Todd Smith, Planning Director
Planning and Environmental Review

Troy Givans, Director
Department of Community Development

County of Sacramento

Mitigated Negative Declaration

Pursuant to Title 14, Division 6, Chapter 3, Article 6, Sections 15070 and 15071 of the California Code of Regulations and pursuant to the Procedures for Preparation and Processing of Environmental Documents adopted by the County of Sacramento pursuant to Sacramento County Ordinance No. SCC-116, the Environmental Coordinator of Sacramento County, State of California, does prepare, make, declare, publish, and cause to be filed with the County Clerk of Sacramento County, State of California, this Mitigated Negative Declaration re: The project described as follows:

1. **Control Number:** PLER2020-00110

2. **Title and Short Description of Project:** Dry Creek Trail Phase II. Two new trail segments, at the north and south ends, respectively, of the existing Dry Creek Parkway Trail. The northern segment would include construction of approximately 2.6 miles of paved Class I multi-use trail, stretching from the Cherry Island Sports Complex at 28th and U streets northward to the Placer County line in Gibson Ranch Park. The southern segment would include construction of 0.7 mile of paved Class I multi-use trail connecting the Sacramento Northern Bikeway Trail to the existing Dry Creek Bikeway Trail along Dry Creek Road. An equestrian trail runs parallel for the entirety of the segments. The proposed project also includes crossing signals and roadway striping, signage, along with construction of bridges over Dry Creek and one over an unnamed tributary. The County Regional Parks Department intends to demolish the single-family home, barn, and abandon the associated septic system at 2592 Elverta Road and incorporate the property into the Dry Creek Parkway.

3. **Assessor's Parcel Number:** Northern segment: 203-0020-007; 203-0050-044; 203-0020-055; 203-0020-058; 203-0020-059; 203-0090-003; 203-0090-004; 203-0090-034; 203-0090-074. Southern segment: 207-0180-001; 207-0312-009; 207-0300-012; 207-0312-019; 207-0151-001; 207-0300-002.

4. **Location of Project:** Along Dry Creek in Rio Linda, Elverta, and Antelope, CA.

5. **Project Applicant:** Sacramento County Regional Parks Department

6. Said project will not have a significant effect on the environment for the following reasons:

a. It will not have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory.

b. It will not have the potential to achieve short-term, to the disadvantage of long-term, environmental goals.

c. It will not have impacts, which are individually limited, but cumulatively considerable.

d. It will not have environmental effects, which will cause substantial adverse effects on human beings, either directly or indirectly.

7. As a result thereof, the preparation of an environmental impact report pursuant to the Environmental Quality Act (Division 13 of the Public Resources Code of the State of California) is not required.

8. The attached Initial Study has been prepared by AECOM for the Sacramento County Planning and Environmental Review in support of this Mitigated Negative Declaration. Further information may be obtained by contacting Planning and Environmental Review via email at cega@saccounty.gov or phone (916) 874-6141.

Julie Newton

Julie Newton
Environmental Coordinator
County of Sacramento, State of California

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List of Tables

List of Plates

Acronyms

AB	Assembly Bill
AFB	Air Force Base
amsl	above mean sea level
ANSI S1.4	American National Standards Institute for Class 1 sound-level meters
APE	area of potential effect
ARB	California Air Resources Board
B.P.	before present
BACT	Best Available Control Technology
Basin Plan	*Water Quality Control Plan for the Sacramento and San Joaquin River Basins*
BERD	Built Environment Resource Directory
BMPs	Best Management Practices
CAA	Clean Air Act
CAAQA	California ambient air quality standards
CalEEMod	California Emissions Estimator Model
CARB	California Air Resources Board
CDFW	California Department of Fish and Wildlife
CDFG	California Department of Fish and Game
CEQA	California Environmental Quality Act
CFCs	chlorofluorocarbons
cfs	cubic feet per second
CH_4	Methane
CNDDB	California Natural Diversity Database
CO_2	Carbon dioxide
CO_2e	carbon dioxide equivalent
County	Sacramento County, CA
CRHR	California Register of Historical Resources
CRPR	California Rare Plant Rank
CVFPB	Central Valley Flood Protection Board
CWA	Clean Water Act
dB	decibel
dBA	A-weighted decibels

DBH	diameter at breast height
DDT	dichlorodiphenyltrichloroethane
DERA	Department of Environmental Review and Assessment
DTSC	California Department of Toxic Substances Control
DWR	California Department of Water Resources
EIR	Environmental Impact Report
EO	Executive Order
EPA	U.S. Environmental Protection Agency
ESA	Environmental Species Act
EV	electric vehicle
FAC	Facultative
FACU	Facultative Upland
FACW	Facultative Wetland
FEMA	Federal Emergency Management Agency
FTA	Federal Transit Administration
GHGs	greenhouse gases
GIS	geographic information system
GWP	Global warming potential
HCFCs	hydrochlorofluorocarbons
HFCs	hydrofluorocarbons
Hz	hertz
in/sec	inches per second
ISA	International Society of Arboriculture
lbs./day	pounds per day
LDL	Larson Davis Laboratories
L_{dn}	sound energy averaged over a continuous period of time
L_{eq}	equivalent sound level
L_{max}	maximum instantaneous sound level
LT	Long-term measurement
MBTA	Migratory Bird Treaty Act
mph	miles per hour
MS4	Municipal Regional Stormwater Discharge
N_2O	Nitrous oxide

NAAQS	national ambient air quality standards
NAHC	Native American Heritage Commission
NCIC	North Central Information Center
NEMDC	Natomas East Main Drainage Canal
NL	not listed
NO_X	nitrogen oxides
NPDES	National Pollutant Discharge and Elimination System
NRHP	National Register of Historic Places
NWI	National Wetlands Inventory
OBL	Obligate
OHP	California Office of Historic Preservation
OHW	Ordinary High Water
OSHRI	Occupational Safety and Health Research Institute
PCBs	Polychlorinated biphenyls
PFCs	perfluorinated chemicals
PM	particulate patter
PM_{10}	PM equal to or less than 10 micrometers in diameter
$PM_{2.5}$	PM equal to or less than 2.5 micrometers in diameter
PPV	peak particle velocity
ROG	reactive organic gases
RWQCB	Regional Water Quality Control Board
SacDOT	Sacramento Department of Transportation
SACOG	Sacramento Area Council of Governments
SAFCA	Sacramento Area Flood Control Agency
SB	Senate Bill
SF_6	sulfur hexafluoride
SMAQMD	Sacramento Metropolitan Air Quality Management District
SRFCP	Sacramento River Flood Control Project
SVAB	Sacramento Valley Air Basin
SVP	Society of Vertebrate Paleontology
SWPPP	Stormwater Pollution Prevention Plan
SWRCB	State Water Resources Control Board’s
TBB	tricolored blackbirds

TCRs	tribal cultural resources
TMDLs	total maximum daily loads
tons/yr	tons per year
UAIC	United Auburn Indian Community
UCMP	University of California, Berkeley Museum of Paleontology
ULOP	Urban Level of Flood Protection
UPL	Upland
USACE	U.S. Army Corps of Engineers
USEPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
VdB	vibration decibels
VELB	Valley Elderberry Longhorn Beetle
VMT	vehicle miles travelled
VOCs	volatile organic compounds
Zone AE	FEMA Regulatory Floodway 100-year floodplain
µin/sec	micro inch per second

County of Sacramento
Planning and Environmental Review
INITIAL STUDY

PROJECT INFORMATION

CONTROL NUMBER: PLER 2020-00110

NAME: Dry Creek Trail Phase II

LOCATION: Along Dry Creek in the unincorporated communities of Rio Linda, Elverta, and Antelope within the County of Sacramento, CA.

ASSESSOR'S PARCEL NUMBERS: 203-0020-007; 203-0050-044; 203-0020-055; 203-0020-058; 203-0020-059; 203-0090-003; 203-0090-004; 203-0090-034; 203-0090-074; 207-0180-001; 207-0312-009; 207-0300-012; 207-0312-019; 207-0151-001; 207-0300-002.

APPLICANT: Sacramento County Regional Parks Department

PROJECT DESCRIPTION

PROJECT LOCATION AND SETTING

The proposed Dry Creek Trail Phase II would be located in the unincorporated communities of Rio Linda, Elverta, and Antelope, north of the city of Sacramento, within Sacramento County, CA (County). The locations of the proposed new trail segments, bridges, and construction staging areas are shown on Plate IS-1.

PROJECT BACKGROUND

The proposed project site is within the Dry Creek Parkway (Parkway). The Parkway is comprised of approximately 6 miles of open space and riparian corridor starting at the Sacramento/ Placer County line in the north and extending southwesterly to the Sacramento City limits at Ascot Lane. Below Elverta Road, Dry Creek splits into two channels. The main fork is to the south and carries flows year-round, while the north fork functions as an overflow channel. The Parkway encompasses both forks of Dry Creek. The proposed trail alignment is adjacent to the Main Fork. The Parkway is intended to protect, preserve, and enhance open space, wildlife habitat, opportunities for passive and active recreation, and flood control and conveyance capacity.

In August 2011, Sacramento County Regional Parks completed Phase I of the Dry Creek Parkway Trail project, which constructed two miles of bicycle, pedestrian, and equestrian trails within the Parkway in northern Sacramento County. Phase II is the extension of this 70-mile-long master-planned regional trail system. The northern segment of the proposed Phase II project would link the Cherry Island Sports Complex with Gibson Ranch Park, each of which has thousands of visitors annually. It is also the

next link in connecting the Sacramento County trail system with the adjacent Placer County trail system. The southern segment of the proposed Phase II project would link the existing Sacramento Northern Bike Trail with the existing Dry Creek Parkway Trail. The full length of the Dry Creek Parkway Trail was planned in the adopted Dry Creek Parkway Recreation Master Plan (Foothill Associates 2003).

PROPOSED PARK FACILITIES

Phase II of the Dry Creek Parkway Trail would consist of two additional segments, at the north and south ends, respectively, of the existing Dry Creek Parkway Trail. The northern segment of the proposed project would consist of approximately 2.6 miles of paved Class I multi-use trail that would be constructed beginning northwest of U Street at the end of the current multi-use Dry Creek Parkway Trail and would extend northward along the north edge of the Cherry Island Sports Complex along the south side of Goat/Sierra Creek before crossing over an existing bridge just to the west of 28th Street. This bridge may need to be upgraded/replaced as part of the proposed project. The trail would then continue northward adjacent to the east side of the Cherry Island Golf Course parallel to 28th Street.

The multi-use trail would follow the northern boundary of the Cherry Island Golf Couse heading west towards Dry Creek, at which point it would head north to Elverta Road. The trail would reconnect at 28th Street to the north of Elverta Road and would follow the east side of Dry Creek along the west side of the Antelope Greens Golf Course. North of Antelope Greens, the trail would be constructed on undeveloped County-owned park land. In this area, a trail connection to Northbrook Park, from the west end of Tourmaline Way, is also planned as part of the project. At the northern end of the proposed alignment, two bridges would be installed over Dry Creek to provide trail connectivity with Gibson Ranch Park to the west (see Plate IS-1). The existing band of riparian vegetation surrounding Dry Creek would be preserved to the greatest practical extent. Interpretive signs containing environmental and cultural information would be placed at several points along the trail.

The southern segment of the proposed project would extend a new section of trail from the existing southern Dry Creek Parkway trail terminus to the southwest for approximately 0.7 mile, connecting the Sacramento Northern Bike Trail (south of the Rio Linda Elverta Community Center and Park) to the existing Dry Creek Bikeway Trail (at Dry Creek Road to the east). Two crossings would be installed south of the Community Center Park, one over the north fork of the Dry Creek channel and one over the drainage adjacent to the Sacramento Northern Bike Trail (see Plate IS-1).

The proposed multi-use trail would consist of a 12-foot-wide surface paved with asphalt concrete for bicyclists and pedestrians, and a 3-foot-wide decomposed granite shoulder on each side. The multi-use trail base would consist of new aggregate and/or recycled asphalt concrete and Portland cement concrete. The equestrian trail that would parallel the entirety of the segments would consist of a 6-foot-wide dirt path.

Four clear-span,[1] prefabricated bridges would be installed as part of the proposed project, two in the northern segment and two in the southern segment (see Plate IS-1) Bridge abutments may be located on the embankment, but no in-water work is anticipated. The estimated depth of excavation for bridge abutments would likely range from 15 to 25 feet. Most of the trail work would likely have a vertical depth of construction between 8 to 15 inches, except where culverts would be installed. In the culverted areas, the depth of construction could extend to 5 feet beneath the ground surface.

The proposed project also includes crossing signals and striping at the proposed Elverta Road crossing. Regional Parks is in the process of acquiring a property at 2592 Elverta Road, which will be incorporated into the Dry Creek Parkway. Regional Parks intends to demolish the single-family home, barn, and abandon the associated septic system at 2592 Elverta Road. The property may be used as an alternative trail alignment for the northern trail alignment and/or construction staging.

CONSTRUCTION AND STAGING

Construction of the proposed project would take approximately six months, and is projected to occur from May 15 and October 15 (dry season), per compliance with the Dry Creek Master Plan, during 2026, contingent on project funding and permitting. Construction activities would occur from Monday through Friday, between the hours of 8 am and 5 pm. Nighttime construction would not occur. Construction equipment would include a backhoe, grader, excavator, bulldozer, small crane (to set the bridges in place), cement mixer, asphalt paver, dump trucks, compactor/roller, delivery trucks, pickup trucks, and water trucks for dust suppression and compacting.

For the northern project segment, five project-related staging areas are proposed: one located southwest of the Cherry Island Sports Complex, three on the north and south sides of Elverta Road near 28th Street, and one in the existing parking area at the northeast end of Gibson Ranch Regional Park (see Plate IS-1). For the southern project segment, one staging area is anticipated north of Cherry Lane and west of Dry Creek Road (see Plate IS-1). The proposed staging areas consist either of existing paved parking lots, developed residential properties, or undeveloped open space covered with grasses. All proposed staging areas are flat. Therefore, only minor surficial clearing of grasses in the undeveloped staging areas would be required; no trees would be removed, and no excavation or grading would occur at any of the proposed staging areas. All staging areas would be surrounded by temporary chain link fencing to prohibit unauthorized entry.

The use of clear-span bridges would eliminate the need for pilings or other supports in the bed or bank of the Dry Creek streambed. Installation of the concrete abutments would occur with the use of an excavator and cement mixer that would be staged on the landsides of the streambeds. A small crane would be used to set the prefabricated bridges in place once the support structures are installed. While dewatering may not be

[1] Clear-span bridges involve a continuous span where no portion of the bridge piling or other supporting structure is located within the stream channel, except for abutment protection.

necessary during installation of the bridge abutments or culverts and will be avoided to the extent feasible; dewatering may be a possibility for construction.

As part of the proposed project, rock slope protection would be installed as necessary to avoid operational erosion and scouring around the new bridge abutments.

Roadway striping associated with trail crossings would require temporary lane closures on affected local roadways, lasting approximately 1–2 days at each location. The construction contractor would be responsible for hiring a flagging crew and employing appropriate traffic controls for the temporary roadway lane closures.

At the completion of project-related construction activities, the staging areas would be returned to pre-project conditions, and all disturbed areas would be re-seeded with native vegetation.

OPERATIONS AND MAINTENANCE

Upon completion, the multi-use trail will be maintained by the Sacramento County Regional Parks Department.

Operations and maintenance activities would include, but not be limited to litter control, signage, access control, security, compliance enforcement, repair, rehabilitation, replacement, and removal of recreational trail facilities. Typical maintenance activities would include routine inspections, debris removal from the trail, and periodic replenishment of the decomposed granite shoulders.

Typical vegetation management would include mowing, trimming, and removal of vegetation from trail surfaces. Trees planted for mitigation would be irrigated for a period of 3–5 years for establishment via truck watering or connection to a nearby water connection.

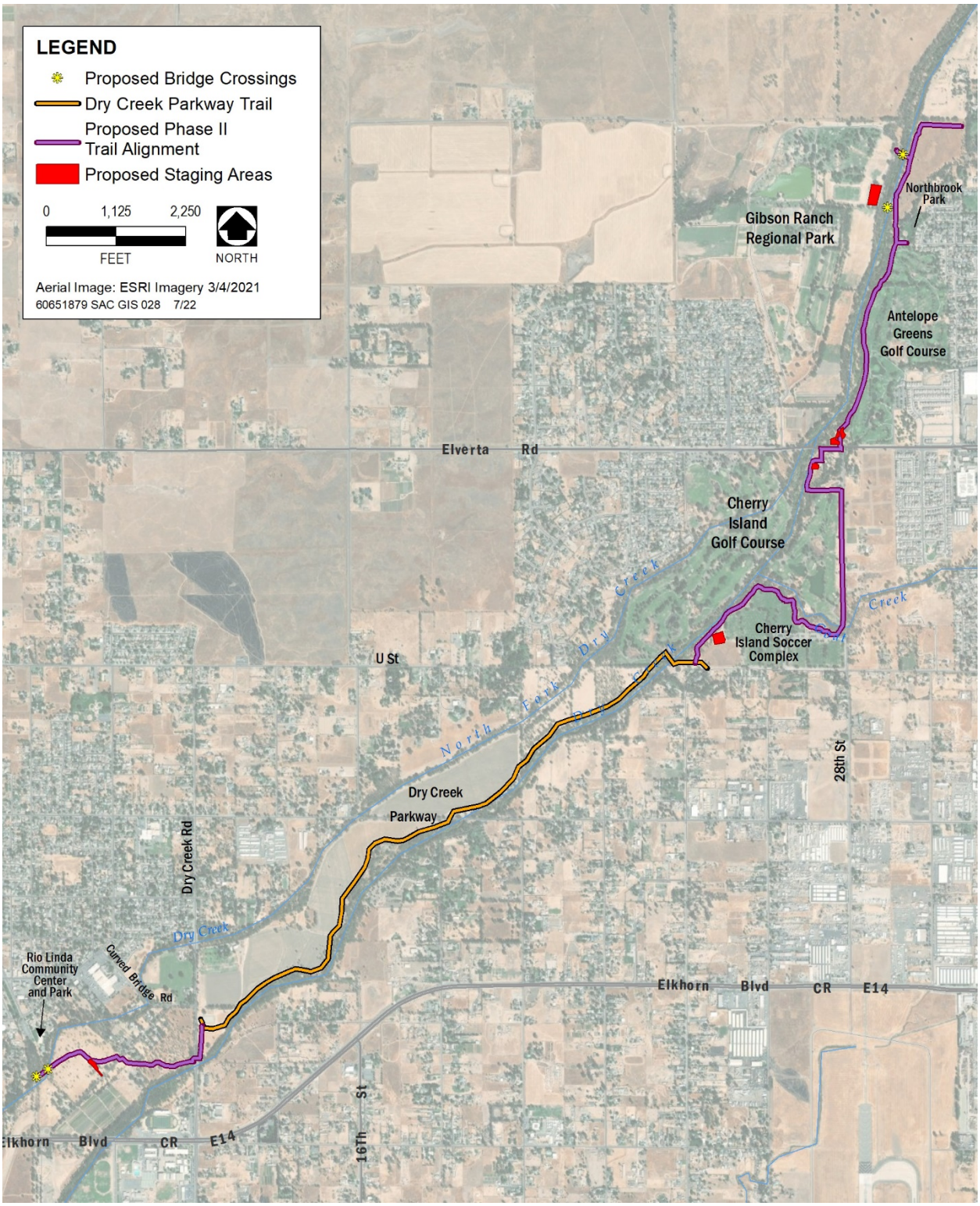


Plate IS-1 Project Location and Proposed Facilities

ENVIRONMENTAL EFFECTS

Appendix G of the California Environmental Quality Act (CEQA) Guidelines provides recommendations for assessing the significance of potential environmental impacts. Based on this guidance, Sacramento County has developed an Initial Study Checklist (located at the end of this report). The Checklist identifies a range of potential significant effects by topical area. The topical discussions that follow are provided only when additional analysis beyond the Checklist is warranted.

AESTHETICS

This section supplements the Initial Study Checklist by analyzing if the project would:

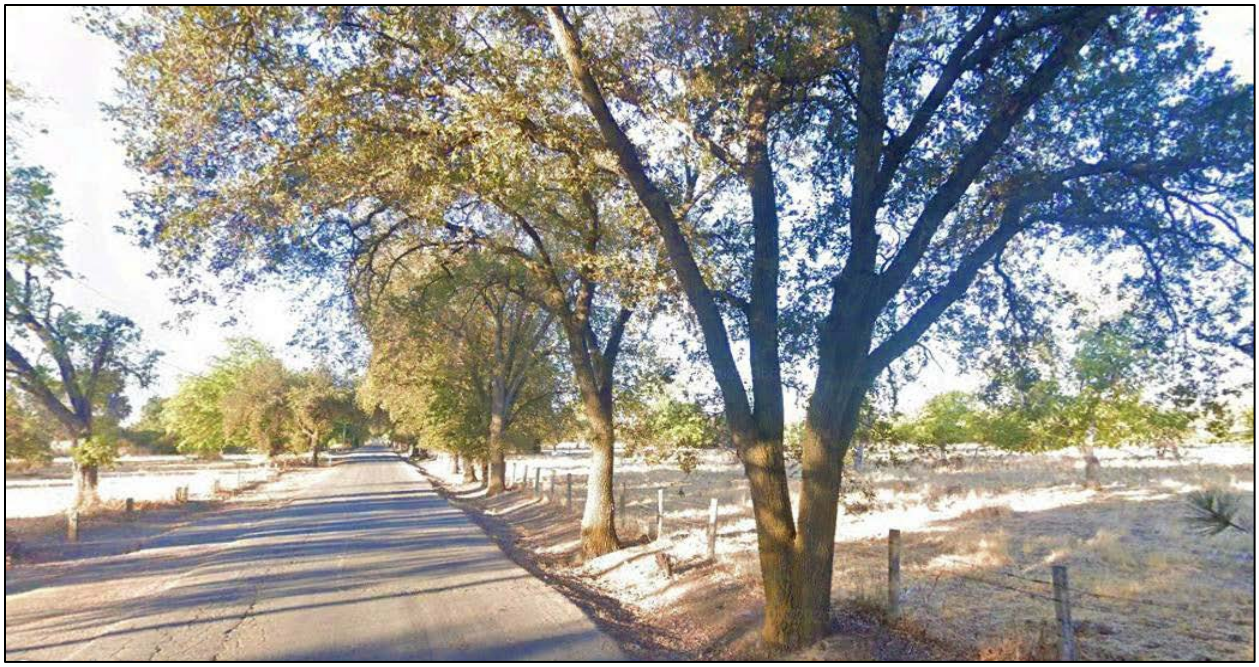
- Substantially alter existing viewsheds such as scenic highways, corridors, or vistas; or
- In a non-urbanized area, substantially degrade the existing visual character or quality of public views of the site and its surroundings

EXISTING SETTING

The project site and surrounding vicinity do not include any State or County-designated scenic highways or vistas (California Department of Transportation 2019, Sacramento County 2020). However, the proposed Phase II northern segment includes a scenic corridor consisting of the Main Fork Dry Creek and associated riparian vegetation on both sides of the streambed (Foothill Associates 2003). The proposed project includes four bridges across Dry Creek, all within the Dry Creek Parkway. Culverts may also be installed in Dry Creek tributaries, such as Goat Creek and the unnamed tributary north of Northbrook Park. The Dry Creek Parkway Recreation Master Plan (Foothill Associates 2003) notes, “In the planning of any bridge widening or the installation of additional bridges across Dry Creek, impacts to the scenic and habitat value of the Parkway and the degradation of natural areas shall be key considerations.”

In the southern trail segment, the project site consists of undeveloped land within the Dry Creek Parkway (see Viewpoints 1 and 2). However, most of the land immediately adjacent to the trail in the northern segment has been developed with urbanized recreational uses, including the Cherry Island Sports Complex, Cherry Island Golf Course, Antelope Greens Golf Course, Northbrook Park, and Gibson Ranch Regional Park. These uses include large areas of turf grass with perimeter shade trees, benches, signage, outdoor sports equipment such as soccer goal posts and nets, paved golf cart paths, and paved parking lots (see Viewpoints 3 through 6).

The Dry Creek channel is regularly disturbed by public trespass and transient disturbance, with homeless encampments along creek banks and inside the creek channel present at various times of the year. Chain link fencing is present along the east side of the Cherry Island Golf Course, immediately adjacent to the proposed trail alignment.



Source: Google Earth 2020

Viewpoint 1. Cherry Lane, Southern Trail Segment. Looking west from rural residences at the proposed trail crossing and temporary staging area.

Source: Google Earth 2020

Viewpoint 2. Parking Area for Existing Dry Creek Trail, Southern Trail Segment. Looking northeast from Dry Creek Road at the connection of the existing trail with the proposed new southern trail segment.

Source: AECOM 2022

Viewpoint 3. Cherry Island Sports Complex, Northern Trail Segment. Looking northeast at the existing use trail, outdoor turf sports fields, and soccer nets.

Source: AECOM 2022

Viewpoint 4: Cherry Island Golf Course, Northern Trail Segment. Looking north at the existing use trail between the Cherry Island Golf Course (behind the chain link fence to the west) and 28th Street.

Source: AECOM 2022

Viewpoint 5: North of Northbrook Park, Northern Trail Segment. Looking north at the existing use trail north of Northbrook Park, with the line of trees along Dry Creek to the west.

Source: Google Earth 2020

Viewpoint 6: Gibson Ranch Regional Park, Northern Trail Segment. Looking southwest from Gibson Ranch Park Road at the existing parking lot (proposed staging area) and surrounding turf sports fields.

Discussion of Project Impacts

In the southern segment, views of the proposed bridge crossings over Dry Creek would be limited to the southern end of the Rio Linda Elverta Community Center Park and the adjacent Sacramento Northern Bike Trail. Views of the proposed trail alignment in the southern segment would be limited to three rural residences on Cherry Lane, motorists on Cherry Lane and Dry Creek Road, and recreationists in the gravel parking area at the southern end of the existing Dry Creek Parkway Trail (on the east side of Dry Creek Road). Views of the proposed temporary staging area in the southern segment would be limited to motorists on Cherry Lane.

In the northern segment, much of the proposed trail alignment already exists as an informal "use trail." Recreationists at the Cherry Island Soccer Complex, the east side of the Cherry Island Golf Course, the Antelope Greens Golf Course, and Northbrook Park would have views of the proposed trail, along with motorists on 28th Street. Motorists on U Street would have views of the proposed temporary staging area at the southern end of this segment. Motorists on Elverta Avenue would have views of the proposed trail crossing and signal, and the proposed temporary staging areas on the north side of Elverta Road. Recreationists at the north end of the Gibson Ranch Trail (on the west side of Dry Creek in Gibson Ranch Regional Park) and recreationists using the parking lot and in the adjacent outdoor sports fields, would have views of the proposed temporary staging area in the parking lot, as well as the two proposed northernmost bridge crossings. Views of the northeastern end of the trail from the adjacent McClellan High School to the east would be blocked by the existing tall trees and shrubs around the western boundary of the school property. Since the trail would be constructed in a linear fashion, views of construction equipment and personnel from any given location would be short-term and temporary.

The visual character of the new bridges would be similar to the existing parkway bridges and would be designed using materials and colors that would blend with the existing landscape, as required by the Dry Creek Parkway Master Plan (Foothill Associates 2003), County Parks and Recreation Improvement Standards (Sacramento County Engineering 2018), and Sacramento County Standard Construction Specifications (Sacramento County Municipal Services 2017). Minor vegetation removal would occur at the location of each bridge (to permit installation) and rock erosion protection would be installed underneath the bridge abutments. The amount of vegetation removal would be minor, and rock erosion protection on the channel banks under the bridges would cover only a small area and is a common feature in viewsheds that include bridges.

The visual character of the proposed trail would be similar to the existing Dry Creek Parkway Trail, including pavement, width, and signage. Both segments of the proposed trail have been previously planned for in the Dry Creek Parkway Master Plan (Foothill Associates 2003). The existing land use designations and zoning where the new trail segments are proposed are compatible with the proposed trail (as discussed in detail below in Table IS-18.1, "Land Use"). Because the trail would be flat and would be installed at ground level, and because much of the proposed trail alignment is already present in the form of existing "use trails," installation of the paved pedestrian/bicycle multi-use trail and the adjacent dirt equestrian trail would not degrade the visual

character or quality of the project area. Finally, because the trail would be implemented using County Parks and Recreation standards and in accordance with the Dry Creek Parkway Master Plan, the proposed project would not substantially alter the scenic corridor in the northern trail segment (consisting of the Main Fork Dry Creek and its associated riparian vegetation). Therefore, aesthetics impacts from the proposed project would be **less than significant**.

PUBLIC SERVICES - RECREATION

This section supplements the Initial Study Checklist by analyzing if the project would:

- Result in substantial adverse physical impacts associated with the provision of park and recreation services

EXISTING SETTING

For the purposes of this analysis, the study area for recreational resources is defined as follows:

- Recreational resources that are within or immediately adjacent to the footprint of the proposed trail alignment and staging areas (i.e., direct impacts).
- Recreational facilities that are within one-quarter mile (1,320 feet) on either side of the environmental footprint of the proposed trail alignment and staging areas (i.e., indirect impacts).

The proposed new trail segments are within the Dry Creek Parkway in the unincorporated communities of Rio Linda, Elverta, and Antelope. The Parkway boundary encompasses the area 175 feet beyond the normal top of bank for the Dry Creek channel, as well as Gibson Ranch Regional Park, Cherry Island Golf Course, and the Cherry Island Sports Complex.

The Sacramento County General Plan (Sacramento County 2020) and the Rio Linda Elverta Community Plan (Sacramento County 1998) both provide policy direction related to recreation, open space, flood management, habitat protection, and other planning considerations. The Rio Linda Elverta Community Plan also includes a Dry Creek Parkway combining zone. The direction provided by these documents is incorporated into the Dry Creek Parkway Recreation Master Plan (Foothill Associates 2003), which provides more specific direction for the development and management of the Parkway. In addition, the Rio Linda Elverta Recreation and Park District Master Plan (Rio Linda Elverta Recreation and Park District 2006) addresses park facilities managed by this independent parks and recreation district, and several of these park facilities are adjacent to the Dry Creek Parkway. The Dry Creek Parkway Recreation Master Plan guides parkway use in a manner that is compatible and consistent with the management of the park district facilities.

Dry Creek Parkway, Gibson Ranch Regional Park, Cherry Island Golf Course, and Cherry Island Sports Complex are managed by the Sacramento County Regional Parks Department. The sports complex is managed by the California Youth Soccer Association. Northbrook Park, Rio Linda Elverta Community Center and Park, Depot

Park, and the Rio Linda Elverta Park District Maintenance Yard are operated and maintained by the Rio Linda Elverta Recreation and Park District. The Antelope Greens Golf Course is privately owned and operated.

Information presented in this section regarding existing recreational resources was obtained from park master plans; local recreation provider webpages; and reviews of aerial maps and geographic information system (GIS) data.

RECREATIONAL RESOURCES

Table IS-1.1 and Table IS-1.2 describes the size, recreational amenities provided, and distance of the recreational resources from the proposed trail alignments (in order from north to south).

Table IS-1.1 Parks and Recreation Resources in the Study Area – Within Study Area for Direct Impacts

Resource Name	Resource Size	Amenities	Approximate Distance from Project Footprint
Dry Creek Parkway	1,200 acres	Open space corridor, bicycle/hiking/equestrian trails, habitat protection, floodplain management	Within (entire trail alignment and all staging areas)
Cherry Island Golf Course	170 acres	Full length 18-hole golf course, driving range, putting and chipping areas, golf shop, restaurant with full-service bar and patio area, tournament room available for meetings, and parking	Within (0.72 mile of trail alignment and one staging area)
Cherry Island Sports Complex	54 acres	10 outdoor sports fields, picnic areas, barbeque grills, concession building with restrooms, wetlands, open park land, parking	Within (0.67 mile of trail alignment and one staging area)
Gibson Ranch Regional Park	355 acres	Equestrian center and trails, dog park, two children's play areas, fishing (in Gibson Lake), soccer fields, hiking/bicycling (Gibson Ranch Trail, west side of Dry Creek), bird watching, open space, picnic areas, indoor special events (The Ranch House), parking	Within (northern staging area)

Table IS-1.2 Parks and Recreation Resources in the Study Area – Within Study Area for Indirect Impacts

Resource Name	Resource Size	Amenities	Approximate Distance from Project Footprint
Northbrook Park	2.45 acres	Basketball court, children's play area with seating, outdoor exercise equipment, grassy lawns, and shade trees	Immediately adjacent to the east and north
Antelope Greens Golf Course	73 acres	Executive 18-hole golf course, golf shop, driving range, snack bar, and parking	Immediately adjacent to the east
Moraga Park	1.9 acres	Detention basin	860 feet east
Dry Creek Parkway Trail	2.1 miles	Paved 12-foot-wide bicycle/pedestrian multi-use trail along the Main Fork Dry Creek, along with a gravel-surfaced parking area on the east side of Dry Creek Road at the southern end, and accessed via U Street at the northern end (no parking at the northern end)	Immediately adjacent (proposed north and south trail linkages)
Dry Creek Ranch House	2.5 acres	Historic ranch house, sycamore grove, picnic area and native oak grove, rose garden, public tours, parking	825 feet north
Rio Linda Elverta Park District Maintenance Yard	2 acres	Maintenance yard including buildings, equipment and materials storage, and parking	450 feet north
Rio Linda Elverta Community Center Park	6.1 acres	Rio Linda Community Center (hosts various programs), Rio Linda Elverta Recreation and Park District offices, children's playground and benches, tennis/pickleball court, basketball court, skate park, horseshoes, shuffleboard, picnic areas, grassy lawn, shade trees, parking	Immediately adjacent to the north
Sacramento Northern Bike Trail	12 miles	Paved 12-foot-wide bicycle/pedestrian trail. Begins at C Street in Sacramento and runs north to Elverta Road in Rio Linda	Immediately adjacent to the west
Depot Park	4.1 acres	Gazebo, group picnic area, Depot Building (rental for public venues), grassy lawn, Farmer's Market	960 feet north
Central Park Horse Arena	9 acres	Lighted horse arena, BMX track, picnic tables, and parking	0.25 mile south

Source: Data compiled by AECOM in 2022

The proposed trail alignment crosses or intersects the following paved roadways: Gibson Ranch Park Road, Tourmaline Way, Elverta Road, 28th Street, U Street, Dry Creek Road, and Cherry Lane. Of these roadways, Dry Creek Road, U Street, 28th Street, and Elverta Road include Class II (on street) bicycle lanes.

Discussion of Project Impacts

As shown in Table IS-1.1 and Table IS-1.2, a number of parks, trails, and open spaces support recreational activities in the vicinity of the proposed trail alignment and staging areas. Recreationists at facilities that are within 300 feet of project-related construction activities could experience temporary, short-term, direct impacts from loss of access, loss of parking, loss of use, degradation of visual character and quality, and increases in noise, dust, and traffic. Recreationists at facilities that are 300–1,320 feet from project-related construction could experience temporary, short-term, indirect impacts from degradation of visual character and quality; increases in noise, dust, and traffic; and increases in use.

Recreationists at the northern end of the existing Dry Creek Trail at U Street would be exposed to short-term temporary direct effects including degradation of visual quality from the visual presence of construction personnel and equipment at the immediately adjacent new trail segment and the proposed staging area approximately 450 feet to the northeast, along with noise and dust from the adjacent trail construction. Recreationists using the soccer fields at the Cherry Island Sports Complex would be exposed to similar visual, noise, and dust impacts from trail construction along the entire northern border of the Sports Complex (a linear distance of approximately 2,800 feet), plus the proposed staging area at the west side of the Sports Complex. Recreationists on the east side of the Cherry Island Golf Course, particularly hole numbers 5, 6, and 7, would be exposed to similar visual, noise, and dust impacts from trail construction. Trail construction would occur approximately 50 feet from the number 7 tee, approximately 60 feet from the number 5 green, and 50–70 feet from all of hole number 6, including the entire length of the fairway. The staging area at the north end of the Cherry Island Golf Course property would be visually screened from recreationists by intervening trees and shrubs, but golfers on the number 5 green and the number 6 tee would be exposed to construction-related noise from that staging area. Recreationists on the west side of the Antelope Greens Golf Course, particularly on hole numbers 2 and 8, and the number 7 green, number 15 tee, and number 12 and 14 greens, would also be exposed to similar temporary visual, noise, and dust impacts from trail construction. Trail construction would range from 40–200 feet from greens and tees, to immediately adjacent to fairways 2 and 8. The two proposed staging areas on the north side of Elverta Road would be partially screen from recreationists on the number 2 fairway and green by existing vegetation. Construction of the proposed trail and bridge adjacent to Northbrook Park would expose these recreationists to similar temporary visual, noise, and dust impacts. Recreationists using the northern soccer fields and parking lot (a portion of which would be used as a staging area) in the Gibson Ranch Regional Park would be exposed to noise and the visual presence of construction workers, materials, and equipment in the staging area. Recreationists on the Gibson Ranch Trail (on the west

side of Dry Creek) would be approximately 200–300 feet from noise and dust generated by construction of the new trail on the east side of the creek and the new bridge; construction equipment and personnel would be partially screened by existing vegetation on both sides of the creek channel. Construction activities of the proposed trail including the visual presence of construction and generation of noise and dust occurring at any given recreational feature would be short-term temporary construction-related impacts and therefore are considered **less than significant**.

Local recreational facilities could also experience a short-term, temporary decrease or increase in use as recreationists may decide to use other facilities during project construction. For example, golfers could decide to play at Cherry Island or Antelope Greens depending on the timing of construction, in order to move further away from temporary visual, noise, and dust impacts (golfers can be sensitive to increased noise). Similarly, bicyclists/hikers/equestrians could decide to use other trails in the area to avoid temporary construction-related visual, noise, and dust impacts. Use of the Class II (on-street) bicycle lanes on local roadways would be briefly disrupted for 1–2 days during construction-related roadway striping at the proposed trail crossings. on the existing Dry Creek Trail. The northern and southern ends of the existing Dry Creek Parkway Trail would not require closures, but minor detours would be implemented during construction of the tie-ins with the new trail segments. Similarly, a short-term temporary detour would be required during construction at the intersection of the new trail with the Sacramento Northern Bike Trail. The gravel parking area for recreationists at the southern end of the existing Dry Creek Trail would remain open for use throughout the project's construction period. The northernmost staging area in Gibson Ranch Park would require approximately one-half of the existing parking area; the other half of the parking area would remain open for use by recreationists in the adjacent outdoor sports fields. Use of the Class II (on street) bicycle lanes on Dry Creek Road and potentially Cherry Lane would be briefly disrupted for 1–2 days during construction-related roadway striping and signal at the proposed trail crossing; however, detours would be provided. Because none of the existing recreational facilities would require closure during project-related construction, any recreational displacement to other facilities that might occur would be minor in scale and of short duration. Therefore, project-related construction would not displace existing recreationists to other recreational facilities such that substantial physical deterioration of those facilities would occur. This impact is considered **less than significant**.

At the conclusion of project construction activities, all disturbed areas would be re-seeded and returned to pre-project conditions. The full use of and access to all recreational facilities would be restored. Therefore, operation of the proposed Phase II trail segments would not result in a permanent loss of access to or loss of use of a recreational facility and would not increase the use of other recreational facilities such that substantial deterioration would occur. Furthermore, project operation would increase the recreation opportunities along Dry Creek Parkway and the Sacramento region by providing additional multi-use trail opportunities, by providing trail linkages between existing recreational facilities, and by providing a future trail linkage with Placer County. Therefore, project operation would result in **no adverse impact (beneficial impact)**.

AIR QUALITY

This section supplements the Initial Study Checklist by analyzing if the project would:

- Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment under an applicable federal or state ambient air quality standard
- Expose sensitive receptors to pollutant concentrations in excess of standards

EXISTING SETTING

The project site is located in the Sacramento Valley Air Basin (SVAB). The Sacramento Valley Air Basin climate is characterized by hot, dry summers and cool, rainy winters. Typically, winds transport air pollutants northward out of the SVAB; however, during approximately half of the time from July to September, the wind pattern shifts southward, blowing air pollutants back into the SVAB and exacerbating the concentration of air pollutant emissions in the air basin. In addition, between winter storms, high pressure and light winds contribute to low-level temperature inversions and stable atmospheric conditions, resulting in the concentration of air pollutants.

Individual air pollutants at certain concentrations may adversely affect human or animal health, reduce visibility, damage property, and reduce the productivity or vigor of crops and natural vegetation. Six air pollutants have been identified by the U.S. Environmental Protection Agency (EPA) and the California Air Resources Board (ARB) as being of concern both on a nationwide and statewide level: ozone; carbon monoxide; nitrogen dioxide; sulfur dioxide; lead; and particulate patter (PM), which is subdivided into two classes based on particle size – PM equal to or less than 10 micrometers in diameter (PM_{10}) and PM equal to or less than 2.5 micrometers in diameter ($PM_{2.5}$).

Health-based air quality standards have been established for these pollutants by EPA at the national level and by ARB at the state level. These standards are referred to as the national ambient air quality standards (NAAQS) and the California ambient air quality standards (CAAQA), respectively. The NAAQS and CAAQS were established to protect the public with a margin of safety from adverse health impacts caused by exposure to air pollution. Both EPA and ARB designate areas of California as “attainment,” “nonattainment,” “maintenance,” or “unclassified” for the various pollutant standards according to the federal Clean Air Act (CAA) and the California Clean Air Act, respectively. Because the air quality standards for these air pollutants are regulated using human and environment health-based criteria, they are commonly referred to as “criteria air pollutants.”

Within the Sacramento Valley Air Basin, the Sacramento Metropolitan Air Quality Management District (SMAQMD) is responsible for ensuring that emission standards are not violated. With respect to regional air quality, the SMAQMD region, including Sacramento County, is currently designated as nonattainment for the NAAQS and CAAQS for ozone, and nonattainment for the NAAQS for 24-hour $PM_{2.5}$, and the CAAQS for PM_{10}.

Thresholds of Significance

As stated in Appendix G of the CEQA Guidelines, the significance criteria established by the applicable air quality management district may be relied on to support determinations of significance. The project site is located within unincorporated Sacramento County in an area regulated by the SMAQMD. Thus, pursuant to the SMAQMD-recommended thresholds (SMAQMD 2020a) for evaluating project-related air quality impacts, the project's impacts would be considered significant if the project would:

- generate construction-related criteria air pollutant or precursor emissions that exceed the SMAQMD-recommended daily thresholds of 85 pounds per day (lbs./day) for nitrogen oxides (NO_X), 80 lbs./day, or 14.6 tons per year (tons/yr) of PM_{10}, 82 lbs./day or 15 tons/yr of $PM_{2.5}$, or result in or substantially contribute (at a level equal to or greater than 5 percent of a CAAQS) to a violation of a CAAQS;
- generate long-term operational criteria air pollutant or precursor emissions that exceed the SMAQMD-recommended daily thresholds of 65 lbs./day of reactive organic gases (ROG) or NO_X, 80 lbs./day, and 14.6 tons/yr of PM_{10}, 82 lbs./day and 15 tons/yr of $PM_{2.5}$, or result in a violation of the CAAQS or result in or substantially contribute (at a level equal to or greater than 5 percent of a CAAQS) to a violation of a CAAQS;
- contribute to localized concentrations of air pollutants at nearby receptors that would exceed applicable ambient air quality standards; or
- expose sensitive receptors to excessive nuisance odors, as defined under SMAQMD Rule 402.

Discussion of Project Impacts

During operations, there would be very minor use of maintenance equipment for litter control, signage, access control, security, compliance enforcement, repair, rehabilitation, replacement, and removal of recreational trail facilities. Typical maintenance activities would include routine inspections, debris removal from the trail, and periodic replenishment of the decomposed granite shoulders. Typical vegetation management would include mowing, trimming, and removal of vegetation from trail surfaces. This minor level of activity would not generate emissions that would approach any SMAQMD-recommended significance thresholds.

Construction Emissions / Short-Term Impacts

Construction emissions are described as "short-term" or temporary in duration but have the potential to adversely affect air quality. Construction would result in temporary emissions of ROG, NO_X, PM_{10}, and $PM_{2.5}$. These activities would include site preparation (e.g., excavation, grading, and clearing); exhaust emissions from the use of off-road equipment, material delivery, and construction worker commutes; asphalt paving; and application of architectural coatings. Ozone precursor emissions of ROG and NO_X are associated primarily with construction equipment exhaust and the

application of architectural coatings. Dust (particulate matter) generation is dependent on soil type and soil moisture, as well as the amount of total acreage involved in clearing, grubbing, and grading activities. Clearing and earthmoving activities comprise the major source of construction dust generation, but re-entrained road dust from traffic and general disturbance of the soil also contributes to the problem. Fine particulate materials may be used during construction and stored on-site. If not stored properly, such materials could become airborne during periods of high winds. PM emissions are also generated by equipment exhaust. The effects of construction activities include increased dust fall and locally elevated levels of suspended particulates. PM_{10} and $PM_{2.5}$ are considered unhealthy because the particles are small enough to inhale and damage lung tissue, which can lead to respiratory problems.

The California Emissions Estimator Model (CalEEMod), Soft Release Version 2022, was used to model project emissions. Table IS-2 summarizes the emissions of ROG, NO_X, PM_{10}, and $PM_{2.5}$ associated with the construction of the project. Model reports showing emissions inputs and outputs, including the daily and annual emissions estimates are included in Appendix A. As there can be differences in the emissions between winter and summer, Table IS-2 shows the maximum level of emissions for pounds per day per season.

Table IS-2 Summary of Construction-Related Emissions of Criteria Air Pollutants and Precursors

Construction Year	Maximum Daily Emissions ROG (pounds per day)	Maximum Daily Emissions NOx (pounds per day)	Maximum Daily Emissions PM_{10} (pounds per day)	Maximum Daily Emissions $PM_{2.5}$ (pounds per day)	Maximum Annual Emissions PM_{10} (tons per year)	Maximum Annual Emissions $PM_{2.5}$ (tons per year)
2023	8.97	76.48	12.83	6.93	0.100	0.054
SMAQMD Significance Threshold[1]	-	85	80	82	14.6	15
Do Project Emissions Exceed SMAQMD Threshold?	-	No	No	No	No	No

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

[1] Represents SMAQMD Threshold of Significance with the application of Best Management Practices (BMPs) and Best Available Control Technology (BACT).

Data compiled by AECOM in 2022.

Due to the nonattainment status of the SVAB with respect to ozone, PM_{10}, and $PM_{2.5}$, SMAQMD recommends that all construction projects implement the SMAQMD Basic Construction Emission Control Practices (SMAQMD 2020b). SMAQMD's Basic Construction Emission Control Practices include such measures as watering the construction site twice daily, limiting vehicle speeds on unpaved roadways to 15 miles per hour, minimizing vehicle idling, covering haul trucks transporting soil, and cleaning paved roads. As shown in the above table, the project would not exceed the significance thresholds established by SMAQMD. However, without the incorporation of

SMAQMD's Basic Construction Emission Control Practices, the project's construction activities could potentially conflict with or obstruct the implementation of the SMAQMD's air quality plans for PM. Mitigation has been incorporated (Mitigation Measure A) to ensure that the project would implement the SMAQMD-required emission control practices, allowing the use of the non-zero particulate matter significance thresholds. Therefore, with the implementation of Mitigation Measure A, the construction emissions impacts are ***less than significant.***

NOISE

This section supplements the Initial Study Checklist by analyzing if the project would:

- Result in the generation of a temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established by the local general plan, noise ordinance, or applicable standards of other agencies
- Result in a substantial temporary increase in ambient noise levels in the project vicinity
- Generate excessive groundborne vibration or groundborne noise levels

EXISTING SETTING

The existing noise environment within the project area is primarily influenced by surface transportation noise emanating from vehicular traffic on distant roadways, including U Street, Elverta Road, and PFE Road. Intermittent noise from outdoor activities at the surrounding residences (e.g., people talking, operation of landscaping equipment, car doors slamming, and dogs barking), also influence the existing noise environment.

An ambient noise survey was conducted in the vicinity of the project site from September 21 to September 22, 2022. The purpose of the survey was to establish existing noise conditions. Ambient noise measurements were conducted near existing noise-sensitive uses at various locations within the project area. The results of the noise survey are shown in Table IS-3.

Table IS-3 Summary of Ambient Noise Level Survey Results in the Vicinity of the Project Site

Site	Location	Date	Time	Duration	L_{eq} Daytime 7 a.m.– 7 p.m	L_{max} Daytime 7 a.m.– 7 p.m	L_{eq} Daytime 7 a.m.– 7 p.m	L_{max} Daytime 7 a.m.– 7 p.m	L_{dn} 7 a.m.– 7 p.m.
LT-1	Near 6433 Cherry Lane	September 21/22, 2022	19:00	24 Hour	59.0	82.1	53.5	75.1	61.3
LT-2	Along Dry Creek Bikeway, southeast of Q Street and 16th Street	September 21/22, 2022	20:00	24 Hour	50.8	68.9	47.5	63.3	54.5
LT-3	Cherry Island Sports Park, North of Field 10, West of 28th Street	September 21/22, 2022	20:00	24 Hour	55.8	75.7	48.1	65.0	56.8
LT-4	Northbrook Park	September 22/23, 2022	13:00	24 Hour	49.2	69.0	44.4	58.0	51.9

Notes: dBA = A-weighted decibels; L_{eq} = equivalent sound level (the sound energy averaged over a continuous period of time); L_{max} = maximum instantaneous sound level; LT = Long-term measurement

Noise-level measurements were completed using a Larson Davis Laboratories (LDL) Model 824 precision integrating sound-level meter. The meter was calibrated before the measurements using an LDL Model CAL200 acoustical calibrator. The meter was programmed to recorded A-weighted sound levels using a "slow" response. The equipment used complies with all pertinent requirements of the American National Standards Institute for Class 1 sound-level meters (ANSI S1.4).

Source: Data compiled by AECOM in 2022

Plate IS-2 shows the locations of the ambient noise measurement sites. Four long-term (24-hour) measurements (LT-1, LT-2, LT-3, and LT-4) were conducted in the project

area by the nearest off-site noise-sensitive uses. As shown in Table IS-3, measured ambient noise levels at the noise-sensitive land uses closest to the project site range from 52 dBA to 61 dBA L_{dn}.[2]

[2] The typical human ear is not equally sensitive to all frequencies of the audible sound spectrum. As a consequence, when assessing potential noise impacts, sound is measured using an electronic filter that de-emphasizes the frequencies below 1,000) and above 5,000 Hz in a manner corresponding to the human ears decreased sensitivity to low and extremely high frequencies instead of the frequency mid-range. This method of frequency weighting is referred to as A-weighting and is expressed in units of A-weighted decibels (dBA). All noise levels reported in this section are in terms of A-weighting. There is a strong correlation between A-weighted sound levels and community response to noise.

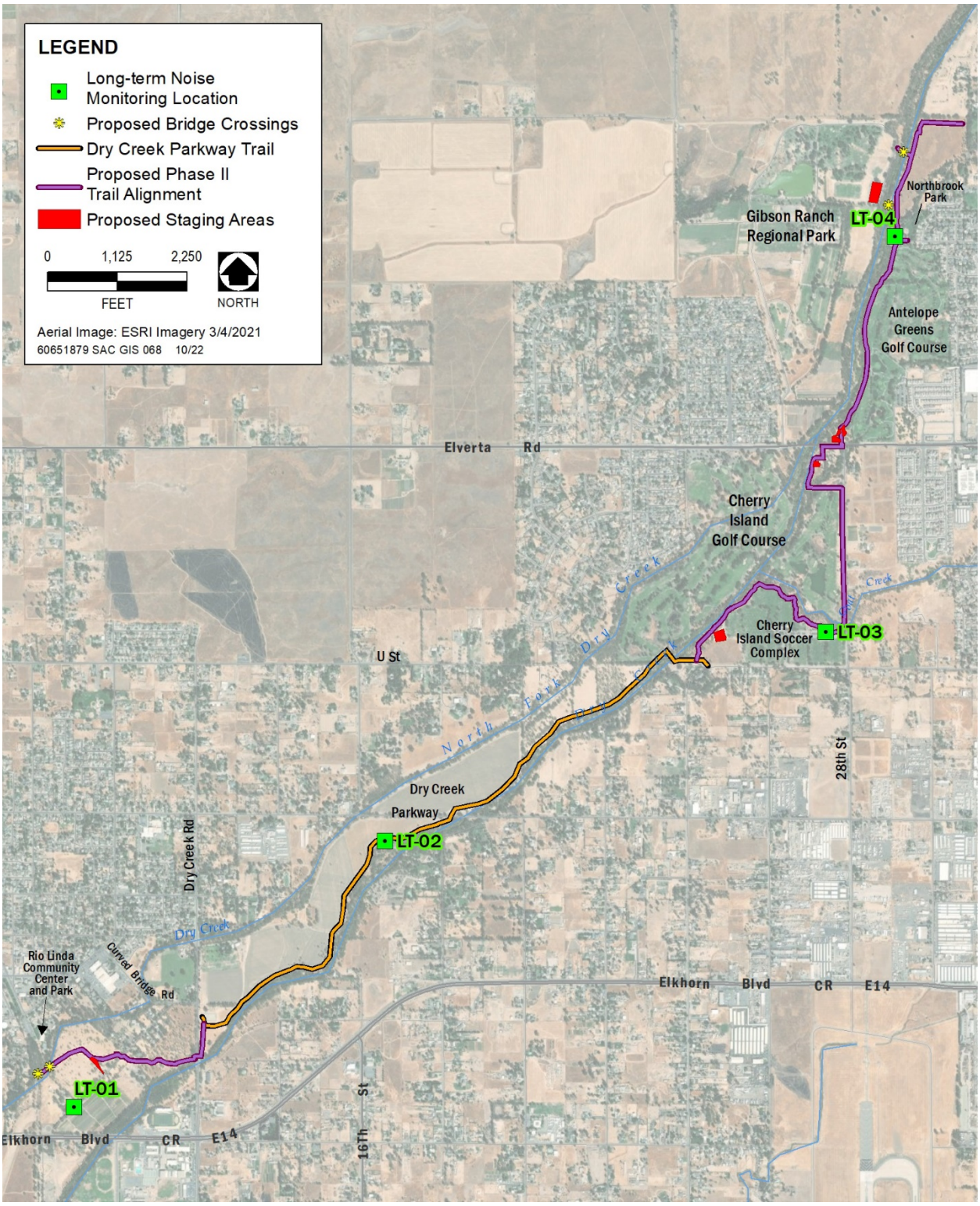


Plate IS-2 Ambient Noise Survey

Discussion of Project Impacts

Short-Term Project-Generated Construction Source Noise

Construction noise levels would fluctuate depending on the type, number, and duration of use for the various pieces of equipment. The effects of construction noise largely depend on the type of construction activities occurring on any given day, noise levels generated by those activities, distances to noise-sensitive receptors, and the existing ambient noise environment in the receptor's vicinity. Construction generally occurs in several discrete stages, with each stage requiring different equipment that has varied noise characteristics.

Construction equipment can be either mobile or stationary. Mobile equipment (e.g., loaders, graders, dozers) moves around a construction site performing tasks in a recurring manner. Stationary equipment (e.g., air compressor, generator, concrete saw) operates in a given location for an extended period of time to perform continuous or periodic operations. Thus, determining the location of stationary sources during specific phases, or the effective acoustical center of operations for mobile equipment, during various phases of the construction process is necessary. The primary sources of noise would likely include the equipment shown in Table IS-4.

Table IS-4 Construction Equipment

Construction Phase – Equipment Used	Noise Level, L_{max}, dBA	Noise Level, L_{eq}, dBA
Grubbing\Land Clearing – Concrete Industrial Saw	90	83
Grubbing\Land Clearing – Excavators	81	77
Grubbing\Land Clearing – Generator Sets	81	78
Grubbing\Land Clearing – Rubber Tired Dozers	82	78
Grubbing\Land Clearing – Scrapers	84	80
Grubbing\Land Clearing – Tractors/Loaders/Backhoes	84	80
Grading Excavation – Bore/Drill Rigs	84	77
Grading Excavation – Cement and Mortar Mixers	79	75
Grading Excavation – Concrete/Industrial Saws	90	83
Grading Excavation – Excavators	81	77
Grading Excavation – Forklifts	75	68
Grading Excavation – Generator Sets	81	78
Grading Excavation – Graders	85	81
Grading Excavation – Rollers	80	73
Grading Excavation – Rubber Tired Loaders	79	75
Grading Excavation – Scrapers	84	80
Grading Excavation – Tractors/Loaders/Backhoes	84	80
Grading Excavation – Trenchers	80	77
Grading Excavation – Welders	74	70
Drainage\Subgrade – Graders	85	81

Construction Phase – Equipment Used	Noise Level, L_{max}, dBA	Noise Level, L_{eq}, dBA
Grading Excavation – Plate Compactors	83	76
Grading Excavation – Scrapers	84	80
Grading Excavation – Tractors/Loaders/Backhoes	84	80
Grading Excavation – Trenchers	80	77
Paving – Cement and Mortar Mixers	79	75
Paving – Concrete/Industrial Saws	90	83
Paving – Cranes	81	73
Paving – Generator Sets	81	78
Paving – Pavers	77	74
Paving – Paving Equipment	77	74
Paving – Pumps	81	78
Paving – Rollers	80	73
Paving – Sweepers/Scrubbers	82	72
Paving – Tractors/Loaders/Backhoes	84	80

Notes: dBA = A-weighted decibels; L_{eq} = equivalent sound level (the sound energy averaged over a continuous period of time); L_{max} = maximum instantaneous sound level.

Source: Data compiled by AECOM in 2022

As shown in Table IS-4, project-related construction activities would generate noise levels ranging from 68 to 83 decibel (dB) L_{eq} at a distance of 50 feet from the equipment. Accounting for the use factor of individual pieces of equipment, continuous and combined noise levels generated by the simultaneous operation of the loudest pieces of equipment would result in noise levels of 86 to 89 dB L_{eq} at 50 feet. The nearest off-site noise-sensitive land uses in the vicinity of the proposed project site are single-family residences located approximately 100 feet from the project site. Noise from localized point sources (such as construction sites) typically decreases by 7.5 dB (on the soft or unpaved ground) with each doubling of distance from the source to the receptor. Assuming an attenuation rate of 7.5 dB per doubling of distance, construction would generate exterior hourly noise levels of 79 to 82 dB L_{eq} at the nearest sensitive receptors located 100 feet from the project site.

Policy NO-6 of the County Noise Element (Sacramento County 2017) states that where a project would consist of or include non-transportation noise sources, the noise generation of those sources shall be mitigated so as not to exceed the interior and exterior noise level standards of 55 dBA L_{eq} and 75 dBA L_{max} at existing noise-sensitive areas in the project vicinity. The project-related construction noise level of up to 82 dB L_{eq} at the nearest off-site sensitive receptors of the proposed project site would exceed the thresholds established by the County. However, the County's Noise Ordinance exempts daytime construction noise from applicable standards.

The Sacramento County Code Noise Control Ordinance contains performance standards to prevent unnecessary, excessive, and offensive noise levels within the county. Section 6.68.090 of the Sacramento County Code establishes that noise associated with construction, repair, remodeling, demolition, paving, or grading is

exempt from the Noise Ordinance, provided said activities do not take place between the hours of 8:00 p.m. and 6:00 a.m. on weekdays and Friday commencing at 8:00 p.m. through and including 7:00 a.m. on Saturday; Saturdays commencing at 8:00 p.m. through and including 7:00 a.m. on the next following Sunday, and on each Sunday after the hour of 8:00 p.m.

Noise from permitted construction activities that do not occur during the more noise-sensitive hours (e.g., evening, nighttime, and early morning) would be exempt from daytime noise standards, given that construction equipment is fitted with feasible noise control devices.

Construction could expose existing off-site sensitive receptors to equipment noise levels that result in a substantial temporary increase in ambient noise levels. As indicated in Table IS-3, average daytime hourly noise levels at the project site and in the vicinity ranged from 49.2 dB to 59.0 dB L_{eq}. Therefore, the project-related construction noise level of up to 82 dB L_{eq} from project construction activities would result in a substantial temporary increase above the measured ambient noise levels at nearby noise-sensitive land uses. As a result, the construction-generated noise would be considered a **potentially significant impact**.

Implementation of Mitigation Measure B would include the use of noise-suppression devices that would provide at least a 3-dB reduction in noise. The level of noise reduction from shielding the impact tools and all intake and exhaust ports on power equipment will depend on the distance between the equipment and the noise receiver, but a 3-dB reduction would be a reasonable minimum reduction in noise to assume. With the implementation of this mitigation, construction noise would reduce to ambient levels at approximately 500 feet with the distance reduction. Residences or other noise-sensitive land uses within 500 feet of construction sites would be notified of the construction activity in writing prior to the beginning of construction. The estimated construction noise level of up to 82 dB at 100 feet, is based on a conservative assumption of all equipment operating at the same location and at the same time. However, not all equipment would operate at the same time. A more realistic scenario would involve simultaneous use of approximately 50 percent of the equipment, which would reduce the maximum construction noise level by 3 dB compared to that conservatively reported in this assessment. Another 3 dB would be reduced by assuming the interior use locations would be another 50 feet away from the construction activities. The resulting noise would at the nearest-noise sensitive uses would reduce to 70 dB. Assuming a 25-dB reduction by the walls and ceilings with windows and doors closed (70-25=45 dB). Also, Mitigation Measure B limits construction activity to less noise-sensitive hours that conform to the County Noise Ordinance, includes noise-reducing measures, limits idling[3], and designates a construction liaison that would reduce the short-term construction noise levels. Therefore, this impact is considered **less than significant**.

[3] Idling noise levels would be 5- to 12-dB lower than the operating equipment noise level and would depend on equipment type (Occupational Safety and Health Research Institute [OSHRI] 2017).

Groundborne Vibration

Construction activities have the potential to result in varying degrees of temporary groundborne vibration, depending on the specific construction equipment used and the operations involved. Vibration generated by construction equipment spreads through the ground and diminishes in magnitude with increases in distance.

As discussed above, on-site construction equipment could include scrapers, dozers, loaders, and motor graders. According to Federal Transit Administration (FTA 2018), the vibration level associated with the use of a large dozer is 0.089 inches per second (in/sec) peak particle velocity (PPV) and 87 vibration decibels [VdB referenced to 1 micro inch per second (µin/sec) and based on the root mean square (RMS) velocity amplitude] at 25 feet.

Using FTA's recommended procedure for applying a propagation adjustment to these reference levels, predicted worst-case vibration levels of approximately 0.031 in/sec PPV and 78 VdB at the closest existing sensitive receptor could occur. These vibration levels would not exceed Caltrans's recommended standard of 0.2 in/sec PPV (California Department of Transportation 2013) with respect to the prevention of structural damage for normal buildings or the FTA's maximum-acceptable vibration standard of 80 VdB (Federal Transit Administration 2018) with respect to human annoyance for residential uses.

The long-term operation of the project would not include any vibration sources, and short-term construction would not result in the exposure of persons or structures to or generation of excessive groundborne vibration or groundborne noise levels. As a result, this impact would be **less than significant**.

TRANSPORTATION

This section supplements the Initial Study Checklist by analyzing if the project would:

- Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)
- Conflict with or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b) – measuring transportation impacts individually or cumulatively, using vehicle miles traveled standard established by the County
- Result in a substantial adverse impact on public safety on area roadways
- Result in a substantial adverse impact to access and/or circulation

EXISTING SETTING

Roadways in the vicinity of the project area include Dry Creek Road and Cherry Lane, U Street, 28th Street, Elverta Road, PFE Road, Watt Avenue, and existing unpaved maintenance roads.

DISCUSSION OF PROJECT IMPACTS

Access to the project site from the south would be via Dry Creek Road and Cherry Lane and to the north via U Street, 28th Street, Elverta Road, PFE Road, and Watt Avenue. The use of the maintenance roads could potentially conflict with Regional Parks maintenance vehicles, emergency vehicles, and pedestrians/equestrians. In order to reduce potential conflicts within the project area, the contractor will prepare a traffic control plan and submit it to Regional Parks for their review and approval. The plan should include the following elements: identification of temporary closure of trails and/or maintenance roads; signage; and limit vehicle speed to 15 miles per hour.

During equipment mobilization and demobilization, the larger pieces of equipment may cause delays on local roadways, but these delays would be temporary. The use of haul trucks may also cause temporary delays in residential traffic. In order to secure an encroachment permit, a traffic control plan must be submitted to and approved by Sacramento Department of Transportation (SacDOT). The plan should include the following elements: travel routes along public roadways; signage; and advanced notification to residents along affected roadways.

The project would not change the availability of any transit service, nor would it interrupt service during construction. The project could add pedestrian and bicycle traffic on roadways in the immediate vicinity and on streets leading to the project site. However, the construction of the project would not conflict with adopted policies, plans, or programs supporting alternative transportation.

The project would result in temporary, short-term increases in commute trips during construction. However, temporary construction worker commute trips and truck trips associated with materials and equipment deliveries are anticipated to originate from the greater Sacramento region. The project is located and designed specifically to serve the

community directly surrounding the project site and therefore would reduce potential travel demand associated with seeking parks and recreational services at a greater distance. Therefore, the project would not conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b) – measuring transportation impacts individually or cumulatively, using vehicle miles traveled standard established by the County. In addition, as explained in the Governor's Office of Planning and Research Technical Advisory on Evaluating Transportation Impacts in CEQA, "[t]ransit and active transportation projects generally reduce vehicle miles travelled (VMT) and therefore are presumed to cause a less-than-significant impact on transportation."[4]

With respect to the adverse impact on public safety on area roadways, as discussed above, the project would be required to comply with the applicable access and circulation requirements of the Sacramento County Improvement Standards (2018). No unusual angles or other hazardous design elements would adversely impact public safety on area roadways.

With respect to adverse impact to access or circulation systems, the project would be required to comply with applicable access and circulation requirements of the Sacramento County Improvement Standards (2018). Additionally, during construction activities, heavy truck vehicles, such as haul trucks or flatbed trailers, would access the project site via U Street, Elverta Road, 28th Street, PFE Road, or Watt Avenue. No public roads would be closed during project construction.

[4] Governor's Office of Planning and Research. 2018 (December). Technical Advisory on Evaluating Transportation Impacts in CEQA, page 23. Available: https://opr.ca.gov/docs/20190122-743_Technical_Advisory.pdf. Accessed October 7, 2022.

HYDROLOGY AND WATER QUALITY

This section supplements the Initial Study Checklist by analyzing if the project would:

- Develop within a 100-year floodplain as mapped on a federal Flood Insurance Rate Map or within a local flood hazard area
- Place structures that would impede or redirect flood flows within a 100-year floodplain
- Develop in an area that is subject to 200-year urban levels of flood protection (ULOP)?
- Expose people or structures to a substantial risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam
- Create substantial sources of polluted runoff or otherwise substantially degrade ground or surface water quality

EXISTING SETTING

SURFACE WATER HYDROLOGY AND FLOODING

Dry Creek Parkway is located at the southern end of the 116-square-mile Dry Creek watershed. The headwaters of Dry Creek are located in Placer County near Penryn, Newcastle, and Granite Bay, and in Sacramento County in the Orangevale area. Tributaries to Dry Creek include Antelope Creek, Clover Valley Creek, Secret Ravine, Miner's Ravine, Strap Ravine, and Cirby Creek. Below Elverta Road, Dry Creek splits into two channels. The Main Fork is to the south and carries flows year-round (the proposed trail alignment is adjacent to the Main Fork). The North Fork, which is several feet higher in elevation than the Main Fork, functions as an overflow channel. The flow in Dry Creek through the Parkway can vary substantially with as little as 8–30 cubic feet per second (cfs) in the driest months to approximately 16,000 cfs during the peak flow of a 100-year storm (Foothill Associates 2003). Dry Creek flows southwest into the Natomas East Main Drainage Canal (NEMDC)/Steelhead Creek, which flows south and then west, discharging into the Sacramento River immediately upstream from the confluence of the American and Sacramento Rivers.

Dry Creek Parkway receives stormwater and other runoff from the entire watershed. The lower reaches of Dry Creek and its tributaries, including the Parkway and proposed trail alignment and staging areas, have an extensive historical record of flooding, with flooding typically occurring between October and April. Most of the Parkway, including the proposed trail alignment (except the portion adjacent to 28th street), and the bridges, culverts, and staging areas, are located within a Federal Emergency Management Agency (FEMA) 100-year floodplain (Zone AE—where the base flood elevation has been determined) (FEMA 2012). In addition, all four proposed bridges, the northern trail segment from just below Elverta Road north to the Placer County line and the three staging areas around Elverta Road, and the entire southern trail segment

would be located within a FEMA Regulatory Floodway[5] (Zone AE) (FEMA 2012). Furthermore, much of the Parkway is subject to flooding in a 10-year storm event (Foothill Associates 2003). All development (i.e., any activity that will result in man-made changes to real estate), including structures, grading, fills, materials storage, paving, excavation, etc. within a special flood hazard zone (including Zone AE) must comply with the County's Floodplain Management Ordinance (SZC-2016-0023) (Sacramento County 2017). Proposed development within a special flood hazard zone requires a Floodplain Management Permit from the County Floodplain Administrator. Before a permit can be issued, a project applicant must demonstrate that the proposed development would not cause increased flood stages, increased flood velocity, or increased flows in or near a special or local flood hazard area (including Zone AE), to an extent including but not limited to an increase in base flood elevation equal or greater than 0.1 foot on upstream, downstream, or adjacent properties, and would not create hydraulic barriers to flood flows. Development of structures (such as the proposed bridges and culverts for creek trail crossings) within a Regulatory Floodway requires certification from a registered professional engineer that the proposed development would result in no increase in the base flood elevation (Sacramento County 2017).

Senate Bill (SB) 5 (2007) enacted the Central Valley Flood Protection Act of 2008 to provide additional protection for urban areas within the 200-year floodplain (0.5 percent annual exceedance probability). The Central Valley Flood Protection Board (CVFPB) is responsible for ensuring that appropriate standards are met for construction, maintenance, and protection of the flood control system within the ULOP 200-year flood zone areas. In the project area, the SB 5 requirements apply to Dry Creek (which is a CVFPB Regulated Stream) from the headwaters in Placer County to the confluence with NEMDC/Steelhead Creek in Sacramento County. In addition, the proposed southern trail segment and bridge, and the proposed northern trail segment north of Elverta Road along with both bridges in the northern segment, are within the Dry Creek CVFPB Designated Floodway (California Department of Water Resources [DWR] 2022). Projects that are located within CVFPB's Designated Floodways or within 30 feet of the bank of a Regulated Stream require a CVFPB Encroachment Permit.

Since 1992, the Sacramento Area Flood Control Agency (SAFCA) has implemented several important flood control features in the Rio Linda area. These include construction of a levee on the north side of Dry Creek downstream of Rio Linda Boulevard, and raising and strengthening the south Dry Creek levee and the NEMDC/Steelhead Creek east levee at the mouth of Dry Creek (SAFCA 2022). Other measures to address flood control in the Rio Linda area include the construction of additional detention capacity upstream of the Parkway in Placer County, and ordinances that restrict the amount of runoff associated with new development (Foothill Associates 2003).

[5] A Regulatory Floodway is the channel of a river or other watercourse and the adjacent land areas that must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than a level determined by the County Floodplain Administrator, but in no case more than 1 foot (Sacramento County 2017).

One of the purposes of the Dry Creek Parkway is to maintain or enhance the Parkway's flood conveyance capacity (Foothill Associates 2003).

SAFCA has the primary responsibility to fund, design, construct, and maintain channel and levee improvements along Dry Creek. The Sacramento County Department of Water Resources implements and enforces countywide policies related to flood management, and provides annual inspections and maintenance of Dry Creek and associated tributaries. Parkway floodplain management planning is shared by Sacramento County Department of Water Resources and SAFCA, both of whom participate in the design and review of proposed Parkway amenities and management plans to verify that Parkway implementation is consistent with their mutual flood control objectives.

SURFACE WATER QUALITY

Section 303(d) of the federal Clean Water Act (CWA) requires each state to periodically prepare a list of all surface waters in the state for which beneficial uses of the water (e.g., drinking, recreation, aquatic habitat, and agricultural use) are impaired by pollutants. Beneficial uses for waters in the project region are contained in the *Water Quality Control Plan for the Sacramento and San Joaquin River Basins* (Basin Plan), updated and adopted by the Central Valley Regional Water Quality Control Board (RWQCB) in 2018.

Section 303(d) of the CWA also requires states to identify waters where the permit standards, any other enforceable limits, or adopted water quality standards are still unattained. The law requires states to develop total maximum daily loads (TMDLs) to improve the water quality of impaired water bodies. TMDLs are the quantities of pollutants that can be safely assimilated by a water body without violating water quality standards. TMDLs are developed for impaired water bodies to maintain beneficial uses, achieve water quality objectives, and reduce the potential for future water quality degradation. National Pollutant Discharge and Elimination System (NPDES) permits for water discharges (for both construction and operation) must take into account the pollutants for which a water body is listed as impaired.

As described previously, Dry Creek discharges to NEMDC/Steelhead Creek, and then into the Sacramento River. All of these streams could receive runoff from the project and are included in the State Water Resources Control Board's (SWRCB) Section 303(d) list of impaired waterbodies (SWRCB 2021). Even if a stream is not included in the CWA Section 303(d) list, any upstream tributary to a 303(d)-listed stream could contribute pollutants to the listed segment. TMDLs have not yet been adopted for any of the impairments listed below:

- Dry Creek—Indicator bacteria.
- NEMDC/Steelhead Creek—Polychlorinated biphenyls (PCBs), mercury.
- Sacramento River from Knights Landing to the Delta—Chlordane, dichlorodiphenyltrichloroethane (DDT), dieldrin, mercury, PCBs, toxicity.

Discussion of Project Impacts

FLOODPLAIN DEVELOPMENT IMPACTS

Proposed Trail. The existing Dry Creek Parkway Trail is within the FEMA Zone AE 100-year flood hazard zone and the FEMA Regulatory Floodway, and is located along the CVFPB Regulated Stream portion of Dry Creek. Development of the proposed Dry Creek Parkway Phase II trail segments would involve installing pavement on flat ground within the FEMA Zone AE flood hazard zone and the FEMA Regulatory Floodway, similar to the existing Dry Creek Trail segments. The proposed Phase II trail segments would not cause increased flood stages or increased flood velocity, and would not create a barrier that would impede flood flows. Thus, construction and operation of the proposed Phase II trail segments would have **no impact** related to development within a floodplain.

Proposed Bridges and Culverts*.* All of the proposed bridges and culverts would be installed within the FEMA Regulatory Floodway associated with a 100-year FEMA flood hazard zone (Zone AE). Furthermore, Dry Creek is a CVFPB Regulated Stream and all of the proposed bridges would be installed within the Dry Creek CVFPB Designated Floodway (i.e., the 200-year ULOP). Finally, much of the Parkway is subject to flooding in a 10-year storm event (Foothill Associates 2003). Because hydraulic modeling has not yet been performed, the proposed bridges and culverts could impede flood flows, and could cause increased flood stages or increased flood velocity. Therefore, this impact is considered **potentially significant**.

Mitigation Measure C requires that the applicant secure all necessary regulatory permits. Implementation of Mitigation Measure C would reduce project-related impacts from installation of barriers to flood flows resulting in potentially increased flood stages and increased flood velocity, to a **less-than-significant** level because hydraulic modeling would be performed to ensure that bridges and culverts would be appropriately designed to avoid such impacts, and appropriate permits would be obtained from the County Floodplain Administrator and CVFPB. Examples of the types of terms and conditions contained in the permits that would be implemented include hydrologic and hydraulic modeling demonstrating that the proposed bridges/culverts would not impede 100- or 200-year flood flows, would not result in additional upstream or downstream flooding, and verification that the proposed bridge/culverts would be consistent with County Floodplain Administrator and CVFPB ULOP requirements. Permit terms and conditions that may be included to protect water quality from flooding include armoring the undersides of the bridge abutments with rock to prevent erosion and scour.

Proposed Staging Areas. The proposed construction staging areas would be located in a FEMA 100-year flood hazard zone and a Regulatory Floodway. Stockpiled materials and construction materials, if they entered waterways could impede flood flows, would be a significant impact.. Furthermore, construction during the winter rainy season could expose temporary stockpiling of construction materials to erosion and subsequent transport into Dry Creek and downstream waterbodies, resulting in

degradation of water quality. Therefore, this temporary construction impact is considered **potentially significant.**

Implementation of Mitigation Measure D would reduce project-related construction impacts from impedance of flood flows and risk of inundation and water quality degradation at proposed staging areas to a **less-than-significant** level because material stockpiles would not be placed in the floodplain during the winter rainy season and would not enter waterways.

WATER QUALITY IMPACTS

Proposed Trail. The County's Land Grading and Erosion Control Ordinance requires implementation of erosion and sediment control Best Management Practices (BMPs) during construction to protect receiving water quality. In addition, because the proposed project would disturb more than 1 acre of land, compliance with the SWRCB's Construction General Permit is required, including preparation and implementation of a Stormwater Pollution Prevention Plan (SWPPP) with associated BMPs that are specifically designed to reduce construction-related erosion, sedimentation, and pollutant transport. Examples of BMPs for erosion and sediment control relating to construction activities and stormwater runoff that could be implemented include mulch, re-seeding, straw wattles, check dams, sediment traps, silt fencing, sediment basins, placement of rip rap under culvert outfalls, and stabilizing construction entrances and exits.

The *Sacramento Region Stormwater Quality Design Manual* developed by the Sacramento Stormwater Quality Partnership (SSQP 2018) is currently the guiding technical design document for development and major redevelopment in the Sacramento region. Post-construction stormwater quality controls for new development require the use of control measures set forth in the Stormwater Quality Design Manual to ensure project-specific compliance with the requirements of the Sacramento Areawide NPDES Municipal Regional Stormwater Discharge (MS4) permit issued and enforced by the Central Valley RWQCB. The Stormwater Quality Design Manual includes design and maintenance criteria for on-site stormwater quality source, treatment, and runoff reduction measures, as well as measures to reduce stream changes from hydromodification.

Implementing BMPs according to the County's Grading and Erosion Control Ordinance; the SWPPP and associated BMPs designed to control erosion and downstream pollutant transport during construction; along with project design and operation based on the SSQP's Stormwater Quality Design Manual, would reduce the project's discharge of pollutants in stormwater to the maximum extent practicable, in a manner designed to achieve compliance with water quality standards and objectives, and methods to effectively prohibit non-stormwater discharges into municipal storm drain systems and watercourses. Therefore, construction and operational impacts of the proposed Phase II trail segments would be **less than significant**.

Proposed Bridges and Culverts. Construction of the proposed bridges and culverts would be completed during the dry season between May 15 and October 15, in accordance with the Dry Creek Parkway Master Plan (Foothill Associates 2003). In-

stream dewatering may be necessary during installation of the bridge abutments or culverts. For example, a cofferdam may be temporarily installed along the embankment below the ordinary high-water mark for the purpose of keeping a work area dry during the placement of abutments or culverts. While in-stream dewatering would be avoided to the extent feasible, there is a potential that it may be necessary during construction.

As described above, Dry Creek discharges to NEMDC/Steelhead Creek, and then into the Sacramento River. All of these streams could receive runoff from the proposed project and are included in the SWRCB's Section 303(d) list of impaired waterbodies (SWRCB 2021). Even if a stream is not included in the CWA Section 303(d) list, any upstream tributary to a 303(d)-listed stream (such as Goat Creek or the unnamed tributary north of Northbrook Park) could contribute pollutants to the listed segment.

As part of the proposed project, rock slope protection would be installed as necessary to avoid operational erosion and scouring around the new bridge abutments.

The use of clear-span bridges would not require installation of any structures within the channels of any waterways. However, bridge abutments would be installed in the banks on both sides of each overcrossing. Installation and removal of cofferdams associated with abutment work during the construction phase could create sediment plumes within the in-water work area, thereby creating temporary short-term increases in turbidity and degrading water quality. As discussed in the "Biological Resources" analysis below, Mitigation Measure S would be implemented for any in-water work that would be contingent upon obtaining the necessary permits in compliance with CWA Section 401 and Section 404, and Section 1602 of the California Department of Fish and Game Code. Construction would comply with all necessary permits and the conditions set forth in these permits.

Construction activities along the banks of Dry Creek and its tributaries to install new pedestrian bridge crossings and culverts could also result in water quality impacts from overland flow, including sediment transport from erosion and runoff from potential accidental spills (e.g., equipment fuel and lubricants) into adjacent waterbodies.

Impacts from construction-related degradation of water quality from in-water work associated with installation of bridges and culverts would be reduced through compliance with Section 1600 of the Fish and Game Code, which requires a Lake and Streambed Alteration Agreement that would contain measures to protect water quality (e.g., turbidity curtains). All conditions in the permit would be implemented. Impacts from construction-related degradation of water quality from overland flow and accidental spills on the land side of the proposed bridges and culverts would be reduced through preparation of a SWPPP and implementation of site-specific BMPs. Therefore, project-related water quality impacts from the proposed bridges and culverts would be **less than significant**.

Proposed Staging Areas. As described above, proposed construction staging areas would be located within a FEMA 100-year flood hazard zone, and therefore stockpiling of construction materials in the staging areas during the winter rainy season could result in on-site and off-site pollutant transport and degradation of water quality if they entered waterways.

The final selection and design of post-construction stormwater quality control measures is subject to review and approval by the County Department of Water Resources. The Plan shall include, but not be limited to, the following measures to protect water quality during construction:

1. Abandonment of the manhole facilities shall be completed during the dry season (May 15-October 1).

2. Stockpiling of construction materials, including portable equipment, vehicles and supplies, including chemicals, will be restricted to the designated construction staging areas. Staging will not occur within the floodplain basin area or any other areas deemed environmentally sensitive.

3. Erosion control measures that prevent soil or sediment from entering the river shall be emplaced, monitored for effectiveness, and maintained throughout the construction operations.

4. Refueling of construction equipment and vehicles within the 100-year floodplain shall only occur within designated, paved, bermed areas where possible spills will be readily contained.

5. If work is to occur between October 15 and May 15, truck and cement equipment wash-down will not occur within the floodplain.

6. Equipment and vehicle operated within the 100-year floodplain shall be checked and maintained daily to prevent leaks of fuels, lubricant or other fluids to the river.

7. Litter and construction debris shall be removed daily, and disposed of at an appropriate site.

Therefore, this temporary construction-related impact from the proposed staging areas would be **potentially significant.**

Mitigation Measure D would require that during the period from November 1 through April 1, loose construction materials (such as soil, mulch, sand, gravel, etc.) along with pollutants such as fuels, oils, and lubricants, shall not be stored within the 100-year flood hazard zone. Implementation of Mitigation Measure D would reduce project-related construction impacts at the proposed staging areas from risk of inundation of stockpiled construction materials entering waterways and subsequent water quality degradation to a **less-than-significant** level because material stockpiles would not be placed in the floodplain during the winter rainy season.

GEOLOGY AND SOILS – PALEONTOLOGICAL RESOURCES

This section supplements the Initial Study Checklist by analyzing if the project would:

- Directly or indirectly destroy a unique paleontological resource or site

EXISTING SETTING

GEOLOGY

The project site is located in the central Sacramento Valley. Based on a review of geologic mapping prepared by Gutierrez (2011), the proposed trail alignments and staging areas are composed of three geologic formations: engineered and compacted artificial fill, and the Pleistocene-age Modesto and Riverbank Formations.

The Modesto Formation is present along Dry Creek. The Riverbank Formation is mapped to the east of Dry Creek, underneath the engineered and compacted artificial fill materials that comprise the existing Cherry Island Golf Course and Cherry Island Sports Complex. The Riverbank Formation is also mapped to the northwest of Dry Creek, underneath the paved parking lot that would be used as a staging area in the northeast corner of Gibson Ranch Regional Park.

PALEONTOLOGICAL SENSITIVITY ASSESSMENT CRITERIA

A paleontologically sensitive geologic formation is one that is rated high for potential paleontological productivity (i.e., the recorded abundance and types of fossil specimens, and the number of previously recorded fossil sites) and is known to have produced unique, scientifically important fossils. Exposures of a specific geologic formation at any given project site are most likely to yield fossil remains representing particular species or quantities similar to those previously recorded from that geologic formation in other locations. Therefore, the paleontological sensitivity determination of a rock formation is based primarily on the types and numbers of fossils that have been previously recorded from that formation.

In its standard guidelines for assessment and mitigation of adverse impacts on paleontological resources, the Society of Vertebrate Paleontology (SVP 2010) established four categories of sensitivity for paleontological resources: high, low, no, and undetermined. Areas where fossils have been previously found are considered to have a high sensitivity and a high potential to produce fossils. Areas that are not sedimentary in origin and that have not been known to produce fossils in the past typically are considered to have low sensitivity. Areas consisting of high-grade metamorphic rocks (e.g., gneisses and schists) and plutonic igneous rocks (e.g., granites and diorites) are considered to have no sensitivity. Areas that have not had any previous paleontological resource surveys or fossil finds are considered to be of undetermined sensitivity until surveys are performed. After reconnaissance surveys, a qualified paleontologist can determine whether the area of undetermined sensitivity should be categorized as having high, low, or no sensitivity. In keeping with the SVP significance criteria, all vertebrate fossils are generally categorized as being of potentially significant scientific value.

PALEONTOLOGICAL SENSITIVITY ASSESSMENT

Table IS-5 presents the results of the paleontological sensitivity assessment based on a review of geologic maps, a literature review, and a paleontological resources records search performed at the University of California, Berkeley Museum of Paleontology (UCMP) on March 22, 2022. The results of the literature and records search indicates there are no known fossil localities within or adjacent to the project site.

Table IS-5 Paleontological Sensitivity Assessment

Formation Name and Age	Composition	Fossils	Sensitivity
Artificial Fill, Recent Holocene (last 50 years)	At the project site, artificial fill consists of soil obtained from unknown sources and excavated, graded, and compacted per standard civil engineering requirements to form a base for new development.	None. Any fossils that may have been present in the original materials would have been destroyed in the excavating and subsequent grading and compacting processes.	No
Modesto Formation, Pleistocene (lower member 29,000–42,000 years B.P.).	Lower member: well-sorted silt and fine sand, silty sand, and sandy silt. Forms alluvial terraces, and some alluvial fans and abandoned channel ridges, of streams and major rivers such as the Sacramento and American.	Fossil specimens from sediments referable to the Modesto Formation have been reported at a variety of locations throughout the Sacramento and San Joaquin Valleys, including Stockton, Tracy (along the Delta-Mendota Canal), Manteca, Modesto, and Merced. The Tranquility site in Fresno County (UCMP V-4401), has yielded more than 130 Rancholabrean-age fossils of fish, turtles, snakes, birds, moles, gophers, mice, wood rats, voles, jack rabbits, coyote, red fox, grey fox, badger, horse, camel, pronghorn antelope, elk, deer, and bison from sediments referable to the Modesto Formation.	High
Riverbank Formation, Pleistocene (130,000–450,000 years B.P.)	Weathered reddish gravel, sand, and silt comprising older alluvial fans and terraces of streams and rivers in the Sacramento Valley.	Nine recorded vertebrate fossil localities in the Sacramento area, the closest at ARCO Arena approximately 5 miles southwest of the project site. Localities have yielded remains of Rancholabrean-age mammoth, bison, camel, coyote, horse, Harlan's ground sloth, mammoth, antelope, deer, rabbit, woodrat, fish, mole, mice, squirrel, snake, and gophers, dire wolf, frog, Pacific pond turtle, and the family Anatidae (ducks, geese, and swans). There are numerous additional	High

Formation Name and Age	Composition	Fossils	Sensitivity
		vertebrate fossil localities from the Riverbank Formation and from similar unnamed Rancholabrean-age alluvial sediments in Yolo, San Joaquin, Merced, Stanislaus, Fresno, and Madera Counties.	

Note: B.P. = Before Present; UCMP = University of California, Berkeley Museum of Paleontology

Sources: Gutierrez 2011, Hilton et al. 2000, Helley and Harwood 1985, Jefferson 1991a and 1991b, Kolber 2004, Stirton 1939, UCMP 2022

Discussion of Project Impacts

The proposed temporary construction staging areas consist either of existing paved parking lots or open space covered with grasses, and no excavation activities would occur at any of the staging areas. Therefore, use of the proposed construction staging areas would have **no impact** on unique paleontological resources.

Most of the Phase II trail work would have a vertical depth of construction between 8 to 15 inches, and because the soil has been previously disturbed to this depth where the trail is proposed along 28th street, and on both sides of proposed roadway crossings, construction in these areas is unlikely to encounter native rock formations and therefore would have **no impact** on unique paleontological resources.

The remaining portions of the proposed Phase II trail in the northern segment, and all of the proposed Phase II trail in the southern segment, would be constructed in native alluvial deposits composed of the Modesto and Riverbank Formations. Furthermore, in the culverted areas of all Phase II trail locations, the depth of construction could extend to 5 feet beneath the ground surface. The estimated depth of excavation for bridge abutments would likely range from 15 to 25 feet. Therefore, excavation for the culverts and bridge abutments would also occur in the Modesto and Riverbank Formations. As stated above (Table IS-5), due to the number of vertebrate fossils that have been recovered from these formations throughout the Central Valley, these formations are considered to be of high paleontological sensitivity. Therefore, earthmoving activities associated with trail construction, and installation of culverts and bridge abutments, could result in accidental damage to and/or destruction of unique paleontological resources. Thus, this impact is considered **potentially significant.**

Mitigation Measure E would require a qualified archaeologist or paleontologist to inform all construction personnel involved with earthmoving activities regarding the possibility of encountering fossils, the appearance and types of fossils likely to be seen during construction, and proper notification procedures should fossils be encountered. Implementation of Mitigation Measure E would reduce project-related impacts on unique paleontological resources to a **less-than-significant** level because construction workers would be alerted to the possibility of encountering paleontological resources and, in the event that resources were discovered, fossil specimens would be recovered and recorded and would undergo appropriate curation.

BIOLOGICAL RESOURCES

This section supplements the Initial Study Checklist by analyzing if the project would:

- Have a substantial adverse effect on any special status species, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self- sustaining levels, or threaten to eliminate a plant or animal community
- Have a substantial adverse effect on riparian habitat or other sensitive natural communities
- Have a substantial adverse effect on streams, wetlands, or other surface waters that are protected by federal, state, or local regulations and policies
- Have a substantial adverse effect on the movement of any native resident or migratory fish or wildlife species or
- Adversely affect or result in the removal of native or landmark trees

BIOLOGICAL RESOURCE ASSESSMENT AND INVENTORY

On March 1st through March 5th of 2021, AECOM biologists carried out an arborist survey, tree inventory, and a site reconnaissance survey consisting of mapping the land cover types and aquatic resources within the northern segment of the Phase II Dry Creek Parkway Trail. On March 30th and April 1st of 2022, AECOM biologists carried out an arborist survey and site reconnaissance survey of the southern segment. These reports can be found in Appendices B and C. During these times, vegetation communities were mapped and characterized, and the biological study area was assessed for suitability of special-status species and presence of sensitive natural communities. The biological study area includes the entire alignment of the northern and southern trail segments plus 25 feet on each side of the centerline of the trail alignment.

Prior to conducting field surveys, AECOM biologists searched the California Native Plant Society Rare Plant Inventory (CNPS 2022) and California Natural Diversity Database (2022a) for records of special-status species occurring within a nine-quadrangle area containing and surrounding the biological study area (USGS 2018a-i). In addition, the biologists reviewed the California Department of Fish and Wildlife (CDFW) Special Animals List (CDFW 2022c), the U.S. Fish and Wildlife Service (USFWS) Information for Planning and Conservation project planning tool (USFWS 2021a; 2022a), and the USFWS National Wetlands Inventory (NWI) (USFWS 2021b; 2022b). In addition, in November 2023 Sacramento County PER staff requested discussion for Crotch bumble bee, pallid, and western red bat habitat for the study area. A supplemental search of the CNDDB was conducted in November 2023 (CDFW 2023) and the three additional species information was added to this Initial Study. Table IS-6.1 through Table IS-6.8 describes the species having potential to occur in the biological study area and their probability to occur on the project site. Special-status species that have been deemed as having no potential to occur or are not likely to occur within the project area are not discussed further within the body of this document.

Project Location and Setting

The project site is in the community of Rio Linda in northern Sacramento County, California. The northern segment of the trail generally runs north to south starting adjacent to the northern end of Gibson Ranch Regional Park, passing through Northbrook Park, and connecting to the existing Dry Creek trail at the southern end of Cherry Island Golf Course, near U Street. Most of the surrounding area is developed for residential and recreational use. The southern segment of the trail generally runs from east to west, beginning at the junction of Curved Bridge Road and Dry Creek Road, and ending at the point where the Dry Creek overflow channel bisects the Sacramento Northern Bike Trail. The elevation within the northern segment varies between approximately 60 feet above mean sea level (amsl) and 90 feet amsl, generally increasing from south to north along the 2.6-mile project alignment. The elevation within the southern segment varies between approximately 40 feet amsl and 90 feet amsl, generally increasing from west to east along the 0.6-mile project alignment.

Developed land cover is the most prevalent land cover type in the biological study area and is defined as areas developed by humans and that are regularly disturbed through vegetation control methods and other human activities. Valley oak woodland is the second most prevalent land cover type in the biological study area, characterized by riparian corridors along Dry Creek and Sierra/Goat Creek. This community type is generally present along the edges of the project area between developed zones or annual grasslands, and the creek drainages. The biological study area contains two perennial riverine features, Dry Creek and Sierra/Goat Creek. The Dry Creek channel parallels most of the project alignment to the west, running north to south. It is characterized by shallow-cut sandy banks generally lacking in vegetation. Sierra/Goat Creek runs east to west bordering a small portion of the project alignment to the north and east of the Cherry Island Soccer Complex. It is characterized by steep-cut vegetated banks.

Land Cover Types

The following seven vegetation communities were identified in the 24.12-acre biological study area at the time of the March 2021 and April 2022 surveys: valley oak woodland (7.23 acres), ruderal (3.32 acres), annual grassland (3.20 acres), valley oak savannah (1.35 acres), riverine (0.33 acres), riparian scrub (0.13 acre), and ornamental landscape (0.12 acre). Of the seven vegetation communities mapped in the biological study area, the only sensitive natural community is valley oak woodland (CDFW 2022b). Riparian habitat within the project site includes mapped valley oak woodland, as well as non-sensitive vegetation communities such as riparian scrub and Himalayan blackberry thickets that overlap waterways and may be subject to regulation by CDFW under Section 1602 of the California Fish and Game Code.

In the northern segment of the project, most of the trees in the biological study area are associated with oak riparian woodland habitats bordering Sierra/Goat Creek and Dry Creek in the southern and northern portions of the area surveyed, respectively. In the southern segment, most of the trees are associated with the oak riparian woodland habitats bordering Dry Creek and the Dry Creek overflow channel in the eastern and

western portions of the survey area, respectively. This riparian habitat is dominated by large, native oak trees intermixed with numerous seedling and sapling oaks in the understory, as well as a few other native riparian tree species and naturalized nonnative invasive trees.

At the time of the survey, Sierra/Goat Creek, Dry Creek, and the Dry Creek overflow channel were inundated. Plate IS-3 depicts the locations and extent of the seven vegetation communities present in the study area.

Annual Grassland

Annual grasslands and pastures account for approximately 3.19 acres of the biological study area. The annual grassland community can be best described as an *Avena* (*barbata, fatua*) Herbaceous Semi-Natural Alliance, according to the Manual of California Vegetation (CNPS 2022). This vegetation alliance typically is dominated by wild oats (*Avena barbata* and/or *Avena fatua*). The annual grassland vegetation in the biological study area is composed primarily of nonnative annual grasses, including wild oats (*Avena* spp.) (not listed [NL]), foxtail barley (*Hordeum murinum*) (Facultative Upland [FACU]), ripgut brome (*Bromus diandrus*) (NL), red brome (*Bromus madritensis* ssp. *rubens*) (Upland [UPL]), and rattail six weeks fescue (*Festuca myuros*) (NL). Forbs scattered throughout the grassland include wild radish (*Raphanus* spp.) (NL), winter vetch (*Vicia villosa* ssp. *varia*) (NL), milk thistle (*Silybium marianum*) (NL), yellow star thistle (*Centuarea solstitialis*) (NL), common fiddleneck (*Amsinckia intermedia*) (NL), and prickly lettuce (*Lactuca serriola*) (FACU).

Developed

Developed areas within the biological study area account for approximately 8.45 acres. These areas are characterized by human development which result in frequent and severe disturbance including mowing, weed-eating, herbicide application, and other human activities. Developed areas within the biological study area include mowed turf fields of the Cherry Island Soccer Complex, Northbrook Park, and the Antelope Greens Golf Course, as well as other horticultural landscape areas, walkways and other pathways, roads, road shoulders, parking areas, and transient campsites. Vegetation associated with developed areas in the biological study area consists of dandelion (*Taraxacum officinale*) (FACU), scarlet pimpernel (*Lysimachia arvensis*) (FAC), dove's-foot geranium (*Geranium mole*) (NL), white clover (*Trifolium repens*) (FACU), annual bluegrass (*Poa annua*) (FAC), willowherb (*Epilobium brachycarpum*) (FAC), fillaree (*Erodium* spp.) (FACU), bull thistle (*Cirsium vulgare*) (FACU), shepard's purse (*Capsella bursa-pastoris*) (FACU), common mouse ear chickweed (*Cerastium fontanum*) (FACU), and sweetgum (*Liquidambar styraciflua*) (Facultative [FAC]).

Valley Oak Woodland

Valley oak woodland accounts for approximately 7.26 acres within the biological study area. The valley oak woodland community can be best described as a *Quercus* Forest Alliance with intermittent to continuous canopy, according to the Manual of California Vegetation (CNPS 2022). This vegetation alliance typically is dominated by valley oak

(*Quercus lobata*) and interior live oak (*Quercus wislizeni*). In the project area, dominant species are valley oak (FACU), interior live oak (NL), and with some Oregon ash (*Fraxinus latifolia*) in the southern alignment. There is an open to continuous shrub layer of Himalayan blackberry (*Rubus armeniacus*) (FAC), Callery pear (*Pyrus calleryana*) (NL), almond (*Prunus dulcis*) (NL), black locust (*Robinia pseudoacacia*) (FACU), privet (*Ligustrum* spp.) (FACU or UPL), and some elderberry (*Sambucus nigra*) (FACU) and coffeeberry (*Frangula californica*) (FACU) shrubs. Herbaceous vegetation includes miner's lettuce (*Claytonia perfoliata*) (FAC), fennel (*Foeniculum vulgare*) (NL), mugwort (*Artemesia douglasiana*) (FAC), and white horehound (*Marrubium vulgare*) (FACU).

Valley Oak Savannah

Valley oak savannah accounts for approximately 1.35 acres within the biological study area. The valley oak savannah community can be best described as an *Avena* (*barbata, fatua*) Herbaceous Semi-Natural Alliance, according to the Manual of California Vegetation (CNPS 2022). In the biological study area, dominant species are wild oats, foxtail barley, and ripgut brome intermixed with yellow star thistle and scattered small-to-medium sized valley oak and interior live oak.

Riparian Scrub

Riparian scrub accounts for approximately 0.13 acre within the study area. In the biological study area, dominant species are naturalized nonnative tree species such as privet, almond, and Callery pear intermixed with Oregon ash (Facultative Wetland [FACW]), with an herbaceous understory vegetation community of valley sedge (*Carex barbarae*) (FAC), English plantain (*Plantago lanceolate*) (FAC), miniature lupine (*Lupinus bicolor*) (NL), scarlet pimpernel (*Lysimachia arvensis*) (FAC), miner's lettuce (FAC), and California wild rose (*Rosa californica*) (FAC). Riparian scrub in the biological study area generally does not conform to any specific vegetation alliances.

Ruderal

Ruderal areas within the biological study area account for approximately 3.32 acres. Ruderal areas within the biological study area include an area that had previously been occupied by an English walnut orchard, and is now being grazed by cattle, and other areas that have been disturbed and overgrown by non-native invasive plants. These areas are dominated by non-native grasses, milk thistle (*Silybum marianum*) (NL), wild radish (*Raphanus raphanistrum*) (NL), foxtail (*Alopecurus* spp.) (FAC, FACW, or Obligate [OBL]), wild fennel (*Nigella arvensis*) (NL), wild oats (*Avena sativa*) (UPL), and ripgut brome (NL). Ruderal vegetation in the biological study area generally does not conform to any specific vegetation alliances.

Ornamental Landscape

Some of the biological study area is planted with ornamental trees, primarily located within the Cherry Island Golf Course. Ornamental landscape areas within the biological study area account for approximately 0.12 acres. These areas are dominated by

almond trees (NL) and black locust (FACU). Ornamental vegetation in the biological study area generally does not conform to any specific vegetation alliances.

Perennial Riverine

A total of 0.15 acre of freshwater stream habitat, consisting of Sierra/Goat Creek (0.02 acre), Dry Creek (0.07 acre), and the Dry Creek overflow channel (0.06 acre) is mapped in the biological study area.

The trail alignment crosses Sierra/Goat Creek at the southeast corner of Cherry Island Golf Course via an existing crossing. The Sierra/Goat Creek channel in the biological study area is a freshwater stream that is characterized by nearly year-round hydrology, although it may occasionally dry up in summer or fall. In the biological study area, the channel bottom and banks consist of unconsolidated fines. The banks are steep, incised, and densely vegetated with grasses and forbs. Dead fish, downed branches, and trash were abundant in the portion surveyed during the 2021 and 2022 surveys.

Two bridges are planned to cross Dry Creek at the northern end of the alignment. The channel bottom and bank of Dry Creek consist of unconsolidated fines, and its banks are generally less steep compared to Sierra/Goat Creek. In the study area dominant bank vegetation included horsetail, valley sedge, and fringed willowherb. The upper banks are characterized by a Valley Oak Woodland Forest Alliance with intermittent to continuous canopy (CNPS 2022).

In addition to the two Dry Creek crossings in the northern segment of the project, two additional bridges are planned to cross the Dry Creek overflow channel near the southern extent of the trail alignment. Based on aerial imagery of photos taken between 1985 and 2020, this freshwater stream is characterized by nearly year-round hydrology. This channel diverges from Dry Creek near Elverta Road in the north and drains back into Dry Creek near Rio Linda Boulevard in the south. The vegetation community along the upper banks can be best described as *Quercus* Forest Alliance, with an understory consisting of mowed ruderal grassland (CNPS 2022).

Soils

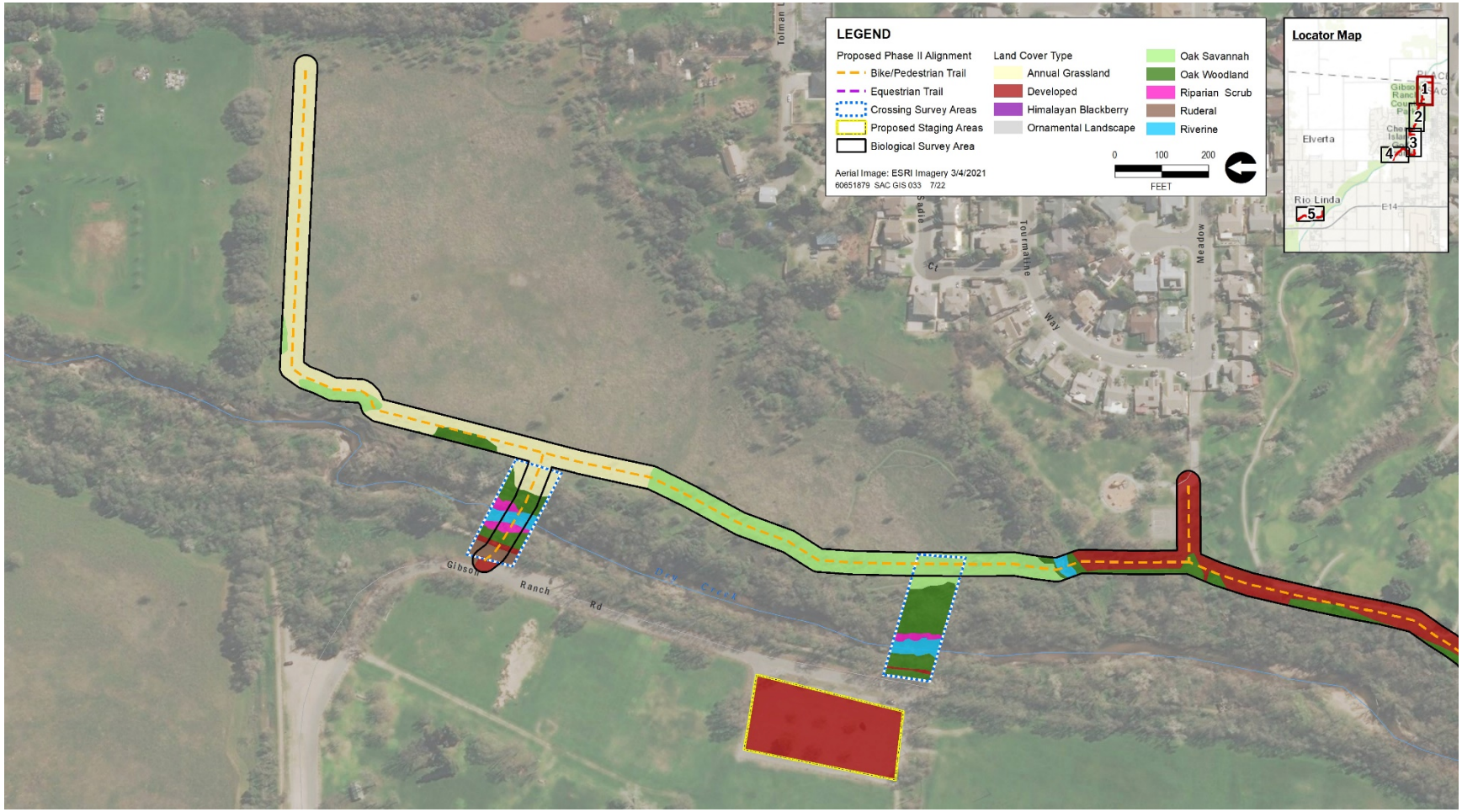
According to NRCS *Soil Survey of Sacramento County, California* as accessed through the online Web Soil Survey (NRCS 2021a), five soil map units occur in the biological study area:

- **Liveoak sandy clay loam, 0–2 % slopes soils**, occasionally flooded soils are derived from granite, moderately well drained, and have negligible to low runoff and moderate permeability. Liveoak soils are on low alluvial terraces and distributary channels and are occasionally susceptible to flooding.
- **Fiddyment fine sandy loam, 1–8% slopes soils** are well drained and have slow to medium runoff and very slow permeability. The parent material of the major soil component is residuum derived by sedimentary rock. Fiddyment soils are well drained and have slow to medium runoff and very slow permeability.
- **Reiff fine sandy loam, 0–2 % slopes, occasionally flooded soils** are well

drained and have very slow to slow runoff and moderately rapid permeability. Reiff soils are on floodplains and alluvial fans. The parent material of the major soil component is alluvium.

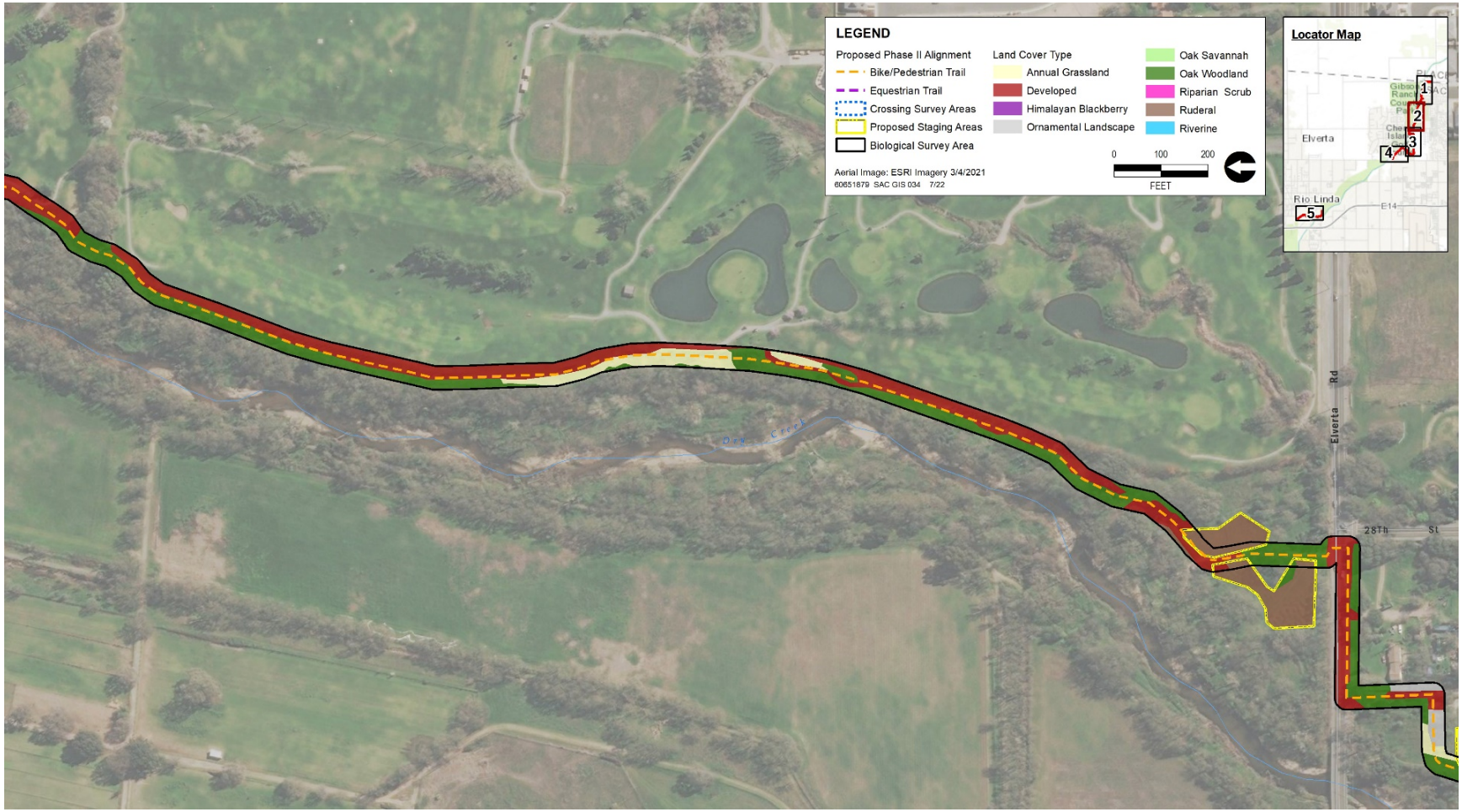
- **Xerofluvents, 0–2 % slopes, flooded soils** are somewhat excessively well drained and have very slow to slow runoff and moderately rapid permeability. The parent material of the major soil component is alluvium. Xerofluvents soils are on nearly level to channeled floodplains and recent alluvial fans.
- **Xerarents-San Joaquin complex soils** are well drained and have very slow to slow runoff and moderately rapid permeability. The parent material of the major soil component is alluvium derived from granite. Xerarents soils are on nearly level to channeled floodplains and recent alluvial fans.

Plate IS-3 Habitat Map



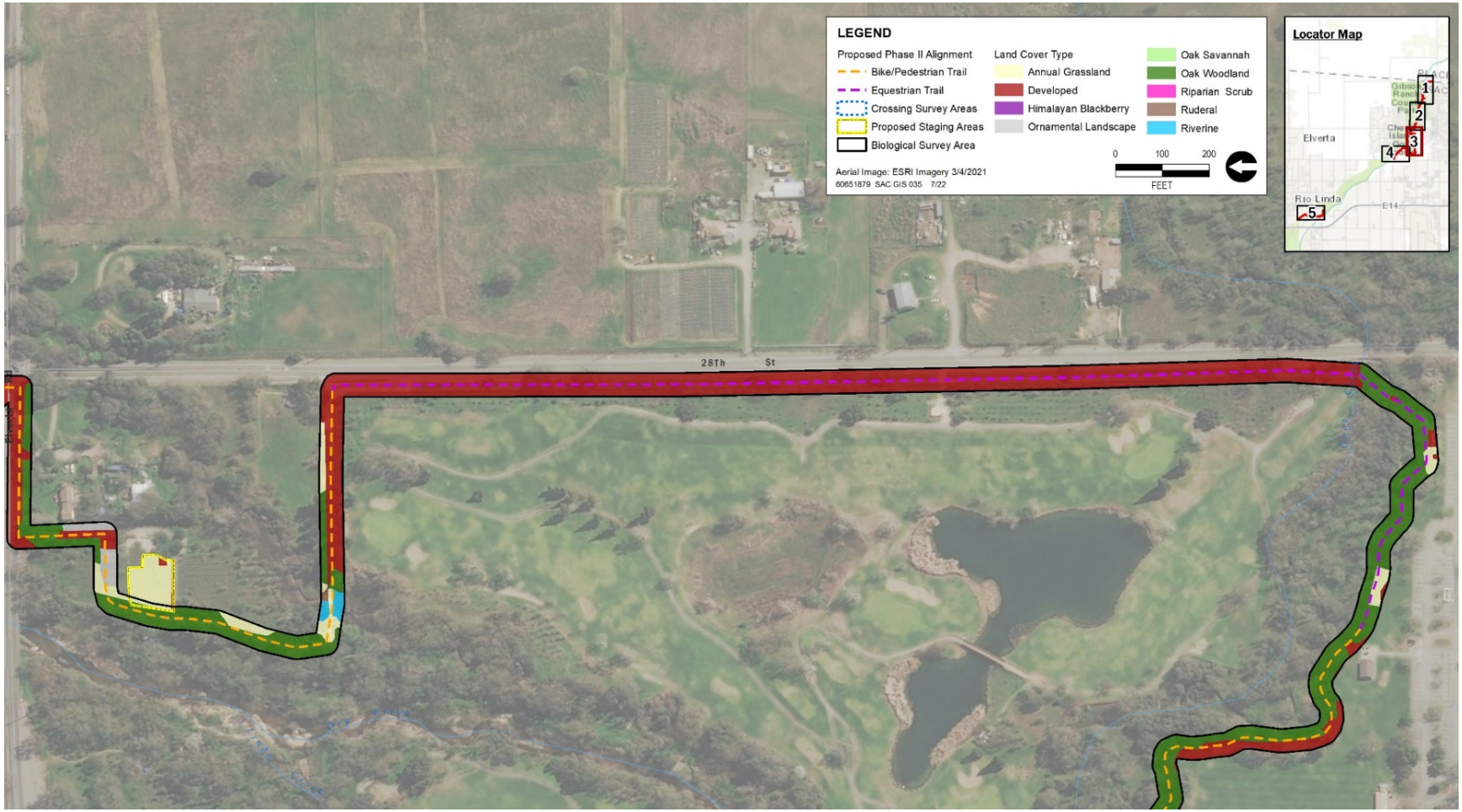
Source: AECOM 2022

Habitat Map (1 of 5)



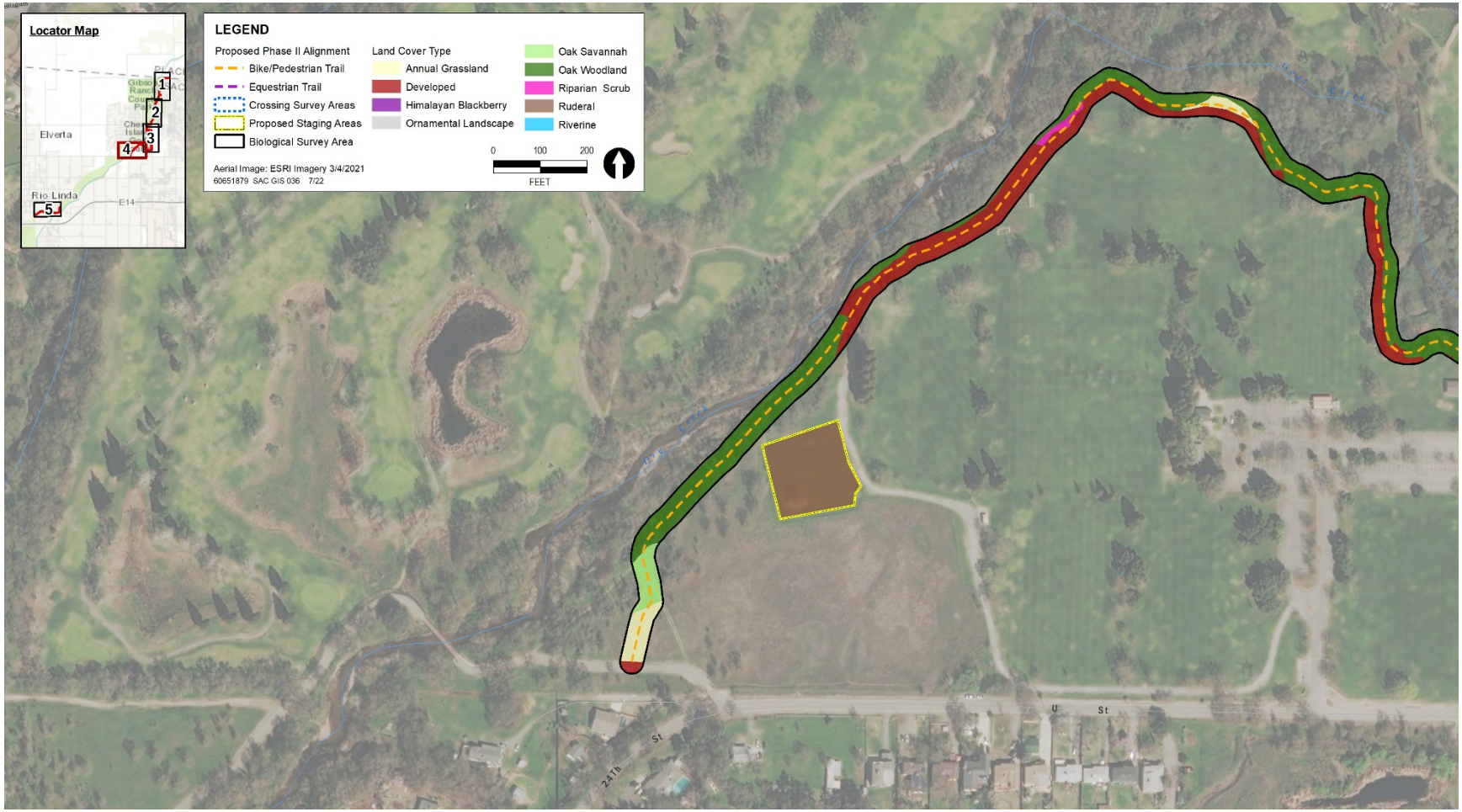
Source: AECOM 2022

Habitat Map (Map 2 of 5)



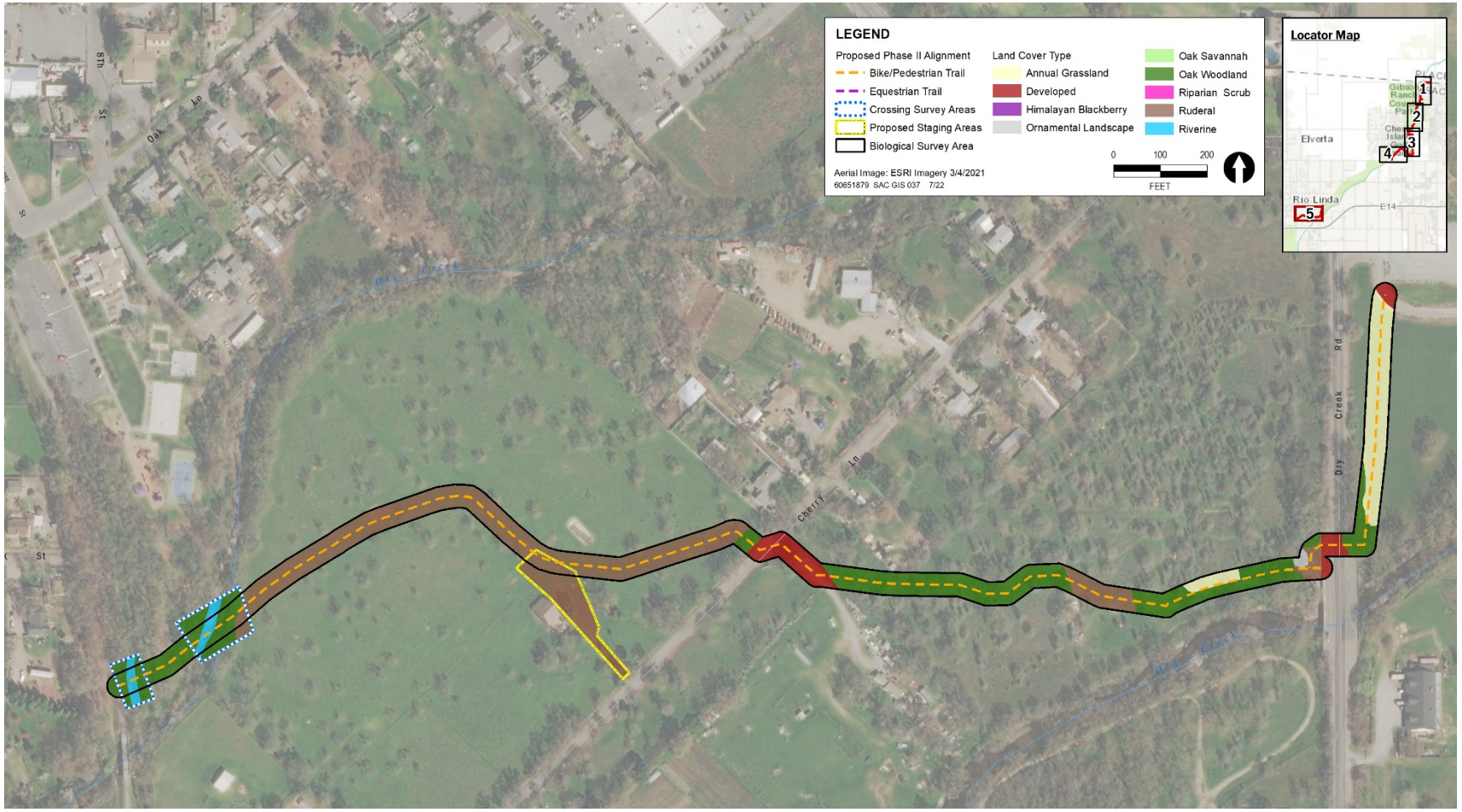
Source: AECOM 2022

Habitat Map (Map 3 of 5)



Source: AECOM 2022

Habitat Map (Map 4 of 5)



Source: AECOM 2022

Habitat Map (Map 5 of 5)

Special-Status Plants and Wildlife

Table IS-6.1 through Table IS-6.8 provides a list of the special-status species that have been documented in the database searches and describes their regulatory status, habitat, and potential for occurrence on the project site. Vegetation communities in the study area were characterized and evaluated for their potential to support the special-status species identified during the database research. Every plant that was encountered in the biological study area was identified to the taxonomic level necessary to determine whether it was a special-status species. The Special Status Species Report can be found in Appendix D.

Special Status Plants

The project site contains suitable habitat for one species of special status plant, Sanford's arrowhead (*Sagittaria sanfordii*). This species is present in the project area; it was observed growing in Sierra Creek during a site survey conducted on August 13, 2020. All other special-status plant species listed in Table IS-6.1 through Table IS-6.8 were determined to have no potential to occur or are unlikely to occur because the biological study area is outside the species' range or suitable habitat for the species is absent from the biological study area and adjacent areas.

Sanford's Arrowhead

Sanford's arrowhead is designated as a California Rare Plant Rank (CRPR) 1B.2 species; however, it is not listed under the federal Endangered Species Act or the California Endangered Species Act. This species is a rhizomatous herbaceous perennial that occurs in shallow slow-moving water, usually in marshes and swamps. Sanford's arrowhead blooms from May through October and is known to occur at elevations ranging from sea level to 2,133 feet amsl. Sanford's arrowhead is endemic to California; the current range of this species includes Butte, Del Norte, El Dorado, Fresno, Merced, Mariposa, Marin, Napa, Orange, Placer, Sacramento, San Bernardino, Shasta, San Joaquin, Solano, Tehama, Tulare, Ventura, and Yuba counties.

The portions of the trail alignment and bridge crossings that cross Sierra/Goat Creek, Dry Creek, the Dry Creek overflow channel, ditches, and intermittent drainages may provide marginally suitable habitat for Sanford's arrowhead, which is known to occur within the project area. In 2020, 200 plants were observed in 4 scattered populations in an approximately 0.8-mile stretch of Sierra/Goat Creek, beginning near the intersection of Watt Avenue and Delaney Drive, and ending near the point where the proposed Dry Creek Parkway alignment crosses Sierra/Goat Creek (CDFW 2022a).

Discussion of Project Impacts – Sanford's Arrowhead

Most of the project components would be constructed on terrestrial land cover types where there is no potential to support Sanford's arrowhead or other special-status plant species. Where bridges are proposed to cross Dry Creek, Sierra/Goat Creek, and the trail alignment is proposed to run through or adjacent to ditches and intermittent drainages, indirect impacts on Sanford's arrowhead could occur. The project could involve in-water work, thereby potentially directly impacting this species through

removal, crushing, or trampling. Indirect impacts related to project construction could include reduced plant vigor from potential construction-generated dust (e.g., site preparation, grading) or shading of Sanford's arrowhead if bridges are placed directly above existing populations. Other potential indirect impacts include habitat degradation associated with runoff of sediment and contaminants (e.g., oil, grease, concrete) or accidental spills from equipment into Sierra/Goat Creek that could support special-status plant species.

Implementation of Mitigation Measure F would avoid and minimize potential project impacts on Sanford's arrowhead by requiring surveys to map the extent of Sanford's arrowhead in Sierra/Goat Creek to inform the final location of pedestrian bridge crossings to avoid shading populations of Sanford's arrowhead. Mitigation Measure F would also require surveys of Sanford's arrowhead to evaluate the presence of this species within Dry Creek, the Dry Creek overflow channel, ditches, and intermittent drainages within the project area. Other indirect impacts to Sanford's arrowhead would be mitigated through implementation of measures to protect Sierra/Goat Creek, Dry Creek, and the Dry Creek overflow channel water quality as described in the *Hydrology and Water Quality* section. Furthermore, Sacramento County Regional Parks would require contractors to implement BMPs to minimize short term air quality impacts associated with construction, as described in the *Air Quality* section. Therefore, indirect impacts related to construction of pedestrian bridges, erosion, and fugitive dust on special-status plants would be ***less than significant***.

SPECIAL STATUS WILDLIFE

The project site contains suitable habitat for 10 species of special status wildlife, including one reptile (western pond turtle [*Emys marmorata*]), one fish (central valley DPS steelhead [*Oncorhynchus mykiss irideus* pop. 11]), two invertebrates (Crotch bumble bee [*Bombus crotchii*]), (valley elderberry longhorn beetle [*Desmocerus californicus dimorphus*]), four birds (Cooper's hawk [*Accipiter cooperii*], Swainson's hawk [*Buteo swainsoni*], white-tailed kite [*Elanus leucurus*], and tricolored blackbird [*Agelaius tricolor*]) and two mammal (Pallid bat (*Antrozous pallidus*) and Western red bat (*Lasiurus blossevillii)*. In addition, the project site provides suitable habitat for nesting migratory birds protected by the Federal Migratory Bird Treaty Act.

WESTERN POND TURTLE

Western pond turtle is a CDFW species of special concern. The range of western pond turtle extends from southern Washington to the southern extent of California. There is also an introduced population in Nevada. They are found in rivers, streams, creeks, ponds, marshes, irrigation ditches, damp woodland and forest, and grassland. The turtles require logs, rocks, vegetation mats, or exposed banks to bask in the sun. Mating occurs in April and May and females lay their eggs between April and August in upland habitat within 1,300 feet of aquatic habitat. Their diet consists of aquatic plants, invertebrates, worms, frog and salamander eggs and larvae, crayfish, carrion, and occasionally frogs and fish (CalHerps 2020). A single occurrence of this species was documented within 3 miles of biological study area in 1995 along Don Julio Creek at the intersection of Main Avenue and Raley Boulevard, McClellan Air Force Base (CDFW

2022a). The area surrounding the observation was described as an annual grassland with numerous vernal pools.

Dry Creek, Sierra/Goat Creek, and associated sandy uplands may provide marginally suitable habitat for western pond turtle. At the time of the survey, conditions within Dry Creek were generally poor and there was evidence of continuous impacts by human activity. Areas surveyed in 2022 at Gibson Ranch Regional Park contained marginal to suitable habitat for western pond turtle along Dry Creek; however, the species is not expected to thrive within the biological study area due to highly variable flow and lack of water during summer months.

DISCUSSION OF PROJECT IMPACTS – WESTERN POND TURTLE

Potential direct impacts include crushing or trampling of western pond turtle individuals or nests in upland areas within 1,300 feet of Sierra Creek. Indirect impacts on western pond turtle include aquatic habitat degradation associated with runoff of sediment and contaminants and construction and operation related noise impacts. Noise and vibration generated from construction activities could interfere with hatching or mating calls, as well as contribute to an overall increase in stress resulting in a degradation in overall health and reproduction.

Construction of this project would be completed between May 15 and October 15, in compliance with the Dry Creek Master Plan. Dewatering may be necessary during installation of the bridge abutments or culverts. For example, a cofferdam may be temporarily installed along the embankment below the ordinary high-water mark for the purpose of keeping a work area dry during the placement of abutments or culverts. While dewatering may not be necessary during installation of the bridge abutments or culverts, and will be avoided to the extent feasible, this analysis conservatively assumes dewatering a possibility for construction. Dewatering aquatic habitat could negatively affect western pond turtles by reducing or eliminating foraging habitat for turtles, interfering with thermoregulation, and increasing the risk of predation and mortality during overland movement by turtles in search of suitable aquatic habitat outside of dewatered maintenance areas.

Implementation of Mitigation Measure G would avoid and minimize potential project impacts on western pond turtle by avoiding the western pond turtle nesting period, and by implementing avoidance measures based on information from pre-construction surveys. Indirect impacts on western pond turtle would be mitigated through implementation of measures to protect Dry Creek and Sierra/Goat Creek water quality, as described in the *Hydrology and Water Quality* section. Furthermore, Sacramento County Regional Parks would require contractors to implement BMPs to minimize short term air quality impacts associated with construction, as described in the *Air Quality* section. Therefore, indirect impacts on western pond turtle related to construction of pedestrian bridges, erosion, and fugitive dust would be ***less than significant***.

CENTRAL VALLEY DPS STEELHEAD

Central Valley DPS steelhead (pop.11) is listed as threatened under the Environmental Species Act (ESA). The range of this population of steelhead includes the Sacramento

and San Joaquin rivers and their tributaries. They are found in cool, clear streams with abundant cover and well-vegetated banks, with relatively stable flows. This species requires pool and riffle complexes and cold, gravelly streambeds for spawning. Spawning begins in late December and can extend into April. The species has been documented in Dry Creek, approximately 8 miles north of the study area (CDFW 2022a). Dry Creek may serve as a migratory corridor but is likely too degraded to support spawning.

DISCUSSION OF PROJECT IMPACTS – CENTRAL VALLEY DPS STEELHEAD

The use of clear-span bridges avoids the need for placing supportive structures within the channel of the stream thereby avoiding any permanent loss of fish habitat or alteration of natural channel processes. The installation of clear-span bridges may require the removal of riparian vegetation occurring adjacent to the waterways. Riparian vegetation generally provides shade and cover for spawning and food production; however, the waterways present within the project area are too disturbed to support spawning and are likely only used as migratory corridors. Thus, impacts to migratory and spawning habitat as a result of riparian vegetation removal are ***less than significant***.

Stormwater run-off and the use of machinery can introduce deleterious substances to the water body and result in erosion and sedimentation, which could reduce the quality of the aquatic habitat used for this species migration. With the implementation of the mitigation measures discussed in the *Hydrology and Water Quality* section, impacts to this species' habitat will be ***less than significant***.

Dewatering during construction would have a potentially significant impact on this species of fish. Dewatering would only need to occur for the installation of the abutments, dewatering would be restricted to the margins of the stream but will only reduce the amount of stream available for fish passage, not remove it entirely. Fish passage may be temporarily restricted during construction of the bridge abutments. During dewatering, aquatic habitat for special status fish would be temporarily lost; special status fish could be exposed to increased predation and reduced water quality (e.g., increased turbidity and temperatures), and temporary barriers to fish passage may result. During cofferdam installation and removal, there is also potential for fish to be harmed if they get caught underneath the structure. Mitigation Measure O would require that before conducting maintenance that requires dewatering the channel and potentially stranding special-status fishes, a specific fish rescue plan will be developed, and CDFW and/or NMFS will be consulted prior to the start of the project. With implementation of Mitigation Measure O, impacts to fish species due to dewatering are considered ***less than significant***.

CROTCH BUMBLE BEE

Crotch bumble bee is a candidate for listing as endangered by the state of California. This species has a relatively limited distribution, occurring primarily in California and northern Baja California, Mexico. Although now absent from much of its historical range,

in California, Crotch bumble bee occurred on the Pacific Coast and in the western desert, Central Valley, and adjacent foothills (Williams et al. 2014:114–116, 132).

Crotch bumble bee inhabits open grasslands and scrub habitats commonly associated with the plants in Asclepiadaceae, Compositae (Asteraceae), Hydrophyllaceae, Labiatae (Laminaceae) and Leguminosae (Fabaceae). Crotch bumble bee is a generalist forager that feeds on a variety of widely distributed plant genera including *Antirrhinum, Asclepias, Phacelia, Chaenactis, Clarkia, Dendromecon, Eriogonum, Eschscholzia, Lupinus, Medicago,* and *Salvia* (Koch et al. 2012:82, Williams et al. 2014:132). These floral associations and suitable overwintering habitat can be found in most landcover types of the biological study area, however; valley oak woodland, annual grassland, valley oak savannah, and riparian scrub are most suitable. The nearest CNDDB sighting to the biological study area was reported 14 miles south in 2020 (Occurrence #290) (CDFW 2023).

DISCUSSION OF PROJECT IMPACTS – CROTCH BUMBLE BEE

Nesting, foraging, and overwintering habitat for Crotch bumble bee exists in the biological study area. Disturbance of food and nectar resources in the nesting season and surface or subsurface disruption of the ground (i.e., tilling, mowing, grazing, and planting) and vegetation removal during nesting and overwintering may negatively impact bumble bees and have the potential to result in take. Surface or subsurface disturbance of can negatively affect bumble bee colonies in the spring or overwintering queens in leaf litter and duff (Xerces 2018).

To protect bumble bee populations, Mitigation Measure Z would require that before any soil disturbance or vegetation clearing, a preconstruction survey will be conducted to identify any bumble bee nests on site and determine avoidance. Mitigation Measure Z also provides guidance on vegetation removal and soil disturbance strategies and timing, as well as plant genera known to be Crotch bumble bee food sources to be used during restoration. With implementation of Mitigation Measure Z, impacts to bumble bee species due to surface and subsurface disturbances and vegetation removal are considered ***less than significant***.

VALLEY ELDERBERRY LONGHORN BEETLE

Valley elderberry longhorn beetle is federally listed as threatened under the ESA. This species only occurs in the Central Valley and exclusively lives on elderberry shrubs (*Sambucus* spp*.)* found in riparian areas. This beetle prefers to lay eggs in elderberry stems that are 2 to 8 inches in diameter. The biological study area contains a single relatively small patch of elderberry that could be used by valley elderberry longhorn beetle. Exit holes, which are small holes found on the stems of elderberries indicating presence of valley elderberry longhorn beetle, were not observed on the elderberries present within the project area at the time of the surveys. Additionally, no records for the taxon exist within 3 miles of the biological study area (CDFW 2022a).

DISCUSSION OF PROJECT IMPACTS – VALLEY ELDERBERRY LONGHORN BEETLE

The elderberry shrubs located in close proximity to the trail alignment are not anticipated for removal as a result of project activities. However, any unanticipated removal during vegetation clearing and grading would impact valley elderberry longhorn beetle through direct take. Valley elderberry longhorn beetle may be indirectly impacted through noise, vibration, and the accumulation of dust on elderberry foliage.

Elderberry shrubs are found within 100-feet of proposed improvements, therefore, informal consultation with the United States Fish and Wildlife Service is necessary to assess what level of indirect impacts, if any, results from the project. Any removal of elderberry shrubs will require formal consultation under Section 7 or Section 10 of the federal Endangered Species Act. Directly or indirectly impacting elderberry shrubs is considered a **significant impact**. Implementation of Mitigation Measure I, including flagging and placing protective fencing around the shrubs or by purchasing compensatory mitigation credits from a USFWS-approved bank in the unanticipated event that a protected shrub is removed or damaged as a result of the proposed project, would help to avoid and minimize effects on valley elderberry longhorn beetle and reduce impacts on this species to ***less than significant***.

SPECIAL STATUS RAPTORS AND OTHER NESTING BIRDS

SWAINSON'S HAWK

Swainson's hawk is a CDFW-threatened species. This species breeds in grasslands with scattered trees, juniper-sage flats, riparian areas, savannahs, and agricultural or ranch lands with groves or lines of trees. It requires adjacent suitable foraging areas, such as grasslands, or alfalfa or grain fields, supporting rodent populations. The two nesting records closest to the northern segment of the trail are located approximately 0.8 mile north of the northern extent of the alignment and are from 2001 and 2003 (CDFW 2022a). The nesting record closest to the southern segment is located approximately 1.6 miles south of the southern alignment along Dry Creek, and is from 2002 (CDFW 2022a). There is grassland suitable for foraging and trees suitable for nesting within the project area.

WHITE-TAILED KITE

White-tailed kite is a CDFW fully protected species. This species forages in open grasslands, meadows, or marshes and breeds in dense-topped trees that may be growing in isolation or at the edge of, or within a forest. White-tailed kite occupy coastal and valley lowlands, and cismontane regions of California. During the 2021 survey, this species was observed foraging within the grassland of Northbrook Park, immediately east of the project alignment. Dense-topped trees within the project area may be suitable nesting habitat for this species. Additionally, there are eight records of the species nesting within 3 miles of the study area, primarily located along Dry Creek and Steelhead Creek (CDFW 2022a).

COOPER'S HAWK

Cooper's hawk is a CDFW watch-list species. This species is a breeding resident throughout most of the wooded portion of the state. Cooper's hawk usually nests in deciduous riparian areas near streams or in second-growth conifer stands. It hunts in broken woodland and habitat edges where it feeds on small birds and mammals, as well as reptiles and amphibians. This species could nest and forage within the valley oak woodland present within the project area for nesting and foraging. This species was observed within the project area during the 2021 survey. There are three additional records of Cooper's hawk nesting within 10 miles of the project alignment, the closest being 6 miles south of the southern segment, near the American River.

TRICOLORED BLACKBIRD

Tricolored blackbird is a CDFW threatened species. This species is a colonial nester, and requires open water, protected nesting substrate, and a foraging area with insect prey within a few kilometers of the colony. This species has been observed within 3 miles of the project alignment. Due to the highly disturbed nature of Himalayan blackberry thickets in the biological study area, within which a large transient encampment has been constructed, and proximity of this vegetation community to the busy Elverta Road and a neighboring residence, it is unlikely that the species would nest in this section of the biological study area. However, annual grasslands and oak savannah habitats in and adjacent to the biological study area may provide suitable grounds to forage for insect prey and there is suitable habitat located within at Gibson Ranch Regional Park, which is adjacent to the project area.

BURROWING OWL

According to the CDFW life history account for the species, burrowing owl (*Athene cunicularia*) habitat can be found in annual and perennial grasslands, deserts, and arid scrublands characterized by low-growing vegetation. Burrows are the essential component of burrowing owl habitat. Both natural and artificial burrows provide protection, shelter, and nesting sites for burrowing owls. Burrowing owls typically use burrows made by fossorial mammals, such as ground squirrels or badgers, but also use human-made structures such as cement culverts; cement, asphalt, or wood debris piles; or openings beneath cement or asphalt pavement. Burrowing owls are listed as a California Species of Special Concern due to loss of breeding habitat.

Burrowing owls may use a site for breeding, wintering, foraging, and/or migration stopovers. Breeding season is generally defined as spanning February 1 to August 31 and wintering from September 1 to January 31. Occupancy of suitable burrowing owl habitat can be verified at a site by detecting a burrowing owl, its molted feathers, cast pellets, prey remains, eggshell fragments, or excrement at or near a burrow entrance. Burrowing owls exhibit high site fidelity, reusing burrows year after year.

According to the CDFW *Staff Report on Burrowing Owl Mitigation* (March 2012), surveys for burrowing owl should be conducted whenever suitable habitat is present within 500 feet of a proposed impact area; this is also consistent with *the Burrowing Owl Survey Protocol and Mitigation Guidelines* (California Burrowing Owl Consortium 1993).

Occupancy of burrowing owl habitat is confirmed whenever one burrowing owl or burrowing owl sign has been observed at a burrow within the last three years.

The CDFW *Staff Report on Burrowing Owl Mitigation* indicates that the impact assessment should address the factors which could impact owls, the type and duration of disturbance, the timing and duration of the impact, and the significance of the impacts. The assessment should also take into account existing conditions, such as the visibility and likely sensitivity of the owls in question with respect to the disturbance area and any other environmental factors which may influence the degree to which an owl may be impacted (e.g. the availability of suitable habitat).

Marginally suitable habitat exists in the study area (i.e., grasslands with small mammal burrows and mounds which could act as ground perches) and there are two records of this species within 3 miles of the southern alignment. This grassland habitat is considered only marginally suitable for this species because it is not managed or routinely grazed, and thus is comprised of medium to high grasses which are not optimal for burrowing owl burrows (Appendix D).

OTHER NESTING BIRDS

The numerous shrubs, trees, and open grassland in and adjacent to the biological study area could provide suitable nesting substrate for migratory birds, including raptors, covered by the Migratory Bird Treaty Act (MBTA). The MBTA prohibits the killing, possessing, or trading of migratory birds, and essentially all native bird species in California are covered by the MBTA. Migratory bird and raptor nests are protected further by Sections 3503 and 3503.5, respectively, of the California Fish and Game Code.

DISCUSSION OF PROJECT IMPACTS - SPECIAL STATUS RAPTORS AND OTHER NESTING BIRDS

There is a potential for nesting birds to be directly impacted through removal of vegetation containing nests, and indirectly impacted through noise and other disturbance during construction of the project. If project implementation occurs during the bird breeding season (generally February 1 through September 30), active nests may be present in vegetation slated for removal. In addition, increased disturbance may occur from noise, human presence, and grading/construction activities. Construction noise would have the potential to cause bird nest abandonment in locations adjacent to work areas. However, indirect impacts from these activities would be temporary and such impacts would end with project completion.

If construction activities would occur between February 1 and September 30, Mitigation Measure Mitigation Measures J, K, L, and M would require preconstruction surveys for nesting birds. The purpose of the survey requirement is to ensure that construction activities do not agitate or harm nesting Swainson's hawk, white-tailed kite, Cooper's hawk, tricolored blackbird, and other migratory birds, potentially resulting in nest abandonment or other harm to nesting success.

Specific mitigation measures for Swainson's Hawk, tricolored blackbird, and white-tailed kite are discussed in Mitigation Measures J, K, and L. To avoid take of other nesting

special-status raptors and migratory birds, Mitigation Measure M has been included to require that activities either occur outside of the nesting season, or to require that nests be buffered from construction activities until the nesting season is concluded. With the implementation of mitigation measures J through M, impacts to migratory birds are ***less than significant***.

DISCUSSION OF PROJECT IMPACTS – BURROWING OWLS SURVEY

Marginally suitable habitat exists in the study area for burrowing owls and there are two records of this species within 3 miles of the southern alignment. Marginally suitable grassland habitat present within the biological study area consists of annual grasslands with small mammal burrows and mounds. Burrowing owls may use a site for breeding seasons, generally defined as spanning February 1 to August 31 and wintering from September 1 to January 31. Burrowing owls exhibit high site fidelity, reusing burrows year after year.

Out of an abundance of caution, Mitigation Measure N would require that prior to the commencement of construction activities within 500 feet of suitable burrow habitat in the southern alignment, a survey for burrowing owl shall be conducted within 30 days of the date that construction will encroach within 500 feet of suitable habitat. Implementation of Mitigation Measure N will ensure that any development impact is ***less than significant*** to burrowing owls.

PALLID BAT AND WESTERN RED BAT

Both the pallid bat and the western red bat are California Species of Special Concern (SCC). The biological study area was found to have the potential to support both species. The pallid bat occurs throughout California except for the high Sierra Nevada and the northern Coast Ranges. Habitats include grasslands, shrublands, woodlands, and forests. Most common in open, dry habitats with rocky areas for roosting; roosts also include cliffs, abandoned buildings, bird boxes, and under bridges. The western red bat roost primarily in trees along edge habitats adjacent to streams, fields, or urban areas. The species can be found within either natural or human-made structures, such as caves, mines, crevices (including under bridges), hollow trees, and in abandoned or seldom-used buildings. Young are born to the species in the spring and early summer (maternity colonies typically begin to form in April, and births occur from May through early July, depending on the species). Threats to the species include loss of foraging and roosting habitat, and disruption of maternity colonies.

There is a historic CNDDB occurrence of pallid bad immediately southwest of the project site where this species was documented in 1941.There are no CNDDB occurrences for western red bat in the project site (CDFW 2023).

DISCUSSION OF PROJECT IMPACTS – PALLID BAT AND WESTERN RED BAT

The loss of suitable foraging and roosting habitat could have a significant effect on the Pallid, Western Red, and other more common bats within the survey area. Sacramento County policies and ordinances require one-to-one replacement of most large-scale grassland habitat (for the Swainson’s hawk) and for wetland habitats, which will also act

to conserve bat foraging habitat. In addition, Mitigation Measure P-Riparian Habitat Restoration, Mitigation Measure Q-Native Tree Removal, R-Native Tree Construction Protection, and Mitigation Measure S-Non-Native Tree Canopy Habitat and Streams provide additional strategies which will protect and restore the oak woodlands and riparian areas suitable for foraging. Therefore, The loss of this habitat is of less concern than would be the loss of the more specialized roosting habitat or the disruption of maternity colonies.

Construction activities and tree or vegetation removal could impact roosting bats. Disturbance of roost sites during the maternity and hibernation seasons are considered primary factors that may negatively impact bats and have the potential to result in take. During the hibernation period, bats are very slow to respond to disturbance during torpor and can lose fat stores needed to survive the winter while pups in the maternity colony may not have the ability to fly. The disturbance and removal of roost sites may have a significant adverse effect on bats. Heavy machinery on site has the potential to disturb roosting bats, if present. Therefore, implementation of Mitigation Measure AA requires pre-construction surveys by a qualified biologist prior to tree removal or pruning activities to determine bat presence. If a bat roost is located, a qualified biologist will determine appropriate measures in consultation with CDFW for avoidance, exclusion, or relocation in order to avoid potential impacts to bat species. With implementation of Mitigation Measure AA, impacts to special status bats are ***less than significant***.

Sensitive Natural Communities

California natural communities are categorized by CDFW and partner organizations, such as CNPS, based on vegetation type classification, and are ranked using the same system to assign global and state rarity ranks for plant and animal species in the California Natural Diversity Database (CNDDB). Natural communities that are ranked S1–S3 are considered sensitive natural communities by CDFW, to be addressed in the environmental review processes. Riparian habitat is defined separately in the context of Section 1600 of the California Fish and Game Code. According to guidance provided in *A Field Guide to Lake and Streambed Alteration Agreements: Section 1600 Fish and Game Code*, the outer edge of riparian vegetation is a reasonable and identifiable boundary for the lateral extent of a stream, the protection of which should result in preserving the fish and wildlife at risk within a stream or drainage, and therefore may constitute the limits of CDFW jurisdiction along waterways.

Valley oak woodland is the only community categorized as a sensitive natural community within the project area (CDFW 2022a). Valley oak woodland comprises 7.23 acres within the biological study area and is a S3 ranked sensitive natural community.

Discussion of Project Impacts - Sensitive Natural Communities

This analysis conservatively assumes that all 7.23 acres of valley oak woodland habitat mapped within the project area will be impacted by project activities. The valley oak woodland habitat that falls within the project footprint may be subject to permanent impacts (i.e., removal) and the oak woodland habitat that falls outside the project

footprint, but within the mapped project area, may contain trees with canopies and driplines that extend into the project footprint.

Some valley oak trees may need to be removed during the construction of the trail. Project-created impacts to valley oak woodland may be considered potentially significant due to changes in habitat value and species composition such as habitat fragmentation, removal of understory, alteration to drainage patterns, disruption of the canopy, and removal of a significant number of trees that would cause a break in the canopy or disruption in animal movement in and through the woodland. However, this 7.23 acres of valley oak woodland within the biological study area includes the proposed 12-foot-wide asphalt concrete trail, the 3-foot-wide decomposed granite shoulder on each side, and an additional 16-foot buffer to describe the land cover type immediately adjacent to the project area. Oak trees that fall within the 18-foot-wide trail and shoulder may be subject to removal, however, the removal of these trees would be compensated for through the implementation of Mitigation Measure Q. Mitigation Measure Q would require equivalent replacement plantings equivalent to the dbh inches lost and preparation of a Replacement Tree Planting Plan. While there will be no net loss of this sensitive natural community, habitat fragmentation may occur as a result of the removal of this habitat. Due to the already disturbed nature of this site, and the availability of higher quality habitat to the north, the impact of habitat fragmentation on species that use this is not substantial. The removal of any native oak trees will be compensated for as described in Mitigation Measure Q. After the implementation of this mitigation measure, permanent impacts to valley oak woodland will be reduced to ***less than significant***.

The oak trees that fall outside of the project footprint but within the biological study area may have canopies that extend into the footprint and require pruning during construction. These impacts will be temporary and will be guided by native tree construction protection measures designed to prevent any long-term damage. With implementation of Mitigation Measure R which requires preservation and protection of all native trees that may be impacted by the project, with the exception of the trees removed and compensated for through Mitigation Measure Q, impacts to oak woodland habitat adjacent to the project footprint is considered ***less than significant***.

Riparian habitat would be removed to accommodate for the installment of the proposed bridges and replaced with rock slope protection as necessary to avoid erosion and scouring around the bridge abutments. This will result in an impact to riparian habitat. Temporary impacts will occur around structure construction areas where heavy equipment and personnel will be operating during bridge installation. Further, the project was designed consistent with mitigation measures in the Dry Creek Parkway Recreation Master Plan Final Environmental Impact Report (EIR), including, for the riparian zone (Sacramento County 2003):

- In areas where trail placement would degrade the environment over what can reasonably be mitigated, those segments shall be eliminated or relocated.
- All pedestrian trail construction should minimize removal of riparian vegetation and utilize natural features, lateral fencing and boardwalks to discourage public access to sections of streams not directly accessed by multi-purpose trails.

- Prepare a habitat restoration plan to replace lost resources if it is not possible to avoid the loss or degradation of riparian habitat, wetlands and vernal pool areas.

The proposed project was designed to avoid degradation of the environment and loss of riparian vegetation to the greatest extent feasible. However, where impacts cannot be reasonably avoided, mitigation through riparian habitat restoration (Mitigation Measure P) is proposed. With the implementation of restoration mitigation measures, impacts related to the loss of riparian habitat are considered ***less than significant***.

Streams, Wetlands, and Other Waters

The aquatic resources delineations conducted in 2021 and 2022 resulted in eight aquatic resources mapped within the project area, consisting of three perennial riverine features, two intermittent riverine drainages, and three ditches.

Perennial riverine features in the biological study area include Sierra/Goat Creek, Dry Creek, and the Dry Creek overflow channel. All of these features were inundated at the time of the survey. Sierra/Goat Creek connects to Dry Creek in the southern portion of the northern alignment area, immediately north of the Cherry Island Soccer Complex. Dry Creek overlaps with the biological study area in the northernmost reach of the proposed alignment in two main locations: one where a bridge is proposed to be placed across Dry Creek near the northern end of Gibson Ranch Park; and the other where a portion of the eastern bank of Dry Creek cuts into the survey area north of the proposed bridge. Dry Creek also overlaps with the study area at the westernmost point of the southern alignment, immediately west of Park Rio Linda. Based on field observations and the review of aerial imagery over time, Dry Creek is connected to the Natomas East Main Drainage Canal, which is tributary to the American River, a traditional navigable water.

There are two intermittent riverine drainages in the northern portion of the study area; one that slopes from east to west near Northbrook Park and one that slopes northeast to southwest just north of the Cherry Island Golf Course. There was water present in these drainages at the time of the 2021 and 2022 surveys. Based on field observations and the review of aerial imagery over time, these drainages appear to only support intermittent flow during the wet season and they are connected to Dry Creek, which is connected to the Natomas East Main Drainage Canal, a tributary to the American River.

There are three ditches in the study area. Two of these ditches (one along 28th street and one along the western boundary of Antelope Greens Golf Course) appear to convey ephemeral/seasonal runoff, as well as landscape irrigation runoff from adjacent properties. Based on field observations and the review of aerial imagery over time, the ditches appear to only support ephemeral flow during and briefly after storm events and are generally isolated and not connected to tributaries, traditional navigable waters, or other jurisdictional waters. However, the ditch mapped in the northern portion of the study area, along the edge of the Antelope Greens Golf Course, may connect to Dry Creek, which is connected to the Natomas East Main Drainage Canal, a tributary to the American River. The third ditch is a roadside ditch that parallels the Sacramento Northern Bike Trail on the east side. This ditch likely serves to support ephemeral flow

during and briefly after storm events. Ditch 3 may connect to Dry Creek, which is connected to the Natomas East Main Drainage Canal, a tributary to the American River. A bridge is proposed for construction across this ephemeral drainage.

DISCUSSION OF PROJECT IMPACTS

As discussed, dewatering may be necessary during installation of the bridge abutments or culverts during construction. A cofferdam may be temporarily installed along the embankment below the ordinary high-water mark for the purpose of keeping a work area dry during the placement of abutments or culverts. Installation and removal of cofferdams could create temporary short-term increases in turbidity with the creation of sediment plumes within the in-water work area, thus adversely impacting water quality. Mitigation Measure T would be implemented to ensure any in-water work would be contingent upon obtaining the necessary permits in compliance with Section 401 and Section 404 of the Clean Water Act, and Section 1602 of the Fish and Game Code. Construction would comply with all necessary permits and the conditions set forth in these permits.

Activities along the banks of Dry Creek and the Dry Creek overflow channel to construct new raised pedestrian bridge crossings could result in indirect impacts, including transport of sediment (erosion) and runoff of contaminants (e.g., fuel, lubricants) into waters. Other indirect impacts on waters include impacts on wetland vegetation, degradation of water quality, and/or loss of wetland functions and services. Furthermore, proposed pedestrian crossings over Dry Creek and the Dry Creek overflow channel could permanently alter the shape of creek banks.

The use of clear-span bridges will not require installation of any structures within the channels of any of waterways, thereby avoiding any permanent changes to the channels of the aforementioned waterways. Because bridge construction may alter the banks of Dry Creek and/or the Dry Creek overflow channel, consultation with CDFW under Fish and Wildlife Code Section 1600 would be required.

Impacts to waters would be mitigated through implementation of Mitigation Measure D to protect Dry Creek water quality. Mitigation Measure T would be implemented to ensure compliance with Section 1600 of the Fish and Game Code if the project requires a Lake and Streambed Alteration Agreement for any activities proposed in or near the Dry Creek, Dry Creek overflow channel, or ditch drainage that would potentially alter the banks of these aquatic features. All conditions in the permit would be implemented. Compliance with this code would reduce impacts on the banks of Dry Creek and the Dry Creek overflow channel caused by installation of pedestrian bridge crossings. Therefore, impacts to waters related to erosion, fugitive dust, and construction of pedestrian bridges would be ***less than significant.***

MOVEMENTS OF NATIVE RESIDENT OF MIGRATORY FISH OR WILDLIFE SPECIES

The project area is surrounded by developed urban land, resulting in limited terrestrial landscape linkages for wildlife. The primary existing barriers to overland wildlife movement into the project area are the multi-lane Watt Avenue to the east and residential developments to the east and west. Given the high degree of development

and disturbance surrounding the biological study area, Dry Creek and Sierra/Goat Creek likely provide the best option for continuous habitat linkage for aquatic species and reptiles, including special-status species like the western pond turtle, through the study area. The Dry Creek riparian corridor serves as an important migration and dispersal corridor for anadromous fish and other aquatic species. Birds and mammals also use this large riparian corridor as an avenue for movement, migration, and dispersal.

Dry Creek is designated as critical habitat for Central Valley DPS Steelhead, which uses this stream for spawning and migration. As discussed, the section of Dry Creek that bisects the project area does not contain habitat suitable for spawning but is likely to serve as a migratory passageway.

DISCUSSION OF PROJECT IMPACTS

Local wildlife movement may occur along Dry Creek and Goat/Sierra Creek. The proposed project would not reduce the value of these potential wildlife movement corridors. No barriers to wildlife would be involved and no work would occur at night, when most wildlife movement occurs. Project implementation would not involve fencing or lighting, but an increase in human presence and noise may occur as a result of pedestrian trail use. However, this activity would be focused along the trail during daylight hours. Overall, the project would not result in a substantial increase in factors which may hinder normal activities of wildlife. The project would be designed to use existing roadways and disturbed areas for equipment staging and laydown areas, thereby reducing the potential impacts of project construction and operation on resident wildlife. In addition, the project does not propose any new barriers to riparian corridors or drainages.

Dry Creek is designated as critical habitat for Central Valley DPS Steelhead and the sections of Dry Creek that bisect the project area are likely used as a migratory corridor for this species. As discussed above, stormwater runoff and the use of machinery can introduce deleterious substances to the water body and result in erosion and sedimentation, which could reduce the quality of the aquatic habitat used for fish migration. Dewatering could also temporarily restrict fish passage during the period of time when in-water work is being done, as it would lessen the amount of aquatic habitat availability. Fish passage would not be entirely blocked during this time period, because the majority of the in-water work would be done along the banks under the ordinary high-water mark, not in the channel bed. In other words, in-water work would be done on the margins of the channel and not occupy the entire stream cross-section, and fish would still have access to the migratory corridor during this time. This impact would be temporary and considered ***less than significant*** with implementation of Mitigation Measure H.

With the limited extent of new infrastructure, a lack of new barriers to wildlife movement corridors, and the implementation of mitigation measures already discussed, project impacts on wildlife movement and migration corridors would be ***less than significant***. No additional mitigation measures are required.

Trees Protected By Local Ordinance

Chapter 19.12 of the Sacramento County Code, *Tree Preservation and Protection* (Tree Protection Ordinance) states that no person shall trench, grade or fill within the dripline of any protected native oak tree, or destroy, kill or remove any protected tree in the designated urban area of the unincorporated area of Sacramento County, on any property, public or private, without a tree permit or unless authorized as a condition of a discretionary project approval by the Board of Supervisors, County Planning Commission, Zoning Board of Appeals, the Zoning Administrator or the Subdivision Review Committee (Sacramento County 2020). Furthermore, the approving body has the authority to adopt mitigation measures as conditions of approval for discretionary projects in order to protect other species of trees, in addition to the native oaks.

In addition, the Sacramento County Zoning Code, Chapter 5: Development Standards, Section 5.2.4.H *Removal and Replacement of Landscaping* states that replacement trees shall be required for trees removed with or without a Tree Removal Permit. Furthermore, the Conservation Element of the Sacramento County General Plan specifies mitigation for non-native tree canopy impacts by creating equivalent canopy on-site.

AECOM inventoried 465 protected native oaks (i.e., 2 blue oaks, 3 coast live oaks, 99 interior live oaks, and 361 valley oaks). Numerous other non-protected trees are present in the survey area, including hundreds of native oak saplings with diameter at breast height (DBH) measurements of 1 to 6 inches, as well as hundreds more native and non-native non-oak trees of various sizes. Non-oak species observed in the survey area include native riparian trees along creek drainages, such as Oregon ash and box elder (*Acer negundo*). Several species of naturalized, introduced nonnative trees are also present in the riparian areas, including privet, Callery pear, and black locust. Almond trees are also common in riparian areas, as well as scattered throughout grassland and developed landscapes. Numerous planted ornamental trees occur along the edges of golf courses and park lands. Common ornamental species in these areas include liquidambar, gum (*Eucalyptus* sp.), red oak (*Quercus rubra*), Modesto ash (*Fraxinus velutina* 'Modesto'), and London plane (*Plantanus* × *acerifolia*). Some native trees which are not protected by the County Tree Preservation Ordinance were included in the survey, specifically within 100-foot buffers around bridge crossings. Species included are Fremont cottonwood (*Populus fremontii),* Oregon ash, and California sycamore (*Platanus racemosa*). Additional landscape trees exist outside of the survey area in the Cherry Island Soccer Complex, Cherry Island golf course, Antelope Greens golf course, Gibson Ranch Regional Park, along sidewalks, streets, pathways, and in the yards of nearby residences.

Most of the trees in the tree survey area are associated with oak riparian woodland habitats bordering Sierra/Goat Creek and Dry Creek in the southern and northern portions of the survey area, respectively. This riparian habitat is dominated by large, native oak trees intermixed with numerous seedling and sapling oaks in the understory, as well as a few other native riparian tree species and naturalized nonnative invasive trees. Native oak trees in the survey area include blue oak (*Quercus douglasii*), interior live oak, valley oak, and a few planted coast live oak (*Quercus agrifolia*). Where the

survey area overlaps with the edges of parks and golf courses, rows of planted landscape trees are common.

DISCUSSION OF PROJECT IMPACTS

The location of the project is within the Dry Creek Parkway and therefore, is required to meet the goals and policies as outlined in the Master Plan. The following mitigation measures from the Master Plan EIR have been incorporated into the project design and project mitigation measures to promote the preservation of native oak trees:

1. Whenever possible, projects within the Parkway shall be designed to incorporate and avoid removal of existing native trees equal to and over 6-inches in trunk diameter and unique landmark trees equal to or over 19-inches in trunk diameter.

9. Parkway tree mitigation planting shall avoid the creation of native tree orchards. Tree planting shall be based on habitat improvement and restoration and the needs of native flora and fauna within the Dry Creek Parkway.

The project design is currently at a conceptual stage of development and the location of pedestrian pathways and other infrastructure would be modified as needed to preserve existing trees to the extent feasible.

The types of impacts related to the project could include permanent impacts, temporary impacts, and no impact. Permanent impacts include tree removal and would require mitigation as required by County code. Temporary impacts include pruning of less than 1/3 of a tree's root and branch system. No impacts include avoidance of protected trees. Of the 465 protected native oak trees mapped within the tree survey area, 15 trees may not be suitable for preservation due to evident stress, poor crown development, canopy suppression, or the presence of hazards (e.g., broken canopy branches, dangerous lean), or because they are growing adjacent to fence lines that could interfere with the tree's long term structural integrity. The other 450 protected native oak trees mapped within the tree survey area are relatively healthy and structurally sound and would be suitable for preservation if avoided by project construction. However, the proposed bicycle, pedestrian and equestrian trails will require the removal of some trees and trimming of others to accommodate installation. Furthermore, installation of the trail will require grading and earthwork that would impact the roots of trees that are adjacent to the construction area, either directly through root pruning or indirectly through compaction and covering of soils containing roots. All trees ultimately preserved on-site should be protected from any potential construction-related impacts.

This assessment assumes that some trees may need to be removed or trimmed. Public trees are those that occur on any County owned land and/or within right-of-way areas. The project also would include tree protection measures as specified by a certified arborist. Potential impacts to trees protected under the Tree Protection Ordinance would be mitigated by various protective measures as required by Mitigation Measure R. With implementation of tree protection measures and on-site compensatory planting of tree canopy as required by Mitigation Measures O, P, and R, impacts to trees are ***less than significant***.

Table IS-6.1 Special-Status Plant and Wildlife Species with Potential to Occur in the Project Biological Study Area

Scientific Name	Common Name	Federal Regulatory Status[1]	State Regulatory Status[1]	CRPR Regulatory Status[1]	Habitat Requirements	Elevation Range (ft AMSL[2])	Bloom Period	Potential for Occurrence[3]
Astragalus tener var. *ferrisiae*	Ferris's milk-vetch			1B.1	Subalkaline flats on overflow land in the Central Valley; usually seen in dry, adobe soil in meadows and seeps (wetlands) in valley and foothill grassland.	10–250	Apr–May	**No potential to occur;** no suitable habitat (adobe soil) in the study area.
Balsamorhiza macrolepis	big-scale balsamroot	-	-	1B.2	Chaparral, valley and foothill grasslands, cismontane woodlands. Sometimes found on serpentine soils.	100–4,500	Mar–Jun	**Not likely to occur;** marginally suitable habitat in the study area; however, the study area is outside the species' elevational range.
Chloropyron molle ssp. *hispidum*	hispid salty bird's beak	-	-	1B.1	Meadows and seeps, playas, valley and foothill grasslands. Favor damp, alkaline soils, especially in alkaline meadows and sinks.	15–475	Jun–Sep	**Not likely to occur;** potentially suitable habitat may be present within the study area; however, there are no alkaline soils in the study area. There is only one record of this species recorded in 1997 over 10 miles northeast from the study area (CDFW 2022a).
Downingia pusilla	dwarf downingia	-	-	2B.2	Vernal lake and pool margins in valley and foothill grassland.	0–1,460	Mar–May	**No potential to occur;** no suitable habitat (vernal pools or lakes) in the study area. There are five records of this species within 3 miles of the study which occur near vernal pools and depressions near Gibson's Ranch, Roseville and Steelhead Creek. The Gibson Ranch occurrence has been deemed extirpated (CDFW 2022a).
Gratiola heterosepala	Boggs Lake hedge hyssop	–	SE	1B.2	Clay soils; usually in vernal pools, sometimes on the margins of lakes, stock ponds, borrow pits, marshes or swamps.	30–7,790	Apr–Aug	**No potential to occur;** no suitable habitat (vernal pools, marshes, lake margins) in the study area. There is one record of this species within 3 miles from 1960, and it is presumed possibly extirpated (CDFW 2022a).
Hibiscus lasiocarpos var. *occidentalis*	woolly rose-mallow	–	–	1B.2	Moist, freshwater-soaked river banks and low peat islands in sloughs; also, can occur on riprap and levees. In California, known from the Delta watershed.	0–395	Jun–Sep	**Not likely to occur;** marginally suitable habitat potentially present within the study area along creek banks. There are two records of this species within 15 miles of the study area (CDFW 2022a).Both sightings were outside of ideal habitats and are marginally similar to habitats within the study area (banks, drainages). Banks along creek drainages in the study area were dry, and there is no riprap or levee-type habitats in the study area.
Juncus leiospermus var. *ahartii*	Ahart's dwarf rush	-	-	1B.2	Valley and foothill grasslands. Restricted to edges of vernal pools.	10–30	Mar–May	**No potential to occur;** lack of suitable habitat (vernal pools) in study area.

Scientific Name	Common Name	Federal Regulatory Status[1]	State Regulatory Status[1]	CRPR Regulatory Status[1]	Habitat Requirements	Elevation Range (ft AMSL[2])	Bloom Period	Potential for Occurrence[3]
Juncus leiospermus var. *leiospermus*	Red Bluff dwarf rush	-	-	1B.1	Chaparral, valley and foothill grasslands, cismontane woodlands, vernal pools, meadows and seeps. Found in vernally mesic sites, occasionally on the edges of vernal pools.	10–450	Mar–Jun	**Not likely to occur;** marginally suitable habitat present within the study area. However, there is only one record of this species within 10 miles of the study area recorded in 1982. A revisit to the site in 1997 suggested this was a misidentification (CDFW 2022a).
Legenere limosa	legenere	–	–	1B.1	In beds of vernal pools; wet places; ponds.	0–2,885	Apr–Jun	**No potential to occur;** no suitable habitat (vernal pools or ponds) in the study area. There are two records of this species within 3 miles of the study area. One record is approximately 0.75 miles west of the northern alignment (near Cherry Island Golf Course) and is from a seasonal pond and deemed extirpated. The other record located approximately 1.6 miles south form the point at which the southern alignment connects to the Sacramento Northern Bike Trail, and is associated with a seasonal wetland habitat. This record is from 1991 and presumed extant (CDFW 2022a).
Orcuttia viscida	Sacramento Orcutt grass	FE	SE	1B.1	Species is only known from fewer than ten occurrences, all in Sacramento County. Deep vernal pools that remain flooded for relatively long periods of time in ancient alluvial soils, such as prehistoric floodplains.	100–350	Apr–Jul (Sep)	**No potential to occur;** no suitable habitat (vernal pools) in the study area, and the study area is outside the elevational range of the species.
Sagittaria sanfordii	Sanford's arrowhead	–	–	1B.2	In standing or slow-moving freshwater ponds, marshes, and ditches.	0–2,135	May–Oct (Nov)	**Could occur;** marginally suitable habitat is present in the study area (slow moving water). There is one record of this species 0.25 miles west of the northern segment of the trail where Sierra Creek meets 28th Street, observed in 2001 (CDFW 2022a).
Symphyotrichum lentum	Suisun Marsh aster	–	–	1B.2	Marshes and swamps (brackish and freshwater); most often seen along sloughs with *Phragmites, Scirpus, Typha*, etc.	0–10	(Apr) May–Nov	**No potential to occur;** no suitable habitat (marshes or swamps) in the study area.

Notes for Table IS-6.1

[1] Regulatory Status Definitions:
Federal Status Categories
FE = Listed as endangered under the Federal Endangered Species Act
California State Status Categories
SE = Listed as endangered under California Endangered Species Act
California Rare Plant Rank (CRPR) Categories:
1B =Plant species considered rare or endangered in California and elsewhere (protected under CEQA, but not legally protected under ESA or CESA)
CRPR Threat Rank Extensions:
.1 Seriously endangered in California (>80% of occurrences are threatened and/or high degree and immediacy of threat)
.2 Fairly endangered in California (20 to 80% of occurrences are threatened)

[2] ft AMSL = feet above mean sea level

[3] Potential for Occurrence:
Known to occur: The study area is within the species' range, suitable habitat for the species is present, and the species has been recorded from within the project site.
Could Occur: The study area is within the species' range, suitable habitat for the species is present, and recorded occurrences of the species are generally present in the vicinity.
Not Likely to Occur: Either habitat for the species is marginal or potentially suitable habitat may occur, but no occurrences of the species have been recorded within or near the study area (i.e., within 3 miles) and/or the species' current known range is restricted to areas far from the study area.
No Potential to Occur: The study area is outside the species' range or suitable habitat for the species is absent from the study area and adjacent areas.

Table IS-6.2 Special-Status Plant and Wildlife Species with Potential to Occur in the Project Biological Study Area - Crustaceans

Scientific Name	Common Name	Federal Regulatory Status[1]	State Regulatory Status[1]	CDFW Regulatory Status[1]	Habitat Requirements	Distribution	Potential for Occurrence[2]
Branchinecta lynchi	vernal pool fairy shrimp	FT	–	–	Vernal pools in valley and foothill grassland; small, clear-water sandstone-depression pools and grassed swale, earth slump, or basalt-flow depression pools.	Endemic to the grasslands of the Central Valley, Central Coast mountains, and South Coast mountains.	**No potential to occur;** no suitable habitat (vernal pools) in the study area.
Lepidurus packardi	vernal pool tadpole shrimp	FE	–	–	Vernal pools in valley and foothill grassland; pools commonly found in grass-bottomed swales of unplowed grasslands. Some pools are mud-bottomed and highly turbid.	Sacramento Valley	**No potential to occur;** no suitable habitat (vernal pools) in the study area.

Table IS-6.3 Special-Status Plant and Wildlife Species with Potential to Occur in the Project Biological Study Area – Insects

Scientific Name	Common Name	Federal Regulatory Status[1]	State Regulatory Status[1]	CDFW Regulatory Status[1]	Habitat Requirements	Distribution	Potential for Occurrence[2]
Bombus crotchii	Crotch bumble bee	-	SCE	–	Open grassland and scrub; nests underground. Food plants include *Asclepias, Chaenactis, Lupinus, Medicago, Phacelia,* and *Salvia.*	Pacific Coast, Western Desert, Great Valley, and adjacent foothills throughout most of southwestern California	**Could occur**; This species has potential to occur in the grassland and scrub communities within the study area. There are no records of this species within 3 miles of the study area, however: a lack of data for this species does not prove its absence. Surveys to identify the Crotch bumble bee's abundance and range are ongoing. One CNDDB sighting was reported 14 miles south in 2020 (Occurrence #290) (CDFW 2023).
Desmocerus californicus dimorphus	valley elderberry longhorn beetle	FT	–	–	Riparian scrub, elderberry savannah. Host plant is the elderberry shrub (*Sambucus nigra* ssp. *cerulea*). Prefers to lay eggs in elderberries 2–8 inches in diameter; some preference shown for "stressed" elderberries.	Occurs only in the Central Valley.	**Could occur; T**he species' host plant (blue elderberry) is present in a very small portion of study area. There are no records of this species within 3 miles of the study area (CDFW 2022a). Designated critical habitat for this species exists approximately 6.5 miles south of the study area (USFWS 2020).

Table IS-6.4 Special-Status Plant and Wildlife Species with Potential to Occur in the Project Biological Study Area – Fish

Scientific Name	Common Name	Federal Regulatory Status[1]	State Regulatory Status[1]	CDFW Regulatory Status[1]	Habitat Requirements	Distribution	Potential for Occurrence[2]
Archoplites interruptus	Sacramento Perch	–	–	SSC	Aquatic; prefers warm water. Aquatic vegetation is essential for young. Tolerates wide range of physio-chemical water conditions.	Historically found in the sloughs, slow-moving rivers, and lakes of the Central Valley.	**No potential to occur;** no suitable aquatic habitat and aquatic vegetation in the study area. There is only one record of this species from 1973 in an isolated pond (CDFW 2022a).
Oncorhynchus mykiss irideus pop. 11	Steelhead – Central Valley DPS	FT	–	–	Cool, clear streams with abundant cover and well-vegetated banks, with relatively stable flows. Pool and riffle complexes and cold gravelly streambeds for spawning. Populations in the Sacramento and San Joaquin Rivers and their tributaries.	Populations in the Sacramento and San Joaquin rivers and their tributaries.	**Could occur;** The species has been documented in Dry Creek, approximately 8 miles north of the study area. Dry Creek may serve as a migratory corridor but is too degraded to support spawning (CDFW 2022a). Dry Creek is designated critical habitat for this species (USFWS 2020)

Scientific Name	Common Name	Federal Regulatory Status[1]	State Regulatory Status[1]	CDFW Regulatory Status[1]	Habitat Requirements	Distribution	Potential for Occurrence[2]
Oncorhynchus tshawytscha pop. 11	Chinook Salmon – Central Valley spring-run ESU	FT	ST	–	Water temperatures greater than 27 degrees Celsius (80.6 degrees Fahrenheit) are lethal to adults. Spring-run Chinook Salmon enter the Sacramento River from late March through September. Adults hold in cool water habitats through the summer, then spawn in the fall from mid-August through early October. The Sacramento River and its tributaries, including Butte, Mill, Deer, Antelope, and Beegum Creeks.	Federal listing refers to populations spawning in the Sacramento River and tributaries.	**Not likely to occur;** lack of suitable aquatic habitat (cool, clear stream with stable flows and well-vegetated banks) present in the study area. No records of this species are within 3 miles of the study area (CDFW 2022a).

Scientific Name	Common Name	Federal Regulatory Status[1]	State Regulatory Status[1]	CDFW Regulatory Status[1]	Habitat Requirements	Distribution	Potential for Occurrence[2]
Oncorhynchus tshawytscha pop. 7	Chinook Salmon – Sacramento River winter-run ESU	FE	SE	–	Spawn during summer months. Adult winter-run Chinook salmon immigration and holding through the Delta and into the lower Sacramento River occurs from December through July. Spawning occurs between late-April and mid-August. Primarily spawn in the mainstem Sacramento River between Keswick Dam and the Red Bluff Diversion Dam.	Sacramento River below Keswick Dam. Spawns in the Sacramento River, but not in tributary streams.	**Not likely to occur;** lack of suitable aquatic habitat (cool, clear stream with stable flows and well-vegetated banks) present in the study area. No records of this species are within 3 miles of the study area (CDFW 2022a).
Pogonichthys macrolepidotus	Sacramento Splittail	–	–	SSC	Aquatic; estuary, freshwater marsh, Sacramento/San Joaquin flowing waters. Slow moving river sections, dead end sloughs. Requires flooded vegetation for spawning and foraging for young.	Endemic to the lakes and rivers of the Central Valley, but now confined to the Delta, Suisun Bay, and associated marshes.	**No potential to occur;** no suitable aquatic habitat in the study area.

Scientific Name	Common Name	Federal Regulatory Status[1]	State Regulatory Status[1]	CDFW Regulatory Status[1]	Habitat Requirements	Distribution	Potential for Occurrence[2]
Spirinchus thaleichthys	Longfin Smelt	FC	ST	–	Aquatic; found in open waters of estuaries, mostly in middle or bottom of water column. Prefers salinities of 15–30 ppt, but can be found in completely freshwater to almost pure seawater.	Found along the Pacific Coast, from Alaska to California.	**No potential to occur;** no suitable aquatic habitat in the study area.
Hypomesus transpacificus	Delta Smelt	FT	SE	–	Aquatic; inhabits estuarine areas in the Sacramento-San Joaquin Delta. Seasonally in Suisun Bay, Carquinez Strait & San Pablo Bay. Seldom found at salinities > 10 ppt. Most often at salinities < 2 ppt.	Endemic to California; only occurs in the San Francisco Estuary.	**No potential to occur;** no suitable aquatic habitat in the study area.

Table IS-6.5 Special-Status Plant and Wildlife Species with Potential to Occur in the Project Biological Study Area – Amphibians

Scientific Name	Common Name	Federal Regulatory Status[1]	State Regulatory Status[1]	CDFW Regulatory Status[1]	Habitat Requirements	Distribution	Potential for Occurrence[2]
Spea hammondii	western spadefoot	-	–	SSC	Occurs primarily in grassland habitats, but can be found in valley–foothill hardwood woodlands. Vernal pools are essential for breeding and egg-laying.	Throughout the Central Valley and adjacent foothills.	**Not likely to occur;** There may be potential breeding ponds present within migration distance to the study area, however, no Suitable breeding habitat was observed within the study area. Drainages observed during surveys were not considered vernal pool habitat and were generally disturbed.
Rana draytonii	California red-legged frog	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.	Isolated populations in the Sierra Nevada, northern Coast, and northern Transverse Ranges. Common in the San Francisco Bay area (including Marin County) and along the central coast.	**No potential to occur;** the study area is outside of the species' current range, and there is no suitable aquatic habitat/emergent vegetation in the study area. No records in the 9 quadrangles surrounding the study area (CDFW 2022a).
Ambystoma californiense	California tiger salamander	FT	ST	WL	Need underground refuges, especially ground squirrel burrows, and vernal pools or other seasonal water sources for breeding.	Restricted to California, where it is found mostly in the Central Valley. Small populations also occur around Santa Barbara and Sonoma.	**Not likely to occur;** There may be potential breeding ponds present within migration distance to the study area, however, no Suitable breeding habitat was observed within the study area. Drainages observed during surveys were not considered vernal pool habitat and were generally disturbed.

Table IS-6.6 Special-Status Plant and Wildlife Species with Potential to Occur in the Project Biological Study Area – Reptiles

Scientific Name	Common Name	Federal Regulatory Status[1]	State Regulatory Status[1]	CDFW Regulatory Status[1]	Habitat Requirements	Distribution	Potential for Occurrence[2]
Emys marmorata	western pond turtle	–	–	SSC	Aquatic; ponds, marshes, rivers, streams and irrigation ditches, usually with aquatic vegetation. Needs basking sites and suitable (i.e., sandy banks or grassy open fields) upland habitat up to 0.5 km from water for egg-laying.	West of the Sierra-Cascade crest and absent from desert regions, except in the Mojave Desert along the Mojave River and its tributaries. Below 6,000 feet elevation.	**Could occur;** marginally suitable habitat exists within and adjacent to the study area (nearly permanent water source and nearby sparsely vegetated uplands for nesting). However, the suitable aquatic habitat present in the study area is highly degraded by human activities and the species is not expected to thrive within the study area. One record of occurrence within 3 miles of study area, along Don Julio Creek. The surrounding area is described as an annual grassland with numerous vernal pools (CDFW 2022a).
Thamnophis gigas	giant garter snake	FT	ST	–	Prefers freshwater marsh and low gradient streams. Has adapted to drainage canals and irrigation ditches.	Historical range was in the Sacramento and San Joaquin valleys, but its current range is much reduced, and it apparently is extirpated south of Fresno County, except for western Kern County.	**Not likely to occur;** marginally suitable open water habitat present within and immediately adjacent to the study area; however, there is no suitable emergent marsh habitat or other aquatic vegetation in the study area. Few potential burrowing sites located along the study area, but there are no records of this species within 3 miles of the study area (CDFW 2022a). Black bass species were observed during 2022 surveys which in many cases precludes the presence of GGS.

Table IS-6.7 Special-Status Plant and Wildlife Species with Potential to Occur in the Project Biological Study Area – Birds

Scientific Name	Common Name	Federal Regulatory Status[1]	State Regulatory Status[1]	CDFW Regulatory Status[1]	Habitat Requirements	Distribution	Potential for Occurrence[2]
Accipiter cooperii (nesting)	Cooper's hawk	–	–	WL	Variety of woodland habitats; nests mainly in riparian growths of deciduous trees, as in canyon bottoms on river flood plains; also, live oaks.	Breeding resident throughout most of the wooded portion of the state.	**Known to occur (foraging/nesting);** appropriate riparian woodland habitat present within and adjacent to study area. Species observed (non-nesting) onsite during 2021 survey efforts. There are four nesting records of this species within 10 miles of the study area (CDFW 2022a).
Agelaius tricolor (nesting colony)	tricolored blackbird	–	ST	SSC	Highly colonial. Requires open water, protected nesting substrate, and foraging area with insect prey within a few kilometers of the colony.	Most numerous in the Central Valley and vicinity. Generally endemic to California.	**Could occur (foraging);** there is no suitable nesting habitat but there is suitable foraging habitat (grassland) present in the study area. The nearest record of nesting tricolored blackbird is approximately 2.3 miles south of the study area, initially recorded in 1998 in tule marsh habitat, and observed again in 2014 during a statewide survey (CDFW 2022a).

Scientific Name	Common Name	Federal Regulatory Status[1]	State Regulatory Status[1]	CDFW Regulatory Status[1]	Habitat Requirements	Distribution	Potential for Occurrence[2]
Ammodramus savannarum	grasshopper sparrow	-	-	SSC	Dense grasslands on rolling hills, lowland plains. Often found in valleys and on hillsides on lower mountain slopes. Favors grasslands with a mixture of forbs, grasses, and scattered shrubs.	Breeding resident of the California Coast and Central Valley.	**Potential to occur;** marginally suitable habitat (dense grasslands with forbs) is present in the northern section of the study area, however there are no areas with shrubs or nesting substrate within the grassland. There are areas of dense grassland and oak woodland with scattered shrubs in the southern portion of the study area. There are no records of this species within 10 miles of the project area (CDFW 2022a).
Aquila chrysaetos	golden eagle	-	-	FP	Rolling foothills, mountainous areas, sage/juniper flats, and desert. Nesting habitat generally cliff-walled canyons near large trees and open areas.	Year-round resident of the majority of California. Non-breeding resident in the Central Valley and SE portions of the State.	**No potential to occur;** there is no suitable nesting habitat in the study area, and there is only a minimal amount of appropriate open hunting habitat within the study area. There is only one record of this species in the 9 quadrangles searched, recorded in 1991 and over 12 miles away from study area (CDFW 2022a).

Scientific Name	Common Name	Federal Regulatory Status[1]	State Regulatory Status[1]	CDFW Regulatory Status[1]	Habitat Requirements	Distribution	Potential for Occurrence[2]
Athene cunicularia (burrow sites and some wintering sites)	burrowing owl	–	–	SSC	Open, dry, annual or perennial grasslands, deserts, and scrublands, characterized by low-growing vegetation. Dependent on burrowing mammals, most notably, the California ground squirrel, for underground nests.	Resident throughout California in suitable habitat.	**Not likely to occur;** marginally suitable habitat exists in the study area (i.e., grasslands with small mammal burrows and mounds which could act as ground perches). However, the grasslands present within the study area are not open or low growing, since they are not managed or routinely grazed. There are two records of this species within 3 miles of the southern alignment. One record is 2.5 miles away recorded in 2003, and the other is 3 miles from the project area and recorded in 2012 (CDFW 2022a).
Buteo regalis	ferruginous hawk	-	-	WL	Open grasslands, sagebrush flats, desert scrub, low foothills. Fringes on Pinyon and Juniper habitats. Populations often coincide with Lagomorph cycles.	Winter Resident of the majority of California, excluding NW and portions of the Sierras.	**Not likely to occur;** some suitable foraging habitat (grassland) within the study area. Only one wintering/ foraging record of species occurrence in the database search located in non-native grassland over 13 miles southeast of study area in 1991 (CDFW 2022a).

Scientific Name	Common Name	Federal Regulatory Status[1]	State Regulatory Status[1]	CDFW Regulatory Status[1]	Habitat Requirements	Distribution	Potential for Occurrence[2]
Buteo swainsoni (nesting)	Swainson's hawk	–	ST	–	Breeds in grasslands with scattered trees, juniper-sage flats, riparian areas, savannahs, and agricultural or ranch lands with groves or lines of trees. Requires adjacent suitable foraging areas, such as grasslands, or alfalfa or grain fields supporting rodent populations.	Uncommon breeding resident and migrant in the Central Valley, Klamath Basin, Northeastern Plateau, Lassen County, and Mojave Desert.	**Could occur (foraging/nesting);** suitable foraging habitat (grassland) is present in the study area and some suitable nest trees (riparian woodland). There are more than 100 records of this species within the 9-quadrangle search. The two nesting records closest to the northern segment of the trail are located approximately 0.8 miles north of the northern extent of the alignment and are from 2001 and 2003 (CDFW 2022a). The nesting record closest to the southern segment is located approximately 1.6 miles south of the southern alignment along Dry Creek, and is from 2002 (CDFW 2022a).
Coccyzus americanus occidentalis (nesting)	western yellow-billed cuckoo	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.	Valley, foothill, and desert riparian habitats in scattered locations in California.	**No potential to occur;** marginal nesting habitat is present within and adjacent to the study area, however the most recent record for this species is further than 8 miles away and occurred in 1877 and the species is presumed extirpated (CDFW 2022a).

Scientific Name	Common Name	Federal Regulatory Status[1]	State Regulatory Status[1]	CDFW Regulatory Status[1]	Habitat Requirements	Distribution	Potential for Occurrence[2]
Elanus leucurus (nesting)	white-tailed kite	–	–	FP	Open grasslands, meadows, or marshes for foraging, close to dense-topped trees for nesting and perching. Nest trees may be growing in isolation, or at the edge of or within a forest.	Coastal and valley lowlands, and cismontane regions of California.	**Known to occur (foraging/nesting);** suitable foraging habitat (grassland) is present and potentially suitable dense-topped nest trees along Dry Creek. There are eight records of the species nesting within 3 miles of the study area, primarily located along Dry Creek and Steelhead Creek (CDFW 2022a). Species was observed (non-nesting) during the 2021 survey effort.
Laterallus jamaicensis coturniculus (year-round)	California black rail	–	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.	San Francisco Bay area, the Delta, coastal southern California at Morro Bay and a few other locations, the Salton Sea, and lower Colorado River area.	**No potential to occur;** no suitable habitat (i.e., marshes or wet meadows) in the study area. No records for this species exist within 10 miles of the biological study area (CDFW 2022a).

Scientific Name	Common Name	Federal Regulatory Status[1]	State Regulatory Status[1]	CDFW Regulatory Status[1]	Habitat Requirements	Distribution	Potential for Occurrence[2]
Melospiza melodia (year-round)	song sparrow – "Modesto" population	–	–	SSC	Moderately dense vegetation to supply cover for nest sites, a source of standing or running water, semi-open canopies to allow light, and exposed ground or leaf litter for foraging. Seems to prefer emergent freshwater marshes dominated by tules and cattails as well as riparian willow thickets.	Restricted to California, where it is locally numerous in the Sacramento Valley, the Delta, and northern San Joaquin Valley.	**Not likely to occur;** marginally suitable habitat exists within the study area (sections of dense vegetation, water source, and semi-open canopy); however, preferred habitats of emergent freshwater marshes and willow thickets are not present. There are only two records of this species within the 9 quadrangles searched, located 8.5 miles and 15 miles southwest of the project area, in 1877 and 2011, respectively (CDFW 2022a).
Progne subis (nesting)	purple martin	–	–	SSC	Inhabits woodlands, low-elevation coniferous forest of Douglas fir, ponderosa pine, and Monterey pine. Nests mainly in old woodpecker cavities, but also in human-made structures. Nests often are in tall, isolated trees/snags.	Eliminated from much of its previous range in California; in the Sacramento area, nests mostly within the city of Sacramento, as well as limited areas in adjacent Placer and Yolo counties.	**No potential to occur;** no suitable habitat (i.e., coniferous forests woodlands) present in the study area. The only records of nesting purple martin in Sacramento County area are from weep (drain) holes in highway and road overpasses (CDFW 2022a).

Scientific Name	Common Name	Federal Regulatory Status[1]	State Regulatory Status[1]	CDFW Regulatory Status[1]	Habitat Requirements	Distribution	Potential for Occurrence[2]
Riparia riparia (nesting)	bank swallow	–	ST	–	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, and the ocean to dig nesting holes.	Riparian and other lowland habitats in California west of the deserts, during the breeding season.	**Not likely to occur;** no suitable habitat (i.e., vertical sandy banks) in the study area.
Vireo bellii pusillus (nesting)	least Bell's vireo	FE	SE	–	Rare, local, summer resident below about 2,000 feet in willows and other low, dense, valley foothill riparian habitat and lower portions of canyons. Nests placed along margins of bushes or on twigs projecting into pathways, usually in willow, *Baccharis*, and mesquite.	Mostly in San Benito and Monterey counties; in coastal southern California from Santa Barbara County south; and along the western edge of the deserts in desert riparian habitat.	**Not likely to occur;** potentially suitable riparian habitat occurs within and adjacent to study area; however, preferred nesting vegetation types (i.e., willow thickets mesquite, and *Baccharis*) are not present in the study area. The species rarely occurs as far north as Sacramento County.

Table IS-6.8 Special-Status Plant and Wildlife Species with Potential to Occur in the Project Biological Study Area – Mammals

Scientific Name	Common Name	Federal Regulatory Status[1]	State Regulatory Status[1]	CDFW Regulatory Status[1]	Habitat Requirements	Distribution	Potential for Occurrence[2]
Taxidea taxus	American badger	–	–	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.	Throughout most of the state, except in the northern North Coast area	**Not likely to occur;** Although medium-sized mammal burrows were observed immediately adjacent to and within portions of the study area, these are most likely fox burrows due to their size (6–7 inches in diameter) and shape (round), and the presence of prey remains near the burrow entrance which is a characteristic behavior of red fox. American badger burrow entrances are always D-shaped and measure 7 to 11 inches across. There are no records of this species within 10 miles of the project area (CDFW 2022a).
Antrozous pallidus	Pallid bat	–	–	SSC	Occurs in a variety of habitats from desert to coniferous forest. Most closely associated with oak, mixed conifer, redwood, and giant sequoia habitats in northern California and oak woodland, grassland, and desert scrub in southern California. Relies heavily on trees for roosts but also uses caves, mines, bridges, and buildings.	Occurs throughout California, except the high Sierra, from Shasta to Kern County and the northwest coast, primarily at lower and mid elevations (up to 6,000 feet)	**Could occur;** suitable roosting habitat consisting of large trees, bridges, and other manmade structures is present in the study area. There is a historic CNDDB occurrence (# 233) 11 miles west of the project site where this species was documented in 1941 (CDFW 2023).

Lasiurus blossevillii	Western red bat	–	–	SSC	Found primarily in riparian and wooded habitats. Occurs at least seasonally in urban areas. Day roosts in trees within the foliage. Found in fruit orchards and sycamore riparian habitats in the Central Valley.	Coastal areas from the San Francisco Bay area south, plus the Central Valley and surrounding foothills, with a limited number of records from southern California, extending as far east as western Riverside and central San Diego counties, upper Sacramento River near Dunsmuir, Siskiyou County	**Could occur;** suitable roosting habitat consisting of large trees, bridges, and other manmade structures is present in the study area. There are no CNDDB records of the species in the project site (CDFW 2023).

Notes for Table IS-6.2 -- 8
km = kilometer
ppt = parts per thousand
[1] Regulatory Status Definitions:
Federal Status Categories
FE = Listed as endangered under the Federal Endangered Species Act
FT = Listed as threatened under Federal Endangered Species Act
FC = Listed as candidate under Federal Endangered Species Act
California State Status Categories
SE = Listed as endangered under California Endangered Species Act
ST = Listed as threatened under California Endangered Species Act
California Department of Fish and Wildlife (CDFW) Categories
SSC = Species of Special Concern
FP = Fully Protected
WL = Watch List
[2] **Potential for Occurrence:**
Could Occur: No occurrences of the species have been recorded within the study area; however, the study area is within the species' range, and suitable habitat for the species is present and recorded occurrences of the species are generally present in the vicinity (i.e., within 3 miles of the study area).
Not Likely to Occur: No occurrences of the species have been recorded within or near the study area (i.e., within 3 miles), and either habitat for the species is marginal or potentially suitable habitat may occur, but the species' current known range is restricted to areas far from the study area.
No Potential to Occur: The study area is outside the species' range or suitable habitat for the species is absent from the study area and adjacent areas.

CULTURAL RESOURCES

This section supplements the Initial Study Checklist by analyzing if the project would:

- Cause a substantial adverse change in the significance of a historical resource
- Have a substantial adverse effect on an archaeological resource
- Disturb any human remains, including those interred outside of formal cemeteries

BACKGROUND

The following section presents the results of cultural resources studies completed by AECOM on behalf of PER and the Sacramento County Department of Regional Parks for the project.

The area of potential effect (APE) established for the project encompasses the extent of the project footprint discussed above, all areas of ground disturbance and staging areas. The APE extends 25 feet on each side of the centerline (50-foot total width) of the proposed trail alignments to consider the project's visual, atmospheric, and audible effects to historic-age properties near the project footprint. Sacramento County Regional Parks requested a 100-foot APE (50 feet on each side of centerline) for the proposed bridge locations the northern and southern alignments.

EXISTING SETTING

CULTURAL CONTEXT

In an attempt to unify the various hypothesized cultural periods in California, Fredrickson (1993) proposed an all-encompassing scheme for cultural development, while acknowledging that these general trends may manifest themselves differently and some variation may exist between sub-regions. These general cultural periods (i.e., Paleo-Indian, Early, Middle and Late Archaic, and Emergent periods) are used in this document in connection with the North-Central Sierra Nevada chronology because of their relevancy to the lower foothill region of the project area, in the vicinity of Folsom.

The Late Pleistocene pattern and period (greater than 10,000 years before present [B.P.]) is practically non-existent in the foothill and eastern Sacramento Valley. Sites CA-SAC-370 and CA-SAC-379, located near Rancho Murieta, produced numerous bifaces, cores, and raw materials from gravel strata estimated to be between 12,000 and 18,000 years in age. Early Holocene pattern and period (circa [ca.] 10,000–7000 B.P.) was defined as a human adaptation to lake, marsh, and grassland environments that were prevalent at this time. Appearing after 11,000 years B.P., the tradition slowly disappeared ca. 8000–7000 B.P.

During the Archaic pattern and period (ca. 7000–3200 B.P.), the climate in the valleys and foothills of Central California became warmer and drier, and millingstones are found in abundance.

The Early and Middle Sierran pattern (ca. 3200–600 B.P.) evidences an expansion in use of obsidian, which is interpreted with reservation to indicate an increase in regional land use, and the regular use of certain locales. During this time, a much heavier reliance on acorns as a staple food was developed, supporting large, dense populations.

During the Late Sierran period (ca. 600–150 B.P.), archaeological village sites generally correspond to those identified in the ethnographic literature. Diagnostic artifacts include small contracting-stem points, clam shell disk beads, and trade beads that were introduced near the end of the period, marking the arrival of European groups (Beardsley 1954:77–79; Elsasser 1978:44; Fredrickson 1993).

ETHNOGRAPHIC CONTEXT

The project area is situated within the traditional territory of the Nisenan. The language of the Nisenan, which includes several dialects, is classified within the Maiduan family of the Penutian linguistic stock. Kroeber (1925) recognized three Nisenan dialects: Northern Hill, Southern Hill, and Valley. The Nisenan territory included the drainages of the Yuba, Bear, and American rivers, and the lower drainages of the Feather River, extending from the crest of the Sierra Nevada to the banks of the Sacramento River. According to Bennyhoff (1961:204–209), the southern boundary with the Miwok was probably a few miles south of the American River, bordering a shared area used by both Miwok and Nisenan groups that extended to the Cosumnes River. It appears that the foothills Nisenan distrusted the valley peoples but had a mostly friendly relationship with the Washoe to the east. Elders recall intergroup marriage and trade, primarily involving the exchange of acorns for fish procured by the Washoe (Wilson 1972:33). The northern boundary has not been clearly established due to similarities in language with neighboring tribes (Wilson and Towne 1978:387 - 389).

Nisenan settlement locations depended primarily on elevation, exposure, and proximity to water and other resources. Permanent villages were usually located on low rises along major watercourses. Houses were domed structures measuring 10 to 15 feet in diameter and covered with earth and tule reeds or grass. Brush shelters were used in the summer and at temporary camps during food-gathering rounds. Larger villages often had semi-subterranean dance houses that were covered in earth and tule reeds or brush, with a central hole at the top to allow the escape of smoke, and an east-facing entrance. Another common village structure was the granary, which was used for storing acorns.

Several political divisions in the Nisenan territory, constituting tribelets, had headmen in the larger villages. However, the relative levels of influence in these larger population centers are unknown. All of these larger villages were located in the foothills. More substantial and permanent Nisenan villages generally were not established on the valley plain between the Sacramento River and the foothills, although this area was used as a rich hunting and gathering ground. One tribelet consisted of people occupying

the territory between the Bear River and the Middle Fork American River (Wilson and Towne 1978). According to Kroeber (1925:831), the larger villages could have had populations exceeding 500 individuals, although small settlements consisting of 15–25 people and extended families were common.

The Nisenan occupied permanent settlements from which specific task groups set out to harvest the seasonal bounty of flora and fauna that the rich valley environment provided. The Valley Nisenan economy involved riparian resources, in contrast to the Hill Nisenan, whose resource base consisted primarily of acorn and game procurement. The only domestic plant was native tobacco (*Nicotiana* sp.), but many wild species were closely husbanded. The acorn crops from the blue oak (*Quercus douglasii*) and black oak (*Q. kelloggii*) were carefully managed resources. Acorns were stored in granaries in anticipation of winter. Deer, rabbit, and salmon were the chief sources of animal protein in the aboriginal diet, but many insect and other animal species were taken when available (Wilson and Towne 1978:389).

The decimation of the Nisenan culture in the 19th century as a result of European colonization, coupled with a reluctance to discuss Nisenan spiritual beliefs and practices, makes it difficult to describe these practices in any detail. However, historic records document a number of observances and dances, some of which are still performed today, that are important ceremonies. The Kuksu Cult, the basic religious system noted throughout Central California, appeared among the Nisenan. Cult membership was restricted to those initiated in its spirit and deity-impersonating rites. However, the Kuksu Cult was only one of several levels of religious practice among the Nisenan. Various dances associated with mourning and the change of seasons were also important. One of the last major additions to Nisenan spiritual life occurred sometime shortly after 1872 with a revival of the Kuksu Cult as an adaptation to the Ghost Dance religion (Wilson and Towne 1978). Today, Nisenan descendants are reinvesting in their traditions, and represent a growing and thriving community.

Following documentation by the Department of Interior for the existence of a separate, cohesive band of Maidu and Miwok Indians, occupying a village on the outskirts of the city of Auburn in Placer County, the United States acquired land in trust for the Auburn Band in 1917 near the City of Auburn and formally established a reservation, known as the Auburn Rancheria. Tribal members continued to live on the reservation as a community despite great adversity.

In 1967 United States terminated federal recognition of the Auburn Band. Finally, in 1970, President Nixon declared the policy of termination a failure. In 1976, both the United States Senate and House of Representatives expressly repudiated this policy in favor of a new federal policy entitled Indian Self-Determination.

In 1991, surviving members of the Auburn Band reorganized their tribal government as the United Auburn Indian Community (UAIC) and requested the United States to formally restore their federal recognition. In 1994, Congress passed the Auburn Indian Restoration Act, which restored the Tribe’s federal recognition. The Act provided that the Tribe may acquire land in Placer County to establish a new reservation.

Today, Nisenan descendants and other tribes are reinvesting in their traditions and represent a growing and thriving community that is actively involved in defining their role as stewards of their ancestor's sites, including the identification of tribal cultural resources (TCRs). TCRs provide the backdrop to religious understanding, traditional stories, knowledge of resources such as varying landscapes, bodies of water, animals and plants, and self-identity. Knowledge of place is central to the continuation and persistence of culture, even if former Nisenan and Miwok occupants live removed from their traditional homeland. Consulting tribes view these interconnected sites and places as living entities; their associations and feeling persist and connect with descendant communities.

HISTORICAL CONTEXT

The historic era in California began with Spanish colonization and is often divided into three distinctive chronological and historic periods: the Spanish or Mission Period (1542–1821), the Mexican or Rancho Period (1821–1848), and the American Period (1848–present). After Mexican independence in 1821, Spain transferred its lands to the newly established country of Mexico. The Mexican Period was also a time when large parcels of land, known as ranchos, were granted to Mexican citizens, many of whom were Americans who had converted to Catholicism and married Mexican nationals, or had otherwise become Mexican citizens to promote settlement in California and encourage agricultural and ranching. More than 800 rancho grants were bestowed during the Mexican Period throughout California. The study area was originally part of the 44,374.42-acre Rancho del Paso Mexican land grant (granted 1844, patented 1858) in present-day Sacramento County (Cowan 1956; Kyle et al. 2002:302–303).

EARLY DEVELOPMENT OF RIO LINDA

Rancho Del Paso was one of the few Mexican-era land grants that remained intact into the 20th century and was not subdivided and sold as smaller lots. The rancho was originally granted to the Grimes Brothers, who sold the rancho to Samuel Norris in August 1849 and the U.S. government issued a land patent to Norris in 1858. The former rancho lands were used for a variety of agricultural uses for more than a decade when Norris sold the land to James Ben Ali Haggin and Lloyd Tevis. Haggin and Tevis were unable to successfully subdivide the land and it was under litigation for almost 20 years. In 1905, Haggin wanted to sell his share of the former rancho lands and the process took five years for the real estate sale to be finalized. In 1910, the Sacramento Valley Colonization Company purchased the former rancho from Haggin and Tevis and began to subdivide the lots for sale (Sacramento County Department of Regional Parks, Recreation and Open Space 2001:3-1 to 3-4; Buckland 2006:7-8).

The Sacramento Valley Colonization Company established two sites within the former rancho, including one near the Dry Creek station of the Sacramento Northern Electric Railway, which had been completed in 1906 through the area. As part of a marketing ploy, the Sacramento Valley Colonization Company renamed the Dry Creek area "Rio Linda" (which translates to "pretty river" in Spanish) and began promoting land sales in the Midwest. Parcels were typically sold at $400 to $500 an acre (Sacramento County

Department of Regional Parks, Recreation and Open Space 2001:3-1 to 3-4; Buckland 2006:7-8).

By 1918, roughly 50 families of Scandinavian and German descent had settled in the area. Many of the larger parcels in the area were dedicated to wheat, oat, and grain production (Bastian 2002; Boyd 1903; Reed 1923:116-117; Rio Linda-Elverta Chamber of Commerce 1997). Gradually a small community arose. In 1917, the first schoolhouse was constructed. In 1918, a railroad station and 4th class post office were added (Buckland 2006).

After many of the early settlers had planted orchards, it was discovered that localized hardpan soil conditions prevented winter rains from draining properly. Water standing around the graft led to crown rot disease, which killed many trees. Nearly 20 lawsuits were filed against the land company that subdivided the area in the 1920s. These lawsuits claimed that company has misrepresented the parcels as fruitlands, although the land was unable to sustain fruit trees. Some won their suits and were granted financial compensation and then sold their farm. For the others and for future sales, the company consulted with the agricultural extension at the University of California, Davis, which advised those living in the area to turn their efforts toward poultry. As a result, Rio Linda residents began converting to this type of production and at one time had the highest production of eggs in California. By the 1920s, the Rio Linda area was widely marketed as an ideal area for poultry farming, orchards, and horse ranching. The Rio Linda Poultry Producers' Association was formed and its warehouse was completed along the Sacramento Northern Electric Railway line (Bastian 2002; Sacramento County Department of Regional Parks, Recreation and Open Space 2001:3-1 to 3-4; Buckland 2006:7-8).

During the first half of the 1930s, thousands of workers emigrated from the Midwest and southern states, relocating in quickly erected housing tracts around Rio Linda. Many of the local farmers were also attracted to the new military jobs and left farming for hourly wages, somewhat altering the agricultural character of the area (Bastian 2002; Buckland 2006). In the late 1930s, the Sacramento Air Depot was built by the United States Army to replace Rockwell Field on North Island in San Diego, California. Construction of the facility began in 1937. The base was operational by 1939 and was renamed McClellan Field after Major Hezekiah McClellan, a pilot who pioneered Alaskan aviation routes (Baker and Dougherty 2015: 12-16).

During World War II, McClellan Field underwent a period of expansion as part of the war effort. The base operated a temporary assembly center for Japanese Americans sent to internment camps. McClellan Field was also part of the fourth Air Service Area Command. Primarily, McClellan Field functioned as a supply depot and maintenance facility for the Pacific theater. After the war ended, all of California, including the Sacramento region with its multiple military facilities, rapidly developed. As the base expanded over the years, so did the nearby communities as more residents moved to the region. Rio Linda experienced growth in this period, largely consisting of infill single-family homes.

The poultry industry continued in Rio Linda until the early 1970s when the last of the poultry farms shut down and Rio Linda largely became a bedroom community within the

larger Sacramento County region. By the 1990s, Rio Linda's population numbered around 18,000. Today, agriculture has been displaced by many other diverse occupations and Rio Linda had become a satellite community of Sacramento (Buckland 2006:7-8; Baker and Dougherty 2015: 12-16).

PROJECT AREA-SPECIFIC HISTORY

The project area is concentrated along the right bank of Dry Creek's northern branch around Cherry Island and to the north. Much of the area surrounding Dry Creek was settled during the 1910s and 1920s. The area historically had been subject to flooding; therefore, development was limited. By 1911, the first Reclamation District (No. 1000) was formed and levee building began to prevent the American and Sacramento rivers from flooding the Natomas Basin.

The Sacramento River Flood Control Project (SRFCP), authorized by the state legislature in the California Flood Control Act of 1911 and later authorized by Congress under the Flood Control Act of 1917, was one of the first comprehensive water management infrastructure projects in California (Hagwood 1981: 82). The SRFCP system of levees, weirs and bypasses extend throughout the Sacramento River Basin north of Tehama through to Rio Vista. Construction on the project began in 1911 and was completed by the early 1960s.

Dry Creek extends southwest into Natomas and Steelhead Creek from its confluence at the Yuba River. Within the vicinity of the project area, the first dam built across Dry Creek was constructed in 1929 by Alfred Whipple to help irrigate his crops (Buckland 2006). The dam was rebuilt in 1948 by Roy Hayer. The dam was ultimately replaced in 2005 by the Hayer Bridge, which spans Dry Creek, located south of the project area. The Goat Creek Bridge, located within the project area was constructed in 1939, designed by Sacramento County Engineer E. A. Fairbairn and built by Contractor R.G. Clifford.

Chatterton's Grove was a grove of oak trees was located near Dry Creek, where it forks and forms Cherry Island. It was on the border of Antelope and Elverta. This area is now the Cherry Island Golf Course (Buckland 2006). The Cherry Island Golf Course was established in 1990, designed by golf course Architect Robert Muir Graves. The Cherry Island Soccer Complex, located south of the golf course, was established in the late 1990s. During the early twentieth century, the fertile land along Dry Creek supported many orchards including the Chatterton family and cherry orchards owned by John Mott (Buckland 2006).

Period flooding throughout the 20th century has required maintenance and repair to the Dry Creek levee system, bridges, and water control structures. Levee improvement to Dry Creek was required by the U.S. Army Corps of Engineers (USACE) in 1938, repairs were made to bring the Dry Creek levee to project standards (USACE 1962). During the 1986 flood, approximately 2,000 acres of the Dry Creek flood plain experienced extensive flooding (USACE 1996; DWR 2014). In 1995, flooding also damaged many buildings and structures in the community.

In the southern alignment of the project area, the trail traverses the property at 6549 Cherry Lane sited on lots 93, 94, and 95 in the Rio Linda Subdivision No. 2. Lot 93 was sold by the Sacramento Suburban Fruits Lands Company to Olof E. Ahlkvist on June 18, 1918 (*Sacramento Bee* 1918). Four years later, Ahlkvist sold Lot 93 to Margaret K. Johnson for $1,000 (*Sacramento Bee* 1922). Margaret K. Johnson purchased Lots 94, 95, and 96 of Rio Linda Subdivision No. 2 from the Sacramento Valley Colonization Company in March 1914 (*Sacramento Bee* 1914).

By 1923, Margaret K. Johnson and her husband Charles R. Johnson husband owned a 22-acre farm in Rio Linda spanning Lots 93, 94, 95, and 96 in the Rio Linda Subdivision No. 2. Born in Germany in 1865, Margaret met her husband while she was living in Iowa and they married in 1885. They moved to Rio Linda in 1914 and began to plant French prunes and started a small poultry operation. By 1923, their poultry operation had grown to raise 2,000 hens on the property. Margaret was active in the agriculture-based groups and was a member of the California Prune & Apricot Association, the Central California Poultry Producers' Association, and was a stockholder in the cooperative Rio Linda Poultry Producers' Association. Charles Johnson was a machinist by trade and was also a long-time member of the Modern Woodmen of America (Sacramento County Assessor 1913; Reed and Willis 1923:686,689).

Charles died in 1928 and their son Edwin took over the operation of the farm. In the 1930 U.S. Census, Edwin was recorded as the head of the household of his family-owned fruit farm and Margaret was living with her son Edwin, his wife Juanita, and her grandson Robert (*Sacramento Bee* 1928; U.S. Department of Commerce 1930). By 1934, cherries had been planted on the property (*Sacramento Bee* 1934). Margaret died in 1947 at the age of 82 (findagrave.com 2022).

During World War II, Edwin was employed at McClellan Field as a machinist and continued full-time employment there after the war until at least 1950 (U.S. World War II Draft Registration Cards 1942; U.S. Department of Commerce 1950). In 1960, Edwin and his wife Juanita were still living at 6549 Cherry Lane when Edwin died a year later at the age of 70 (*Sacramento Bee* 1960; *Sacramento Bee* 1961). Juanita passed away in 1974 (California Death Index 1974). Their son Robert C. Johnson died in Williams in Colusa County in 2011 (U.S. Social Security Death Index 2014). The historic record did not reveal when the property was sold by members of the Johnson family. At some point in time, Lot 96 of the original 23-acre farm was sold and the property currently spans 15.82 acres and is owned by Sacramento County.

Based on a review of historical aerial imagery, in 1937, the property at 6549 Cherry Lane was largely planted with orchards with what appears to be a waterway traversing through the property. A building cluster on the property includes the extant barn, a second barn (no longer extant), and a house (no longer extant). A rectangular-plan gable roof poultry house that was developed circa 1914-23 (no longer extant) was sited south of the extant barn in 1937 (Noble and Cleek 2003:135-137). The concrete-lined in-ground pool was added sometime between 1937 and 1952 and the waterway traversing through the property was cleared of vegetation and filled. Additional trees were planted on the property during the 1937-52 timeframe north of the building cluster and another house was added to the property and a two-story tankhouse is visible.

Between 1952 and 1961, a second barn on the property was removed. Between 1981 and 1999, much of the built environment on the property was cleared and today the property consists of the pre-1937 barn, the 1937-52 in-ground pool, and the circa 1981-1999 pumphouse that replaced the former two-story tank house (UCSB 1952; 1961; 1981; 1999). Today, only the barn, pool, modern pumphouse, and scattered trees are extant on the property.

LITERATURE REVIEW

A cultural records search was conducted by the North Central Information Center (NCIC), of the California Historical Resources Information System, California State University, Sacramento on February 8, 2021 (File No. SAC-21-15) for the northern alignment and for the southern alignment on March 24, 2022 (File No. SAC-22-68). The NCIC, an affiliate of the California Office of Historic Preservation (OHP), is the official state repository of cultural resource records and studies for Sacramento County.

The searches included the project footprint and a 0.25-mile radius. The results were used to determine whether known cultural resources have been recorded at or adjacent to the project, and to assess the cultural sensitivity of the area. The records searches included reviews of maps listing previously conducted cultural resource studies in the area.

Site records and previous studies were accessed for the project APE and a 0.25-mile radius in the Rio Linda, California U.S. Geological Survey (USGS) 7.5-minute quadrangle. The following references also were reviewed:

- National Register of Historic Places (NRHP)
- California Register of Historical Resources (CRHR)
- OHP Built Environment Resource Directory (BERD (March 2020)
- California State Historical Landmarks (OHP 1996)
- California Inventory of Historic Resources (California Department of Parks and Recreation 1976)
- California Points of Historical Interest (OHP 1992)

NCIC Records Search – Northern Alignment

Tables IS-7 through IS-10 are the NCIC report and resources results for the Northern Alignment APE and 0.25-mile search radius. As shown in Table IS-9 prehistoric resources P-34-000259, P-34-000305, and P-34-000306 are within in the northern alignment APE. One historic-period resource, the Goat Creek Bridge (P-34-000656) is outside of the area of direct impact but is within the northern alignment APE.

Table IS-7 Previous Cultural Resources Reports in the Northern Alignment APE

Report Number	Citation
000127	Johnson, Jerald J. 1972. Present Status of Archeological Resources in Sacramento County. Overview.
000176	Dondero, Steven. 1978. An Archeological Reconnaissance of Sewer Alignments for the Natomas Interceptor System, Sacramento, California.
000251	Palumbo, Patti Jo. 1966. Dry Creek: An Archeological Survey and Site Report.
000279	Russo, Marianne L. and Steven B. Dondero. 1979. A Survey and Auger Testing of Archeologically Sensitive Areas within the Impact Zone of the Dry Creek Interceptor Along the South Side of Cherry Island, Rio Linda, California.
000284	Peak & Associates, Inc. 1983. Cultural Resources Assessment of the John Berggren Property (APN-203-020-14), Sacramento County, California.
003031	1992. Draft Environmental Impact Report for Antelope Greens Executive Golf Course, Use Permit and Williamson Act Cancellation.
008735	Baker, Cindy. 2005. Historic Property Survey Report, Elverta Road Proposed Widening Project, Control Number 04-PWE-0302, Sacramento County, California
009210	SWCA. 2007. Dry Creek Parkway Trails Phase 1 Project, Rio Linda, Sacramento County, California.

Table IS-8 Previous Cultural Resources Reports Outside of Northern Alignment APE within 0.25-mile

Report Number	Citation
000024	Peak & Associates, Inc. 1983. Cultural Resources Assessment of the Elverta-Watt Investors Property (APN-203-050-27), Sacramento County, California.
000176	Dondero, Steven. 1978. An Archeological Reconnaissance of Sewer Alignments for the Natomas Interceptor System, Sacramento, California.
000196	Hellen, Joan. 1978. An Archeological - Historical Investigation for a Proposed Rio Linda Community Center.
000251	Palumbo, Patti Jo. 1966. Dry Creek: An Archeological Survey and Site Report.
000279	Russo, Marianne L. and Steven B. Dondero. 1979. A Survey and Auger Testing of Archeologically Sensitive Areas within the Impact Zone of the Dry Creek Interceptor Along the South Side of Cherry Island, Rio Linda, California.

Report Number	Citation
000551	True, D.L. 1980. Letter Report: Johnson/Fallon Parcel, 10th Street, Rio Linda, Sacramento County.
000592	Peak, Ann S. and Associates. 1980. Cultural Resource Assessment of the Arbiter of California, Elverta Properties, Sacramento County, California.
001764	Derr, Eleanor. 1998. Pacific Bell Mobile Services: 6700 Seventh Street, Rio Linda, Sacramento County: Site# SA-146-P1
002484	Windmiller, Ric, Dan Osanna, and Donald Napoli. 2000. Phase I Inventory and Overview of Cultural Resources, Placer Vineyards Specific Plan, Placer County, California.
002958	Jones & Stokes. 2001. Cultural Resources Inventory and Evaluation Report for the Proposed Upper Northwest Interceptor Project, Rio Linda and North Highlands, Sacramento County, California.
003040	Bakic, Tracy. 1998. Draft Environmental Impact Report, Elkhorn Boulevard Widening, Rio Linda Boulevard to Dry Creek Road.
003441	Ebasco Environmental. 1992. Cultural Resources Survey of the Sacramento Power Project.
006378	PAR Environmental Services. 1998. Cultural Resources Investigation of the Hazard Mitigation Grant Program, Dry Creek Floodway Acquisition Project.
006387	PAR Environmental Services, Inc. 1997. Cultural Resources Investigation of the Elkhorn Boulevard Project, Rio Linda, Sacramento County, CA.
006395	Compas, Lynn. 2002. Positive Historic Property Survey Report for the Proposed Sacramento Northern Bikeway Extension and Welcome Visitor Center in the Town of Rio Linda, Sacramento County, CA.
006400	Gerry, Robert and Peak, Melinda. 1994. Historic Property Survey Report and Finding of No Effect for the Sacramento Northern Right-of-Way Acquisition Rio Linda, Sacramento County, California Caltrans District 03 STPLE-5924(012) County Control #93-PWE-0665.
006412	Warner, Laurie E. 1997. Sacramento County Department of Environmental Review and Assessment Negative Cultural Resource Survey Report Gill Tentative Parcel Map (Control No: 97-PMR-0473).
006425	EarthTouch. 2001. Nextel Communications Wireless Telecommunications Service Facilities.
006426	EarthTouch. 2000. SBA Communications Wireless Telecommunications Service Facility, Placer County.

Report Number	Citation
006454	US Department of Homeland Security, FEMA, and Alessandro Amaglio. 2004. Sacramento County Flood Hazard Mitigation, Sacramento County Department of Water Resources
006571	Windmiller, Ric. 2005. Placer Vineyards Specific Plan: Updated Cultural resources Study Placer County, California.
007269	SWCA Environmental Consultants. 2006. Cultural Resources Survey for the Proposed Beregouoy Tentative Parcel Map Project 2000 Trading Post Court Elverta, Sacramento County, California.
007652	Farber, Alfred. 1990. Archaeological Survey of the PFE Road Specific Plan Area, Placer County, California.
008006	Sikes, Nancy. 2006. Cultural Resources Survey for the Elverta Park General Plan Amendment, Rezone, Tentative Subdivision Map, Special Development Permit, and Affordable Housing Plan Project, Elverta Road, Antelope Community, Sacramento County, California.
008054	Sikes, Nancy. 2006. Cultural Resources Survey for the Proposed Risse Tentative Parcel Map Project, 7120 18th Street, Rio Linda- Elverta Community, Sacramento County, California.
009169	D. L. True. 1986. Archaeological Survey Located on Tolman Lane West of Watt Avenue (Control 86-PM-426).
009170	Neely, Dawn. 1978. Cultural Resource Report Application 24418, Dry Creek in Placer County.
009172	Marchand, James A. 1978. Historic Property Survey 03-Sac-0-CR, SOS-067-(5), Curved Bridge Road Bridge Widening at North Branch of Dry Creek.
009210	SWCA. 2007. Dry Creek Parkway Trails Phase 1 Project, Rio Linda, Sacramento County, California.
010196	Bonner, Wayne. 2008. Cultural Resources Records Search and Site Visit Results for T-Mobile USA Candidate S15353A (Cherry Island Soccer Complex), 28th Street and U Street, Antelope, Sacramento County, California.
010298	Losee, Carolyn. 2009. Cultural Resource Investigation for Clearwire Project CA-SAC0596A "Rio Linda North" 730 L Street.
010326	Losee, Carolyn. 2009. Cultural Resources Investigation for Clearwire Site # CA-SAC056A "Rio Linda North" 730 "L" Street, Rio Linda, Sacramento County, California 95673
010715	Baxter, Scott. 2010. Confidential: Rio Linda/Elverta Community Water District Wells 16 and 17 Cultural Resources Inventory and Evaluation.

Report Number	Citation
010819	Hatoff, Brian. 2010. Verizon Cellular Communications Tower Site-Rio Linda LTE 730 L Street (APN: 206-0253-030) Rio Linda, Sacramento County, CA 95673.
011673	Baker, Cindy L. and John Dougherty. 2015. Cultural Resources Study of the Rio Linda Special Planning Area Sacramento County California
012141	Hoffman, Laura. 2016. Cultural Resources Survey Report for the Elverta Park Project, Antelope, Sacramento County, California.
013480	Mundt, Shauna and Lisa Holm. 2021. Archaeological Investigation for the Sacramento County Acquisitions Rep Loss 6550 Dry Creek Road Project, Sacramento County, California (FMA-PJ-09-CA-2019-001).
013496	Mundt, Shauna and Lisa Holm. 2021. Archaeological Investigation for the Sacramento County House Elevation Program Phase 5 Project, Sacramento County, CA (HMGP-4407-038-073)

Note: All reports are on file at the North Central Information Center

Source: North Central Information Center 2021, data compiled by AECOM 2021

Table IS-9 Previously Recorded Cultural Resources in Northern Alignment APE

Primary Number	Resource Name	Resource Type	Historic Property Status
P-34-000244	M.A. Driver Site	Prehistoric	Unevaluated
P-34-000259	M.A. Driver Site	Prehistoric	Unevaluated
P-34-000264/H	Elverta Road Barely There Site	Prehistoric, Historic	3S
P-34-000268	N/A	Prehistoric	Unevaluated
P-34-000656	Goat Creek Bridge	Historic	6Z

Note: Site documentation on file at the North Central Information Center

Source: North Central Information Center 2021, Data compiled by AECOM 2021

Table IS-10 Previously Recorded Cultural Resources Outside of Northern Alignment APE within 0.25-Mile

Primary Number	Resource Name	Resource Type	Historic Property Status
P-34-000270	unnamed	Prehistoric	Unevaluated
P-34-000304	unnamed	Prehistoric	Unevaluated
P-34-000305	unnamed	Prehistoric	Unevaluated

Primary Number	Resource Name	Resource Type	Historic Property Status
P-34-000306	unnamed	Prehistoric	Unevaluated
P-34-000307	unnamed	Prehistoric	Unevaluated
P-34-000308	CA-SAC-000281	Prehistoric AP16	Unevaluated
P-34-000549	Prop#: 121006	Historic HP02	Not eligible
P-34-000550	Prop#: 121004 DoE: 34-99-0001-0000	Historic HP02	Not eligible
P-34-000655	28th Street/ U Street	Historic	Unevaluated
P-34-000659	Former ranch complex	Historic	Unevaluated
P-34-001612	Elverta Park Site 1	Historic	Not eligible

Note: Site documentation on file at the North Central Information Center

Source: North Central Information Center 2021, Data compiled by AECOM 2021

NCIC Records Search – Southern Alignment

The records search conducted by the NCIC on March 24, 2022 (File No. SAC-22-68) revealed that eight previous cultural resource studies within the Southern Alignment APE and 17 cultural resource studies been conducted within a quarter-mile radius of the project area (Table IS-11 and Table IS-12). These studies have resulted in a previous inventory of the entirety of the APE.

The NCIC results identified two cultural resources within or directly adjacent to the APE. However, P-34-001350 (6541 Cherry Lane), which is a Ranch-style residence that was found ineligible for listing in the NRHP, is erroneously mapped by the NCIC within the project area. Therefore, P-34-001350 is included in Table IS-14. The other resource identified within the APE is the former alignment of the Sacramento Northern Railroad (P-34-000746), at the terminus of the APE (Table IS-13). The railroad was previously found ineligible for listing in the NRHP because of lack of integrity and is not considered a historical resource for the purposes of CEQA. The segment of the Sacramento Northern Railroad at the terminus of the APE has been transformed into a paved hiking/biking path.

There are 19 previously identified resources outside of the APE within a 0.25-mile search radius. These resources are summarized in Table IS-14.

Table IS-11 Previous Cultural Resources Reports in the Southern Alignment APE

Report Number	Citation
000251	Palumbo, Patti Jo. 1966. Dry Creek: An Archeological Survey and Site Report.
000279	Russo, Marianne L. and Steven B. Dondero. 1979. A Survey and Auger Testing of Archeologically Sensitive Areas within the Impact Zone of the Dry Creek Interceptor Along the South Side of Cherry Island, Rio Linda, California.
003040	Bakic, Tracy. 1998. Draft Environmental Impact Report, Elkhorn Boulevard Widening, Rio Linda Boulevard to Dry Creek Road.
003441	Ebasco Environmental. 1992. Cultural Resources Survey of the Sacramento Power Project.
006378	PAR Environmental Services. 1998. Cultural Resources Investigation of the Hazard Mitigation Grant Program, Dry Creek Floodway Acquisition Project.
006387	PAR Environmental Services, Inc.1997. Cultural Resources Investigation of the Elkhorn Boulevard Project, Rio Linda, Sacramento County, CA.
009210	SWCA. 2007. Dry Creek Parkway Trails Phase 1 Project, Rio Linda, Sacramento County, California.
011673	Baker, Cindy L. and John Dougherty. 2015. Cultural Resources Study of the Rio Linda Special Planning Area Sacramento County California.

Table IS-12 Previous Cultural Resources Reports Outside of Southern Alignment APE within 0.25-Mile

Report Number	Citation
000176	Dondero, Steven. 1978. An Archeological Reconnaissance of Sewer Alignments for the Natomas Interceptor System, Sacramento, California.
000196	Hellen, Joan. 1978. An Archeological - Historical Investigation for a Proposed Rio Linda Community Center.
000551	True, D.L. 1980. Letter Report: Johnson/Fallon Parcel, 10th Street, Rio Linda, Sacramento County.
001764	Derr, Eleanor. 1998. Pacific Bell Mobile Services: 6700 Seventh Street, Rio Linda, Sacramento County: Site# SA-146-P1.
002958	Jones & Stokes. 2001. Cultural Resources Inventory and Evaluation Report for the Proposed Upper Northwest Interceptor Project, Rio Linda and North Highlands, Sacramento County, California.
006395	Compas, Lynn. 2002. Positive Historic Property Survey Report for the Proposed Sacramento Northern Bikeway Extension and Welcome Visitor Center in the Town of Rio Linda, Sacramento County, CA.
006400	Gerry, Robert and Peak, Melinda. 1994. Historic Property Survey Report and Finding of No Effect for the Sacramento Northern Right-of-Way Acquisition Rio Linda, Sacramento County, California Caltrans District 03 STPLE-5924(012) County Control #93-PWE-0665.
006425	EarthTouch. 2001. Nextel Communications Wireless Telecommunications Service Facilities.
006426	EarthTouch. 2000. SBA Communications Wireless Telecommunications Service Facility, Placer County.
006454	US Department of Homeland Security, FEMA, and Alessandro Amaglio. 2004. Sacramento County Flood Hazard Mitigation, Sacramento County Department of Water Resources.
009172	Marchand, James A. 1978. Historic Property Survey 03-Sac-0-CR, SOS-067-(5), Curved Bridge Road Bridge Widening at North Branch of Dry Creek.
010298	Losee, Carolyn. 2009. Cultural Resource Investigation for Clearwire Project CA-SAC0596A "Rio Linda North" 730 L Street.
010326	Losee, Carolyn. 2009. Cultural Resources Investigation for Clearwire Site # CA-SAC056A "Rio Linda North" 730 "L" Street, Rio Linda, Sacramento County, California 95673.

Report Number	Citation
010715	Baxter, Scott. 2010. Confidential: Rio Linda/Elverta Community Water District Wells 16 and 17 Cultural Resources Inventory and Evaluation.
010819	Hatoff, Brian. 2010. Verizon Cellular Communications Tower Site-Rio Linda LTE 730 L Street (APN: 206-0253-030) Rio Linda, Sacramento County, CA 95673.
013480	Mundt, Shauna and Lisa Holm. 2021. Archaeological Investigation for the Sacramento County Acquisitions Rep Loss 6550 Dry Creek Road Project, Sacramento County, California (FMA-PJ-09-CA-2019-001).
013496	Mundt, Shauna and Lisa Holm. 2021. Archaeological Investigation for the Sacramento County House Elevation Program Phase 5 Project, Sacramento County, CA (HMGP-4407-038-073).

Note: All reports are on file at the North Central Information Center

Source: North Central Information Center 2022, data compiled by AECOM 2022

Table IS-13 Previously Recorded Cultural Resources in Southern Alignment APE

Primary Number	Resource Name	Resource Type	Historic Property Status
P-34-000746	Sacramento Northern Railroad	Historic AH07	Ineligible

Note: Site documentation on file at the North Central Information Center

Source: North Central Information Center 2022, Data compiled by AECOM 2022

Table IS-14 Previously Recorded Cultural Resources Outside of Southern Alignment APE within 0.25-Mile

Primary Number	Resource Name	Resource Type	Historic Property Status
P-34-000308	CA-SAC-000281	Prehistoric AP16	Unevaluated
P-34-000549	Prop#: 121006	Historic HP02	Not eligible
P-34-000550	Prop#: 121004 DoE: 34-99-0001-0000	Historic HP02	Not eligible
P-34-000704	Larson Residence	Historic HP02, HP46	Not eligible
P-34-000705	Clark Residence	Historic HP02, HP04, HP39	Not eligible
P-34-000706	Harper Residence	Historic HP02, HP04, HP39	Not eligible
P-34-000886	Elkhorn Boulevard	Historic HP37	Unevaluated

Primary Number	Resource Name	Resource Type	Historic Property Status
P-34-000994	Hayer Dam	Historic HP21	Not eligible
P-34-001332	Vacant Residence	Historic HP02, HP04, HP39, HP46	Not eligible
P-34-001333	Gutierrez Residence	Historic HP02, HP04	Not eligible
P-34-001334	Hugg Residence	Historic HP02, HP04, HP30	Not eligible
P-34-001337	Rio Linda Depot Site	Historic AH02	Unevaluated
P-34-001339	Rio Linda Poultry Producers Association	Historic	Not eligible
P-34-001347	Unnamed	Historic HP02	Unevaluated
P-34-001348	Unnamed	Historic HP02	Unevaluated
P-34-001349	First Apostolic Church of Rio Linda	Historic HP02, HP16	Not eligible
P-34-001350	6541 Cherry Lane	Historic HP02	Not eligible
P-34-004024	Rio Linda Elevated Water Tower & Tank	Historic HP11	Not eligible
P-34-005454	6640 Cherry Lane	Historic HP02	Not eligible

Note: Site documentation on file at the North Central Information Center

Source: North Central Information Center 2022, Data compiled by AECOM 2022

METHODS

On March 3, 2021 and March 12, 2021, AECOM Archaeologist Diana Ewing conducted a pedestrian survey of the northern alignment APE utilizing 12- to 15-yard transects parallel to the centerline of the proposed trail alignment. Areas of exposed ground were examined for cultural resources. The surveyor conducted surface scrapes periodically during the transects, but no shovel tests were performed. Due to the presence of homeless encampments, discarded needles, and human excrement in various locations along the proposed alignment, no excavation was conducted. Grasses and weeds covered the majority (approximately 90%) of the proposed trail area. In addition, the presence of homeless encampments limited access to previously documented site areas. The accessible survey area was documented with photographs and field notes and included the 2.6-mile alignment for the proposed paved Class 1 multi-use bicycle/pedestrian trails and the proposed equestrian trail. The survey area covered a 50-foot wide swath along the alignment (i.e., 25 feet on either side of the centerline). No

archaeological resources were identified during the assessment of the northern trail alignment and only modern refuse was observed

Historic-age built environment resources in the northern alignment APE were photographed and notes taken in March 2021. This included the remains of a former residence at 2590 Elverta Road. Other than a concrete slab and paved driveway no other artifacts or features are associated with the residence. The 1939-constructed Goat Creek Bridge was also recorded. The other properties in the APE were modern or heavily altered buildings, vacant land, or minor infrastructure elements of less than 50 years in age.

On March 30, 2022 and April 1, 2022, AECOM Archaeologist Diana Ewing conducted a pedestrian survey of the bridge areas, proposed staging areas, and revised northern alignment APE and the southern alignment APE utilizing 12- to 15-yard transects parallel to the centerline of the proposed trail, including 25 feet on either side. Areas of exposed ground were examined for cultural resources. The surveyor conducted surface scrapes periodically during the transects, but no shovel tests were performed.

A historic-age barn, a concrete-lined in-ground pool, and a modern pumphouse were observed at 6549 Cherry Lane. Modern refuse was scattered throughout the property. No other cultural material was observed. Most of the southern alignment APE was covered by tall grasses and weeds obscuring soil visibility. Modern refuse was observed scattered throughout. The alignment of the Sacramento Northern Railroad was located at the terminus of the southern alignment APE, and has subsequently, been converted to a paved hiking/biking trail.

Findings

Three previously recorded resources prehistoric resources (P-34-000244, P-34-000259, and P-34-000268), and a prehistoric component of a fourth multi-component resource (P-34-000264/H) are adjacent to or partially within the northern alignment APE.

No archaeological or historic-age cultural resources were identified in the southern alignment APE.

Discussion of Project Impacts

The project would involve construction of two segments of multi-use trail system including bridge crossing, culverts, and interpretive signage installation. Construction of these improvements would result in ground disturbance. The estimated depth of excavation for bridge abutments would likely range from 15 to 25 feet. Most of the trail work would likely have a vertical depth of construction between 8 to 15 inches, except where culverts would be installed. In the culverted areas, the depth of construction could extend to 5 feet beneath the ground surface.

Based on review of previous investigations and pedestrian field surveys, no built environment historical resources were identified within the northern or southern alignments of the project. The barn and home located at 2592 Elverta Road were

evaluated and found to be ineligible for listing in the National Register for Historic Properties, nor the California Register.

While no archaeological resources or human remains were observed during pedestrian field surveys, prehistoric and historical archaeological resources and potential Native American remains were identified in previous investigations of the northern alignment project area. Native American consultation with UAIC has identified mitigation measures including paid tribal monitor(s), inadvertent discovery, and cultural resources awareness training for consultants and contractors (Mitigation Measures U through W). With these mitigation measures in place, project impacts to cultural resources will be ***less than significant***.

TRIBAL CULTURAL RESOURCES

This section supplements the Initial Study Checklist by analyzing if the project would:

- Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:
    - Listed or eligible for listing in the California Register of Historical Resources, or in local register of historical resources as defined in Public Resources Code section 5020.1(k), or

        a) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe

    - Under Public Resources Code Section 21084.3, public agencies shall, when feasible, avoid damaging effects to any tribal cultural resource. California Native American tribes traditionally and culturally affiliated with a geographic area may have expertise concerning their tribal cultural resources (Public Resources Code Section 21080.3.1(a)).

EXISTING SETTING

The *Cultural Resources* section above contains a more detailed description of the environmental setting for the project site, relating to cultural and tribal cultural resources (TCRs).

TCRs include sites, features, places, cultural landscapes, sacred places, and objects with cultural value to California Native American tribes. Tribal cultural resources may contain physical cultural remains or may be places within a landscape such as gathering places, sacred sites, landscape features, plants, or other locations that help maintain religious and cultural practices, traditions, beliefs, lifeways, arts, crafts, or social institution of a living tribal community. This category of resources under CEQA is to recognize that tribes have unique knowledge and information about sensitive resources important to the self-identity of tribal communities and can only be identified by members of the Native American community, thus requiring consultation under CEQA.

REGULATORY CONTEXT

AB 52 (effective July 1, 2015) added Public Resources Code Sections 21073, 21074, 21080.3.1, 21080.3.2, 21082.3, 21083.09, 21084.2, and 21084.3 to CEQA, relating to consultation with California Native American tribes, consideration of “tribal cultural

resources," and confidentiality. AB 52 provides procedural and substantive requirements for lead agency consultation with California Native American tribes and consideration of effects on tribal cultural resources, as well as examples of mitigation measures to avoid or minimize impacts to tribal cultural resources. AB 52 establishes that if a project may cause a substantial adverse change in the significance of a tribal cultural resource, that project may have a significant effect on the environment. Lead agencies must avoid damaging effects to tribal cultural resources, when feasible, and shall keep information submitted by tribes confidential.

AB 52 requires a lead agency to consult with California Native American tribes that are traditionally and culturally affiliated with the geographic area of the proposed project, if the tribe requested to the lead agency, in writing, to be informed by the lead agency of proposed projects in that geographic area and the tribe requests consultation. Section 21080.3.1(d) states that within 14 days of determining that an application for a project is complete or a decision by a public agency to undertake a project, the lead agency shall provide formal notification to the designated contact of, or tribal representative of, traditionally and culturally affiliated California Native American tribes that have requested notice, which shall be accomplished by means of at least one written notification that includes a brief description of the proposed project location and its location, the lead agency contact information, and a notification that the California Native American tribe has 30 days to requests consultation pursuant to this section.

NATIVE AMERICAN CONSULTATION

The NAHC was contacted by AECOM via email on February 2, 2021, for a Sacred Lands File & Native American Contacts List Request. The NAHC responded via email on March 1, 2021, with negative results and attached a list of Native American tribes who may have knowledge of cultural resources in the project area.

In accordance with AB 52, codified as Section 21080.3.1 of CEQA, formal notification letters were sent to those tribes who had previously requested to be notified of Sacramento County projects on March 29 and March 30, 2022. One response was received from the UAIC requesting consultation under AB 52 via email on April 28, 2022. PER conducted consultation with UAIC for the project.

Discussion of Project Impacts

Through consultation under CEQA, UAIC confirmed that the project area for the northern alignment is sensitive for tribal cultural resources. PER staff conducted a site visit with UAIC representatives on June 28, 2022. While conducting the site visit, UAIC representatives confirmed site sensitivity for tribal cultural resources and requested that a paid tribal monitor(s) be included as mitigation in the northern alignment area. In addition, to a tribal monitor(s) mitigation measure, mitigation measures have been included for inadvertent discovery of tribal cultural resources, tribal cultural resources awareness training for consultants and contractors, and treatment & disposition of tribal cultural resources (Mitigation Measures X through Y). With these mitigation measures in place, project impacts to tribal cultural resources will be ***less than significant***.

HAZARDS AND HAZARDOUS MATERIALS

This section supplements the Initial Study Checklist by analyzing if the project would:

- Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances or waste within one-quarter mile of an existing or proposed school
- Expose the public or the environment to a substantial hazard through reasonably foreseeable upset conditions involving the release of hazardous materials
- Be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5, resulting in a substantial hazard to the public or the environment

EXISTING SETTING

SCHOOLS

The Heritage Peak Charter School, located at 631 L Street in Rio Linda (serving grades K–12), is approximately 1,330 feet northwest of the western end of the proposed southern trail segment.

The outdoor track and stadium for the Rio Linda High School (on the northwest corner of Elkhorn Boulevard and Dry Creek Road) is approximately 750 feet south of the proposed southern trail segment. The northern edge of the rest of the Rio Linda High School campus (on the southwest corner of Elkhorn Boulevard and Dry Creek Road) is 0.24 mile south of the proposed southern trail segment.

McClellan High School, located at 8725 Watt Avenue, is immediately adjacent to the northeastern end of the proposed northern trail segment.

HAZARDOUS MATERIALS SITES

AECOM performed a search of publicly available databases maintained under Public Resources Code Section 65962.5 (i.e., the "Cortese List") to determine whether any known hazardous materials are present either on or within 0.25 mile of the project site. As part of the requirements of Public Resources Code Section 65062.5, the California Department of Toxic Substances Control (DTSC) maintains the "EnviroStor" database for tracking of cleanup, permitting, enforcement, and investigation efforts at hazardous waste facilities and sites with known or suspected contamination issues (California Department of Toxic Substances Control 2022). The SWRCB maintains a similar database, called "GeoTracker," which is an information management system for cases involving water quality contamination (SWRCB 2022). There are three open and one closed Cortese-listed hazardous materials sites within 0.25 mile of the project site. A brief summary of these sites is provided in Table IS-15.

Table IS-15 Cortese-Listed Hazardous Materials Sites

Site Name, Case No., and Location	Media Affected	Summary	Case Status
Former Rio Linda Elverta Fire District Fire Station No. 11 (Proposed Rio Linda Library) (T0000013743) 6749 Front Street, Rio Linda	Soil	This site comprises a former fire station and truck repair shop, located approximately 1,300 feet northwest of the southern end of the proposed trail alignment. In 1992, a steel-walled underground fuel tank was excavated and removed, and soil contamination underneath the tank was discovered. In addition, soil contamination from former truck repair operations (including the former mechanics pits, fuel and waste oil USTs, pipeline and fuel islands, and hydraulic lifts) was also discovered. Constituents of concern include TPH and metals. Investigations are ongoing.	Open
Exxon No. 7-0122 (T0606700891) 732 M Street, Rio Linda	Soil and groundwater	This existing Exxon Service Station site is approximately 1,300 feet north of the southern end of the trail alignment. Soil contamination, from an unknown source, was discovered in 1995 during trenching for a new vapor recovery line. Constituents of concern included TPH as gas and diesel, benzene, toluene, xylene, methylbenzene, lead, and MTBE. Contaminated soil was excavated and removed, and contaminated groundwater was purged and treated. Contaminated groundwater did not extend off the site.	Closed in 2007
Cherry Island Golf Course (T0606701122) 2364 Elverta Road, Elverta	Soil	The site is located at the golf course maintenance building approximately 1,250 feet northwest of proposed trail. In April 1999 approximately 15 cubic yards of soil contaminated with diesel were excavated in the vicinity of the fuel dispenser islands. The fueling system (the two fuel USTs and the fueling island) along with the waste oil tank were subsequently removed and replaced with 500-gallon diesel and 500-gallon gasoline aboveground storage tanks. Groundwater is present at a depth of more than 100 feet beneath the site, and was not contaminated. All contaminated soil was excavated and removed.	Open, Eligible for Closure
Tower Mart No. 181 (T10000001914) 8008 Dutch Haven Road, Elverta	Soil	This existing Tower Mart Service Station site is approximately 1,260 feet west of the proposed northern trail segment. A minor leak associated with fuel dispensing equipment occurred in 2009. Contaminated soil was excavated and removed.	Closed in 2011

Notes: TPH = total petroleum hydrocarbons; MTBE = methyl tert-butyl ether; UST = underground storage tank
Sources: SWRCB 2022, DTSC 2022

In addition to the four State-listed sites above, the former McClellan Air Force Base (AFB) (now Sacramento McClellan Airport and McClellan Business Park) is a designated Superfund (National Priority List) site approximately 1.3 miles southeast of the proposed southern trail segment. The McClellan AFB Superfund site is overseen by the U.S. Environmental Protection Agency (USEPA), DTSC, and the Central Valley RWQCB. The operation and maintenance of aircraft at the former AFB involved the use, storage, and disposal of hazardous materials, including industrial solvents, caustic cleansers, paints, metal plating wastes, low-level radioactive wastes, and a variety of fuel oils and lubricants. The Air Force has identified 326 waste areas of known and suspected soil and groundwater contamination. McClellan's restoration program is in the final stages of completion. The groundwater cleanup program includes a network of 85 extraction wells across the former AFB. These wells send approximately 1,450 gallons per minute of contaminated water to an on-site groundwater treatment plant, which cleans and discharges it into Magpie Creek. There are approximately 537 monitoring wells on and off the former AFB. More than 61,000 pounds of contaminants have been removed from the groundwater at McClellan. This includes volatile organic compounds (VOCs), as well as non-volatile organic compounds such as hexavalent chromium. Groundwater contamination at McClellan Park is contained, and the treatment system is steadily reducing the size and concentration of the plumes. While the majority of contaminants have been removed, it is anticipated that the groundwater pump-and-treat system will run for about another 30 years at McClellan (USEPA 2021).

Discussion of Project Impacts

Emit Hazardous Materials Within One-Quarter Mile of a School

As described above, there are three schools within 0.25 mile of the proposed trail alignment. However, the proposed project would require the use of minimal construction equipment to install a paved pedestrian/bicycle trail, a dirt equestrian trail, and four small pedestrian/bicycle bridges. Therefore, although hazardous materials such as fuels, oils, lubricants, and asphalt paving materials would be used during the construction phase, the quantities used would be small. None of these materials would be acutely hazardous. Furthermore, the amount of construction equipment would not be large enough to generate hazardous air emissions at the nearby schools. Small amounts of herbicides may be sprayed during the project's operational phase to help control weeds along the trail; herbicides would be applied at the recommended rates as per the manufacturer's labelling instructions. Thus, this impact would be ***less than significant.***

Potential Releases of Hazardous Materials

As described in Table IS-15, there are three open and one closed hazardous materials sites within 0.25 mile of the proposed trail alignment and staging areas. All four of these sites involved contaminated soil, the extent of which was limited to small areas at distances ranging from 800 to 1,260 feet from the proposed construction and/or staging areas. At three of the sites (Exxon service station No. 7-0122, Cherry Island Golf Course maintenance building, and Tower Mart No. 181), the contaminated soil was

excavated and removed; therefore, these sites would not represent a hazard for construction or operation of the proposed project.

At the site of the former truck repair shop and Rio Linda Fire Station No. 11, soil contamination was not investigated until a Phase II Environmental Site Assessment was prepared in 2009, when the site was considered for use as a library. No actions have been taken with regards to remediation since the soil contamination was reported in 2009. However, this site is 1,300 feet northwest of the southern end of the proposed trail alignment. Therefore, this site would not represent a hazard for construction or operation of the proposed project.

At the Exxon Service Station site, approximately 1,300 feet north of the southern end of the trail alignment, groundwater contamination also occurred in addition to soil contamination, but the groundwater plume was small in size, was contained within the service station parcel, and was remediated. Therefore, this site would not represent a hazard for construction or operation of the proposed project.

Although the former McClellan AFB Superfund site involves ongoing cleanup of contaminated soil and groundwater, the northern extent of the contamination is approximately 1.3 miles south of the proposed trail alignment. Therefore, this site would not represent a hazard for construction or operation of the proposed project.

Finally, due to the small project size and the small quantities of hazardous materials that would be used during construction (none of which would be acutely hazardous), only a minor potential exists for accidental releases during project-related construction. If such a release were to occur, the project's SWPPP, which must be submitted to and approved by the Central Valley RWQCB, is required to include BMPs that detail specific notification and clean-up procedures to be followed, to ensure a quick and thorough cleanup of any spills that occur. Furthermore, since the proposed staging areas would be located near Dry Creek, BMPs in the SWPPP would also require hazardous materials stored at staging areas (such as fuel, oil, and lubricants) to be located in upland areas as far as practicable from the streambed. The proposed trail extension does not include any usual features that would exacerbate the potential for accidental spills. Therefore, for all of the reasons listed above, this impact would be ***less than significant***.

RESULT IN A HAZARD FROM CONSTRUCTION IN A CORTESE-LISTED SITE

The proposed trail alignment and staging areas would not be located in a Cortese-listed site (see Table IS-7). The listed site at the Cherry Island Golf Course is located at the golf course's maintenance building, which is on the west side of the North Fork Dry Creek, approximately 1,250 feet northwest of the proposed Phase II trail. This site consisted of minor soil contamination at the maintenance yard, and the contaminated soil was excavated and removed. Groundwater was not contaminated. Thus, there would be ***no impact*.**

GREENHOUSE GAS EMISSIONS

This section supplements the Initial Study Checklist by analyzing if the project would:

- Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment.

EXISTING SETTING

GREENHOUSE GAS BACKGROUND

Certain gases in Earth's atmosphere, classified as greenhouse gases (GHGs), play a critical role in determining the earth's surface temperature. Solar radiation enters the earth's atmosphere from space. A portion of the radiation is absorbed by Earth's surface, and a smaller portion of this radiation is reflected toward space through the atmosphere. Infrared radiation is selectively absorbed by GHGs. As a result, infrared radiation released from Earth 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.

GHGs are present in the atmosphere naturally; are released by natural sources and anthropogenic sources (e.g., human-caused); and are formed from secondary reactions taking place in the atmosphere. Natural sources of GHGs include the respiration of humans, animals, and plants; decomposition of organic matter; volcanic activity; and evaporation from the oceans. Anthropogenic sources include the combustion of fossil fuels by stationary and mobile sources, waste treatment, and agricultural processes. Anthropogenic sources lead to atmospheric levels of GHGs in excess of natural ambient concentrations and have the potential to adversely affect the environment because such emissions contribute, on a cumulative basis, to global climate change.

The following are GHGs that are widely accepted as the principal contributors to human-induced global climate change that are relevant to the project:

- Carbon dioxide (CO_2)
- Methane (CH_4)
- Nitrous oxide (N_2O)
- Fluorinated gases such as chlorofluorocarbons (CFCs), perfluorinated chemicals (PFCs), sulfur hexafluoride (SF6), hydrochlorofluorocarbons (HCFCs), and hydrofluorocarbons (HFCs)

Emissions of CO_2 are byproducts of fossil fuel combustion. CH_4 is the main component of natural gas and is associated with agricultural practices and landfills. N_2O is a colorless GHG that results from industrial processes, vehicle emissions, and agricultural practices.

Global warming potential (GWP) is a concept developed to compare the ability of each GHG to trap heat in the atmosphere relative to another gas. The GWP of a GHG is based on several factors, including the relative effectiveness of gas to absorb infrared

radiation and the length of time that the gas remains in the atmosphere ("atmospheric lifetime"). The reference gas for GWP is CO_2; therefore, CO_2 has a GWP of 1. The other main GHGs that have been attributed to human activity include CH_4, which has a GWP of 28, and N_2O, which has a GWP of 265 (IPCC 2014). For example, 1 ton of CH_4 has the same contribution to the greenhouse effect as approximately 28 tons of CO_2. GHGs with lower emission rates than CO_2 still may contribute to climate change because they are more effective at absorbing outgoing infrared radiation than CO_2 (i.e., high GWP).

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 pollutants with localized air quality effects have relatively short atmospheric lifetimes (about one day), GHGs have long atmospheric lifetimes (one to several thousand years). GHGs persist in the atmosphere for long enough time periods to be dispersed around the globe. Although the exact lifetime of any particular GHG molecule is dependent on multiple variables and cannot be pinpointed, it is understood that more CO_2 is emitted into the atmosphere than is sequestered by ocean uptake, vegetation, or other forms. GHGs typically persist in the atmosphere for extensive periods of time, long enough to be dispersed throughout the globe and result in long-term global impacts. As such, the project would not, by itself, contribute significantly to climate change; however, cumulative emissions from many projects and plans all contribute to global GHG concentrations and the climate system.

Regulatory Background

As California has adopted statewide legislation addressing various aspects of climate change and GHG emissions mitigation. Much of this establishes a broad framework for the State's long-term GHG reduction and climate change adaptation program. Of particular importance is AB 32, which establishes a statewide goal to reduce GHG emissions back to 1990 levels by 2020, and SB 375 supports AB 32 through coordinated transportation and land use planning with the goal of more sustainable communities. SB 32 extends the State's GHG policies and establishes a near-term GHG reduction goal of 40% below 1990 emissions levels by 2030. Executive Order (EO) S-03-05 identifies a longer-term goal for 2050[6].

County of Sacramento Climate Action Planning

In November of 2011, Sacramento County approved the Phase 1 Climate Action Plan Strategy and Framework document (Phase 1 CAP), which is the first phase of developing a community-level Climate Action Plan. The Phase 1 CAP provides a framework and overall policy strategy for reducing greenhouse gas emissions and managing our resources in order to comply with AB 32. It also highlights actions already taken to become more efficient and targets future mitigation and adaptation strategies. This document is available at http://www.green.saccounty.net/Documents/sac_030843.pdf.

Phase 1 CAP is a strategy and framework document. The County adopted the Phase 2A CAP (Government Operations) on September 11, 2012. Neither the Phase 1 CAP

[6] EO S-03-05 has set forth a reduction target to reduce GHG emissions by 80 percent below 1990 levels by 2050. This target has not been legislatively adopted.

nor the Phase 2A CAP is designed to streamline or "tier" the review of subsequent projects. The Communitywide CAP (Phase 2B) has been in progress for approximately six years (https://planning.saccounty.net/PlansandProjectsIn-Progress/Pages/CAP.aspx) and the Board of Supervisors is now expected to consider adoption in December of 2022.

The commitment to a Communitywide CAP is identified in General Plan Policy LU-115 and associated Implementation Measures F through J on page 117 of the General Plan Land Use Element. This commitment was made in part due to the County's General Plan Update process and potential expansion of the Urban Policy Area to accommodate new growth areas. General Plan Policies LU-119 and LU-120 were developed with SACOG to be consistent with smart growth policies in the SACOG Blueprint, which are intended to reduce VMT and GHG emissions. This second phase CAP is intended to flesh out the strategies involved in the strategy and framework CAP and include economic analysis, intensive vetting with all internal departments, community outreach/information sharing, timelines, and detailed performance measures.

Thresholds of Significance

Addressing GHG generation impacts requires an agency to make a determination as to what constitutes a significant impact. Governor's Office of Planning and Research's Guidance does not include a quantitative threshold of significance to use for assessing a proposed development's GHG emissions under CEQA. Moreover, California Air Resources Board (CARB) has not established such a threshold or recommended a method for setting a threshold for proposed development-level analysis.

This analysis uses the SMAQMD's construction-related numeric bright-line mass emission threshold of 1,100 metric tons of carbon dioxide equivalent (CO_2e) annually. Although the County of Sacramento has established quantitative thresholds for GHG emissions generated by operations of new development, these thresholds are geared toward the residential and transportation sectors in terms of emissions per capita and the commercial and industrial sectors in terms of emissions per thousand square feet of development. Therefore, although the project is under the jurisdiction of Sacramento County, and, thus, is subject to the County's thresholds of significance for GHG emissions, considering the recent adoption of the updated GHG thresholds by SMAQMD's board and the applicability of these thresholds across all sectors in the region, the SMAQMD's updated thresholds (April 2020) are applied to this analysis for the purpose of determining whether the project's operational GHG emissions may result in a cumulatively considerable contribution to the significant impact of climate change. For land development and construction projects, SMAQMD considers a project to exceed GHG emission thresholds if (SMAQMD 2020a) In April 2020, SMAQMD adopted an update to their land development project operational GHG threshold, which requires a project to demonstrate consistency with CARB's 2017 Climate Change Scoping Plan. SMAQMD's technical support document, "Greenhouse Gas Thresholds for Sacramento County", identifies operational measures that should be applied to a project to demonstrate consistency.

All projects must implement Tier 1 BMPs to demonstrate consistency with the Climate Change Scoping Plan. After the implementation of Tier 1 BMPs, project emissions are compared to the operational land use screening levels table (equivalent to 1,100 metric tons of CO_2e per year). If a project's operational emissions are less than or equal to 1,100 metric tons of CO_2e per year after implementation of Tier 1 BMPs, the project will result in a less than cumulatively considerable contribution and has no further action. Tier 1 BMPs include:

- All projects must implement Tier 1 BMPs (BPM 1 and 2):
- BMP 1 – no natural gas: projects shall be designed and constructed without natural gas infrastructure;
- BMP 2 – electric vehicle (EV) ready: projects shall meet the current CalGreen Tier 2 standards, except all EV Capable spaces shall instead be EV Ready.
    - EV Capable requires the installation of a "raceway" (the enclosed conduit that forms the physical pathway for electrical wiring to protect it from damage) and adequate panel capacity to accommodate future installation of a dedicated branch circuit and charging station(s)
    - EV Ready requires all EV Capable improvements plus installation of dedicated branch circuit(s) (electrical pre-wiring), circuit breakers, and other electrical components, including a receptacle (240-volt outlet) or blank cover needed to support the future installation of one or more charging stations.

Projects that implement BMP 1 and BMP 2 can utilize the screening criteria for operation emissions outlined in Table IS-16. Projects that do not exceed 1,100 metric tons per year are then screened out of further requirements. For projects that exceed 1,100 metric tons per year, then compliance with BMP 3 is also required:

- BMP 3 – Reduce applicable project VMT by 15% residential and 15% worker relative to Sacramento County targets, and no net increase in retail VMT. In areas with above-average existing VMT, commit to providing electrical capacity for 100% electric vehicles.

Table IS-16 SMAQMD Thresholds of Significance for Greenhouse Gas Emissions

Land Development and Construction Projects		
	Construction Phase	Operational Phase
Greenhouse Gas as CO_2e	1,100 metric tons per year	1,100 metric tons per year
Stationary Source Only		
	Construction Phase	Operational Phase
Greenhouse Gas as CO_2e	1,100 metric tons per year	10,000 metric tons per year

Notes: SMAQMD = Sacramento Metropolitan Air Quality Management District; CO_2e = carbon dioxide equivalent.
Source: SMAQMD 2020

Because the SMAQMD threshold of significance for GHG emissions is set based upon the intent of consistency with State GHG reduction goals, the project is considered to be consistent with existing State plans if it does not exceed the SMAQMD thresholds of significance.

Discussion of Project Impacts

During operations, there would be very minor use of maintenance equipment for litter control, signage, access control, security, compliance enforcement, repair, rehabilitation, replacement, and removal of recreational trail facilities. Typical maintenance activities would include routine inspections, debris removal from the trail, and periodic replenishment of the decomposed granite shoulders. Typical vegetation management would include mowing, trimming, and removal of vegetation from trail surfaces. This minor level of activity would not generate emissions that would approach the SMAQMD-recommended bright-line threshold of 1,100 metric tons of CO_2e per year.

Project implementation would generate short-term construction GHG emissions. Construction-related GHG emissions would cease following the construction of the project. Construction-related GHG emissions would be generated primarily from exhaust emissions associated with off-road construction equipment, construction worker commutes, and vendor and haul truck trips.

The resultant GHG emissions of the project were estimated using CalEEMod Soft version 2022; refer to Appendix A for model output files.

The CalEEMod estimates direct emissions associated with the project's construction-related emission sources. Table IS-17 presents a summary of the project's potential annual construction-related and operational GHG emissions to compare with the applicable threshold of significance.

Table IS-17 GHG Emissions Associated with Construction and Operation of the Project– Construction GHG Emission

Emissions Source	GHG Emissions (MT CO_2e / year)
Maximum Annual Construction Emissions*	144
SMAQMD Threshold of Significance	**1,100**
Exceed Thresholds?	**No**

Notes: GHG = greenhouse gas; MT CO_2e = metric tons of carbon dioxide emissions; SMAQMD = Sacramento Metropolitan Air Quality Management District.

* Construction emissions are shown for the modeled maximum annual scenario. Total construction emissions would be approximately 144 MT CO_2e, but would occur over the entirety of the proposed construction period and would not continue after the completion of construction activities.

Source: Modeled by AECOM 2022.

As shown in Table IS-17 total maximum annual GHG construction emissions were estimated to be approximately 144 MT CO_2e per year. The project's short-term construction GHG emissions would not exceed the SMAQMD thresholds of the significance of 1,100 MT CO_2e/year. In addition to the mass emission threshold, SMAQMD also recommends that all projects implement the SMAQMD Tier 1 BMPs, as detailed in the Thresholds of Significance identified above. These BMPs are designed to apply to development projects, such as residential, office, and retail projects and do not apply to the proposed project; nevertheless, the project is not require natural gas infrastructure. T The proposed project does not include vehicular transportation

improvements and therefore, BMP 2 related to CalGreen voluntary strategies and electric vehicle charging, does not apply to the project. In addition, as noted above, because the SMAQMD threshold of significance for GHG emissions is set based upon the intent of compliance with State GHG reduction goals, the project is consistent with existing State plans because it is consistent with the SMAQMD thresholds of significance. Therefore, GHG emissions that would be generated by the construction of the project would result in a less than cumulatively considerable contribution to the significant impact of climate change, and this impact would *be* ***less than cumulatively considerable*** and ***less than significant****.*

ENVIRONMENTAL MITIGATION MEASURES

MITIGATION MEASURE A: SMAQMD BASIC CONSTRUCTION EMISSION CONTROL PRACTICES

Comply with Basic Construction Emission Control Practices identified by the SMAQMD and listed below or as they may be updated in the future:

- Water all exposed surfaces two times 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 two feet of freeboard space on haul trucks transporting soil, sand, or other loose material on the site. Any haul trucks that would be traveling along freeways or major roadways should be covered.
- Use wet power vacuum street sweepers to remove any visible track-out mud or dirt onto adjacent public roads at least once a day. Use of dry-powered sweeping is prohibited.
- Limit vehicle speeds on unpaved roads to 15 miles per hour (mph).
- 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 [required by California Code of Regulations, Title 13, sections 2449(d) and 2485]. Provide clear signage that posts this requirement for workers at the entrances to the site.
- Provide current certificate(s) of compliance for CARB's In-Use Off-Road Diesel-Fueled Fleets Regulation [California Code of Regulations, Title 13, sections 2449 and 2449.1]. For more information contact CARB at 877-593-6677, doors@arb.ca.gov, or www.arb.ca.gov/doors/compliance_cert1.html
- Maintain all construction equipment in proper working condition according to the manufacturer's specifications. The equipment must be checked by a certified mechanic and determined to be running in proper condition before it is operated.

MITIGATION MEASURE B: IMPLEMENT CONSTRUCTION-RELATED NOISE REDUCTION STRATEGIES

County will require the selected contractor to implement the following noise-reduction and noise-control measures during construction activities:

- Construction equipment will be properly maintained per manufacturers' specifications and fitted with feasible noise suppression devices (e.g., mufflers,

silencers, wraps).

- All impact tools will be shrouded or shielded, and all intake and exhaust ports on power equipment will be muffled or shielded.
- Prohibit the start-up of machines or equipment between the hours of 8:00 p.m. and 6:00 a.m. on weekdays and Friday commencing at 8:00 p.m. through and including 7:00 a.m. on Saturday; Saturdays commencing at 8:00 p.m. through and including 7:00 a.m. on the next following Sunday and on each Sunday after the hour of 8:00 p.m.
- Construction equipment will be shut down when not in use and will not idle for extended periods of time near noise-sensitive receptors.
- Fixed/stationary equipment (e.g., generators, compressors, cement mixers) will be located as far as practicable from noise-sensitive receptors.
- Restrict the use of bells, whistles, alarms, and horns for safety-warning purposes.
- Residences within 500 feet of the proposed project site shall be notified of the construction schedule in writing prior to the beginning of construction. Designate a "construction liaison" that would be responsible for responding to any local complaints about construction noise. The liaison would determine the cause of the noise complaints (e.g., starting too early, bad muffler, etc.) and institute reasonable measures to correct the problem. Conspicuously post a telephone number for the liaison at the construction site.

MITIGATION MEASURE C: PERFORM HYDRAULIC STUDIES FOR PROJECT IMPROVEMENTS TO BE LOCATED IN FLOODPLAINS, COORDINATE WITH REGULATORY AGENCIES, AND OBTAIN REQUIRED PERMITS

During the detailed project design phase, Sacramento County Regional Parks shall prepare site-specific detailed hydraulic studies for each of the proposed bridges and culverts within the 100- and/or 200-year floodplains and regulatory floodways. The results of these studies shall be used to inform the design of the project-related bridges and culverts, such that they are specifically designed to pass 100- and 200-year flows without impedance as required by FEMA, DWR, Central Valley Flood Protection Board (CVFBP), and local County standards so that upstream, onsite, and downstream flooding would not occur. Shorter flood recurrence intervals (such as the 10-year flood) shall be modeled and incorporated in the project bridge and culvert designs if required by the County Floodplain Administrator or County Planning Department. Furthermore, during the detailed project design phase, Sacramento County Regional Parks shall consult with the Sacramento County Department of Water Resources and SAFCA regarding the proposed bridges, to ensure that project facilities are designed so they will not increase downstream flooding that would impair any of the existing or planned local flood improvements. Finally, prior to the start of earthmoving activities, Sacramento County Regional Parks shall obtain all necessary permits from CVFBP and the County Floodplain Administrator for all project-related work that would be required in the 100- and 200-year Regulatory Floodplains. Project-related work would be performed in

accordance with the terms of the permits, which would contain site-specific measures to protect public safety and water quality, as issued by the applicable regulatory agency. Examples of the types of terms and conditions contained in the permits that would be implemented to reduce impacts include hydrologic and hydraulic modeling demonstrating that the proposed bridges/culverts would not impede 100- or 200-year flood flows, would not result in additional upstream or downstream flooding, and verification that the proposed bridge/culverts would be consistent with County Floodplain Administrator and CVFPB ULOP requirements. Permit terms and conditions that may be included to protect water quality from flooding include armoring the undersides of the bridge abutments with rock to prevent erosion and scour.

MITIGATION MEASURE D: PROHIBIT MATERIALS STOCKPILES IN STAGING AREAS DURING THE WINTER RAINY SEASON

During the period November 1 through April 1, loose construction materials (such as soil, mulch, sand, gravel, etc.) along with pollutants such as fuels, oils, and lubricants, shall not be stored within the 100-year flood hazard zone.

The final selection and design of post-construction stormwater quality control measures is subject to review and approval by the County Department of Water Resources. The Plan shall include, but not be limited to, the following measures to protect water quality during construction:

1. Abandonment of the manhole facilities shall be completed during the dry season (May 15-October 1).

2. Stockpiling of construction materials, including portable equipment, vehicles and supplies, including chemicals, will be restricted to the designated construction staging areas. Staging will not occur within the floodplain basin area or any other areas deemed environmentally sensitive.

3. Erosion control measures that prevent soil or sediment from entering the river shall be emplaced, monitored for effectiveness, and maintained throughout the construction operations.

4. Refueling of construction equipment and vehicles within the 100-year floodplain shall only occur within designated, paved, bermed areas where possible spills will be readily contained.

5. If work is to occur between October 15th and May 15, truck and cement equipment wash-down will not occur within the floodplain.

6. Equipment and vehicle operated within the 100-year floodplain shall be checked and maintained daily to prevent leaks of fuels, lubricant or other fluids to the river.

7. Litter and construction debris shall be removed daily, and disposed of at an appropriate site.

MITIGATION MEASURE E: AVOID IMPACTS TO UNIQUE PALEONTOLOGICAL RESOURCES

To minimize the potential for accidental destruction of or damage to previously unknown unique, scientifically important paleontological resources during earthmoving activities at the project site, Sacramento County Regional Parks shall do the following:

- Prior to the start of earthmoving activities, retain either a qualified archaeologist or paleontologist to inform all construction personnel involved with earthmoving activities regarding the possibility of encountering fossils, the appearance and types of fossils likely to be seen during construction, and proper notification procedures should fossils be encountered.

- If paleontological resources are discovered during earthmoving activities, the construction crew shall immediately cease work in the vicinity of the find and notify the County Planning Department. The County shall retain a qualified paleontologist to evaluate the resource and prepare a recovery plan. The recovery plan may include, but is not limited to, a field survey, construction monitoring, sampling and data recovery procedures, museum curation for any specimen recovered, and a report of findings. Recommendations in the recovery plan that are determined by the County to be necessary and feasible shall be implemented before construction activities can resume at the site where the paleontological resource or resources were discovered.

MITIGATION MEASURE F: CONDUCT BOTANICAL SURVEYS FOR SANFORD'S ARROWHEAD; AVOID PLACING PEDESTRIAN BRIDGES OVER SANFORD'S ARROWHEAD POPULATIONS

Retain a qualified botanist to conduct a survey to map the extent of Sanford's arrowhead in the project area during its bloom period (i.e., May through October) at least 1 year prior to the initiation of construction. Final design of pedestrian bridges over Dry Creek, the Dry Creek overflow channel, and ditch would be located to avoid disturbance to or shading of these populations of Sanford's arrowhead.

MITIGATION MEASURE G: AVOID IMPACTS ON WESTERN POND TURTLE DURING CONSTRUCTION

Implement the measures listed below to avoid impacts on western pond turtle during project construction:

- Where feasible, construction activities involving construction with heavy equipment (e.g., excavation, grading, contouring) within suitable western pond turtle upland habitat (i.e., any undeveloped areas within 1,300 feet of identified potentially suitable habitat) would avoid the western pond turtle nesting period (generally mid-May to early July).

- If ground-disturbing activities occur during the nesting season, retain a qualified biologist prior to the start of construction to conduct preconstruction surveys and monitor construction, if needed. Preconstruction surveys would be conducted within suitable western pond turtle aquatic and upland habitat 1 week before and within 24 hours of beginning work within suitable western pond turtle upland habitat (i.e., any undeveloped areas within 1,300 feet of identified potential habitat).

  The surveys would be timed to coincide with the time of day when turtles are most likely to be active (the cooler part of the day between 8:00 a.m. and 12:00 p.m. during spring and summer). Prior to conducting the surveys, the biologist would locate the microhabitats for turtle basking (floating vegetation mats) and determine a location to quietly observe turtles. Each survey would include a 30-minute wait time after arriving on the site to allow startled turtles to return to open basking areas. The survey would consist of a minimum 15-minute observation time per area where turtles could be observed.

  If western pond turtles are observed during either survey consult with CDFW to determine the best course of action to avoid harm and harassment of individuals

MITIGATION MEASURE H: CENTRAL VALLEY STEELHEAD PROTECTION

The following mitigation measures will avoid take of steelhead and ensure the protection of water quality and habitat values.

1. Minimize risk of direct take of steelhead trout by conducting all work below the ordinary high-water mark between June 1st and October 31st.
2. The applicant shall comply with water pollution protection provisions and conditions established by the Department of Fish and Wildlife and all regulatory authorities with jurisdiction over the project. These measures will include but may not be limited to, the following:
    a. Prior to excavation activities at abutments, temporary sediment control best management practices shall be placed downslope of areas where disturbance of native soil is anticipated.
    b. All disturbed areas that will not be covered by paving shall be stabilized to prevent erosion using temporary soil stabilization best management practices.
3. The applicant shall prepare and implement an erosion control and water quality protection plan that will be subject to the review and approval of the County Department of Water Resources. The Plan shall include, but not be limited to, the following measures to protect water quality during construction:
    a. Construction activities within the area of the Ordinary High Water (OHW) lines shall be limited to the period from June 1st to October 31st of the construction year.
    b. Stockpiling of construction materials, including portable equipment,

vehicles and supplies, including chemicals, will be restricted to the designated construction staging areas.

c. Erosion control measures that prevent soil or sediment from entering the creek shall be emplaced, monitored for effectiveness, and maintained throughout the construction operations.

d. Litter and construction debris shall be removed from below the OHW daily, and disposed of at an appropriate site. All litter, debris and unused materials, equipment or supplies shall be removed from construction staging areas above the OHW line at the end of construction.

e. No on-site harvesting of in-situ gravels shall occur for temporary landings and ramps. Where additional earth material is required below the OHW line, clean washed gravels (from an off-site commercial/permitted source) will be the preferred material. If another type of engineered fill is required, it will likewise be obtained from an off-site permitted source, and all excess earth material will be properly disposed of outside the floodplain upon completion of the construction phase.

MITIGATION MEASURE I: AVOID IMPACTS ON VALLEY ELDERBERRY LONGHORN BEETLE (VELB)

Project construction will be prohibited within 100 feet of elderberry shrubs during the VELB emergence and mating period (March 15 – June 15) to eliminate any indirect effects of construction on the beetle or its eggs. These areas shall be fenced and flagged as areas to be avoided.

In areas where encroachment on the 100-foot buffer has been approved by the Fish and Wildlife Service USFWS, protective fencing and flagging shall be installed, providing a minimum setback of at least 20 feet outside the perimeter of the dripline of each elderberry plant prior to initiating any construction activities on the site. There will be no physical alterations of any type within the area enclosed by the fencing. No application of herbicides, insecticides and/or other chemical agents shall occur within the proximity of the elderberry plants or where they might drift or wash into the area of the elderberry plants. Protective fencing shall be removed following project completion.

A qualified wildlife biologist shall inform all construction personnel that elderberry shrubs may occur in the area, the need to avoid damaging the elderberry plants and the possible penalties for not complying with these requirements. A description of the VELB natural history and identifying characteristics shall be provided, along with regulations regarding the restriction on harming or handling this species.

Erect signs every 50 feet along the edge of the avoidance area with the following information: "This area is habitat of the valley elderberry longhorn beetle, a threatened species, and must not be disturbed. This species is protected by the Endangered Species Act of 1973, as amended. Violators are subject to prosecution, fines, and imprisonment." The signs should be clearly readable from a distance of 20 feet and must be maintained for the duration of construction.

If elderberry shrubs, which provide suitable habitat for VELB, cannot be feasibly avoided the work would result in potential take of VELB, then project impacts will be compensated for in accordance with criteria listed in the Framework for Assessing Impacts to the Valley Elderberry Longhorn Beetle (*Desmocerus californicus dimorphus*) [USFWS 2017]).

MITIGATION MEASURE J: SWAINSON'S HAWK NESTING SURVEYS

If construction, grading, or project-related improvements are to commence between February 1 and September 15, focused surveys for Swainson's hawk nests shall be conducted by a qualified biologist within a ½-mile radius of project activities, in accordance with the Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in California's Central Valley (Swainson's Hawk TAC 2000). To meet the minimum level of protection for the species, surveys should be completed for the two survey periods immediately prior to commencement of construction activities in accordance with the 2000 TAC recommendations. If active nests are found, CDFW shall be contacted to determine appropriate protective measures, and these measures shall be implemented prior to the start of any ground-disturbing activities. If no active nests are found during the focused survey, no further mitigation will be required.

MITIGATION MEASURE K: TRICOLORED BLACKBIRDS NESTING SURVEY

If construction activity (which includes clearing, grubbing, or grading) is to commence within 300 feet of suitable nesting habitat between February 1 and July 31, a survey for nesting tricolored blackbirds shall be conducted by a qualified biologist. The survey shall cover all potential nesting habitat on-site and off-site up to a distance of 300 feet from the project boundary. The survey shall occur within 30 days of the date that construction will encroach within 300 feet of suitable habitat. The biologist shall supply a brief written report (including date, time of survey, survey method, name of surveyor and survey results) to the Environmental Coordinator prior to ground disturbing activity. If no tricolored blackbird were found during the pre-construction survey, no further mitigation would be required. If an active tricolored blackbird colony is found on-site or within 300 feet of the project site the project proponent shall do the following:

1. Consult with the California Department of Fish and Wildlife to determine if project activity will impact the tricolored blackbird colony(s). Provide the Environmental Coordinator with written evidence of the consultation or a contact name and number from the California Department of Fish and Wildlife. Implement all protective measures recommended by the California Department of Fish and Wildlife.
2. With the California Department of Fish and Wildlife permission, the applicant may avoid impacts to tricolored blackbird by establishing a 300-foot temporary setback, with fencing that prevents any project activity within 300 feet of the colony. A qualified biologist shall verify that setbacks and fencing are adequate and will determine when the colonies are no longer dependent on the nesting habitat (i.e. nestling have fledged and are no longer using habitat). The breeding season typically ends in July.

3. If tricolored blackbird habitat is permanently destroyed follow the California Department of Fish and Wildlife procedure to mitigate for habitat loss and submit documentation of the mitigation to the Environmental Coordinator.

MITIGATION MEASURE L: WHITE-TAILED KITE NESTING SURVEY

To avoid impacts to nesting kites in the vicinity of the project corridor, the following guidelines shall be followed:

1. Trees slated for removal shall be removed outside of the nesting season (February through August) and only if no active nests are present. Any trees that are to be removed during the nesting season shall be surveyed by a qualified biologist and will only be removed if no nesting birds are found.
2. Pre-construction surveys of all potentially active nesting trees within 1,000 feet of the project site shall be conducted by a qualified biologist for the presence of active nests prior to construction.
3. If active nest(s) are found in the vicinity of the project site, non-disturbance buffers must be established and maintained based on a distance that will prevent project related disturbance from negatively impacting nesting success.

MITIGATION MEASURE M: PRECONSTRUCTION SURVEY FOR OTHER NESTING BIRDS AND RAPTORS

If project implementation is to occur during the bird breeding season (February 1 through September 30), Sacramento County Regional Parks would retain a qualified biologist to conduct preconstruction surveys no more than 7 days prior to the start of project construction. The survey would determine if active nest sites for any avian species protected under the federal MBTA occur within all project work areas and a 300-foot buffer. If work is conducted outside of this timeframe, then no preconstruction surveys are necessary. If an active nest (defined as a bird building a nest, sitting on a nest, carrying food to young, etc.) is found, then a 100-foot buffer would be established.

At the discretion of the qualified biologist, the buffer for certain species may be reduced to permit project implementation to occur (depending on the duration, intensity, and type of work that is necessary). The biologist would monitor as needed to ensure that no harassment or potential take occurs. The biologist shall have the authority to stop work if they determine that the activity may result in harassment, through the bird flushing off the nest or preventing adult birds from carrying food to the nest, or otherwise jeopardize the survival of the nest contents (eggs, young, fledglings, etc.).

MITIGATION MEASURE N: BURROWING OWL SURVEY

Prior to the commencement of construction activities (which includes clearing, grubbing, or grading) within 500 feet of suitable burrow habitat near the southern alignment, a survey for burrowing owl shall be conducted by a qualified biologist. The survey shall

occur within 30 days of the date that construction will encroach within 500 feet of suitable habitat. Surveys shall be conducted in accordance with the following:

1. A survey for burrows and owls should be conducted by walking through suitable habitat over the entire project site and in areas within 150 meters (~500 feet) of the project impact zone.

2. Pedestrian survey transects should be spaced to allow 100 percent visual coverage of the ground surface. The distance between transect center lines should be no more than 30 meters (~100 feet) and should be reduced to account for differences in terrain, vegetation density, and ground surface visibility. To efficiently survey projects larger than 100 acres, it is recommended that two or more surveyors conduct concurrent surveys. Surveyors should maintain a minimum distance of 50 meters (~160 feet) from any owls or occupied burrows. It is important to minimize disturbance near occupied burrows during all seasons.

3. If no occupied burrows or burrowing owls are found in the survey area, a letter report documenting survey methods and findings shall be submitted to the Environmental Coordinator and no further mitigation is necessary.

4. If occupied burrows or burrowing owls are found, then a complete burrowing owl survey is required. This consists of a minimum of four site visits conducted on four separate days, which must also be consistent with the Survey Method, Weather Conditions, and Time of Day sections of Appendix D of the *CDFW Staff Report on Burrowing Owl Mitigation* (March 2012). Submit a survey report to the Environmental Coordinator which is consistent with the Survey Report section of Appendix D of the CDFW “Staff Report on Burrowing Owl Mitigation” (March 2012).

5. If occupied burrows or burrowing owls are found the applicant shall contact the Environmental Coordinator and consult with CDFW prior to construction and will be required to submit a Burrowing Owl Mitigation Plan (subject to the approval of the Environmental Coordinator and in consultation with CDFW. This plan must document all proposed measures, including avoidance, minimization, exclusion, relocation, or other measures, and include a plan to monitor mitigation success. The *CDFW Staff Report on Burrowing Owl Mitigation* (March 2012) should be used in the development of the mitigation plan.

MITIGATION MEASURE O: SPECIAL STATUS FISH RESCUE PLAN

Before conducting maintenance that requires dewatering the channel and potentially stranding special-status fishes, a specific fish rescue plan will be developed, and CDFW and/or NMFS will be consulted prior to the start of the project. The plan will reference and implement adapted fish relocation measures defined in current technical guidance documents. The general procedure will include establishing a “cofferdam,” the lowering of water within the coffer-dammed area, catching fish within the area, and relocating them outside of the dammed area within the same waterbody. The intakes of water pumps needed for the activity will be screened to NMFS salmonid-screening specifications to prevent entraining fish in the pump. Whenever possible, low-flow

pumps with appropriately screened intakes will be used during dewatering. Fish entrapped within the cofferdam will be rescued before the cofferdam is completely drained. As safety allows, qualified biologists will capture and relocate fish as specified in the fish rescue plan.

MITIGATION MEASURE P: RIPARIAN HABITAT RESTORATION

Sacramento County Regional Parks shall compensate for the loss of riparian habitat at a 3-to-1 ratio through the in-kind replacement planting of riparian trees to be located in the riparian habitat zone. Based on preliminary designs, up to 7.39 acres of riparian habitat and vegetation consisting of valley oak woodland and riparian scrub could be disturbed or removed during project construction and operation. This acreage may change with the final project design. Tree plantings shall be monitored, cared for, and maintained for the three-year establishment period from the date of planting. If any planted trees should die, in-kind replacement trees shall be planted.

MITIGATION MEASURE Q: NATIVE TREE REMOVAL & REPLACEMENT

The removal of up to 8001 inches dbh of native trees (1 through 465) shall be compensated for by planting in-kind native trees equivalent to the dbh inches lost, based on the ratios listed below, at locations that are authorized by the Environmental Coordinator. On-site preservation of native trees that are less than 6 inches (<6 inches) dbh, may also be used to meet this compensation requirement. Native trees include: valley oak, interior live oak, blue oak, or oracle oak (*Quercus morehus*), California sycamore, California black walnut (*Juglans californica*, which is also a List 1B plant), Oregon ash, western redbud (*Cercis occidentalis),* gray pine (*Pinus sabiniana*), California white alder (*Alnus rhombifolia*), boxelder, California buckeye (*Aesculus californica*), narrowleaf willow (*Salix exigua*), Gooding's willow (*Salix gooddingii*), red willow (*Salix laevigata*), arroyo willow (*Salix lasiolepis*), shining willow (*Salix lucida*), Pacific willow (*Salix lasiandra*), and dusky willow (*Salix melanopsis*).

Replacement tree planting shall be completed prior to approval of grading or improvement plans, whichever comes first. A total of 8,001 inches could require compensation.

Equivalent compensation based on the following ratio is required:

- one preserved native tree < 6 inches dbh on-site = 1 inch dbh
- one D-pot seedling (40 cubic inches or larger) = 1 inch dbh
- one 15-gallon tree = 1 inch dbh
- one 24-inch box tree = 2 inches dbh
- one 36-inch box tree = 3 inches dbh

Prior to the approval of Improvement Plans or Building Permits, whichever occurs first, a Replacement Tree Planting Plan shall be prepared by a certified arborist or licensed landscape architect and shall be submitted to the Environmental Coordinator for

approval. The Replacement Tree Planting Plan(s) shall include the following minimum elements:

1. Species, size and locations of all replacement plantings and < 6-inch dbh trees to be preserved;
2. Method of irrigation;
3. If planting in soils with a hardpan/duripan or claypan layer, include the Sacramento County Standard Tree Planting Detail L-1, including the 10-foot deep boring hole to provide for adequate drainage;
4. Planting, irrigation, and maintenance schedules;
5. Identification of the maintenance entity and a written agreement with that entity to provide care and irrigation of the trees for a 3-year establishment period, and to replace any of the replacement trees which do not survive during that period;
6. Designation of 20-foot root zone radius and landscaping to occur within the radius of trees < 6 inches dbh to be preserved on-site.

No replacement tree shall be planted within 15 feet of the driplines of existing native trees or landmark-size trees that are retained on-site, or within 15 feet of a building foundation or swimming pool excavation. The minimum spacing for replacement native trees shall be 20 feet on-center. Examples of acceptable planting locations are publicly owned lands, common areas, and landscaped frontages (with adequate spacing). Generally unacceptable locations are utility easements (PUE, sewer, storm drains), under overhead utility lines, private yards of single-family lots (including front yards), and roadway medians.

Native trees <6 inches dbh to be retained on-site shall have at least a 20-foot radius suitable root zone. The suitable root zone shall not have impermeable surfaces, turf/lawn, dense plantings, soil compaction, drainage conditions that create ponding (in the case of oak trees), utility easements, or other overstory tree(s) within 20 feet of the tree to be preserved. Trees to be retained shall be determined to be healthy and structurally sound for future growth, by an International Society of Arboriculture (ISA) Certified Arborist subject to Environmental Coordinator approval.

If tree replacement plantings are demonstrated to the satisfaction of the Environmental Coordinator to be infeasible for any or all trees removed, then compensation shall be through payment into the County Tree Preservation Fund. Payment shall be made at a rate of $325.00 per dbh inch removed but not otherwise compensated, or at the prevailing rate at the time payment into the fund is made.

MITIGATION MEASURE R: NATIVE TREE CONSTRUCTION PROTECTION

For the purpose of this mitigation measure, a native tree is defined as a blue oak, coast live oak, interior live oak, or valley oak, and having a diameter at breast height (dbh) of at least 6 inches, or if it has multiple trunks of less than 6 inches each, a combined dbh of at least 10 inches.

With the exception of the trees removed and compensated for through Mitigation Measure Q, above, all native trees on the project site, all portions of adjacent off-site native trees which have driplines that extend onto the project site, and all off-site native trees which may be impacted by utility installation and/or improvements associated with this project, shall be preserved and protected as follows:

1. A circle with a radius measurement from the trunk of the tree to the tip of its longest limb shall constitute the dripline protection area of the tree. Limbs must not be cut back in order to change the dripline. The area beneath the dripline is a critical portion of the root zone and defines the minimum protected area of the tree. Removing limbs which make up the dripline does not change the protected area.
2. Chain link fencing or a similar protective barrier shall be installed one foot outside the driplines of the native trees prior to initiating project construction, in order to avoid damage to the trees and their root system.
3. No signs, ropes, cables (except cables which may be installed by a certified arborist to provide limb support) or any other items shall be attached to the native trees.
4. No vehicles, construction equipment, mobile home/office, supplies, materials or facilities shall be driven, parked, stockpiled or located within the driplines of the native trees.
5. Any soil disturbance (scraping, grading, trenching, and excavation) is to be avoided within the driplines of the native trees. Where this is necessary, an ISA Certified Arborist will provide specifications for this work, including methods for root pruning, backfill specifications and irrigation management guidelines.
6. All underground utilities and drain or irrigation lines shall be routed outside the driplines of native trees. Trenching within protected tree driplines is not permitted. If utility or irrigation lines must encroach upon the dripline, they should be tunneled or bored under the tree under the supervision of an ISA Certified Arborist.
7. If temporary haul or access roads must pass within the driplines of oak trees, a roadbed of six inches of mulch or gravel shall be created to protect the root zone. The roadbed shall be installed from outside of the dripline and while the soil is in a dry condition, if possible. The roadbed material shall be replenished as necessary to maintain a six-inch depth.
8. Drainage patterns on the site shall not be modified so that water collects or stands within, or is diverted across, the dripline of oak trees.
9. No sprinkler or irrigation system shall be installed in such a manner that it sprays water within the driplines of the oak trees.
10. Tree pruning that may be required for clearance during construction must be performed by an ISA Certified Arborist or Tree Worker and in accordance with the American National Standards Institute (ANSI) A300 pruning standards and the International Society of Arboriculture (ISA) “Tree Pruning Guidelines”.

11. Landscaping beneath the oak trees may include non-plant materials such as boulders, decorative rock, wood chips, organic mulch, non-compacted decomposed granite, etc. Landscape materials shall be kept two (2) feet away from the base of the trunk. The only plant species which shall be planted within the driplines of the oak trees are those which are tolerant of the natural semi-arid environs of the trees. Limited drip irrigation, approximately twice per summer, is recommended for the understory plants.
12. For a project constructing during the months of June, July, August, and September, deep water trees by using a soaker hose (or a garden hose set to a trickle) that slowly applies water to the soil until water has penetrated at least one foot in depth. Sprinklers may be used to water deeply by watering until water begins to run off, then waiting at least an hour or two to resume watering (provided that the sprinkler is not wetting the tree's trunk). Deep water every 2 weeks and suspend watering 2 weeks between rain events of 1 inch or more.

MITIGATION MEASURE S: NON-NATIVE TREE CANOPY REPLACEMENT

Removal of non-native tree canopy for development shall be mitigated by creation of new tree canopy equivalent to the acreage of non-native tree canopy removed. New tree canopy acreage shall be calculated using the Sacramento County Department of Transportation 15-year shade cover values for tree species. Preference is given to on-site mitigation, but if this is infeasible, then funding shall be contributed to the Sacramento Tree Foundation's Greenprint program in an amount proportional to the tree canopy lost (as determined by the 15-year shade cover calculations for the tree species to be planted through the funding, with the cost to be determined by the Sacramento County Tree Foundation).

MITIGATION MEASURE T: PERMITS FOR PROTECTED WATERS

Before construction, secure all necessary permits as may be required by the California Department of Fish and Wildlife, Central Valley Regional Water Quality Control Board, US Army Corps of Engineers, and/or US Fish and Wildlife Service and implement all conditions of the permit.

MITIGATION MEASURE U: TRIBAL MONITORS

To minimize the potential for destruction of or damage to existing or previously undiscovered archaeological, cultural resources, and tribal cultural resources and to identify any such resources at the earliest possible time during project-related earthmoving activities, the project applicant and its construction contractor(s) will implement the following measures:

1. Paid Native American Monitors from the United Auburn Indian Community will be invited to monitor the vegetation grubbing, stripping, grading, or other ground-disturbing activities in the northern segment of the project area to determine the presence or absence of any cultural resources. Native American Representatives from culturally affiliated tribes act as a representative of their Tribal government

and shall be consulted before any cultural studies or ground-disturbing activities begin.

2. Native American Representatives and Native American Monitors have the authority to identify sites or objects of significance to Native Americans and to request that work be stopped, diverted, or slowed if such sites or objects are identified within the direct impact area; however, only a Native American Representative can recommend appropriate treatment of such sites or objects.

MITIGATION MEASURE V: UNANTICIPATED DISCOVERIES OF CULTURAL RESOURCES

In the event that human remains are discovered in any location other than a dedicated cemetery, work shall be halted and the County Coroner contacted. For all other potential archaeological or cultural resources discovered during project's ground-disturbing activities, work shall be halted until a qualified archaeologist and/or tribal representative may evaluate the resource.

1. **Unanticipated human remains**. Pursuant to Sections 5097.97 and 5097.98 of the State Public Resources Code, and Section 7050.5 of the State Health and Safety Code, if a human bone or bone of unknown origin is found during construction, all work is to stop and the County Coroner and the Office of Planning and Environmental Review shall be immediately notified. If the remains are determined to be Native American, the coroner shall notify the Native American Heritage Commission within 24 hours, and the Native American Heritage Commission shall identify the person or persons it believes to be the most likely descendent from the deceased Native American. The most likely descendent may make recommendations to the landowner or the person responsible for the excavation work, for means of treating or disposition of, with appropriate dignity, the human remains and any associated grave goods.

2. **Unanticipated cultural resources**. In the event of an inadvertent discovery of cultural resources (excluding human remains) during construction, all work must halt within a 100-foot radius of the discovery. A qualified professional archaeologist, meeting the Secretary of the Interior's Professional Qualification Standards for prehistoric and historic archaeology, shall be retained at the Applicant's expense to evaluate the significance of the find. If it is determined due to the types of deposits discovered that a Native American monitor is required, the Guidelines for Monitors/Consultants of Native American Cultural, Religious, and Burial Sites as established by the Native American Heritage Commission shall be followed, and the monitor shall be retained at the Applicant's expense.

    a. Work cannot continue within the 100-foot radius of the discovery site until the archaeologist and/or tribal monitor conducts sufficient research and data collection to make a determination that the resource is either 1) not cultural in origin; or 2) not potentially eligible for listing on the National Register of Historic Places or California Register of Historical Resources.

b. If a potentially-eligible resource is encountered, then the archaeologist and/or tribal monitor, Planning and Environmental Review staff, and project proponent shall arrange for either 1) total avoidance of the resource, if possible; or 2) test excavations or total data recovery as mitigation. The determination shall be formally documented in writing and submitted to the County Environmental Coordinator as verification that the provisions of CEQA for managing unanticipated discoveries have been met.

MITIGATION MEASURE W: TRIBAL CULTURAL RESOURCES AWARENESS TRAINING

A consultant and construction worker tribal cultural resources awareness brochure and training program for all personnel involved in project implementation will be developed in coordination with the United Auburn Indian Community. The brochure will be distributed and the training will be conducted in coordination with qualified cultural resources specialists, Native American Representatives, and Monitors from culturally affiliated Native American Tribes before any stages of project implementation and construction activities begin on the project site. The program will include relevant information regarding sensitive tribal cultural resources, including applicable regulations, protocols for avoidance, and consequences of violating State laws and regulations. The worker cultural resources awareness program will also describe appropriate avoidance and minimization measures for resources that have the potential to be located on the project site and will outline what to do and whom to contact if any potential archaeological resources or artifacts are encountered. The program will also underscore the requirement for confidentiality and culturally appropriate treatment of any find of significance to Native Americans and behaviors, consistent with Native American Tribal values.

MITIGATION MEASURE X: INADVERTENT DISCOVERIES OF TRIBAL CULTURAL RESOURCES

If potential TCRs, archaeological resources, other cultural resources, articulated, or disarticulated human remains are discovered during construction activities, work will cease within 100 feet of the find (based on the apparent distribution of cultural resources), whether or not a Native American Monitor from a traditionally and culturally affiliated Native American Tribe is present. Sacramento County Planning and Environmental Review shall be immediately notified at (916) 874-6141. A qualified cultural resources specialist and Native American Representatives and Monitors from traditionally and culturally affiliated Native American Tribes will assess the significance of the find and make recommendations for further evaluation and treatment as necessary. Culturally appropriate treatment may be, but is not limited to, processing materials for reburial, minimizing handling of cultural objects, leaving objects in place within the landscape, returning objects to a location within the project area where they will not be subject to future impacts. The Tribe does not consider curation of TCRs to be appropriate or respectful and request that materials not be permanently curated, unless requested by the Tribe.

Treatment that preserves or restores the cultural character and integrity of a Tribal Cultural Resource may include Tribal Monitoring, culturally appropriate recovery of cultural objects, and reburial of cultural objects or cultural soil. These recommendations will be documented in the project record. For any recommendations made by traditionally and culturally affiliated Native American Tribes that are not implemented, a justification for why the recommendation was not followed will be provided in the project record.

If adverse impacts to tribal cultural resources, unique archeology, or other cultural resources occurs, then consultation with UAIC, Wilton Rancheria, Ione Band of Miwoks, and other traditionally and culturally affiliated Native American Tribes regarding mitigation contained in the Public Resources Code sections 21084.3(a) and (b) and CEQA Guidelines section 15370 should occur, in order to coordinate for compensation for the impact by replacing or providing substitute resources or environments.

In addition, pursuant to Section 5097.97 of the State Public Resources Code and Section 7050.5 of the State Health and Safety Code, in the event of the discovery of human remains, all work is to stop and the County Coroner and Office of Planning and Environmental Review shall be immediately notified. If the remains are determined to be Native American, guidelines of the Native American Heritage Commission shall be adhered to in the treatment and disposition of the remains.

MITIGATION MEASURE Y: TREATMENT AND DISPOSITION OF TRIBAL CULTURAL OBJECTS

Cultural objects that are contributing elements to Tribal Cultural Resources of significance to culturally affiliated Native American Tribes have been identified within the project area. Impacts to such objects shall be mitigated by implementing culturally appropriate treatment of such objects when they are encountered during construction activities or when they are recovered as part of cultural resource surveys or identification efforts. Culturally appropriate treatment includes (but is not limited to) minimizing handling of cultural objects and leaving such objects in place within the landscape, rather than curating such objects at museums. If such objects have already been removed from the project area, then culturally appropriate treatment includes the return of such objects to the project area, in a location where they will not be subject to future impacts. Per the inadvertent discoveries mitigation measure, the project team will notify the County Planning and Environmental Review at 916-874-6141, who then shall notify culturally affiliated Native American Tribes whenever additional cultural objects are found, and coordinate culturally appropriate treatment per the tribe's recommendation.

MITIGATION MEASURE Z: AVOID IMPACTS ON BUMBLE BEES

To avoid impacts on bumble bees the following shall apply:

1. **Nest Survey:** A qualified biologist with education and experience in bumble bee nests and identification, shall conduct a nest survey if construction is to

occur between March and September. If a nest is present, then the qualified biologist shall submit an avoidance plan to CDFW for review and approval.

2. **Vegetation Removal:** Where feasible protect patchwork areas of land from surface disturbance. Habitats to protect and avoid include fence margins, hedgerows, ditches, and residential gardens If vegetation removal and/or mowing needs to be carried out during the bumble bee flight season (March-September), leaving patches with structurally different vegetation.
3. **Soil Disturbance:** To the extent feasible, time the initial soil disturbance, vegetation removal and/or mowing, to occur outside of the overwintering period (March-September). If these actions are conducted during the overwintering period, use highest cutting height possible to prevent disturbance of established nests or overwintering queens.

   To the extent feasible, retain landscape features with rodent burrows, such as the ground squirrel colonies.
4. **Site Restoration:** After construction, restore floral resources in areas of temporary disturbance by including native bumble bee food plants in planting palettes. Plants of the following genera are appropriate for Crotch bumble bee: Antirrhinum, Asclepias, Phacelia, Chaenactis, Clarkia, Dendromecon, Eriogonum, Eschscholzia, Lupinus, Medicago, and Salvia.

MITIGATION MEASURE AA: AVOID IMPACTS ON BATS

To avoid impacts to bats, the following shall apply:

1. **Habitat Assessment:** A qualified biologist with education and experience in bat biology and identification, shall conduct a pre-construction habitat assessment for potentially suitable bat habitat within six months of Project activities. If the habitat assessment reveals suitable bat habitat, then a qualified bat biologist shall do a presence/absence survey during the peak activity periods. If bats are present, then the qualified biologist shall submit a bat avoidance plan to CDFW for review and approval.
2. **Bat Avoidance Plan:** The bat avoidance plan should identify: 1) the location of the roosting sites; 2) the number of bats present at the time of assessment (count or estimate); 3) species of bats present; 4) the type of roost (e.g. day/night, maternity, hibernaculum, bachelor); and 5) species specific measures to avoid and minimize impacts to bats. The bat avoidance plan shall evaluate the length of time of disturbance, equipment noise, and type of habitat present at the Project.
3. **No Disturbance Buffer.** If during the habitat assessment the qualified bat biologist identifies a bat roost within the Project boundary that is not proposed for demolition or removal, then a no disturbance buffer shall be established around the roost in consultation with CDFW. The width of the buffer should be determined by the qualified bat biologist based on the bat species, specific site

conditions, and level of disturbance. The buffer should be maintained until the qualified bat biologist determines that the roost is no longer occupied.

4. **Replacement Structures.** If the bat roost cannot be avoided, replacement roost structures (bat houses or other structures) shall be designed to accommodate the bat species they are intended for. Replacement roost structures shall be in place for a minimum of one full year prior to implementing the Project. The replacement structures should be monitored to document bat use. Ideally, the Project would not be implemented unless and until replacement roost structures on site are documented to be acceptable and used by the bat species of interest.
5. **Roost Removal Timing.** The Project that results in the loss or modification of the original roost structure should be implemented outside hibernation and maternity seasons, Nov 1 – Feb 1 and April 1 – August 31 respectively.
6. **Bat Exclusion.** If an active bat roost is found in a tree or structure that must be removed, the qualified bat biologist should prepare a Bat Exclusion Plan for the passive exclusion of the bats from the roost. Exclusion shall be scheduled either (1) between March 1 and March 31, prior to parturition of pups; or (2) between September 1 and October 31 prior to hibernation (or prior to evening temperatures dropping below 45°F and onset of rainfall greater than ½ inch in 24 hours). The qualified bat biologist shall confirm the absence of bats prior to the start of construction. The Bat Exclusion Plan shall be submitted to CDFW for review and approval a minimum of 10 days prior to the installation of exclusion devices. CDFW does not support eviction of bats during the maternity or hibernation periods.
7. **Tree Removal.** Tree removal shall be scheduled either (1) between approximately March 1 and March 31, prior to parturition of pups; or (2) between September 1 and October 31 prior to hibernation (or prior to evening temperatures dropping below 45°F and onset of rainfall greater than ½ inch in 24 hours). Removal of trees containing suitable bat habitat should be conducted under the supervision of a qualified bat biologist.

INITIAL STUDY CHECKLIST

Appendix G of the California Environmental Quality Act (CEQA) provides guidance for assessing the significance of potential environmental impacts. Based on this guidance, Sacramento County has developed the following Initial Study Checklist. The Checklist identifies a range of potential significant effects by topical area. The words "significant" and "significance" are related to impacts as defined by the California Environmental Quality Act as follows:

- “Potentially Significant” indicates there is substantial evidence that an effect MAY be significant. If there are one or more “Potentially Significant” entries, after mitigation measures have been incorporated, an Environmental Impact Report (EIR) is required.

- “Less than Significant with Mitigation” applies where an impact could be significant, but specific mitigation has been identified that clearly reduces the impact to a less-than-significant level.

- “Less than Significant” or “No Impact” indicates that either a project would have an impact but the impact is considered minor, or that a project does not impact the particular resource. No mitigation measures are required for these impacts.

Table IS-18.1 Initial Study Checklist – Land Use

Environmental Issue Would the project:	Significance	Discussion
a. Cause a significant environmental impact due to a conflict with any applicable land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	No Impact	The proposed Dry Creek Parkway Trail Phase II segments would be developed within the Parkway in an area planned for recreational amenities. The full length of the Parkway Trail has been planned since 2003 in the Dry Creek Parkway Recreation Master Plan (Foothill Associates 2003). The Sacramento County General Plan (Sacramento County 2020) and the Rio Linda Elverta Community Plan (Sacramento County 1998) both provide policy direction related to recreation, open space, flood management, habitat protection, and other general planning considerations. The Rio Linda Elverta Community Plan also includes a Dry Creek Parkway combining zone. The direction provided by these documents is incorporated in the Dry Creek Parkway Recreation Master Plan and is more fully developed therein to address the specific considerations and circumstances of the Parkway. The Dry Creek Parkway Recreation Master Plan guides parkway land use in a manner that is compatible and consistent with the management of park district facilities. The proposed project is consistent with these plans, and with the allowable land uses per the County zoning code (Sacramento County 2021). Thus, there would be no impact.
b. Physically disrupt or divide an established community?	No Impact	The proposed Dry Creek Parkway Trail Phase II segments would be developed within the Parkway in an area planned for recreational amenities. Thus, the proposed project would not physically disrupt or divide an established community, and there would be no impact.

Table IS-18.2 Initial Study Checklist – Population/Housing

Environmental Issue Would the project:	Significance	Discussion
a. Induce substantial unplanned population growth in an area either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., through extension of infrastructure)?	No Impact	Continuation of the planned Dry Creek Parkway Trail would not involve the development of new homes and businesses or new infrastructure, and therefore would not induce population growth. Thus, there would be no impact.
b. Displace substantial amounts of existing people or housing, necessitating the construction of replacement housing elsewhere?	Less than Significant	The proposed Dry Creek Parkway Trail Phase II segments would be developed within the Parkway in an area planned for recreational amenities. Regional Parks is in the process of acquiring a property at 2592 Elverta Road and intends to demolish the existing home on the property. The

Environmental Issue Would the project:	Significance	Discussion
		demolition of one home would not constitute a substantial amount of housing and would not require replacement housing elsewhere.

Table IS-18.3 Initial Study Checklist – Agricultural Resources

Environmental Issue Would the project:	Significance	Discussion
a. Convert Prime Farmland, Unique Farmland, Farmland of Statewide Importance or areas containing prime soils to uses not conducive to agricultural production?	Less than Significant	The proposed Phase II trail segments would not be located in Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (California Department of Conservation 2018). Most of the Phase II southern trail segment contains prime soils (if irrigated) with a Storie Index rating of Grade 2 (i.e., good for agricultural use when irrigated)[7]. About 50% of the Phase II northern alignment adjacent to the Cherry Island Sports Complex and the Cherry Island Golf Course contains prime soils (if irrigated) and all of the alignment in this area has a Storie Index rating of Grade 2. Most of the Phase II northern alignment above Elverta Road also contains prime soils (if irrigated) with a Storie Index rating of Grades 1 or 2 (Natural Resources Conservation Service [NRCS] 2021). The proposed Phase II trail segments consist of vacant land near Dry Creek, within the Parkway, which are not irrigated now and are not proposed for irrigation in the future. Therefore, the proposed continuation of the Dry Creek Parkway Trail would not convert prime soils to uses other than agricultural production. This impact would be less than significant.
b. Conflict with any existing Williamson Act contract?	No Impact	APN 207-0180-001-0000 is a County-owned parcel within the Dry Creek Parkway where the southern end of the existing Dry Creek Parkway Trail and associated parking lot are located. This parcel is held under an active Williamson Act contract (Sacramento County 2022a). The parcel is zoned Agricultural-80 acres and is designated for Natural Preserve and Protected Resource Conservation Area (Sacramento County 2022b). The terms of the Williamson Act contract provide for use of a portion of this area for the Dry Creek Parkway Trail and parking lot. The proposed connection from the existing trail at this parcel with the proposed Phase II trail southern segment would be consistent with the terms of the Williamson Act contract, along with the existing

[7] The Revised Storie Index is a rating system based on soil properties that govern the potential for soil map unit components to be used for irrigated agriculture in California. There are six graded ratings: Grade 1 excellent, Grade 2 good, Grade 3 fair, Grade 4 poor, Grade 5 very poor, and Grade 6 non-agricultural.

Environmental Issue Would the project:	Significance	Discussion
		zoning and land use designation. Furthermore, trail installation would not preclude the existing agricultural uses (hay cultivation) on APN 207-0180-001-0000 because the trail would be installed at the edge of the parcel adjacent to Dry Creek Road. Thus, there would be no impact.
c. Introduce incompatible uses in the vicinity of existing agricultural uses?	No Impact	Operation of the proposed 12-foot-wide paved and 6-foot-wide dirt Dry Creek Parkway Trail Phase II segments is considered a compatible use with agricultural operations per the Sacramento County Zoning Code (Sacramento County 2021). Thus, there would be no impact.

Table IS-18.4 Initial Study Checklist – Aesthetics

Environmental Issue Would the project:	Significance	Discussion
a. Substantially alter existing viewsheds such as scenic highways, corridors or vistas?	Less than Significant	The new trail and bridges within the scenic corridor along the Main Fork Dry Creek and associated riparian vegetation, in the proposed northern trail segment, would not substantially alter the viewshed within the existing scenic corridor. See the *Aesthetics* section above.
b. In non-urbanized area, substantially degrade the existing visual character or quality of public views of the site and its surroundings?	Less than Significant	Compliance with the Dry Creek Parkway Master Plan (2003), Sacramento County Standard Construction Specifications (2017), and County Parks and Recreation Improvement Standards (2018) would ensure that the proposed project would not substantially degrade the existing visual character or quality. See the *Aesthetics* section above.
c. If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	No Impact	The proposed project is a continuation of the planned Dry Creek Parkway Trail as envisioned in the adopted Dry Creek Parkway Recreation Master Plan (Foothill Associates 2003), and would not conflict with applicable zoning or other regulations governing scenic quality. The proposed project would have no impact.
d. Create a new source of substantial light, glare, or shadow that would result in safety hazards or adversely affect day or nighttime views in the area?	No Impact	The proposed project would not require nighttime lighting during construction and would not include installation of new nighttime lighting for project operation. No new sources of glare would be created. The proposed project would have no impact.

Table IS-18.5 Initial Study Checklist – Airports

Environmental Issue Would the project:	Significance	Discussion
a. Result in a safety hazard for	No Impact	The runway at the Rio Linda Airport is

Environmental Issue Would the project:	Significance	Discussion
people residing or working in the vicinity of an airport/airstrip?		approximately 0.6 mile (3,300 feet) south of the southern segment of the proposed Phase II trail alignment. The runways at McClellan Park Airfield are approximately 1.8 miles southeast of the southern project segment and approximately 1.6 miles south of the northern project segment. Therefore, the proposed project would not result in a safety hazard for construction workers or trail users, and there would be no impact.
b. Expose people residing or working in the project area to aircraft noise levels in excess of applicable standards?	Less than Significant	The project does not propose noise-sensitive uses in an area exposed to substantial aircraft overflight noise and the project would not increase air traffic.
c. Result in a substantial adverse effect upon the safe and efficient use of navigable airspace by aircraft?	No Impact	The crane used to set the prefabricated bridge spans over Dry Creek in the Phase II southern project segment would not be tall enough to result in hazards for aircraft approach or departure at the Rio Linda Airport or the McClellan Park Airport. Furthermore, the proposed project would not include the creation of any new areas of waterfowl habitat, and therefore would not result in increased birdstrike hazards. Thus, there would be no impact.
d. Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	No Impact	Operation of the Phase II segments of the Dry Creek Parkway Trail would occur on flat ground, no tall structures would be installed, and trail use (pedestrians, bicyclists, and equestrians) would not result in a change to existing or planned land uses or zoning. The proposed project would have no impact on air traffic patterns or safety risks.

Table IS-18.6 Initial Study Checklist – Public Services

Environmental Issue Would the project:	Significance	Discussion
a. Have an adequate water supply for full buildout of the project?	No Impact	The small amounts of water that would be necessary for project-related construction (e.g., compacting, dust suppression) would be supplied by a construction water truck. No water would be necessary during project operation. Thus, there would be no impact.

Environmental Issue Would the project:	Significance	Discussion
b. Have adequate wastewater treatment and disposal facilities for full buildout of the project?	No Impact	Temporary, portable restrooms would be supplied for construction workers during the project's construction phase. No wastewater treatment facilities would be necessary during project operation. Thus, there would be no impact.
c. Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	Less than Significant	Excavated soil would be re-used during Phase II trail construction, where possible. Unused soil, along with vegetative materials from the trail clearing process, would be transported to the Sacramento County Landfill, which has capacity to accommodate the project's construction-related solid waste disposal needs (California Department of Resources Recycling and Recovery 2019). There would be no solid waste disposal during project operation. Therefore, this impact would be less than significant.
d. Result in substantial adverse physical impacts associated with the construction of new water supply or wastewater treatment and disposal facilities or expansion of existing facilities?	No Impact	Construction of new or expansion of existing water supply or wastewater treatment and disposal facilities is not required for the proposed project. Thus, there would be no impact.
e. Result in substantial adverse physical impacts associated with the provision of storm water drainage facilities?	No Impact	The proposed Phase II trail would involve construction of approximately 5 acres of new impervious surfaces distributed along a 12-foot-wide paved and 6-foot-wide dirt trail for a lineal distance of approximately 2.6 miles. New storm water drainage facilities are not required. Thus, there would be no impact.
f. Result in substantial adverse physical impacts associated with the provision of electric or natural gas service?	No Impact	Electric or natural gas service is not required for the proposed project. Thus, there would be no impact.
g. Result in substantial adverse physical impacts associated with the provision of emergency services?	No Impact	The proposed Phase II trail is designed to be wide enough to accommodate emergency vehicles during project operation, should the need arise. Extension of the planned Dry Creek Parkway Trail would not require the provision of additional emergency services such that construction of new fire or police stations or acquisition of new equipment would be required. Thus, there would be no impact.
h. Result in substantial adverse physical impacts associated with the provision of public school services?	No Impact	No public school services are required for the proposed project; thus, there would be no impact.

Environmental Issue Would the project:	Significance	Discussion
i. Result in substantial adverse physical impacts associated with the provision of park and recreation services?	Less than Significant	Project construction would not result in substantial adverse physical impacts associated with parks and recreation services. See *Public Services – Recreation* section above.

Table IS-18.7 Initial Study Checklist – Transportation

Environmental Issue Would the project:	Significance	Discussion
a. Conflict with or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b) – measuring transportation impacts individually or cumulatively, using a vehicles miles traveled standard established by the County?	Less than Significant	The project would result in temporary, short-term increases in commute trips during construction. However, temporary construction worker commute trips and truck trips associated with materials and equipment deliveries are anticipated to originate from the greater Sacramento region. The project is located and designed specifically to serve the community directly surrounding the project site and therefore would reduce potential travel demand associated with seeking parks and recreational services at a greater distance. Therefore, the project would not conflict or be inconsistent with the State CEQA Guidelines.
b. Result in a substantial adverse impact to access and/or circulation?	Less than Significant	The project would be required to comply with applicable access and circulation requirements of the Sacramento County Improvement Standards (2018). Additionally, during construction activities, heavy truck vehicles, such as haul trucks or flatbed trailers, would access the project site via U Street, Alverta Road, PFE Road, or Watt Avenue. No public roads would be closed during project construction.
c. Result in a substantial adverse impact to public safety on area roadways?	Less than Significant	As discussed above, the project would be required to comply with applicable access and circulation requirements of the Sacramento County Improvement Standards (2018). No unusual angles or other hazardous design elements would exist in the proposed circulation and access that would adversely impact public safety on area roadways.
d. Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?	Less than Significant	The project would not change the availability of any transit service, nor would it interrupt service during construction. The project could add a minimal amount of pedestrian and bicycle traffic on roadways in the immediate vicinity and on streets leading to the project site. However, the construction and operation of the project would not conflict with adopted policies, plans, or programs supporting alternative transportation.

Table IS-18.8 Initial Study Checklist – Air Quality

Environmental Issue Would the project:	Significance	Discussion
a. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment under an applicable federal or state ambient air quality standard?	Less than Significant with Mitigation	The California Emissions Estimator Model (CalEEMod) was used to analyze criteria air pollutant and ozone precursor emissions. The project would not result in emissions that exceed the SMAQMD-recommended construction thresholds of significance, which were set with consideration of attaining and maintaining air quality standards for the region. Mitigation measures identified to ensure compliance with the SMAQMD required Basic Construction Emission Control Practices, and thereby ensure that construction air quality impacts are less than significant. See *Air Quality* section above.
b. Expose sensitive receptors to pollutant concentrations in excess of standards?	Less than Significant	Project construction would include sources of diesel particulate matter; however, these emissions would be short-term, distributed throughout the project site, and would disperse rapidly with distance. Sensitive receptors would not be exposed to substantial pollutant concentrations. See *Air Quality* section above.
c. Create objectionable odors affecting a substantial number of people?	Less than Significant	The project would not generate objectionable odors.

Table IS-18.9 Initial Study Checklist – Noise

Environmental Issue Would the project:	**Significance**	**Discussion**
a. Result in generation of a temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established by the local general plan, noise ordinance or applicable standards of other agencies?	Less than Significant	Project construction would result in a temporary increase in ambient noise levels in the project vicinity. This impact is less than significant due to the temporary nature of these activities, limits on the duration of noise, and evening and nighttime restrictions imposed by the County Noise Ordinance (Chapter 6.68 of the County Code). Construction that adheres to daytime hours are exempt from County Standards. The project, when completed, would not generate substantial noise in excess of applicable standards. See *Noise* section above.
b. Result in a substantial temporary increase in ambient noise levels in the project vicinity?	Less than Significant with Mitigation	Project construction would result in a temporary increase in ambient noise levels in the project vicinity. Construction that adheres to daytime hours are exempt from County Standards. This impact would be less than significant with mitigation measures. See *Noise* section above.
c. Generate excessive groundborne vibration or groundborne noise levels.	Less than Significant	The project would not involve the use of pile driving or other methods that would produce excessive groundborne vibration or noise levels at

Environmental Issue **Would the project:**	**Significance**	**Discussion**
		the property boundary. See *Noise* section above.

Table IS-18.10 Initial Study Checklist – Hydrology and Water Quality

Environmental Issue Would the project:	Significance	Discussion
a. Substantially deplete groundwater supplies or substantially interfere with groundwater recharge such that sustainable groundwater management of the basin would be impeded?	No Impact	The small amounts of water that would be necessary for project-related construction (e.g., compacting, dust suppression) would be supplied by a construction water truck. No water would be necessary during project operation. No groundwater would be used for the proposed project. The depth to groundwater in the project area ranges from approximately 100 feet below the ground surface in the north to approximately 60 feet below the ground surface in the south (DWR 2021). Therefore, project-related excavation (maximum depth 25 feet) would not encounter groundwater. The proposed Phase II trail segments would create a new impervious 12-foot-wide paved bicycle/pedestrian path, with an adjacent 6-foot-wide dirt equestrian trail, over a lineal distance of 2.6 miles. The new dirt equestrian trail would eventually become compacted and impervious from use over time. These small amounts of new impervious surfaces (approximately 5 acres total) would not substantially interfere with groundwater recharge, and would not impede sustainable management of the Sacramento Valley Groundwater Basin–North American Subbasin. Thus, there would be no impact.
b. Substantially alter the existing drainage pattern of the project area and/or increase the rate or amount of surface runoff in a manner that would result in flooding on- or off-site?	Less than Significant	As described in a) above, construction of the proposed Phase II trail segments would be small in size and would occur on flat ground; therefore, the proposed project would not substantially alter the existing drainage pattern of the project area. Furthermore, only a small amount of new impervious surfaces spread out over a lineal distance of 2.6 miles would be created, and thus project construction and operation would not increase the rate or amount of surface runoff in a manner that would result in flooding on- or off-site. Therefore, this impact would be less than significant.
c. Develop within a 100-year floodplain as mapped on a federal Flood Insurance Rate Map or within a local flood hazard area?	Less than Significant	The new trail segments would be developed within a FEMA 100-year floodplain. However, the trail would be flat and would be installed at ground level, and therefore would not result in hazards related to flooding. See the *Hydrology and Water Quality* section, above.

Environmental Issue Would the project:	Significance	Discussion
d. Place structures that would impede or redirect flood flows within a 100-year floodplain?	Less than Significant with Mitigation	The new bridges and/or culverts could impede or redirect flood flows within a FEMA 100-year floodplain. This impact would be less than significant with mitigation measures incorporated. See the *Hydrology and Water Quality* section above.
e. Develop in an area that is subject to 200 year urban levels of flood protection (ULOP)?	Less than Significant with Mitigation	The new bridges and/or culverts would be developed in an area that is subject to the 200-year ULOP. This impact would be less than significant with mitigation measures incorporated. See the *Hydrology and Water Quality* section above.
f. Expose people or structures to a substantial risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	Less than Significant with Mitigation	Operation of the proposed flat, ground-level trail segment would not increase flood hazards. However, operation of the proposed new bridges and/or culverts could result in increased flooding. This impact would be less than significant with mitigation measures incorporated. See the *Hydrology and Water Quality* section above.
g. Create or contribute runoff that would exceed the capacity of existing or planned stormwater drainage systems?	Less than Significant	The proposed Phase II trail segments would create a new impervious 12-foot-wide paved bicycle/pedestrian path and adjacent 6-foot-wide dirt equestrian path over a lineal distance of 2.6 miles. These small amounts of new impervious surfaces (approximately 5 acres) would not create or contribute runoff that would exceed the capacity of stormwater drainage systems. Therefore, this impact would be less than significant.
h. Create substantial sources of polluted runoff or otherwise substantially degrade ground or surface water quality?	Less than Significant with Mitigation	Stockpiling of construction materials in a flood zone during the winter rainy season could create substantial sources of polluted runoff. This impact would be less than significant with mitigation measures incorporated. See *Hydrology and Water Quality* section above.

Table IS-18.11 Initial Study Checklist – Geology and Soils

Environmental Issue Would the project:	Significance	Discussion
a. Directly or indirectly cause potential substantial adverse effects, including risk of loss, injury or death involving rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault?	No Impact	The proposed project is not located in or near a fault designated under the Alquist-Priolo Earthquake Fault Zone Act, or any other known fault. The nearest Alquist-Priolo fault is approximately 43 miles to the southwest (Cordelia Fault) (California Geological Survey [CGS] 2022). The nearest potentially active faults (with evidence of activity during the last 700,000 years) are a strand of the Bear Mountains Fault Zone approximately 25 miles east in the Sierras, and the Dunnigan Hills Fault approximately 22 miles west (Jennings and Bryant 2010). Thus, there

Environmental Issue Would the project:	Significance	Discussion
		would be no impact related to surface fault rupture or other substantial adverse effects such as strong seismic ground shaking.
b. Result in substantial soil erosion, siltation or loss of topsoil?	Less than Significant	Because the proposed project would disturb more than 1 acre of land, Sacramento County Regional Parks would file a Notice of Intent to Discharge with the Central Valley RWQCB (as required by law). A SWPPP would be developed, and site-specific BMPs would be implemented that would be specifically designed to reduce soil erosion, siltation, and loss of topsoil. Therefore, this impact would be less than significant.
c. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, soil expansion, liquefaction or collapse?	No Impact	The proposed Phase II trail segments and staging areas are located within the stable, well consolidated, Pleistocene-age deposits of the Modesto and Riverbank Formations (Gutierrez 2011). NRCS Soil Survey data indicates the soils along the proposed trail alignments and at the staging areas are not subject to any limiting factors related to instability (NRCS 2021). Thus, there would be no impact.
d. Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available?	No Impact	Portable restroom facilities would be provided for construction workers. Operation of the proposed new trail segments would not require restroom facilities. Thus, there would be no impact.
e. Result in a substantial loss of an important mineral resource?	No Impact	The proposed Phase II trail alignment is not classified as an area containing regionally significant aggregate mineral deposits (O'Neal and Gius 2018). There are no known areas of kaolin clay deposits or other mineral resources in the project area (Dupras 1999). There is no existing or planned mining within the Dry Creek Parkway, which includes the proposed Phase II trail alignment, because the Parkway has been designed to protect and promote floodplain, habitat, and recreational uses. The Sacramento County General Plan (Conservation Element) has not designated the project site or vicinity as a locally important mineral resource recovery area (Sacramento County 2020). Thus, there would be no impact.
f. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	Less than Significant with Mitigation	Project construction could accidentally damage or destroy previously unknown unique paleontological resources. This impact would be less than significant with mitigation measures incorporated. See *Geology – Paleontological Resources* section above. Unique geologic features consist of outstanding natural landforms such as mountain peaks, deep

Environmental Issue Would the project:	Significance	Discussion
		scenic canyons and gorges, scenic rock formations, major rivers, large waterfalls, volcanic cinder cones, lava fields, or glaciers. There are no unique geologic features at the project site, and thus there would be no impact.

Table IS-18.12 Initial Study Checklist – Biological Resources

Environmental Issue Would the project:	Significance	Discussion
a. Have a substantial adverse effect on any special status species, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, or threaten to eliminate a plant or animal community?	Less than Significant with Mitigation	The proposed project has potential to support one special status plant species and ten special status wildlife species. Implementation of this project could impact these species directly through crushing or trampling, or indirectly through habitat loss or degradation. With the implementation of species-specific mitigation measures designed to avoid and minimize impacts to these species and their habitat, impacts would be reduced to less than significant. See *Biological Resources* section above.
b. Have a substantial adverse effect on riparian habitat or other sensitive natural communities?	Less than Significant with Mitigation	The proposed project was designed to avoid degradation of the environment and loss of riparian vegetation to the greatest extent feasible. However, where impacts cannot be reasonably avoided, mitigation through riparian habitat restoration is proposed. With the implementation of restoration mitigation measures, impacts related to the loss of riparian habitat are considered less than significant. See *Biological Resources* section above.
c. Have a substantial adverse effect on streams, wetlands, or other surface waters that are protected by federal, state, or local regulations and policies?	Less than Significant with Mitigation	Impacts to waters would be mitigated through implementation of mitigation measures to protect Dry Creek water quality. Any in-water work would be contingent upon obtaining the necessary permits in compliance with Section 401 and Section 404 of the Clean Water Act, and Section 1602 of the Fish and Game Code. Construction would comply with all necessary permits and the conditions set forth in these permits. See *Biological Resources* section above.
d. Have a substantial adverse effect on the movement of any native resident or migratory fish or wildlife species?	Less than Significant with Mitigation	With the limited extent of new infrastructure, a lack of new barriers to wildlife movement corridors, and the implementation of species-specific mitigation measures already discussed, project impacts on wildlife movement and migration corridors would be less than significant. See *Biological Resources* section above
e. Adversely affect or result in the removal of native or landmark	Less than significant with	This assessment assumes that some trees may need to be removed or trimmed. A Sacramento

Environmental Issue Would the project:	Significance	Discussion
trees?	Mitigation	County tree permit is required to remove or prune any native oaks, public trees, landmark trees, and select landscaping trees. Public trees are those that occur on any County owned land and/or within right-of-way areas. The project also would include tree protection measures as specified by a certified arborist. Potential impacts to trees protected under the Tree Protection Ordinance would be mitigated by various protective measures. With implementation of these mitigation measures, the project's impact on native or landmark trees is considered less than significant. See *Biological Resources* section above.
f. Conflict with any local policies or ordinances protecting biological resources?	Less than Significant	The proposed project has factored in existing policies and ordinances into the project design. The project design, and the analysis of project impacts, will comply with the policies and ordinances outlined in the Sacramento County General Plan and the Dry Creek Parkway Recreation Master Plan designed to protect biological resources.
g. Conflict with the provisions of an adopted Habitat Conservation Plan or other approved local, regional, state or federal plan for the conservation of habitat?	No Impact	This project does not fall within the plan area of any adopted Habitat Conservation Plans or other approved local, regional, state, or federal plan for the conservation of habitat.

Table IS-18.13 Initial Study Checklist – Cultural Resources

Environmental Issue Would the project:	Significance	Discussion
a. Cause a substantial adverse change in the significance of a historical resource?	Less than Significant	No historical resources would be affected by the project. See *Cultural Resources* section above.
b. Have a substantial adverse effect on an archaeological resource?	Less than Significant with Mitigation	While no archaeological resources were observed during pedestrian field surveys, prehistoric and historical archaeological resources were identified in previous investigations of the northern alignment project area. Native American consultation with UAIC has identified mitigation measures. See *Cultural Resources* section above.
c. Disturb any human remains, including those interred outside of formal cemeteries?	Less than Significant with Mitigation	While no human remains were observed during pedestrian field surveys, potential Native American remains were identified in previous investigations of the northern alignment project area. Native American consultation with UAIC has identified mitigation measures. See *Cultural Resources* section above.

Table IS-18.14 Initial Study Checklist – Hazards and Hazardous Materials

Environmental Issue Would the project:	Significance	Discussion
a. Create a substantial hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	No Impact	Minor amounts of hazardous materials such as fuels, oils, and lubricants would be used during construction. All such materials would be used according to manufacturer's labeling instructions and stored in designated staging areas. Phase II trail operation may involve minor herbicide use to control weeds along the trail; herbicides would be applied in accordance with the manufacturer's labelling instructions. A substantial hazard would not be created, and there would be no impact.
b. Expose the public or the environment to a substantial hazard through reasonably foreseeable upset conditions involving the release of hazardous materials?	Less than Significant	Known hazardous materials sites within 0.25 of the proposed Phase II trail alignment and staging areas have either been remediated or involve soil contamination (not groundwater contamination) that is limited to the individual hazmat site's parcel boundaries. The project's SWPPP is required to include BMPs specifying procedures for prompt clean-up if minor accidental spills were to occur during project construction. This impact would be less than significant. See *Hazards and Hazardous Materials* section above.
c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances or waste within one-quarter mile of an existing or proposed school?	Less than Significant	Project construction would include the handling of hazardous materials (i.e., fuel, oil, lubricants, asphalt) within 0.25 mile of three schools, but the quantities would be very small, and construction equipment would not generate hazardous air emissions. None of the materials would be acutely hazardous. This impact would be less than significant. See *Hazards and Hazardous Materials* section above.
d. Be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5, resulting in a substantial hazard to the public or the environment?	No Impact	Project construction would not occur within a Cortese-listed site. Thus, there would be no impact. See *Hazards and Hazardous Materials* section above.
e. Impair implementation of or physically interfere with an adopted emergency response or emergency evacuation plan?	No Impact	The proposed Phase II trail alignment is off-street, as are all of the proposed staging areas. Temporary lane closures on Dry Creek Road and potentially Cherry Lane may occur for a period of 1-2 days for bicycle/pedestrian striping and a signal associated with the proposed trail crossing. Appropriate flagging personnel would be present for traffic control (i.e., lane detours). Numerous other nearby roadways are available for emergency traffic during the short-term closure for roadway striping. The proposed Phase II trail is designed to be wide enough to accommodate emergency vehicles during project operation,

Environmental Issue Would the project:	Significance	Discussion
		should the need arise. Thus, there would be no impact.
f. Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to or intermixed with urbanized areas?	No Impact	The proposed project is not located in or near a state responsibility area or land classified as very high fire hazard severity zones (California Department of Forestry and Fire Protection [CalFire] 2021). Fire breaks along the Dry Creek Parkway are maintained according to the Dry Creek Parkway Recreation Master Plan (Foothill Associates 2003), which calls for tree thinning, eliminating low-level ladder fuels, and mowing tall grasses. Emergency vehicle access is available along the existing Dry Creek Parkway Trail, and would be available in the future along the proposed Phase II trail segments, because the paved trail has been designed to be wide enough to accommodate emergency vehicles. The proposed construction effort would be small in nature and the proposed Dry Creek Parkway Trail extension would not result in increased fire risks. Thus, there would be no impact.

Table IS-18.15 Initial Study Checklist – Energy

Environmental Issue Would the project:	Significance	Discussion
a. Result in potentially significant environmental impacts due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction?	Less than Significant	The primary energy demands during construction would be associated with construction equipment and vehicle fueling. Construction equipment and vehicles would be required to comply with federal, State, and local standards and regulations, including the Sacramento Metropolitan Air Quality Management District (SMAQMD) standards that are aimed at reducing air pollution, including minimizing idling and ensuring proper maintenance, that would minimize the wasteful consumption of energy resources during construction. Energy use during construction would be temporary and short-term. Very little energy use would be necessary during operation. Therefore, energy use during construction and operation would not result in wasteful, inefficient, or unnecessary consumption of energy resources.
b. Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	Less than Significant	There is no relevant energy efficiency plan with which the project would conflict which could lead to adverse physical effects. The project would be subject to the energy conversation standards and building regulations as required by Title 24, including the 2019 California Green Building Standards Code.

Table IS-18.16 Initial Study Checklist – Greenhouse Gas Emissions

Environmental Issue Would the project:	Significance	Discussion
a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	Less than Significant	The California Emissions Estimator Model (CalEEMod) was used to estimate the greenhouse gas emissions associated with the project. Based on the results, the project would not exceed applicable thresholds of significance established to ensure consistency with State GHG reduction targets. See *Greenhouse Gas Emissions* section above.

Table IS-18.17 Initial Study Checklist – Wildfire

Environmental Issue Would the project:	Significance	Discussion
If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:	No Impact	The proposed project is not located in or near a state responsibility area or land classified as very high fire hazard severity zones (CalFire 2021). Furthermore, fire breaks along the Dry Creek Parkway are maintained according to the Dry Creek Parkway Recreation Master Plan (Foothill Associates 2003), which calls for tree thinning, eliminating low-level ladder fuels, and mowing tall grasses. Emergency vehicle access is available along the existing Dry Creek Parkway Trail, and would be available in the future along the proposed Phase II trail segments, because the paved trail has been designed to be wide enough to accommodate emergency vehicles. The proposed construction effort would be small in nature and the proposed Dry Creek Parkway Trail extension would not result in increased fire risks. Thus, there would be no impact.
a. Substantially impair an adopted emergency response plan or emergency evacuation plan?	No Impact	Temporary lane closures on Dry Creek Road and potentially Cherry Lane may occur for a period of 1-2 days for bicycle/pedestrian striping associated with Phase II trail crossing. Appropriate flagging personnel would be present for traffic control (i.e., lane detours). Numerous other nearby roadways are available for emergency traffic during the short-term closures for roadway striping. Thus, there would be no impact.
b. Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	No Impact	The proposed project is not located in or near a state responsibility area or land classified as very high fire hazard severity zones (CalFire 2021). The proposed Phase II trail alignment and staging areas are flat, and are not subject to high winds. Construction and operation of the proposed trail would not exacerbate wildfire risks. Thus, there would be no impact.
c. Require the installation or maintenance of associated	No Impact	No wildfire-related infrastructure would be installed as part of the proposed project, which is

Environmental Issue Would the project:	Significance	Discussion
infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?		not located in or near a state responsibility area or land classified as very high fire hazard severity zones (CalFire 2021). Thus, there would be no impact.
d. Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	No Impact	The proposed project is not located in or near a state responsibility area or land classified as very high fire hazard severity zones (CalFire 2021). Thus, the proposed project would not exacerbate the potential for secondary wildfire issues such as downstream flooding or landslides associated with wildfire damage, and there would be no impact.

Table IS-18.18 Initial Study Checklist – Tribal Cultural Resources

Environmental Issue Would the project:	Significance	Discussion
Would the project cause a substantial adverse change in the significance of a tribal cultural resource as defined in Public Resources Code 21074?	Less than significant with Mitigation	Through Native American consultation under CEQA, UAIC confirmed that the project area for the northern alignment is sensitive for tribal cultural resources. UAIC has identified mitigation measures to reduce impacts. See *Tribal Cultural Resources* section above.

SUPPLEMENTAL INFORMATION

Table IS-19 Supplemental Information

Land Use Consistency	Current Land Use Designation	Consistent/ Not Consistent	Comments
General Plan	North Alignment: Recreation South Alignment: Nature Preserve	Consistent	N/A
Community Plan (Antelope)	North Alignment: Recreation; Agriculture	Consistent	South Alignment: N/A, outside of Community Plan Area
Community Plan (Rio Linda and Elverta)	North Alignment: Recreation (O)	Consistent	N/A

	South Alignment: Recreational Reserve (RR)		
Rio Linda Elverta Recreation and Park District Master Plan	North Alignment: Open Space/Other	Consistent	N/A
Land Use Zone	North Alignment: Agricultural (AG-80; AG-5), Recreation Reserve (O), South Alignment: Agricultural (AG-80), Agricultural Residential (R-2), Recreation Reserve (RR)	Consistent	N/A

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INITIAL STUDY PREPARERS

SACRAMENTO COUNTY

Environmental Coordinator: Julie Newton

Senior Planner: Alison Little

Associate Planner: Josh Greetan

Administrative Support: Justin Maulit

AECOM

Project Manager: Matthew Gerken

Environmental Planners: Wendy Copeland, Steve Smith

Senior Biologist: Susan Sanders

Biologist: Allison Brock, Renee Richardson

Senior Architectural Historian: Chandra Miller

Archaeologist: Diana Ewing

Senior Archaeologist: Richard Deis

Air Quality, Noise Analyst, and Greenhouse Gas Emissions Specialist: Issa Mahmodi

APPENDICES

The appendices and all project files are available at the following link.

https://planningdocuments.saccounty.net/projectdetails.aspx?projectID=7232&communityID=0

Appendix A AIR QUALITY EMISSION MODELS AND GHG MODEL OUTPUT FILES

Appendix B ARBORIST REPORT

Appendix C AQUATIC RESOURCES REPORT

Appendix D SPECIAL STATUS SPECIES REPORT