonable balancing of the relevant economic, environmental, social, and other considerations supported by substantial evidence. (*City of Del Mar v. City of San Diego* (1982) 133 Cal.App.3d 401, 417; *California Native Plant Society v. City of Santa Cruz* (2009) 177 Cal.App.4th 957, 998.)

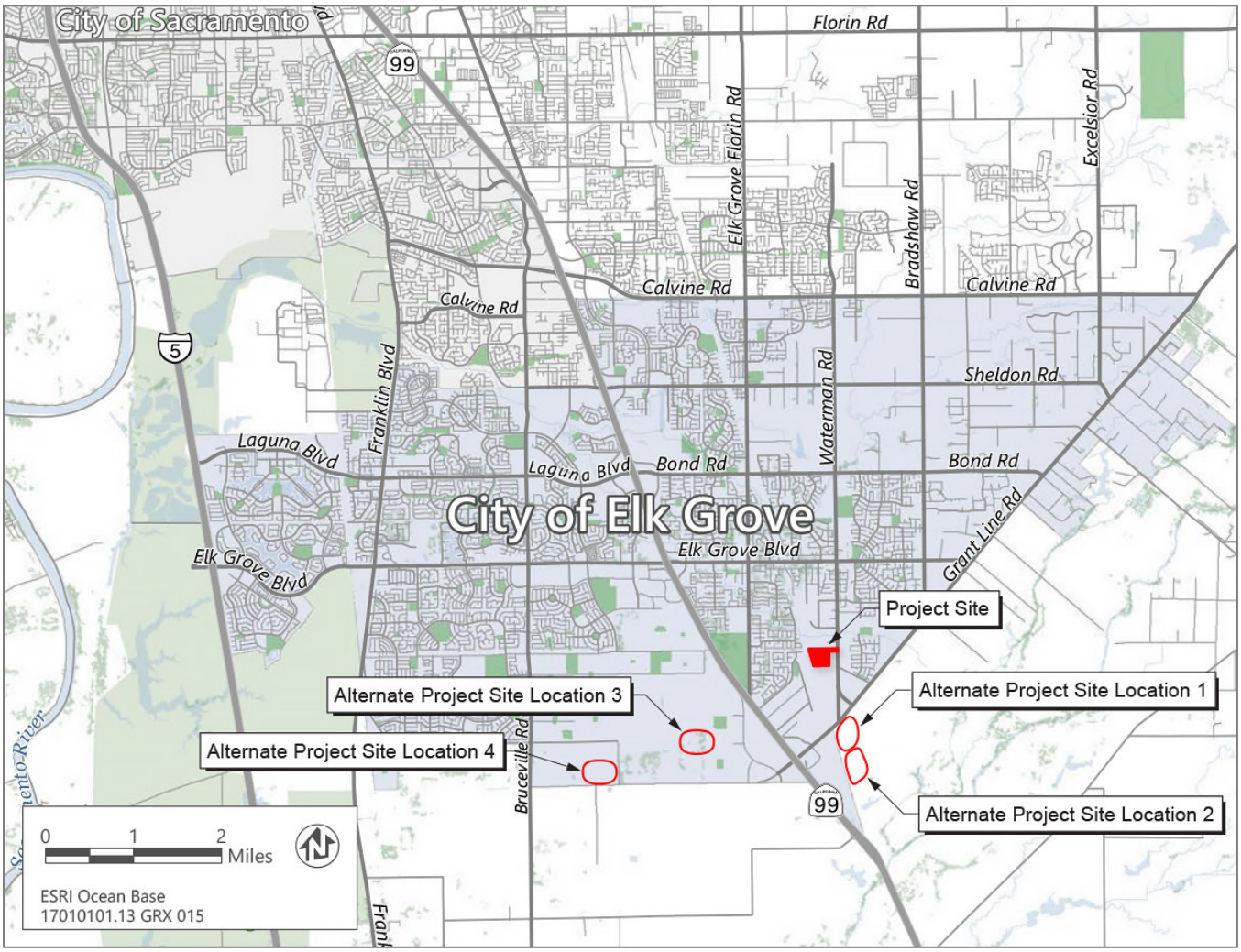
The EIR should also identify any alternatives that were considered by the lead agency, but were rejected during the planning or scoping process and briefly explain the reasons underlying the lead agency's determination.

The following alternative was considered by the City but are not evaluated further in this Draft EIR.

4.3.1 Alternate Project Site Location

CEQA Guidelines Section 15126.6(a) states that an alternative location for the project should be considered. Location-related impacts associated with the proposed Project were related to the potential for hazardous materials to be present on the site, proximity to sensitive receptors (light and noise impacts), vehicular site access, and the presence of biological resources including wetlands and special-status species. The City considered four potential alternative project sites (see Figure 4-1). Two parcels were located in the Southeast Industrial Area at 10351 Grant Line Road (APNs 134-0190-034 and -033) and two parcels were located in the Southeast Policy Area at 8109 and 8215 Kammerer

Road (portions of APN 132-0300-055, -056, -057, -058, -059, -062); and 8675 Kammerer Road (portion of APN 132-032-010). All four parcels are of adequate size to accommodate the project and zoned for industrial uses. However, as discussed further below, assuming that project construction and operation would be similar to the proposed Project, it is not clear that a significant environmental impact would be eliminated or substantially reduced by siting the project in an alternative location.



Source: adapted by Ascent Environmental in 2019.

Figure 4-1 Project Location

The potential alternative project sites located at 10351 Grant Line Road presented limitations with site design due to the presence of high voltage powerline (on APN 134-0190-033, Alternative Project Site Location 1), the ability to provide adequate turning radius for access to the site, and proximity to residences (on APN 134-0190-034, Alternative Project Site Location 2). In addition, because these properties are currently used for agricultural purposes, due to the likelihood of previous chemical use (e.g., pesticides) contamination of the site cannot be ruled out without preparation of a Phase I Environmental Site Assessment (see Section 3.6, "Hazards and Hazardous Materials," for more information). Additionally, drainage canals and apparent water coming from a cattle trough may indicate the presence of wetlands and associated special status species. Thus, because no significant environmental impacts could clearly be eliminated or reduced, these parcels are not considered further.

In regard to the alternative project site locations located within the Southeast Policy Area (Alternative Project Site Location 3: portion of APN 132-032-010; and Alternative Project Site Location 4: portions of APN 132-0300-055, -056, -057, -058, -059, -062), similar to the potential alternative project sites discussed above, drainage canals may indicate the

presence of wetlands and associated special status species and there may be soil contamination related to previous agricultural uses. In addition, given the presence of nearby residences, which are not currently located near industrial lands, it is not clear that noise and light impacts on sensitive receptors could be reduced (note that there are existing residences, as well as residences under construction and planned). Furthermore, without additional study, there may be vehicular access issues similar to those discussed for the proposed Project. Thus, because no significant environmental impacts would be eliminated or reduced, these parcels are not considered further.

4.4 ALTERNATIVES SELECTED FOR DETAILED ANALYSIS

The following alternatives evaluated in this Draft EIR.

- Alternative 1: No Project–No Development Alternative assumes no demolition of the existing structure nor construction of a new building. The Project site would remain in its current condition.
- Alternative 2: Reduced Development Alternative assumes that the facility would contain only the concrete and asphalt production facilities and there would be no recycling facility on the Project site. Because most asphalt and concrete production facilities operate with a recycling component, it is likely that the Project applicant would seek to develop a recycling facility nearby; however, the location for such a site has not been identified.

Further details on these alternatives, and an evaluation of their environmental effects relative to those of the proposed Project, are provided below. For purposes of comparison with the other action alternatives, conclusions for each technical area are characterized as "impacts" that are greater, similar, or less to describe conditions that are worse than, similar to, or better than those of the proposed Project.

4.4.1 Alternative 1: No Project–No Development Alternative

Under Alternative 1, the No Project–No Development Alternative, no actions would be taken by the City and the Project site would remain unchanged from current conditions. The site would retain its zoning as a Heavy Industrial land use designation and zoning district, which allows for development of a broad range of manufacturing and industrial uses, such as manufacture, fabrication, assembly or processing of raw and/or finished materials. The No Project – No Development Alternative would not meet the Project objectives. However, as required by CEQA, the No Project – No Development Alternative is evaluated in this Draft EIR.

Although it is acknowledged that with the No Project–No Development Alternative, there would be no discretionary action by the City, and thus no impact, for purposes of comparison with the other action alternatives, conclusions for each technical area are characterized as "impacts" that are greater, similar, or less, to describe conditions that are worse than, similar to, or better than those of the proposed Project.

AESTHETICS

Under this alternative, there would be no alteration of the visual character and quality of the Project site. Views of the Project site from surrounding vantage points would not change, and no new sources of light and glare would be created, as would occur with the proposed Project. Project-related visual character and lighting impacts would not occur. Thus, impacts under the No Project–No Development Alternative would be less than those that would occur with the Project. (*Less, no new impact*)

AIR QUALITY

Because the No Project–No Development Alternative would involve no construction disturbance and no new vehicular trip generation, this alternative would not generate construction- or operation-related air emissions. This would avoid Project-related significant but mitigable impacts of emissions of air pollutants and precursors. Thus, impacts under the No Project–No Development Alternative would be less than those that would occur with the Project. (*Less, no new impact*)

BIOLOGICAL RESOURCES

The No Project–No Development Alternative would not result in any new ground disturbance on the Project site or in the off-site improvement areas. This would avoid Project-related significant but mitigatable impacts related to western spadefoot breeding habitat, nesting birds and raptors, vernal pool fairy shrimp, fill of jurisdictional waters of the United States and conflicts with a local ordinance protecting trees. Overall, impacts under this alternative would be less than those that would occur with the Project. (*Less, no new impact*)

CULTURAL RESOURCES AND TRIBAL CULTURAL RESOURCES

The No Project–No Development Alternative would not involve any earthmoving activities, thereby avoiding impacts related to the disturbance, destruction, or alteration of any known or as-yet-undiscovered/unrecorded archaeological resources, tribal cultural resources, or human remains. In comparison, implementing the proposed Project would result in ground disturbance that could cause potentially significant impacts related to disturbance of undiscovered/unrecorded subsurface archaeological resources, tribal cultural resources, and human remains. These impacts would be reduced to less-than-significant levels through implementation of mitigation measures. Because the No Project–No Development Alternative would not include any ground disturbance, it would avoid this impact. Therefore, cultural resource impacts under the No Project–No Development Alternative would be less than would occur under the Project. (*Less, no new impact*)

GREENHOUSE GAS EMISSIONS, CLIMATE CHANGE, AND ENERGY

Under the No Project–No Development Alternative, the Project site would remain in its current condition. Project construction- and new operation-related emissions of GHGs would not occur. Thus, the No Project–No Development Alternative would generate less GHG emissions in comparison to the Project. (*Less, no new impact*)

Under the No Project–No Development Alternative, no demolition or construction activities would occur. Therefore, there would be no change in energy use. The Project would increase energy use but would not result in the inefficient, wasteful, or unnecessary consumption of energy resources or conflict with a local plan for renewable energy or energy efficiency. Thus, energy impacts under the No Project–No Development Alternative would be less than would occur under the Project. (*Less, no new impact*)

HAZARDS AND HAZARDOUS MATERIALS

Under this alternative, no new buildings or facilities associated with the Project would be constructed. The No Project–No Development Alternative would avoid significant, but mitigatable impacts due to release of hazardous materials into the environment or exposure of hazardous materials to construction workers from existing conditions within the Project site. Overall, impacts under this alternative would be less than those that would occur with the Project. (*Less, no new impact*)

HYDROLOGY AND WATER QUALITY

Under the No Project–No Development Alternative, there would be no potential for construction-related releases of sediment and contaminants into surface waters or groundwater, and no changes in water demand, stormwater generation, drainage patterns, or new flood risk. In comparison, implementation of the Project would result in less-than-significant impacts related to hydrology and water quality. Thus, implementing the No Project–No Development Alternative would result in impacts on hydrology and water quality that would be less than those that would occur under the Project. (*Less, no new impact*)

LAND USE AND PLANNING

The Project would not result in any significant land use impacts. This alternative would not divide an established community, nor would it conflict with plans adopted for the purpose of avoiding or mitigating a significant effect. Impacts associated with this alternative would be similar to those that would occur under the Project. (*Similar*)

NOISE

Under this alternative, no Project-related construction activities would take place, and there would be no increases in short-term construction-related noise at nearby sensitive receptors. No increase in new noise-generating activities would occur. Thus, noise impacts under the No Project–No Development Alternative would be less than those that would occur under the Project. (*Less, no new impact*)

PUBLIC SERVICES

The Project would not result in any significant public service impacts that would involve the construction of new facilities. Similarly, the Project would not result in any significant public service impacts that would involve the construction of new facilities. Thus, the No Project–No Development Alternative would result in a similar impact to the proposed Project with regard to public services. (*Similar*)

TRANSPORTATION

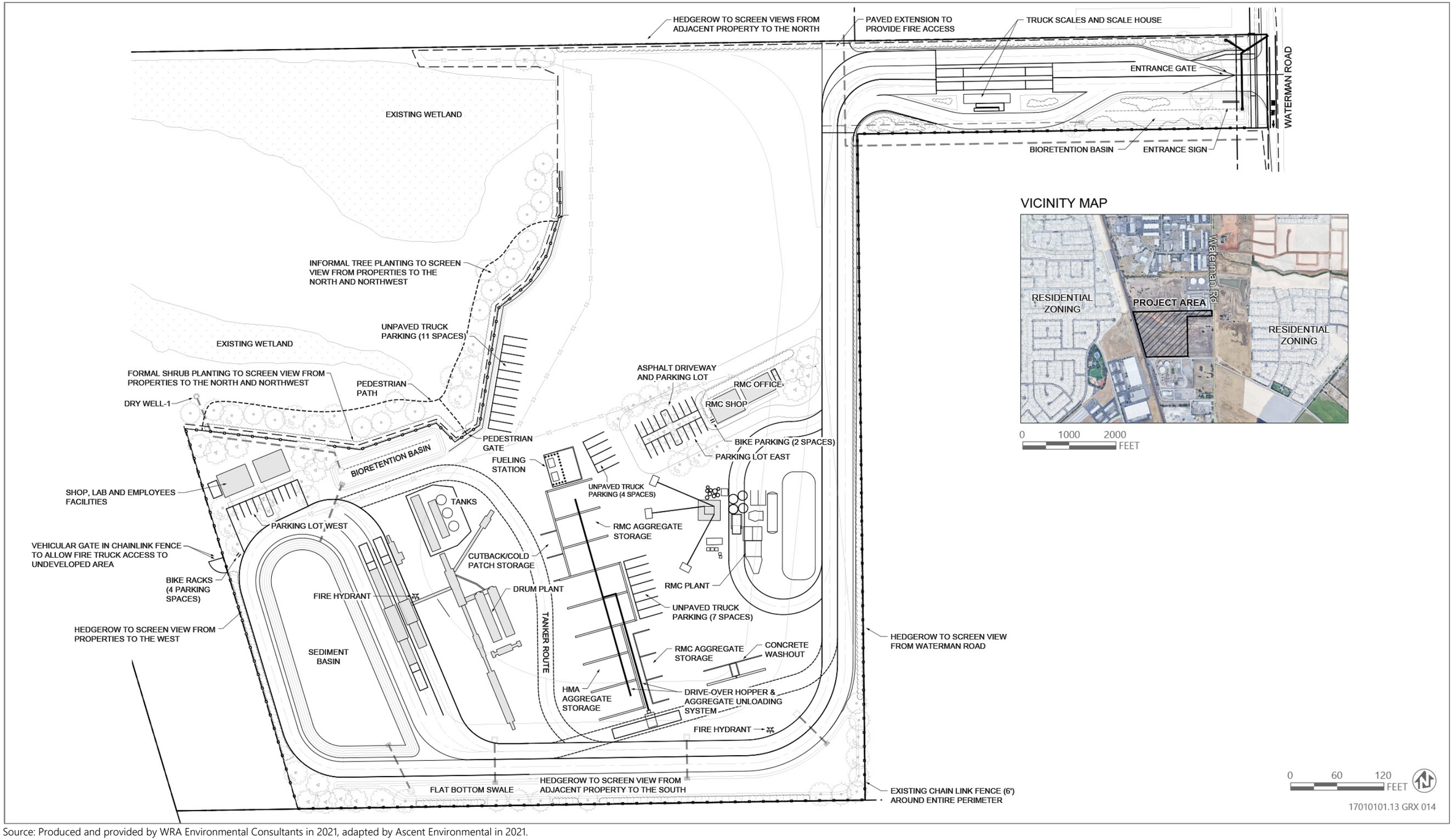
Implementing the No Project–No Development Alternative would not result in an increase in vehicular or multimodal trips. Therefore, it would not result in a change in trips or vehicle miles traveled (VMT) greater than existing conditions, or an increase in the demand for transit, bicycle, or pedestrian services and facilities. Additionally, the No Project–No Development Alternative would not result in any change to the existing transportation network; thus, it would not result in impacts on transportation or air navigation hazards, safety, or emergency access or conflict with transportation plans, guidelines, policies, or standards. The Project would result in a significant, but mitigable impact related to safety onto the site from Waterman Road, which would not occur under the No Project-No Development Alternative. Therefore, the No Project–No Development Alternative would result in less of an impact than would the Project. (*Less, no new impact)*

UTILITIES

The Project would not result in significant environmental impacts associated with off-site infrastructure impacts and provision of utilities. The No Project–No Development Alternative would not result in any new demand for water, wastewater treatment, stormwater conveyance, electricity, or natural gas, nor would it result in the need for new infrastructure. Thus, the No Project–No Development Alternative would lessen demand on utilities and would result in less of an impact than the Project. (*Less, no new impact*)

4.4.2 Alternative 2: Reduced Development Alternative

Under the Reduced Development Alternative (Alternative 2), the Project would be limited to development of the concrete and asphalt production facilities (see Figure 4-2). There would be no recycling plant associated with the Project; however, the applicant could potentially seek to develop a recycling plant in a nearby location or rely on materials from an existing recycling plant. This would result in a less development at the northern edge of the site where the recycling plant is proposed as part of the proposed Project. The concrete and asphalt production facilities, roadways, and other features would be the same under this alternative as the proposed Project. Because there would not be a recycling facility, it is assumed that there would fewer employees associated with the Reduced Development Alternative compared to the Project. This alternative is designed to reduce the impacts of the proposed Project related to biological resources, due to the presence of a wetland feature underlying the location of the recycling facility under the proposed Project.



Source: Produced and provided by WRA Environmental Consultants in 2021, adapted by Ascent Environmental in 2021.

Figure 4-2 Revised Site Plan

AIR QUALITY

Similar to the Project, the Reduced Development Alternative would include construction activities that would generate construction-related air emissions, which would be mitigated to a less-than-significant level through the application of Project mitigation measures. In addition, elimination of the recycling facility this alternative would reduce operation-related air emissions within the Project site; however, recycled material would continue to be used for production of aggregate and would need to be sourced from an offsite location. The specific location or locations from which recycled materials may be sourced is not known for this alternative. However, hauling recycled materials to the site rather than using an on-site recycling plant would increase truck trips, which in turn would increase air pollutant emissions (i.e., primarily NO_X, $PM_{2.5}$ and PM_{10}). Because the Reduced Development Alternative would reduce construction- related air emissions, but could increase operational emissions relative to the Project, it would result in similarly severe air quality impacts compared to the Project. (*Similar*)

BIOLOGICAL RESOURCES

The Reduced Development Alternative would result in less ground disturbance than the Project and but could affect nesting birds and raptors due to disturbance from construction activities. However, there would be a smaller area of wetlands that would be affected under this alternative compared to the Project. Wetland impact were identified as significant but mitigatable for the Project. Because a smaller area of wetlands would be affected, impacts under this alternative would be less than those that would occur under the Project. (*Less*)

CULTURAL AND TRIBAL CULTURAL RESOURCES

The Reduced Development Alternative would involve earthmoving activities similar to those of the Project, which could result in the disturbance, destruction, or alteration of known or as-yet-undiscovered/unrecorded archaeological resources, tribal cultural resources, or human remains. Because the Reduced Development Alternative would include a smaller Project footprint, the potential for encountering unknown archeological or tribal cultural resources would be less than under the Project, but would not avoid potential impacts associated with archaeological or tribal cultural resources. Therefore, the impacts under the Reduced Development Alternative would be less than those under the Project. (*Less*)

GREENHOUSE GAS EMISSIONS, CLIMATE CHANGE, AND ENERGY

Under the Reduced Development Alternative, the extent of site development would be reduced; therefore, less operation-related GHG emissions would be generated than under the Project. Construction emissions for this alternative and the Project are anticipated to be less because the site would have a smaller development footprint. Similarly, without the recycling facility; however, recycled material would continue to be used for production of aggregate and would need to be sourced from an offsite location. The specific location or locations from which recycled materials may be sourced is not known for this alternative. However, hauling recycled materials to the site rather than using an on-site recycling plant would increase truck trips, which in turn would increase GHG emissions. Because the Reduced Development Alternative would reduce construction- related GHG emissions but could increase operational GHG emissions relative to the Project, it would result in similarly severe air quality impacts compared to the Project. (*Similar*)

Under the Reduced Development Alternative, construction activities would occur at the Project site, and energy would be temporarily used for construction activities. As with the Project, implementing the Reduced Development Alternative would not result in the long-term wasteful, inefficient, and unnecessary consumption of energy. In addition, both the Reduced Development Alternative and the proposed Project would be consistent with the energy measures in the City of Elk Grove's Climate Action Plan. Thus, the impacts under the Reduced Development Alternative would be similar to those under the Project. (*Similar*)

HAZARDS AND HAZARDOUS MATERIALS

No significant hazard impacts would occur under the Project because it would be required to comply with federal, State, and local regulations regarding the handling of hazardous materials. As with the Project, the use and handling of hazardous materials under this alternative would be consistent with federal, State, and local regulations, which would minimize the potential for upset or accident conditions or exposure to nearby receptors. The Reduced Development Alternative and Project would both present the potentially significant but mitigable impact of disturbance and release of hazardous materials into the environment due to known hazardous conditions on the Project site. Thus, impacts on public health and safety related to hazardous materials or hazards under the Reduced Development Alternative would be similar to those under the Project. (*Similar*)

HYDROLOGY AND WATER QUALITY

The Reduced Development Alternative would include a smaller footprint than the Project. Therefore, there would be less potential for construction-related releases of sediment and contaminants into surface waters or groundwater, as well as stormwater generation, changes in drainage patterns, and/or flood risk. In addition, potential impacts to groundwater resources would be less under the Reduced Development Alternative than the Project because there would be less demand for water from Elk Grove Water District. Thus, impacts on hydrology and water quality under the Reduced Development Alternative would be less than under the Project. (*Less)*

LAND USE AND PLANNING

The Project would not result in any significant land use impacts. This alternative also would not result in significant land use impacts (division of an established community or conflict with plans adopted for the purpose of avoiding or mitigating a significant effect). Thus, land use and planning impacts associated with this alternative would be similar to those under the Project. (*Similar*)

NOISE

Under this alternative, due to a decrease in Project size, construction activities would occur over a shorter period of time to those that would occur under the Project. As with the Project, this alternative also would include traffic and operation noise. Significant noise impacts associated with operation of the Project could be mitigated to a less-than-significant level. Because the Reduced Development Alternative would not include noise associated with the recycling facility, this alternative would result in noise impacts that would be less than what would occur under the Project. (*Less*)

PUBLIC SERVICES

The Project would not result in any significant public services impacts. The extent of service need under the Reduced Development Alternative would be similar to that under the Project, and would also not result in any significant public service impacts. Thus, public service impacts under the Reduced Development Alternative would be similar to those under the Project. (*Similar*)

TRANSPORTATION

The Project would not result in any significant transportation impacts on VMT or transit, bicycle, or pedestrian facilities. Additionally, the Project would provide adequate emergency access. The temporary construction impacts associated with the Reduced Development Alternative would be similar to those of the Project. However, significant but mitigatable safety impacts related to site access would occur under both the Reduced Development Alternative and Project, because the same egress/ingress design would be the same. The Reduced Development Alternative would generate less vehicle trips as compared to the Project because there would not be trips related to disposal of materials at the recycling facility, and would thus present fewer instances were access to the site could potentially

contribute to safety hazards. Thus, transportation impacts under the Reduced Development Alternative would be less than under the Project. (*Less*)

UTILITIES AND SERVICE SYSTEMS

The Project would not result in significant environmental impacts associated expansion of infrastructure, water supply, wastewater treatment capacity, or provision of adequate solid waste facilities. However, under the Reduce Development Alternative, there would be less demand on water supply, wastewater treatment, and solid waste generation because there would not be demand associated with operation of the recycling facility and its staff. Thus, impacts on utilities and service systems under the Reduced Development Alternative would be less than under the Project. (*Less*)

4.4.3 Comparison of Alternatives

Table 4-1 summarizes the environmental analyses provided above for the Project alternatives.

Table 4-1 Summary Environmental Impacts of the Alternatives Relative to the Grant Line Construction Aggregate Production and Recycling Facility Project

Environmental Topic	Proposed Project	Alternative 1: No Project	Alternative 2: Reduced Site Plan Alternative
Aesthetics	Less than significant	Less	Less
Air Quality	Less than significant (with mitigation)	Less	Less
Biological Resources	Less than significant (with mitigation)	Less	Less
Cultural Resources and Tribal Cultural Resources	Less than significant (with mitigation)	Less	Less
Greenhouse Gas Emissions, Climate Change, and Energy	Less than significant	Less	Similar
Hazards and Hazardous Materials	Less than significant (with mitigation)	Less	Similar
Hydrology and Water Quality	Less than significant	Less	Less
Land Use and Planning	Less than significant	Similar	Similar
Noise	Less than significant (with mitigation)	Less	Less
Public Services	Less than significant	Similar	Similar
Transportation	Less than significant (with mitigation)	Less	Less
Utilities and Service Systems	Less than significant	Less	Less

4.5 ENVIRONMENTALLY SUPERIOR ALTERNATIVE

The State CEQA Guidelines section 15126.6 states that an EIR should identify the "environmentally superior" alternative. "If the environmentally superior alternative is the 'no project' alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives."

All impacts from the proposed Project would be less-than-significant with implementation of mitigation recommended in this Draft EIR. No residual significant and unavoidable impacts would occur. In almost all environmental issue areas, the No Project, No Development Alternative would be environmentally superior to the Project. However, as discussed above, the No Project-No Development Alternative would result in similar impacts to

land use and planning and public services. However, this alternative would not meet any of the objectives of the applicant or the City.

Consistent with State CEQA Guidelines (CCR Section 15126.6 [e][2]) because the environmentally superior alternative was identified as the No Project Alternative, another environmentally superior alternative must be identified among the other alternatives. Based on the environmental analysis contained in this Draft EIR, Alternative 2 is considered environmentally superior among the remaining alternatives because it would reduce most of the proposed Project's impacts, including aesthetic, air quality, biological resources, cultural resources, GHG and energy, noise, transportation, and utilities. While Alternative 2 would meet most of the projects objectives, Alternative 2 does not contain a recycling facility. While it could be that the Project applicant would seek to develop a recycling facility nearby to support asphalt and concrete production, the Project's inclusion of an on-site recycling facility would encourage diversion of concrete and asphalt materials from landfills. Further, this alternative may be potentially infeasible from a financial perspective because it may require the Project applicant to develop another facility in a separate location.

When the environmentally superior alternative is the No Project Alternative, the State CEQA Guidelines (Section 15126.6(e)2 require selection of an environmentally superior alternative from among the other alternatives evaluated. However, as noted above, the Project would not result in any significant environmental effects that cannot be mitigated to a less-than-significant level, and therefore no additional alternatives need to be evaluated or considered. Thus, because there would be no significant impacts related to the Project that cannot be mitigated to a less-than-significant level, further discussion on an environmentally superior alternative is unnecessary.

5 CUMULATIVE IMPACTS

5.1 INTRODUCTION TO THE CUMULATIVE ANALYSIS

This draft environmental impact report (Draft EIR) provides an analysis of cumulative impacts of the proposed Grant Line Construction Aggregate and Recycling Facility Project (proposed Project) taken together with other past, present, and probable future projects producing related impacts, as required by Section 15130 of the California Environmental Quality Act Guidelines (State CEQA Guidelines). The goal of such an exercise is twofold: first, to determine whether the overall long-term impacts of all such projects would be cumulatively significant; and second, to determine whether the incremental contribution to any such cumulatively significant impacts by the project would be "cumulatively considerable" (and thus significant). (See State CEQA Guidelines Sections 15130[a]–[b], Section 15355[b], Section 15064[h], and Section 15065[c]; and Communities for a Better Environment v. California Resources Agency [2002] 103 Cal. App. 4th 98, 120.) In other words, the required analysis intends first to create a broad context in which to assess cumulative impacts, viewed on a geographic scale beyond the project site itself, and then to determine whether the project's incremental contribution to any significant cumulative impacts from all projects is itself significant (i.e., "cumulatively considerable").

Cumulative impacts are defined in State CEQA Guidelines Section 15355 as "two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts." A cumulative impact occurs from "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" (State CEQA Guidelines Section 15355[b]).

5.2 CUMULATIVE IMPACT ANALYSIS METHODOLOGY

Consistent with State CEQA Guidelines Section 15130, the discussion of cumulative impacts in this Draft EIR focuses on significant and potentially significant cumulative impacts. Section 15130(b) of the State CEQA Guidelines provides, in part, the following:

> [t]he discussion of cumulative impacts shall reflect the severity of the impacts and their likelihood of occurrence, but the discussion need not provide as great detail as is provided for the effects attributable to the project alone. The discussion should be guided by the standards of practicality and reasonableness, and should focus on the cumulative impact to which the identified other projects contribute rather than the attributes of other projects which do not contribute to the cumulative impact.

A proposed project is considered to have a significant cumulative effect if:

- the cumulative effects of development without the project are not significant and the project's additional impact is substantial enough, when added to the cumulative effects, to result in a significant impact; or
- the cumulative effects of development without the project are already significant and the project contributes measurably to the effect.

The term "measurably" is subject to interpretation. The standards used herein to determine measurability are that the impact must be noticeable to a reasonable person or must exceed an established threshold of significance (defined throughout the resource sections in Chapter 3 of this Draft EIR). This cumulative analysis also assumes that all mitigation measures identified in Chapter 3 to mitigate Project impacts are adopted and implemented and that all elements of the design-build performance criteria that would minimize environmental effects are implemented.

The State CEQA Guidelines (Section 15130) identify two basic methods for establishing the cumulative environment in which the project is to be considered: the use of a list of past, present, and probable future projects or the use of adopted projections from a general plan, other regional planning document, or a certified EIR for such a planning document. This analysis uses a combination of the list and planning document approach, as described further below.

5.3 CUMULATIVE SETTING

5.3.1 Geographic Scope

The geographic area that could be affected by the Project and is appropriate for a cumulative impact analysis varies depending on the environmental resource topic, as presented in Table 5-1.

Table 5-1 Geographic Scope of Cumulative Impacts

Resource Topic	Geographic Area
Aesthetics	Project site and City General Plan planning area
Air Quality	Sacramento Valley Air Basin and Sacramento County within the jurisdiction of the Sacramento Metropolitan Air Quality Management District, and immediate Project vicinity (pollutant emissions that are localized)
Biological Resources	Greater Project area vicinity, including adjacent migration and movement corridors
Cultural and Tribal Cultural Resources	City and surrounding Sacramento Valley region (historical resources), former territory of the Nisenan and Plains Miwok (archaeological resources, human remains, and tribal cultural resources)
Energy	Sacramento Municipal Utility District (SMUD) and Pacific Gas and Electric Company (PG&E) service areas
Greenhouse Gas Emissions and Climate Change	Global/Statewide
Hazards and Hazardous Materials	City
Hydrology and Water Quality	South Stone Lake–Snodgrass Slough watershed for surface waters and the central South American Subbasin for groundwaters
Land Use and Planning	City and immediate Project vicinity
Noise	Project site and immediate vicinity
Public Services	Local service areas (e.g., Cosumnes Community Services District Fire Department and Elk Grove Police Department
Transportation	City and City General Plan planning area
Utilities and Service Systems	Local service areas (e.g. Sacramento County Water Agency, Sacramento Regional County Sanitation District, Sacramento Area Sewer District) and service areas for landfills that serve the City, SMUD, and PG&E)

5.3.2 Regional Planning Environment

CITY OF ELK GROVE GENERAL PLAN

The 2021 *City of Elk Grove General Plan* is a broad framework for planning the future of the City. It is the official policy statement of the City Council that is used to guide the private and public development of the City in a manner to gain the maximum social and economic benefit to the citizens. The planning area for the General Plan includes both land within City boundaries (37 square miles, or 23,453 acres) and lands outside the City in unincorporated Sacramento County to the south and east (12.2 square miles, or 7,795 acres) in four study areas.

Development within the current City limits is anticipated to generate a maximum of 72,262 dwelling units, 233,406 residents, and 81,784 jobs. Assuming future annexation and development of the study areas, buildout under the 2021 General Plan would result in a maximum of 102,865 dwelling units, 332,254 residents, and 122,155 jobs (City of Elk Grove 2021:Table 3-2). The EIR for the General Plan analyzes the full development potential of the General Plan Land Use Diagram, including the study areas, compared to existing (2015) conditions (City of Elk Grove 2018).

The General Plan Land Use Diagram was amended in January 2021 as part of the adoption of the Southeast Industrial Area Specific Plan associated with annexation. The Southeast Industrial Area includes 561 acres south of Grant Line Road and east of the Union Pacific Railroad tracks and State Route 99 within the City's sphere of influence. The Southeast Industrial Area was designated as Public Open Space/Recreation in the General Plan, which was amended to a designation of Light Industrial uses, resulting in reduction of recreation and mixed General Commercial and Office uses. The SEIR prepared for the Southeast Industrial Area Specific Plan considered impacts associated with annexation and buildout of the Southeast Industrial Area.

The adoption of the 2021 Housing Element Update in May 2021 also amended the General Plan Land Use Diagram to allow for an additional 2,745 dwelling units and an increase in population of 8,773 persons above what was assumed in the General Plan EIR.

The City is in the process to amend the City of Elk Grove General Plan to establish the Livable Employment Area Community Plan (LEA Community Plan) that would include land use designations that could support a zoo facility; update of City VMT thresholds and guidelines (VMT Update); and various other General Plan land use adjustments including amendments to the South Study Area and West Study Area identified in the General Plan.

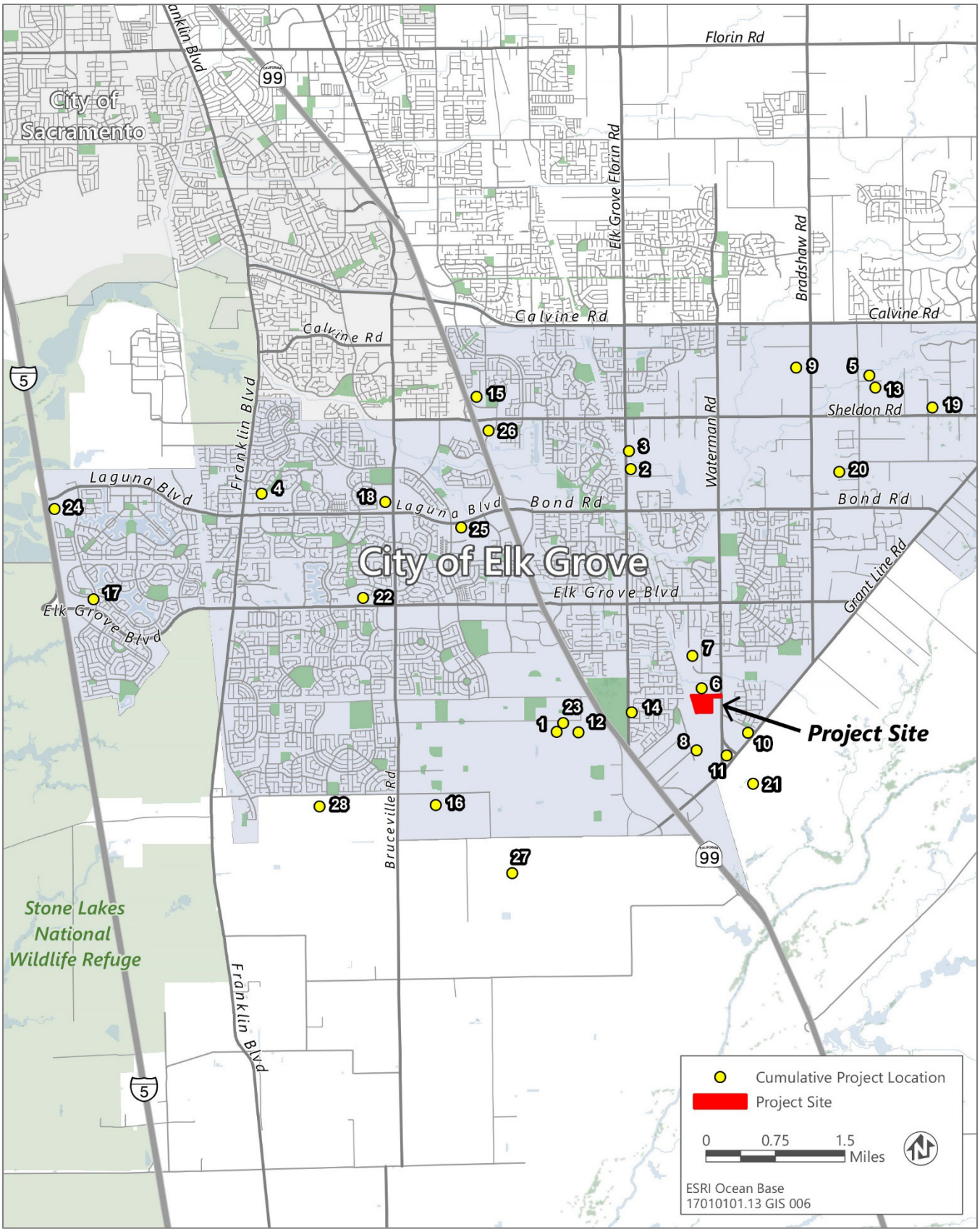
5.3.3 Related Projects

A list of probable future projects is provided below. Probable future projects are those in the Project vicinity that have the possibility of interacting with the Project to generate a cumulative impact (based on proximity and construction schedule) and either:

- are partially occupied or under construction,
- have received final discretionary approvals,
- have applications accepted as complete by local agencies and are currently undergoing environmental review, or
- are proposed projects that have been discussed publicly by an applicant or that otherwise have become known to a local agency and for which sufficient information about the project has been provided to allow at least a general analysis of environmental impacts.

Past and present projects in the vicinity are also considered as part of the cumulative analysis because they contribute to the existing conditions upon which the Project's and probable future projects' environmental effects are considered.

Table 5-2 briefly summarizes reasonably foreseeable projects the City of Elk Grove, the City of Sacramento, and unincorporated Sacramento County with the potential to contribute to the cumulative condition. The approximate locations of the related projects are provided in Figure 5-1.



Source: Data compiled by Ascent in 2021.

Figure 5-1 Cumulative Projects

Table 5-2 Related Projects

#	Project	Location	Description	Status
1	Poppy Keys Southeast	South Side of Poppy Ridge Rd	A request to subdivide ±67 acres into 326 single-family residential lots. (EG-17-044)	Approved
2	Elk Grove Muslim Center	9011 Elk Grove Florin Rd	A Conditional Use Permit Amendment and a Major Design Review to expand the existing mosque. The expansion request includes a new 18,400 square-foot assembly building. (PLNG18-085)	Approved
3	S&J Storage	8973 Elk Grove Florin Road	A request for a Major Design Review to construct a new self storage facility with associated storage yard. (PLNG18-106)	In plan review
4	Tegan Estates	5201 Tegan Rd	A request to subdivide 3 existing parcels totaling ±11.6 acres into 41 parcels and one remainder lot for residential development. (PLNG19-031)	approved
5	8633 Bader Road Map	8633 Bader Rd	A tentative map to subdivide 1 parcel into three parcels.	Approved
6	Waterman Brinkman Logistics Center	10000 Waterman Rd and 9195 Brinkman Ct	Major Design Review for 2 industrial/flex buildings on separate parcels. Building A will be approximately 252,547 square feet and Building B will be approximately 171,140 square feet.	Approved
7	Life Storage Expansion	9800 Dino Drive	Major Design review to add a new three-story, 55,367 square-foot storage building and RV storage to an existing personal storage facility.	In plan review
8	Warda Warehouse 3	10237 Iron Rock Way	A Major Design Review to construct a 18,200 square foot industrial building.	Under construction
9	8580 Bradshaw Road	8580 Bradshaw Rd	A tentative parcel map to subdivide 8.63 acres into 5 parcels and abandon a 40 foot ROW easement.	In plan review
10	Triangle Point TSM Phase 2	SW Corner of Mosher Rd and Grant Line Rd	Tentative Subdivision Map to develop 65 medium density residential lots.	In plan review
11	Tractor Supply Company	Intersection of Grant Line Rd and Waterman Rd	Major Design Review for a new 22,136 square-foot retail store with 16,602 square feet of outdoor display/sales area.	In plan review
12	Mountain Elk Villas	8668 Poppy Ridge Rd	Major Design Review to add a new 174 unit - high density 100% affordable housing development.	In plan review
13	8651 Bader Road TPM and Rezone	8651 Bader Rd	Tentative Parcel Map and Rezone to subdivide one parcel into four parcels and rezone from AR-5 to AR-2.	In plan review
14	10069 Elk Grove Florin Road TPM	10069 Elk Grove Florin Rd	Tentative Parcel Map to subdivide one lot into three new lots.	Approved
15	Bow Stockton Apartments	8676 Bow St and 8717 E. Stockton Blvd	Design Review, General Plan Amendment and Rezone to construct a new 120-unit affordable housing project. Rezone from RD-6 to RD-25 to allow a high density apartments.	Approved
16	Telos Greens TSM and Rezone	South of Bilby Rd just east of Montaria Way in the Southeast Policy Area	Tentative Subdivision Map to create 85 single-family residential lots on 26.2+/- acres and a SPA and Community Plan Amendment for minor changes to land uses.	Tentative map approved
17	Elk Grove Apartments	Southwest corner Harbour Point Dr and Maritime Dr	73 units for affordable housing.	In plan review
18	The Lyla	Northwest corner of Laguna Blvd and Bruceville Rd	Major Design Review for an apartment complex with 294 affordable units. The Project includes 13 three-story buildings as well as a community room, gym, and swimming pool. The Project also includes a Special Parking Permit for reduced parking.	Approved

#	Project	Location	Description	Status
19	10221, 10265 Sheldon Road Tentative Parcel Map	Northeast corner of Sheldon Rd and Mackey Rd	A Tentative Parcel Map to subdivide 2 existing parcels into four (4) parcels with a minimum lot size of two (2) acres.	Partially complete
20	9840 Farris Lane Rezone & Tentative Parcel Map	9840 Farris Lane	A Rezone from AR-5 to AR-2 and a Tentative Parcel Map to subdivide 2 existing parcels into three(3) parcels with a minimum lot size of two (2) acres.	Approved
21	Waterman Warehouse	10313 Grant Line Rd	Major Design Review for a new approximately 629,000sf warehouse building and associated site improvements.	Partially complete
22	Stathos Self Storage	6901 Elk Grove Blvd	General Plan Amendment from Low Density Residential (LDR) to Community Commercial (CC); a corresponding Rezone from RD-5 to General Commercial (GC); and a Conditional Use Permit and Major Design Review for a new personal storage facility and associated site improvements. The project includes a Modification to the City's Bicycle, Pedestrian, and Trails Master Plan.	Approved
23	Treasure Homes Rezone	7445 Poppy Ridge Rd	Rezone of 16.7 acres from RD-4 to RD-7.	Under construction
24	Trojan Storage III	West end of Longport Ct	Conditional Use Permit and Major Design Review for a new personal storage facility.	Under review
25	Sutter Health Photovoltaic Installation	8170 Laguna Blvd	Minor Design Review for the installation of a 14 photovoltaic (PV) solar power arrays over an existing parking lot and rooftop.	In environmental review
26	Hotel at Sheldon Place	South of Sheldon Road, on E. Stockton Boulevard	New courtyard by Marriot Hotel	In plan review
27	Elk Grove Crossings Annexation	South side of Kammerer at future Big Horn Extension	The Elk Grove Crossing Specific Plan proposes a mix of uses, including residential, commercial, light industrial/flex, and supportive public uses and open space. The level of proposed density and activity decreases from north to south, consistent with direction in the City's General Plan2, with the destination uses and high- and medium-density residential development proposed in the northern portion of the Specific Plan Area and low-density residential development exclusively in the southern portion of the Specific Plan Area.	NOP Circulated
28	Bilby Ridge Annexation	South side of Billby between Willard and Bruceville	The project would involve annexation of a portion of the project area (360.0+/- acres) from Sacramento County into the City of Elk Grove. This includes three properties generally located in the northeast and northwest quadrants of the plan area (Approval by Sacramento LAFCO, would be required for various associated reorganizations (annexations/detachments) within the project area. The annexation application will be required to include various studies and reports as specified in the Bilby Ridge SOIA conditions of approval.	In plan review

Note: sq. ft. = square feet.

Sources: Provided by the City of Elk Grove in 2021.

5.4 ANALYSIS OF CUMULATIVE IMPACTS

The following sections contain a discussion of the cumulative effects anticipated from implementation of the Project, together with related projects and planned development in the City, for each of the 12 environmental issue areas evaluated in this Draft EIR. The analysis conforms with Section 15130(b) of the State CEQA Guidelines, which specifies that the "discussion of cumulative impacts shall reflect the severity of the impacts and their likelihood of occurrence, but the discussion need not provide as great detail as is provided for the effects attributable to the project alone. The discussion should be guided by the standards of practicality and reasonableness, and should focus on the cumulative impact to which the identified other projects contribute rather than the attributes of other projects which do not contribute to the cumulative impact."

When considered in relation to other reasonably foreseeable projects, cumulative impacts to some resources would be significant and more severe than those caused by the proposed project alone.

For purposes of this EIR, the project would result in a significant cumulative effect if:

- the cumulative effects of related projects (past, current, and probable future projects) are not significant and the incremental impact of implementing the Project is substantial enough, when added to the cumulative effects of related projects, to result in a new cumulatively significant impact; or
- the cumulative effects of related projects (past, current, and probable future projects) are already significant and implementation of the Project makes a considerable contribution to the effect. The standards used herein to determine a considerable contribution are that either the impact must be substantial or must exceed an established threshold of significance.

This cumulative analysis assumes that all mitigation measures identified in Chapter 4 to mitigate project impacts are adopted and implemented, and all elements of the design build performance criteria that would minimize environmental effects are implemented. The analysis herein analyzes whether, after implementation of project-specific mitigation and performance criteria that minimize environmental effects, the residual impacts of the project would cause a cumulatively significant impact or would contribute considerably to existing/anticipated (without the project) cumulatively significant effects. Where the project would so contribute, additional mitigation is recommended where feasible.

5.4.1 Aesthetics

The geographic context for cumulative impacts related to aesthetics is confined to those areas that would be visible in the landscape in the vicinity of the Project. For a project to contribute to a cumulative impact with respect to visual resources or aesthetics, the project would need to be visible within the same views or viewshed as other contributing projects, with the combination of multiple projects within the views creating an adverse visual effect. The City General Plan EIR identified visual character and lighting/glare impacts from buildout of the City and planning area as cumulatively considerable and significant and unavoidable (City of Elk Grove 2019).

Aesthetic impacts related to visual character and quality impacts and light and glare identified for the Project are summarized below. As discussed in Section 3.1, "Aesthetics," implementing the Project would not result in impacts on scenic vistas or scenic resources (scenic roadways and highways) and would therefore not combine to create considerable changes and cumulative effects on visual resources. Therefore, impacts related to scenic vistas or scenic resources are not discussed further.

Impact 5-1: Contribute to Cumulative Visual Character Impacts

As identified in Impact 3.1-1, the Project site is located on vacant land and is visible from nearby roadways and residences. The Project site is located in an industrial and commercial corridor, bordered on the west by residential uses. Similarly to other industrial and commercial land uses located along Waterman Road and areas farther southwest of the Project site, the introduction of construction equipment and features of the Project would create an industrial appearance due to the presence of machinery. Therefore, because the Project would not result in

development that is substantially different than surrounding land uses and would not substantially degrade the existing visual character or quality of public views of the site and its surroundings. The Project's contribution to substantial changes to the visual character or quality of public views **would not be cumulatively considerable**.

Mitigation Measures

No mitigation is required.

Impact 5-2: Contribute to Cumulative Light and Glare Impacts

As discussed in Impact 3.1-3, the Project would include outdoor lighting of work areas as well as light fixtures in parking areas as required by the Elk Grove Municipal Code (EGMC) Zoning Ordinance that would increase nighttime lighting conditions in the Project area. LED luminaires are adjustable and have been selected to limit nighttime glare with optical cutoffs to direct light downward onto work areas rather than outward to the surrounding environment. The Project's contribution to substantial light and glare **would not be cumulatively considerable**.

Mitigation Measures

No mitigation is required.

5.4.2 Air Quality

The geographic context for cumulative impacts related to air quality is regional for criteria air pollutant and ozone precursors and includes the Sacramento Valley Air Basin and Sacramento County within the jurisdiction of the Sacramento Metropolitan Air Quality Management District (SMAQMD), and the context is local for toxic air contaminants and odors. Cumulative development in the region will continue to increase the concentration of pollutants from construction activities, traffic, natural gas combustion in buildings, area sources, and stationary sources, but this increase would be partially offset by State and federal policies that set emissions standards for mobile and nonmobile sources.

The City General Plan EIR identified cumulative air quality impacts from buildout of the City and planning area as cumulatively considerable and significant and unavoidable (City of Elk Grove 2019).

Toxic air contaminants (TACs), carbon monoxide, and odor are localized impacts for the Project area. As detailed in Appendix B, operation of the Project would result in a maximum risk exposure (chances in one million for carcinogenic risk) of 8.5 in one million and 9.1 in one million for the maximally exposed individual for nearby residences and on-site workers, respectively. This maximum estimated risk from activities from the Project would not exceed 10 in one million; thus, no sensitive receptor would be exposed to substantial TAC concentrations. Implementation of Mitigation Measure 3.2-2 would mitigate and offset the Project's contribution to TAC impacts through the application of best available control technology (BACT). The Project is located approximately 300 feet from the existing Paramount Petroleum Asphalt Plant, which is a stationary source of pollution subject to the permitting requirements of SMAQMD, which requires implementation of BACT, similar to what would be required for the Project. The Project would not induce any changes in throughput to the existing Paramount Petroleum Asphalt Plant such that a new or different type of permit would be needed from SMAQMD. Through SMAQMD's permitting process, implementation of Mitigation Measure 3.2-4, the Project's maximum risk exposure (i.e., 8.5 and 9.1 in one million for residences and on-site workers), and due to the highly dispersive nature of TACs, the Project's emissions of TACs would not combine with the emissions of the existing Paramount Petroleum Asphalt Plant to create a cumulatively considerable TAC impact.

With respect to CO emissions, SMAQMD's CEQA Guide states that when determining operational air quality impacts, "pollutants such as carbon monoxide (CO), sulfur dioxide and lead are of less concern because operational activities are not likely to generate substantial quantities of these criteria air pollutants and the Sacramento Valley Air basin has been in attainment for these criteria air pollutants for multiple years" (SMAQMD 2020:4-1). As SMAQMD indicates, the cumulative setting of Sacramento County is an attainment area for CO with respect to the NAAQS and CAAQS for over a decade, which is largely attributable to improved emissions control technologies in automobiles and trucks. Given the number of trips generated by the Project and the attainment designation of Sacramento County, the

Project's emissions of CO would not combine with other operational sources of CO to create a cumulatively considerable impact.

As discussed in Section 3.2, "Air Quality," the Project would include design features that would minimize odor emissions such as a vent condenser and Blue Smoke Control device, which are considered BACT by SMAQMD. This BACT would control odor emissions. The existing Paramount Petroleum Asphalt Plant, which is a permitted source by SMAQMD, has not received any odor complaints but nearby receptors since its conception, as confirmed by SMAQMD (Muller, pers comm., 2022). The Project is not within the vicinity of other notable sources of odor. Through use of BACT for both the Project and the existing plant, the Project would not generate a cumulatively considerable odor impact.

Impact 5-3: Contribute to Cumulative Conflicts with or Obstruction of Implementation of an Applicable Air Quality Plan

As discussed in Impact 3.2-1, in accordance with SMAQMD guidance, the Project's emissions were evaluated quantitatively against SMAQMD's mass emission threshold of significance during construction and operation for ROG, NO_X, PM_{10}, and $PM_{2.5}$. SMAQMD's guidance states that if a project exceeds "the District's mass emission thresholds for operational emissions of ROG, NO_X, PM_{10} or $PM_{2.5}$, the project will be considered to conflict with or obstruct implementation of the District's air quality planning efforts." Furthermore, the project will result in a cumulatively considerable net increase in precursor and PM emissions, for which Sacramento County is nonattainment with respect to one or more of the state and national AAQS. For projects that exceed the District's thresholds of significance, lead agencies shall implement all feasible mitigation to reduce ROG, NOx and PM emissions(SMAQMD 2020:4-6). As discussed in Section 3.2, "Air Quality," the Project's construction and operational emissions would not exceed SMAQMD's threshold of significance for ROG and NO_X (which are precursor emissions for the secondary formation of ozone), and would therefore not conflict with the Sacramento Regional 8-Hour Ozone Attainment and Reasonable Further Progress Plan, which outlines the path forward for the Sacramento Valley Air Basin to achieve the NAAQS for ozone. The Project was determined to be consistent with this plan. Nevertheless, the Project's emissions of PM_{10} and $PM_{2.5}$ would be above SMAQMD's thresholds of significance before the implementation of best management practices (BMPs) (i.e., 0 lb/day for each pollutant). Mitigation Measures 3.2-1 and 3.2-2 would require the Project to implement BMPs during construction and operation, which would be sufficient to reduce emissions of PM_{10} and $PM_{2.5}$ to levels below SMAQMD's thresholds of significance following application of BMPs (i.e., 80 pounds per day [lb/day] or 14.6 tons per year [tpy] and 82 lb/day or 15 tpy for PM_{10} and $PM_{2.5}$, respectively). Therefore, based on SMAQMD's guidance, the Project's contribution to conflicts with or obstruction of an applicable air quality plan **would not be cumulatively considerable**.

Mitigation Measures

No mitigation is required.

Impact 5-4: Contribute to Cumulative Construction Air Pollutant or Precursor Emissions

As discussed in Impact 3.2-1, SMAQMD's thresholds of significance apply at the project level and are cumulative in nature; that is, they identify the level of project-generated emissions above which impacts would be cumulatively considerable. Thus, they represent the level at which emissions of a given project would impede the air basin from achieving ambient air quality standards, considering anticipated growth and associated emissions in the region.

Sacramento County and the Sacramento Valley Air Basin are in nonattainment for ozone and respirable particulate matter (PM_{10}) with respect to the California ambient air quality standards (CAAQS) and for ozone and fine particulate matter ($PM_{2.5}$) with respect to the national ambient air quality standards (NAAQS). Construction activities in the region would emit additional particulate matter and ozone precursors that may conflict with attainment efforts in the county. Because the region is in nonattainment, the existing cumulative condition is adverse, and any additional emissions would exacerbate that condition. However, SMAQMD has established construction emission thresholds for development projects that determine whether that particular project's emissions would be cumulatively considerable. As detailed in Section 3.2, "Air Quality," Project construction emissions of respirable particulate matter with an aerodynamic diameter of 10 micrometers or less (PM_{10}) and fine particulate matter with an aerodynamic diameter of

2.5 micrometers or less ($PM_{2.5}$) would exceed SMAQMD's threshold of 0 lb/day. Per SMAQMD, implementation of the BMPs listed in Mitigation Measure 3.2-1 would decrease PM_{10} and $PM_{2.5}$ emissions and would change SMAQMD's construction thresholds of significance for PM_{10} and $PM_{2.5}$, to 80 and 82 lb/day. Because construction emissions of PM_{10} and $PM_{2.5}$ would be less than SMAQMD's 80 and 82 lb/day thresholds of significance (8 and 4 lb/day, respectively), the Project's construction-related contribution to criteria air pollutant or precursor emissions **would not be cumulatively considerable**.

Mitigation Measures

No mitigation is required.

Impact 5-5: Contribute to Cumulative Long-Term Operational Criteria Air Pollutant or Precursor Emissions

As discussed in Impact 3.2-2, ozone impacts are the result of cumulative emissions from numerous sources in the region and transport from outside the region. Ozone is formed in chemical reactions involving NO_X, reactive organic gases (ROG), and sunlight. All but the largest individual sources emit NO_X and ROG in amounts too small to have a measurable effect on ambient ozone concentrations by themselves. However, when all sources throughout the region are combined, they can result in cumulative ambient concentrations of ozone that exceed the NAAQS and CAAQS.

PM_{10} and $PM_{2.5}$ have similar regional cumulative impacts when particulates are entrained in the air and build to unhealthful concentrations over time. Operational PM_{10} and $PM_{2.5}$ are less likely to result in local cumulative impacts because operational sources of PM_{10} and $PM_{2.5}$ tend to be spread throughout the region (i.e., vehicles traveling on roads), not concentrating at one receptor.

SMAQMD has established operational emission criteria thresholds for individual projects beyond which a particular project's emissions would be cumulatively considerable. A project that operates below the threshold levels is generally considered not to contribute to a cumulatively significant air quality impact, and those that operate above the thresholds would contribute to a cumulative impact.

As noted above, the Project is consistent with applicable local air quality plans designed to reduce regional emissions. Nonetheless, overall emissions associated with the Project would increase over existing conditions. The analysis included in Impact 3.2-3 shows that operation of the Project would result in the generation of PM_{10} and $PM_{2.5}$ which are criteria air pollutants and precursors that form the basis for the region's nonattainment status and the existing adverse cumulative condition in the air basin. Implementation of the BACT contained in Mitigation Measure 3.2-2 would adjust SMAQMD's thresholds of significance for PM_{10} and $PM_{2.5}$ to 80 and 82 lb/day, respectively. With implementation of Mitigation Measure 3.2-2, Project levels of emissions would be below SMAQMD's operational emission thresholds of significance. Additionally, the reductions achieved from implementation of Mitigation Measure 3.2-2 would reduce the total number of potential adverse health incidences. Implementation of Mitigation Measure 3.2-2 would reduce these emissions as verified by SMAQMD during its permitting process. Therefore, the Project's contribution to a net increase in long-term operational criteria air pollutant and precursor emissions that form the basis for the region's nonattainment status **would not be cumulatively considerable**.

Mitigation Measures

No mitigation is required.

5.4.3 Biological Resources

The geographic context for cumulative impacts related to biological resources is the greater Project vicinity, including adjacent migration and movement corridors in the area. The Project site is surrounded by urban and residential development and is bordered by the Stone Lakes National Wildlife Refuge. The overall trend of urban and suburban development in the area has been ongoing for the past 10–15 years, and conversion of undeveloped and agricultural land will continue throughout the region within the vicinity of the Project. Development in the vicinity of the Project can be placed into two categories: (1) commercial and residential development and (2) roadway construction and

widening. Several projects will include conversion of agricultural land, while others involve development on land that has been previously developed (see Table 5-2). Past development in the region, including conversion of natural land to suburban uses, has resulted in a substantial loss of native habitat. The overall effect of this land conversion on special-status plants and wildlife and on sensitive habitat has been decidedly negative. Therefore, the cumulative condition for special-status species and sensitive habitats in the vicinity of the Project is already adverse.

The City General Plan EIR identified cumulative biological resource impacts from buildout of the City and planning area as cumulatively considerable and significant and unavoidable (City of Elk Grove 2019).

As discussed in Section 3.3, "Biological Resources," implementing the Project would not result in impacts on special-status plants, sensitive natural communities or riparian habitat, consistency with a habitat conservation plan or a natural community conservation plan, or movement and migration corridors. Therefore, impacts on special-status plants, sensitive natural communities or riparian habitat, and State-protected or federally protected wetlands are not discussed further.

Impact 5-6: Contribute to Cumulative Impacts on Biological Resources

Project construction activities (e.g., demolition, operation of vehicles and equipment, presence of construction crews) may produce levels of noise, nighttime lighting, and novel visual stimulus that may result in disturbance to wildlife species in the vicinity of the Project site. Construction of the related projects presented in Table 5-2 would result in similar conditions during construction activities, and impacts on special-status wildlife species in the vicinity of those projects would be the same as or similar to those described in Section 3.3, "Biological Resources," of this EIR.

As described in Section 3.3, Project implementation could lead to potential loss of western spadefood breeding habitat, due to fill of seasonal wetlands and disturbance from construction activities. Implementation of Mitigation Measure 3.3-1 would reduce this impact under cumulative conditions by avoiding and protecting western spadefoot during construction activities and compensating for loss of western spadefoot. Project construction may result in impacts on Swainson's hawk, white-tailed kite, burrowing owl, and other nesting birds. Implementation of Mitigation Measures 3.3-2a, 3.3-2b, 3.3-2c would offset Project impacts under cumulative conditions by avoiding the potential disturbance to or loss of active nests, relocating individuals, requiring a temporary no-disturbance buffer for loggerhead shrike and common native nesting birds, during the nesting season as long as the nest/colony is occupied.

Implementation of the Project would result in the removal or fill of waters of the state. Implementation of Mitigation Measure 3.3-3 would reduce this impact to less than significant by requiring compensatory mitigation to offset any loss of wetland function and requiring the Project applicant to follow all guidance from regulatory agencies.

Finally, the Project could remove two trees designated as trees of local importance under City of Elk Grove Municipal Code Chapter 19.12: Tree Preservation and Protection, which could conflict with a local ordinance protecting trees. Implementation of Mitigation Measure 3.3-4 would offset this impact by ensuring that a permit would be acquired for tree removal, trees removed would be replaced, and other trees not subject to removal would be protected during construction activities.

Therefore, the Project's contribution to substantial effects on special-status wildlife or habitat **would not be cumulatively considerable**.

Mitigation Measures

No mitigation is required.

5.4.4 Cultural Resources and Tribal Cultural Resources

The cumulative context for the cultural resources analysis considers a broad regional system of which the resources are a part. The geographic context for cumulative impacts related to historical resources is the City of Elk Grove and surrounding Sacramento Valley region, where common patterns of historic-era settlement have occurred over

roughly the past two centuries. The geographic context for cumulative archaeological resources, human remains, and tribal cultural resources is the former territory of the Nisenan and Plains Miwok (also Mi-wuk).

Because all significant cultural resources are unique and nonrenewable members of finite classes, meaning there are a limited number of significant cultural resources, all adverse effects erode a dwindling resource base. The loss of any one archaeological site may affect the scientific value of others in a region because these resources are best understood in the context of the entirety of the cultural system of which they are a part. The cultural system is represented archaeologically by the total inventory of all sites and other cultural remains in the region. As a result, a meaningful approach to preserving and managing cultural resources must focus on the likely distribution of cultural resources, rather than on a single project or parcel boundary.

Proper planning and appropriate mitigation can help to capture and preserve knowledge of such resources and can provide opportunities for increasing our understanding of the past environmental conditions and cultures by recording data about sites discovered and preserving artifacts found. Federal, State, and local laws are also in place that protect these resources in most instances. Even so, it is not always feasible to protect these resources, particularly when preservation in place would make projects infeasible, and for this reason the cumulative effects of past and present projects in the City of Elk Grove and greater Sacramento region may result in a potentially significant cumulative impact on cultural resources.

The City General Plan EIR identified cumulative cultural resource impacts from buildout of the City and planning area as less than cumulatively considerable through the implementation of adopted mitigation measures (City of Elk Grove 2019).

As discussed in Section 3.4, "Cultural and Tribal Cultural Resources," implementing the Project would not result in impacts on the built -environment historical resources and therefore would not combine to create considerable changes in and cumulative effects on the built-environment historical resources. Therefore, impacts related to the built-environment historical resources are not discussed further.

Impact 5-7: Contribute to Cumulative Impacts on Archaeological Resources, Tribal Cultural Resources, and Human Remains

Although there are various laws and regulations directed at the protection of archaeological and tribal cultural resources, as well as human remains, these resources have been, and will continue to be, damaged or destroyed over time. With implementation of Mitigation Measures 3.4-1a, 3.4-1b, 3.4-2a, 3.4-2b, 3.4-2c, and 3.4-3, the Project's contribution to cumulative archaeological and tribal cultural resources would be offset through the identification and protection of discovered resources. Thus, the Project's contribution to substantial effects related to archaeological and tribal cultural resources, including human remains, would not be cumulatively considerable.

Mitigation Measures

No mitigation is required.

5.4.5 Greenhouse Gas Emissions, Climate Change, and Energy

Climate change is a global problem. Greenhouse gases (GHGs) are global pollutants, unlike criteria air pollutants and toxic air contaminants, which are pollutants of regional and local concern. Whereas most pollutants with localized air quality effects have relatively short atmospheric lifetimes (approximately 1 day), GHGs have long atmospheric lifetimes (1 year to several thousand years). GHGs persist in the atmosphere long enough to be dispersed around the globe. Although the lifetime of any GHG molecule depends on multiple variables and cannot be determined with any certainty, it is understood that more carbon dioxide (CO_2) is emitted into the atmosphere than is sequestered by ocean uptake, vegetation, and other forms of sequestration. Of the total annual human-caused CO_2 emissions, approximately 55 percent are estimated to be sequestered through ocean and land uptake every year, averaged over the last 50 years, whereas the remaining 45 percent of human-caused CO_2 emissions remain stored in the atmosphere (IPCC 2013:467).

No single project alone would measurably contribute to an incremental change in the global average temperature or to global or local climates or microclimates. From the standpoint of CEQA, GHG impacts relative to global climate change are inherently cumulative.

The City General Plan EIR identified cumulative GHG impacts from buildout of the City and planning area as cumulatively considerable and significant and unavoidable by 2050 (City of Elk Grove 2019).

Impact 5-8: Contribute to Cumulative Impacts Related to Greenhouse Gas Emissions and Climate Change

As described in Section 3.5, "Greenhouse Gas Emissions, Climate Change, and Energy" the discussion of GHG emissions associated with the Project for Impacts 3.5-1 and 3.5-2 is inherently a cumulative impact analysis. GHG emissions from one project cannot, on their own, result in changes in climatic conditions; therefore, the emissions from one project must be considered in the context of their contribution to cumulative global emissions. Because the Project would be below SMAQMD"s applicable thresholds, and would be consistent with the City's Climate Action Plan (CAP), the Project's contribution to substantial effects related to GHG emissions **would not be cumulatively considerable**.

Mitigation Measures

No mitigation is required.

The geographic area considered for cumulative impacts related to energy use includes the Sacramento Municipal Utility District (SMUD) and Pacific Gas and Electric Company (PG&E) service areas. SMUD and PG&E employ various programs and mechanisms to support the provision of electricity and natural gas services to new development and recoup costs of new infrastructure. Connection fees are typically charged through standard billing for services.

Several other currently planned and approved projects identified in Table 5-2 would also receive electricity service from SMUD and natural gas service from PG&E. These projects would also consume energy related to transportation (i.e., gasoline and diesel consumption for passenger vehicles, trucks, buses, and other vehicles) and construction. These projects would be required to implement energy efficiency measures in accordance with the most recent version of the California Energy Code in effect at the time of construction to reduce energy demand from buildings. There is no evidence to suggest that implementation of development would result in a significant cumulative energy impact related to the wasteful or inefficient use of energy.

The City General Plan EIR identified less than cumulatively considerable energy impacts from buildout of the City and planning area (City of Elk Grove 2019).

Impact 5-9: Contribute to Cumulative Energy Impacts

As described in Impact 3.5-3, the Project would be consistent with the relevant energy measures from the City of Elk Grove's CAP that pertain to nonresidential development. Because the Project would incorporate relevant measures as Project design features, as shown using the City's Checklist, the Project would not conflict with or obstruct implementation of energy measures in the City of Elk Grove's CAP. Because implementing the Project would not result in the wasteful or inefficient use of energy, the Project's contribution to cumulative energy use **would not be cumulatively considerable**.

Mitigation Measures

No mitigation is required.

5.4.6 Hazards and Hazardous Materials

In the cumulative condition, development of the City may result in increased use of potentially hazardous materials. Facilities that use hazardous materials would be required to obtain permits and comply with appropriate regulatory agency standards designed to avoid hazardous waste releases. The storage, use, disposal, and transport of hazardous materials are extensively regulated by various federal, State, and local agencies; therefore, construction companies and businesses that would handle any hazardous substances would be required by law to implement and comply

with these hazardous materials regulations. Development of the City would increase the extent of population that would need to be accommodated for emergency response and evacuation.

The City General Plan EIR identified less than cumulatively considerable hazard and wildland fire impacts from buildout of the City and planning area (City of Elk Grove 2019).

As discussed in Section 3.6, "Hazards and Hazardous Materials," implementing the Project would have no impact on existing or proposed schools associated with the handling or emission of hazardous materials; no potential to create a significant hazard to the public or the environment from sites compiled pursuant to Government Code Section 65962.5; no impact associated with exposing future employees to potential safety hazards or excessive noise generated by established aviation uses in the area; and no potential to increase wildland fire on or near the Project site. Therefore, implementation of the Project would not combine with other related projects to create cumulative impact under these impact areas.

Impact 5-10: Contribute to Cumulative Impacts Related to Creation of a Hazard through the Routine Transport, Use, or Disposal of Hazardous Materials, Including Reasonably Foreseeable Upset or Accidents during Construction and Operation

As described in Impact 3.6-1, construction and operation of the Project would result in an increase in hazardous materials used, stored, and transported in the area. However, these activities are subject to local, State, and federal regulations that would offset potential impacts through containment, storage, and disposal standards designed to protect public health and environment. Construction-related activities could result in the disturbance and subsequent release of hazardous materials known to exist on the site into the environment, which would also pose a hazard to human health if construction workers were exposed. However, these type of impacts would be site-specific and would not combine with other effects to create a cumulative condition. Compliance with existing requirements would ensure that construction and operation of the Project would not have the potential to substantially hinder emergency response activities or physically interfere with established evacuation routes. Thus, the Project's contribution to substantial effects related to hazardous materials **would not be cumulatively considerable**.

Mitigation Measures

No mitigation is required.

5.4.7 Hydrology and Water Quality

The geographic context for hydrology and water quality effects is the South Stone Lake–Snodgrass Slough watershed for surface waters and the central South American Subbasin for groundwaters.

Like many watersheds in California's Central Valley, the South Stone Lake–Snodgrass Slough watershed has been heavily modified by agricultural and urban development (USFWS 2007). Natural floodplains were confined by levees to allow agricultural development of rich floodplain soils, and urban development followed behind. Contaminants such as heavy metals and pesticides have been found in the waters of North and South Stone Lakes (USFWS 2007). In addition, the South Stone Lake–Snodgrass Slough watershed is a tributary watershed to the Sacramento River and the Sacramento–San Joaquin Delta (Delta), which have been adversely affected by historic mining discharges and ongoing discharges from agricultural, industrial, and urban uses. Water quality protections first put into place in the 1990s have been effective at reducing pollutants in the Delta and its tributaries; however, the water quality of Delta waterways and the Sacramento River remains impaired, resulting in an existing cumulative adverse condition related to surface water quality.

Groundwater quality in the central South American Subbasin is generally good (SCWA 2016); however, a portion of the northeastern side of the subbasin has been contaminated with industrial pollutants. Intensive groundwater pumping and remediation are conducted at the spill sites to prevent contaminated groundwater from spreading and mixing with the general aquifer. Intensive groundwater extraction over the past 60 years has resulted in a lowering of groundwater elevations centered near Elk Grove. Groundwater elevations in the subbasin have been monitored and extraction limited since the Water Forum Agreement in 2000. Although groundwater elevations have recovered to

some extent, the problem persists, resulting in an existing cumulative adverse condition related to groundwater elevations.

The City General Plan EIR identified less than cumulatively considerable water quality and flooding impacts from buildout of the City and planning area (City of Elk Grove 2019). However, the General Plan EIR identified a cumulatively considerable and significant and unavoidable impact on groundwater resources from future water supply demands that may result in impacts on surface water features (City of Elk Grove 2019).

As discussed in Section 3.7, "Hydrology and Water Quality," the Project site is not located in a place at risk of release of pollutant from floods, tsunamis, or seiches and would not be located in a flood zone where there could be a risk of impeding or redirecting flood flows. Therefore, implementation of the Project would not combine with other related projects to create cumulative impact under these impact areas.

Impact 5-11: Contribute to Cumulative Water Quality Impacts

Implementing the Project and other development projects would result in construction and ground disturbance that would increase the potential for soil erosion and sediment pollution of waterways. The equipment required for construction would use fuel, solvents, lubricants, and other potentially hazardous materials that may degrade surface water and groundwater quality through accidental spills. However, the Project and other foreseeable development would also be required to comply with Central Valley Regional Water Quality Control Board (Central Valley RWQCB) National Pollutant Discharge Elimination System (NPDES) permit conditions that include preparation of a stormwater pollution prevention plan and a hazardous materials spill response plan. Improvement plans provided to the City before authorization for each construction phase would be required to conform to provisions of Municipal Code Chapter 16.44 (Land Grading and Erosion Control) and Chapter 15.12 (Drainage Control) that are in effect at the time of submittal and that include water quality control measures, such as the use of filter fences, fiber rolls, erosion control blankets, mulch, temporary drainage swales, settling basins, and fuel spill containment features. This would offset the Project's construction-related contribution to cumulative water quality impacts. Thus, the Project's contribution to cumulative construction water quality impacts would not be cumulatively considerable.

Continued urban development creates the potential for accidental discharge of household or commercial products, improper use of pesticides, and runoff carrying oil and roadway residue. The Project and other regional development projects would create new urban areas and may increase the potential for contaminated urban runoff to reach surface waters and groundwaters, degrading water quality and affecting beneficial uses. The Central Valley RWQCB works to protect water quality from urban runoff through NPDES programs for municipal stormwater and industrial uses.

Water quality impacts of the Project are addressed in Impact 3.7-1. The Project and the cumulative projects would be required to meet the conditions of the Sacramento Region Stormwater Quality Design Manual, which implements the Central Valley RWQCB municipal NPDES permits. These permit conditions apply to projects within the Cities of Elk Grove and Sacramento, as well as projects permitted by Sacramento County. Low-impact development (LID) design measures have been well studied by governmental and research institutions and, when properly implemented, can substantially reduce water quality degradation when compared with conventional stormwater management systems. Examples of minimum LID measures include isolation requirements for fueling areas and waste disposal areas, disconnection of impervious surfaces to allow infiltration of runoff on-site, identification signs and marking on storm drains to discourage improper use, and stormwater filtration and treatment where applicable. Each development project would be required to demonstrate compliance with LID measures as a condition of permit approval.

Thus, the Project's contribution to cumulative water quality impairments from urban runoff **would not be cumulatively considerable**.

Mitigation Measures

No mitigation is required.

Impact 5-12: Contribute to Cumulative Groundwater Impacts

Increased groundwater extraction to support new development may deplete groundwater resources. The Project and the cumulative development projects listed in Table 5-2 would increase the demand for potable water in the EGWD

service areas. The cumulative development projects are consistent with the City General Plan. As discussed in EGWD's *2020 UWMP*, EGWD's water supplies are stable and reliable and have remained so over the last two decades. Under the Central Sacramento County Groundwater Management Plan, long-term groundwater quantity and quality protective measures have been performed throughout the basin by various agencies, including EGWD, to preserve groundwater assets. Additionally, EGWD's groundwater supplies account for approximately 8,000 AFY from the Central Basin's estimated sustainable groundwater yield of 273,000 AFY. The 2020 UWMP concludes that this quantity of available groundwater is more than sufficient to meet existing and projected future water demand within EGWD's service area (EGWD 2021). As discussed under Impact 3.7-2, upon Project completion, the total annual water demand for the Project would be approximately 6 million gallons, or approximately 22 AFY, which could be met through the available groundwater production capacity associated with EGWD Service Area 1. In addition, because the GSP factored in water demands associated with the EGWD 2015 UWMP, as well as the 2015 and 2020 actual water demands, the Project would be consistent with the GSP and would not impede sustainable groundwater management. Thus, the Project's contribution to cumulative groundwater impacts **would not be cumulatively considerable**.

Mitigation Measures

No mitigation is required.

Impact 5-13: Contribute to Cumulative Impacts Related to Drainage and Flooding

As discussed in Impact 3.7-3, implementing the Project would result in a reduction in total impervious surfaces at the site, which would reduce the volume of stormwater runoff generated. The Project's incorporation of LID measures, which are included in the stormwater quality management plan under the MS4 permit, would maintain pre-Project runoff quantities and thus not pose a risk of increased localized flooding.

Therefore, the Project's contribution to cumulative increases in drainage flows and flooding **would not be cumulatively considerable**.

Mitigation Measures

No mitigation is required.

5.4.8 Land Use and Planning

The geographic context for cumulative impacts related to land use consists of the City and immediate Project vicinity. The cumulative projects listed in Table 5-2 would contribute to further development within the City, in many cases intensifying urban development through infill.

The City General Plan EIR identified no cumulatively considerable land use impacts from buildout of the City and planning area (City of Elk Grove 2019).

The Project would not physically divide the existing community, because it would be located on the western edge of the City within an existing developed site. Therefore, the Project would not combine to create considerable changes to and cumulative effects on the cohesiveness of the existing community. This impact is not discussed further.

Impact 5-14: Contribute to Cumulative Impacts Related to Conflicts with a Land Use Plan, Policy, or Regulation Adopted for the Purpose of Avoiding or Mitigating an Environmental Effect

As described under Impact 3.8-1, the Project would be consistent with City General Plan policies and Municipal Code requirements, which provide environmental mitigation with the application of mitigation measures identified in Sections 3.1 through 3.12 of this EIR.

Therefore, the Project's land use plan and regulation conflicts **would not be cumulatively considerable**.

Mitigation Measures

No mitigation is required.

5.4.9 Noise

The geographic context for cumulative impacts related to noise is the local Project vicinity. The City General Plan EIR identified traffic noise impacts from buildout of the City and planning area as cumulatively considerable and significant and unavoidable (City of Elk Grove 2019).

As discussed in Section 3.19, "Noise," implementing the Project would not result in the exposure of people to excessive noise levels associated with airport activity. Therefore, the Project would not combine to create considerable changes and cumulative impacts related to these issues, and these impacts are not discussed further. Additionally, the Project would not generate groundborne vibration above 0.2 in/sec PPV. Vibration is localized and would not combine with other sources of vibration to create a cumulatively considerable conditions. Thus, these impacts are not discussed further.

Impact 5-15: Contribute to Cumulative Construction Noise Impacts

Cumulative impacts from construction-generated noise may result if other future planned construction activities were to take place close to the Project site and cumulatively combine with construction noise from the Project. As discussed in Impact 3.9-1, Project construction activities would involve the use of heavy-duty construction equipment occurring over an approximately 7-month period. While modeling indicated that the resulting noise of the project would not exceed the City of Elk Grove daytime noise standard of 55 dBA, thus project noise was determined to be less than significant. The Waterman Brinkman Logistics Center is located directly to the north of the project site (6 on Figure 5-1). It is possible that construction periods could overlap causing noise effects to combine. However, as discussed in the Environmental Setting of Section 3.9, "Noise," sound is reduced by 6 dB for every doubling of distance. The Waterman Brinkman Logistics Center is located approximately 300 feet north of the Project site. While it is possible that construction may overlap, the exact location of where construction activities both on the Project site and Waterman Brinkman Logistics Center construction site is unknown at this time. Moreover, the types of construction equipment that may overlap is unknown. Due to the distance between the construction site, the unknown degree that construction activities may overlap and where, and acoustic fundamentals related to decreases in noise from a doubling of distance, the Project's construction related noise would not combine with other construction projects in the area to create a cumulatively considerable impact. This impact **would not be cumulatively considerable**.

Mitigation Measures

No mitigation is required.

Impact 5-16: Contribute to Cumulative Stationary Noise Impacts

Cumulative impacts related to on-site operational and stationary noise sources are site-specific, dissipate with distance from the source, and typically result in cumulative impacts only when Project-generated noise is located close to other off-site noise sources. Existing development close to the Project site includes residences and the existing Paramount Petroleum Asphalt Plant, which is located approximately 200 feet from the southern border of the Project. Residences are not considered loud sources of stationary noise; therefore, the Project would not combine with the intermittent noise generated by nearby residences. As another asphalt mixing facility, the existing plant performs similar operational activities as the Project and generates similar noise of comparable loudness. As discussed under Impact 3.9-4 in Section 3.9, "Noise," the Project would generate noise at a minimum of 40 decibels (dB) L_{eq} and a maximum of 50 dB L_{eq} at nearby receptors.

As discussed in the Environmental Setting of Section 3.9, "Noise," because decibels are logarithmic units, sound levels cannot be added or subtracted through ordinary arithmetic. Under the decibel scale, a doubling of sound energy corresponds to a 3-dB increase. In other words, when two identical sources are each producing sound of the same loudness at the same time, the resulting sound level at a given distance would be 3-dB higher than if only one of the sound sources was producing sound under the same conditions. In light of these scientific fundamentals of sound and noise, the combined stationary noise generated by the Project and the Paramount Petroleum Asphalt Plant would increase noise at the locations of nearby sensitive receptors by 3 dB, resulting in a maximum of 53 dB L_{eq} at

the receptor with greatest impact during daytime hours. This level of noise would still be below the city's daytime noise standard of 60 L_{eq}. However, given the sensitivity of the nearby residential receptors and the proposed periodic nighttime operation of the asphalt and ready-mix plants and uncertainty surrounding the schedule and timing of when components of the project would be operational, it is possible that operation of the facility's on-site equipment could result in noise levels that cause disturbance or a nuisance to nearby offsite sensitive receptors. Implementation of Mitigation Measure 3.9-4 would ensure that operation of the project would not exceed identified noise standards through the requirement to demonstrate compliance with noise standards prior to operation, thus project-generated noise would not cumulatively combine with other noise sources to increase noise levels. In addition, the measure would reduce noise level exposure by limiting recycle plant and aggregate sales operational hours, requiring the use of electric-powered generators in lieu of diesel-powered generations, ensuring proper lubrication of conveyors, and requiring operational features such that high-noise producing processes are located in areas that would minimize expose of receptors to high levels of noise.

Thus, the Project's contribution to substantial effects related to operational noise **would not be cumulatively considerable**.

Mitigation Measures

No mitigation is required.

5.4.10 Public Services

The geographic context for cumulative impacts related to public services includes the Cosumnes Community Services District (CSD) Fire Department and Elk Grove Police Department (EGPD) service areas, including the City.

Implementation of previously approved, proposed, or reasonably foreseeable projects in the service areas of the Cosumnes CSD Fire Department and EGPD would result in increased demand for fire protection, emergency medical response, and police protection services. The increase in demand would result in the need for additional facilities, and these impacts would be cumulatively considerable. However, development projects are subject to property taxes and development impact fees. These fees, as well as other funding sources, allow for the expansion of the Cosumnes CSD Fire Department and EGPD staff, equipment, and facilities to accommodate future demand. In addition, each development project will be subject to CEQA review of project-level impacts, as well as applicable regulations to reduce impacts.

The City General Plan EIR identified less than cumulatively considerable public service impacts from buildout of the City and planning area (City of Elk Grove 2019).

As discussed in Section 3.10, "Public Services," implementing the Project would not affect public schools such that construction or expansion of educational facilities would be required, would not affect libraries and other public facilities such that additional libraries or public facilities would be needed or constructed, and would not substantially increase the use of or physically affect existing parks and recreational facilities such that construction of new parks and recreational facilities would be required. Therefore, the Project would not combine to create considerable changes and cumulative effects related to educational, library, parks, recreational, or other public facilities. These impacts are not discussed further.

Impact 5-17: Contribute to Cumulative Impacts on Fire Protection Services

As described under Impact 3.10-1, implementation of the Project would result in increased demand for fire protection services from the Cosumnes CSD Fire Department. The Project would not create a substantial demand for fire protection services. No new facilities would be required. Thus, the Project's impacts related to expansion of fire protection facilities **would not be cumulatively considerable**.

Mitigation Measures

No mitigation is required.

Impact 5-18: Contribute to Cumulative Impacts on Law Enforcement Services

As described under Impact 3.10-2, implementation of the Project would result in increased demand for police protection services from EGPD. The Project would not create a substantial demand for law enforcement services. No new facilities would be required. Thus, the Project's impacts related to expansion of law enforcement facilities **would not be cumulatively considerable**.

Mitigation Measures

No mitigation is required.

5.4.11 Transportation

The geographic context for cumulative impacts related to transportation is the City and the planning area. While the City General Plan EIR identified no cumulatively considerable impacts related to transit, bicycle, pedestrian, and traffic safety, vehicle miles travel impacts from buildout of the City and planning area were identified cumulatively considerable and significant and unavoidable because the effectiveness of VMT reductions strategies is not certain. In addition, disruptive changes occurring in transportation, such as transportation network companies (i.e., Uber, Lyft), autonomous vehicles, Mobility as a Service (i.e., ride-sharing, carsharing), Amazon (increased deliveries), may increase VMT (City of Elk Grove 2019:3.15-60).

As discussed in Section 3.1, "Transportation," the design of the driveway into the Project site from Waterman Road could potentially contribute to safety hazards. This impact is site-specific and would not contribute to cumulative safety issues on Waterman Road. It is important to note that the City plans to rehabilitate the existing pavement and widen shoulders to accommodate a Class 2 Bike Lane in both directions along the segment of Waterman Road that borders the Project site (City of Elk Grove 2020).

Impact 5-19: Contribute to Cumulative Impacts on Vehicle Miles Traveled

The discussion of vehicle miles traveled (VMT) impacts associated with the Project for Impact 3.11-2 is inherently a cumulative impact analysis as it compares the Project to City General Plan VMT standards associated with buildout of the City. As detailed under Impact 3.11-2, the Project is located in a prescreened area of the City of Elk Grove where it has been determined that VMT for that land use designation would not exceed the City's designated threshold of 15 percent below the average service population if it is built to the specifications of the Land Use Plan. Additionally, the Project's building footprint would not exceed 50,000 square feet; thus, the Project is exempt from further VMT analysis pursuant to the City of Elk Grove Land Use Project VMT Analysis Process and is presumed to result in a less-than-significant impact on VMT. Therefore, the Project's contribution to substantial effects related to VMT **would not be cumulatively considerable**.

Mitigation Measures

No mitigation is required.

Impact 5-20: Contribute to Cumulative Impacts on Transit, Bicycle, and Pedestrian Facilities

As described under Impact 3.14-1, implementation of the proposed Project would not create demand for public transit services above the crush load capacity of the transit system and would not disrupt existing or planned transit facilities and services. Additionally, implementation of the proposed Project would not disrupt any existing or planned bicycle or pedestrian facilities. Standards for bike lanes and sidewalks would be met through conditions of approval for the project. Thus, the Project's impacts related to transit, bicycle, and pedestrian facilities would not create a cumulative impact and **would not be cumulatively considerable**.

Mitigation Measures

No mitigation is required.

Impact 5-21: Contribute to Cumulative Construction-Related Transportation Impacts

Cumulative impacts from Project-generated construction effects on transportation may result if other future planned construction activities were to take place close to the Project site and cumulatively combine to exacerbate the construction-related transportation impacts of the Project. There are four projects on the cumulative projects list located along Waterman Road: the Waterman Brinkman Logistics Center (6 on Figure 5-1) has been approved, a Tractor Supply Company (project 11 on Figure 5-1) development is under plan review, Life Storage Expansion (project 7 on Figure 5-1) is under plan review, and the Triangle Point North Commercial Center is under plan review (project 10 of Figure 5-1). As discussed in Impact 3.11-3, during construction, the contractor would be required to follow all safety protocols as detailed in the *City of Elk Grove Construction Specifications Manual*, including Section 6-13.03, which provides that uninterrupted passage of emergency vehicles through the work zone be maintained regardless of the controlled traffic conditions in place at the time (City of Elk Grove 2020:51). Additionally, the contractor would be required to submit a traffic control plan to the City that demonstrates the safe traffic handling for all modes of transportation during construction activities, including providing adequate emergency access to the Project site. Therefore, if construction of the Project were to occur simultaneously with other nearby projects, the construction-related transportation impacts of the projects would be considered as part of the traffic control plan. As further discussed in Impact 3.11-3, the Transportation Study identifies potential traffic hazards due to the dimensions of the driveway into the site. Implementation of Mitigation Measure 3.11-3 would offset cumulative effects related to transportation hazards because the driveway to the Project site would be designed to allow for safe access. Additionally, the Project design would be subject to review by City emergency services and responsible agencies, thus ensuring that the Project would be designed to meet all applicable emergency access requirements. Therefore, the Project's contribution to cumulative transportation impacts **would not be cumulatively considerable**.

Mitigation Measures

No mitigation is required.

5.4.12 Utilities and Service Systems

The geographic context for cumulative impacts related to utilities and service systems includes the local service areas of EGWD, the Sacramento Regional County Sanitation District (Regional San), and the Sacramento Area Sewer District, as well as the service areas for landfills that serve the City, SMUD, and PG&E.

The City General Plan EIR identified less than cumulatively considerable solid waste impacts from buildout of the City and planning area (City of Elk Grove 2019). However, the General Plan EIR identified a cumulatively considerable and significant and unavoidable impact on water supply and wastewater service (City of Elk Grove 2019).

As discussed in Section 3.12, "Utilities and Service Systems," connections to existing infrastructure would be expected to occur within new on-site driveways and paved areas and would be limited to areas within the Project site. No additional utility infrastructure would be needed off-site to adequately serve the Project. Therefore, the Project would not combine to create considerable changes and cumulative effects related to expansion of infrastructure. This impact is not discussed further.

Impact 5-22: Contribute to Cumulative Water Supply Impacts

As described in Section 3.12, "Utilities and Service Systems," the Project site is located with the EGWD service area. The Project and the cumulative development projects listed in Table 5-2 would increase the demand for potable water in the EGWD service area.

The Project's water demand would be associated with concrete production, as well as on-site dust control, landscaping, and potable water for staff. Implementation of the Project would create demand for 6 million gallons of water per year, or approximately 22 afy, which could be met through the available groundwater production capacity associated with EGWD Service Area 1. This water supply is reliable during normal, dry, and multiple-dry years. In addition, because the GSP factored in water demands associated with the EGWD 2015 UWMP, as well as the 2015 and 2020 actual water demands, the Project would be consistent with the GSP and would not impede sustainable

groundwater management. Furthermore, the water demand expected from the Project is consistent with those evaluated in the General Plan EIR and would not substantially contribute to this identified cumulative impact. Thus, the Project's contribution to cumulative water supply impacts **would not be cumulatively considerable**.

Mitigation Measures

No mitigation is required.

Impact 5-28: Contribute to Cumulative Impacts on Wastewater Services

The Project would have a wastewater generation rate of approximately 0.000225 million gallons per day (mgd), which would result in a minimal increase over existing wastewater treatment volumes (141 mgd). This increased volume would be within the SRWTP's permitted capacity of 181 mgd. Therefore, the Project's wastewater generation would be accommodated within the existing and planned treatment capacity of the SRWTP. In addition, the wastewater generation expected from the Project is consistent with flows evaluated in the General Plan EIR and would not substantially contribute to this identified cumulative impact. Therefore, the Project's contribution to impacts related to wastewater treatment capacity **would be not be cumulatively considerable**.

Mitigation Measures

No mitigation is required.

Impact 5-23: Contribute to Cumulative Solid Waste Impacts

Implementation of the Project would include uses that would increase the generation of solid waste, including Waste generated at the Project site, which would consist of office-related refuse and recycled oil and organics, may be accommodated by several permitted haulers, and wastes would be hauled to a permitted landfill for disposal as selected by the hauler. There is substantial remaining capacity in the landfills serving local waste haulers, with an average remaining capacity of more than 70 percent. Therefore, because the Project would not generate solid waste in excess of State or local standards or in excess of the capacity of the local infrastructure, negatively affect the provisions of solid waste services, or interfere with the attainment of solid waste reduction goals, the Project's contribution to impacts related to the availability of solid waste generation and disposal capacity **would not be cumulatively considerable**.

Mitigation Measures

No mitigation is required.

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6 OTHER CEQA-MANDATED SECTIONS

6.1 GROWTH INDUCEMENT

Public Resources Code Section 21100(b)(5) specifies that the growth-inducing impacts of a project must be addressed in an environmental impact report (EIR). Section 15126.2(d) of the State CEQA Guidelines provides the following guidance for assessing growth-inducing impacts of a project:

> Discuss the ways in which the proposed project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment. Included in this are projects which would remove obstacles to population growth (a major expansion of a wastewater treatment plant might, for example, allow for more construction in service areas). Increases in the population may tax existing community service facilities, requiring construction of new facilities that could cause significant environmental effects. Also, discuss the characteristics of some projects which may encourage and facilitate other activities that could significantly affect the environment, either individually or cumulatively. It must not be assumed that growth in any area is necessarily beneficial, detrimental, or of little significance to the environment.

A project can induce growth directly, indirectly, or both. Direct growth inducement would result if a project involved construction of new housing. Indirect growth inducement would result, for instance, if implementing a project resulted in any of the following:

- substantial new permanent employment opportunities (e.g., commercial, industrial, or governmental enterprises);
- substantial short-term employment opportunities (e.g., construction employment) that indirectly stimulates the need for additional housing and services to support the new temporary employment demand; and/or
- removal of an obstacle to additional growth and development, such as removing a constraint on a required public utility or service (e.g., construction of a major sewer line with excess capacity through an undeveloped area).

Growth inducement itself is not an environmental effect but may foreseeably lead to environmental effects. If substantial growth inducement occurs, it can result in secondary environmental effects, such as increased demand for housing, demand for other community and public services and infrastructure capacity, increased traffic and noise, degradation of air or water quality, degradation or loss of plant or animal habitats, conversion of agricultural and open-space land to urban uses, and other effects.

6.1.1 Growth-Inducing Impacts of the Project

The elimination of either physical or regulatory obstacles to growth is considered a growth-inducing impact. A physical obstacle to growth typically involves the lack of public infrastructure. The extension of public infrastructure, including roadways, water mains, and sewer lines, into areas not currently provided with roads and utilities would be expected to support new development. Mitigation Measure 3.11-3b requires the Project to develop a left-turn pocket along Waterman Road. These improvements are designed to accommodate the operational needs of the Project and an adjacent site and would not provide additional new capacity to accommodate contemplation of new development in the Project area. No other offsite public infrastructure would be developed as part of the Project. Therefore, the Project would not eliminate an obstacle to growth.

Implementation of the Project would increase economic activity through the short-term creation of 93 jobs during construction and 11-15 jobs during operation of the Project. The General Plan Update assumed that up to 77,339 new jobs would occur through the future development of a wide range of commercial, office, industrial/flex space, mixed-use, and public uses and would represent a 41 percent increase from the City's 2013 job pool of approximately 45,463. As the Project is consistent with zoning of the Project site, the Project was considered as part of the projected

job growth and would contribute a small portion of the expected employment growth. As of November 2022, there was an unemployment rate of 4.0 percent, or approximately 41,000 individuals, in Sacramento County (U.S. Bureau of Labor Statistics 2023). Given the small relatively small number of jobs that would be generated during construction (approximately 93) and operation (approximately 11-15), it can be assumed that job-seekers in the area are available to fill vacant employment positions, Because employment opportunities generated by construction and operation of the Project would be consistent with expected employment growth, and filled by individuals who currently reside in the region, the Project would not induce substantial population growth or the construction of additional housing.

As discussed above, new jobs would be created during construction and operation of the Project. These incomes would contribute to local property taxes and sales tax because workers would be local, as discussed above. These tax contributions would contribute funding to agencies including the Elk Grove Unified School District and Consumnes School District. Operation of the Project would also support jobs that rely on aggregate production and recycling, such as management companies, truck transportation, wholesale trade, real estate, and a variety of professional services. Employee generated by the Project would likely spend their income at local restaurants, family services, healthcare, real estate, transportation, and retail businesses. Because the Project would contribute to the local economy, it would foster economic growth and thus would be considered growth-inducing. However, this growth is not expected to not result in unplanned growth beyond what has been factored in the City's General Plan and associated EIR.

6.2 SIGNIFICANT AND UNAVOIDABLE ADVERSE IMPACTS

The State CEQA Guidelines Section 15126.2(b) requires EIRs to include a discussion of the significant environmental effects that cannot be avoided if the proposed project is implemented. As documented throughout Chapter 3 (project level impacts) and Chapter 4, "Cumulative Impacts," of this Draft EIR, after implementation of the recommended mitigation measures, all of the impacts associated with the Project would be reduced to a less-than-significant level.

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