Draft Initial Study and Mitigated Negative Declaration

For the

24-Acre Master Plan Project

Auburn, California

Auburn Area Recreation and Parks District

April 2021

DRAFT

Initial Study and Mitigated Negative Declaration
for the
24-Acre Park Master Plan Project

Prepared for:

Auburn Area
Recreation and Park District
471 Maidu Drive #200
Auburn, California 95603
Contact: Kahl Muscott

Prepared by:

DUDEK

853 Lincoln Way, Suite #208
Auburn, California 95603
Contact: Markus Lang

APRIL 2021

INTENTIONALLY LEFT BLANK

Table of Contents

FIGURES

TABLES

APPENDICES

Acronyms and Abbreviations

Acronym/Abbreviation	Definition
AB	Assembly Bill
ALUCP	Airport Land Use Compatibility Plan
ARD	Auburn Area Recreation and Parks District
BMPs	best management practices
CAAQS	California Ambient Air Quality Standards
CalEEMod	California Emissions Estimator Model
CARB	California Air Resources Board
CEQA	California Environmental Quality Act
CNEL	Community Noise Equivalent Level
CO	carbon monoxide
CO2e	carbon dioxide equivalent
dB	decibel
dBA	A-weighted decibel
EO	Executive Order
FERC	Federal Energy Regulatory Commission
GHG	greenhouse gas
GWP	global warming potential
IS	Initial Study
lbs/day	pounds per day
Ldn	day-night average sound level
Leq	equivalent sound level over a given period
SVAB	Sacramento Valley Air Basin
MLD	most likely descendent
MMRP	mitigation monitoring and reporting program
MND	Mitigated Negative Declaration
MT	metric tons
NAAQS	National Ambient Air Quality Standards
NAHC	Native American Heritage Commission
NR	Natural Resources
NOx	oxides of nitrogen
NPDES	National Pollutant Discharge Elimination System
O_3	ozone
PCAPCD	Placer County Air Pollution Control District
PCCP	Placer County Conservation Plan
$PM_{2.5}$	particulate matter with an aerodynamic diameter less than or equal to 2.5 microns in size
PM_{10}	particulate matter with an aerodynamic diameter less than or equal to 10 microns in size
PUHSD	Placer Union High School District
ROG	reactive organic gas
SFNA	Sacramento Federal Nonattainment Area
SOx	sulfur oxides
SWPPP	Stormwater Pollution Prevention Plan
TAC	toxic air contaminants
TCRs	tribal cultural resources
USGS	U.S. Geological Survey

Acronym/Abbreviation	Definition
VOC	volatile organic compound

INTENTIONALLY LEFT BLANK

1 Introduction

1.1 Project Overview

The 24-Acre Park Master Plan Project (Project) includes developing recreational park uses on a 24-acre site situated generally between Richardson Drive on the east and Deer Ridge Lane on the west. The parcel is undeveloped with the exception of an existing baseball field that occupies approximately 4.8 acres in the southeast corner of the site. Recreational uses proposed include an earthen walking trail, dog park, open turf area, central plaza, splash pad, restrooms, bocce ball courts, picnic tables, parking lot, and associated utilities. The proposed earthen trail would provide pedestrian access from the area proposed for the Timberline subdivision to the south; primary vehicle access to the park would be from Richardson Drive. The design emphasizes passive trail uses and a majority of the site, including the existing wetland along the western Project site boundary would remain undeveloped. The Project is designed to minimize tree removal and would result in no change to the existing NID canal in the southwest corner of the site and would not alter the existing retaining wall along Richardson Drive.

1.2 California Environmental Quality Act Compliance

This Initial Study has been prepared per the requirements of the California Environmental Quality Act (CEQA) of 1970 (Public Resources Code [PRC] Section 21000, et seq.), and the CEQA Guidelines (California Code of Regulations, Title 14, Section 15000 et seq.).

1.3 Public Review Process

The Initial Study and the proposed Mitigated Negative Declaration will be circulated for public review for a period of 30 days, pursuant to CEQA Guidelines Section 15073(a). ARD will provide public notice at the beginning of the public review period.

This draft Initial Study is being routed to State agencies through the Office of Planning and Research under a Notice of Completion. ARD has posted a Notice of Intent to adopt a Mitigated Negative Declaration at the Project site, on ARD's website, and has provided the Notice of Intent to the County Clerk's office and via direct mailings and emails to other stakeholders, local agencies, and other parties that have expressed interest in the Project.

After the document has been noticed and made publicly available for 30 days ARD will consider all comments received, revise the Initial Study as necessary, and schedule the Project and this Initial Study for consideration by the ARD Board. The scheduled Board hearing will be publicly noticed prior to the public hearing. The Board will accept any written and oral comments at the hearing and make a decision on the Project.

Comments or questions may be addressed to Kahl Muscott, District Administrator, Auburn Area Recreation and Parks District, 471 Maidu Drive #200, Auburn, California 95603, or via email at kmuscott@auburnrec.com.

INTENTIONALLY LEFT BLANK

2 Summary of Findings

2.1 Environmental Factors Potentially Affected

This Initial Study analyzes the environmental impacts of the Project consistent with the format and analysis prompts provided in Appendix G of the CEQA Guidelines. The analysis determined that the Project could have potentially significant impacts to the following resource categories: Biological Resources, Cultural Resources, Geology and Soils, Hazards and Hazardous Materials, and Tribal Cultural Resources. The analysis determined that all potentially significant impacts would be less than significant with implementation of mitigation measures to avoid or minimize the impacts identified. Detailed analyses of impacts are provided under each resource section evaluated by this Initial Study.

2.2 Environmental Determination

ARD, as Lead Agency, finds that the Initial Study identifies potentially significant impacts, but that implementing the mitigation measures identified in Table 2-1 would avoid or minimize the impacts such that they would be less than significant. The Project would result in no impacts that would remain significant following implementation of mitigation measures. All mitigation measures are identified in Table 2-1, below.

Table 2-1
Mitigation Measures

Measure Number	Measure Text
BIO-1	Removal of potential bat roost habitat identified during the assessment shall be avoided during the bat maternity season (May 1 through August 15). If removal of potential bat roost habitat occurs outside of the maternity season, no further mitigation shall be required. If removal of potential roost habitat must be conducted during the maternity season, a qualified biologist experienced with Sierra Nevada bat species shall conduct a survey to search for evidence of bat roosts in trees and structures subject to removal. If potential bat roosts are identified, pre-construction inspections for bats will be conducted using appropriate methods (e.g., camera inspection, exit survey with night optics, acoustic survey) within 2 weeks prior to said activities. If bats are found during inspections, removal of that roost feature will be delayed until the end of the maternity season or until a qualified bat biologist has determined that the young are capable of flight.
BIO-2	To the extent feasible, tree or vegetation removal shall occur outside of the nesting season (February through August). If vegetation removal must be carried out during the breeding season, a qualified biologist shall conduct a nesting bird survey within 1 week prior to said activities to determine if any birds are nesting on or near the Project site (including a 500-foot buffer for raptors). If any active nests are observed during surveys, a suitable avoidance buffer from the nests shall be determined and flagged by a qualified biologist based on species, location, and planned construction activities. Consultation with CDFW may be required to determine

Table 2-1
Mitigation Measures

Measure Number	Measure Text
	appropriate buffer distances. These nests shall be avoided until the chicks have fledged and the nests are no longer active, as determined by the qualified biologist.
CUL-1	In order to ensure that there will be no impacts to unanticipated cultural resources, It is recommended that an archaeological monitor be present during all initial ground-disturbing activities with the potential to encounter cultural resources. The requirement to include a Native American Monitor should be determined by ARD through consultation and review of the present report findings. Archaeological monitoring may be adjusted at the recommendation of an archaeological principal investigator who meets the Secretary of the Interior qualifications in Archaeology, and in consultation with ARD, based on inspection of exposed subsurface soils and their observed potential to contain intact cultural deposits or material. Prior to the initiation of ground-disturbing work, construction personnel shall complete a Worker Environmental Awareness Training (WEAT) to address the potential to encounter cultural resources and protocol should resources be encountered, as well as inform them of the requirement for cultural monitors to be present during initial ground-disturbing activities. In the event that archaeological resources (sites, features, or artifacts) are exposed during construction activities for the Project, all construction work occurring within 100 feet of the find shall immediately stop until the archaeological principal investigator and designative archaeological staff can evaluate the significance of the find and determine whether or not additional study is warranted. Depending upon the significance of the find under CEQA (14 CCR 15064.5[f]; California Public Resources Code, Section 21082), the archaeologist may record the find and allow work to continue. If the discovery proves significant under CEQA, additional work such as preparation of an archaeological treatment plan, testing, or data recovery could be warranted.
CUL-2	In accordance with Section 7050.5 of the California Health and Safety Code, if human remains are found, the County Coroner shall be immediately notified of the discovery. No further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains shall occur until the County Coroner has determined, within 2 working days of notification of the discovery, if the remains are human in origin. If the County Coroner determines that the remains are, or are believed to be, Native American, he or she shall notify the Native American Heritage Commission in Sacramento within 24 hours. In accordance with California Public Resources Code, Section 5097.98, the Native American Heritage Commission must immediately notify those persons it believes to be the most likely descendant from the deceased Native American. The most likely descendant shall complete their inspection within 48 hours of being granted access to the site. The designated Native American representative would then determine, in consultation with the property owner, the disposition of the human remains.
GEO-1	Erosion control measures shall be implemented in accordance with Placer County Resource Conservation District's "Erosion and Sediment Control Guidelines for Developing Areas of the Sierra Foothills and Mountains" and in accordance with the erosion control plan. This could include measures for slope stabilization, dust control, and temporary and permanent erosion control

Table 2-1
Mitigation Measures

Measure Number	Measure Text
	devices/BMPs such as straw wattles, track out control devices, silt fencing, sediment traps, tarping of stockpiled soils, revegetation treatments or other measures specified by the erosion and dust control plan or SWPPP or as determined to be necessary by the Project engineer.
GEO-2	In the event that paleontological resources (e.g., fossils) are exposed during construction activities for the Project, all construction work occurring within 50 feet of the find shall immediately stop until a qualified paleontologist meeting the professional standards of the Society of Vertebrate Paleontology can evaluate the significance of the find and determine whether or not additional study is warranted. If the discovery is clearly not significant, the paleontologist may document the find and allow work to continue. If the discovery proves potentially significant under CEQA, additional work such as preparation of a paleontological treatment plan and monitoring in the area of the find may be warranted.
HAZ-1	The following measures shall be implemented prior to and during construction and shall be incorporated into Project plans and specifications. • All equipment shall be inspected by the contractor for leaks prior to the start of construction and regularly throughout Project construction. Leaks from any equipment shall be contained and the leak remedied before the equipment is again used on the site. • Best management practices for spill prevention shall be incorporated into Project plans and specifications and shall contain measures for secondary containment and safe handling procedures. • A spill kit shall be maintained on site throughout all construction activities and shall contain appropriate items to absorb, contain, neutralize, or remove hazardous materials stored or used in large quantities during construction. • Project plans and specifications shall identify construction staging areas and designated areas where equipment refueling, lubrication, and maintenance may occur. Areas designated for refueling, lubrication, and maintenance of equipment shall be approved by the City. • In the event of any spill or release of any chemical or wastewater during construction, the contractor shall immediately notify the City. • Hazardous substances shall be handled in accordance with Title 22 of the California Code of Regulations, which prescribes measures to appropriately manage hazardous substances, including requirements for storage, spill prevention and response and reporting procedures.
TCR-1	**Implement Best Management Practices to Reduce or Avoid Impacts on Tribal Cultural Resources.** ARD shall implement the following measures to reduce or avoid impacts to tribal cultural resources. If interested Native American Tribe(s) provide information demonstrating the significance of the Project site and substantial evidence supporting the determination that the site is highly sensitive for tribal cultural resources, ARD will conduct a site visit with Tribal Representatives to evaluate the potential for tribal cultural resources at the Project site. If Tribal Representatives and ARD determine the site is highly sensitive for tribal cultural resources and

Table 2-1
Mitigation Measures

Measure Number	Measure Text
	that the Project may have a significant impact on tribal cultural resources, ARD, in consultation with Tribal Representatives or others, will develop and implement best management practices (BMPs) to reduce or avoid impacts on tribal cultural resources. BMPs may include, but are not limited to: 1) modify the Project to preserve the tribal cultural resources in place, 2) establish exclusion zones and/or minimize work activities in proximity to tribal cultural resources, 3) provide notice at least seven days prior to the start of the Project to invite Tribal Representatives to observe and inspect the Project site during initial ground disturbing activities, 4) prepare a tribal cultural resources awareness brochure and provide tribal cultural resources training to construction personnel, 5) provide notice at least seven days prior to the start of the Project to invite Tribal Representatives to provide training of construction personnel involved in Project implementation.
TCR-2	**Inadvertent Discovery of Tribal Cultural Resources.** While no tribal cultural resources have been identified that could be affected by the Project, the following approach for the inadvertent discovery of tribal cultural resources has been prepared to ensure there are no impacts to unanticipated resources. The topic of tribal cultural resources and appropriate management requirements will be addressed within the WEAT materials provided to all construction personnel prior to initiation of construction activities. This is included as a requirement under Mitigation Measure CUL-1. Should a potential tribal cultural resource be inadvertently encountered, construction activities near the encounter shall be temporarily halted and ARD shall be notified. ARD will notify Native American tribes that have been identified by the NAHC to be traditionally and culturally affiliated with the geographic area of the Project. If ARD determines that the potential resource appears to be a tribal cultural resource (as defined by PRC Section 21074), any affected tribe would be provided a reasonable period of time to conduct a site visit and make recommendations regarding future ground disturbance activities as well as the treatment and disposition of any discovered tribal cultural resources. Depending on the nature of the potential resource and Tribal recommendations, review by a qualified archaeologist may be required. Implementation of proposed recommendations will be made based on the determination by ARD that the approach is reasonable and feasible. All activities shall be conducted in accordance with regulatory requirements.

INTENTIONALLY LEFT BLANK

3 Initial Study Checklist

Project Title:

24-Acre Park Master Plan Project

Lead Agency:

Auburn Area Recreation and Park District
471 Maidu Drive Suite 200
Auburn, CA 95603-5427

Contact: Kahl Muscott, District Administrator
Phone: 530-537-2186
Email: kmuscott@auburnrec.com

Project Sponsor:

Auburn Area Recreation and Park District
471 Maidu Drive Suite 200
Auburn, CA 95603-5427

Project Summary:

Park master plan for 24-acre site to include parking, central plaza with gathering and play areas, walking paths and fitness stations, dog park, turf area with bocce ball courts, picnic and shade facilities, splash pad and restrooms.

Location Summary:

The Project site is located on the west side of Richardson Drive in the community of North Auburn, Placer County, California. Project site is identified as Placer County Assessor's Parcel Number 51-211-016.

General Plan Land Use Designation and Zoning:

Placer County:

- *Land Use Designation:* Low Density Residential *(Auburn Bowman Community Plan*)
- *Zoning*: F-AO (Farm - Combining Aircraft Overflight) 4.6 AC. MIN

PROJECT DESCRIPTION

The 24-Acre Park Master Plan Project (Project) includes developing recreational park facilities on a parcel that is undeveloped with the exception of an existing baseball field that occupies approximately 4.8 acres in the southeast corner of the site. The Project would develop the site for recreational uses including an earthen walking trail, dog park, open turf area, central plaza, splash pad, restrooms, bocce ball courts, and picnic tables, as well as associated utilities and 40 parking spaces. The proposed earthen trail would provide walk-in access from the area proposed for the Timberline subdivision to the south and vehicular access to the park site would be from Richardson Drive via Dry Creek Road or from State Route 49 (Grass Valley Highway) via Quartz Drive and Park Drive. A majority of the site would remain in a largely natural state and would be used for passive trail uses. The design would result in no change to the existing wetland area along the western site boundary, the NID canal in the southwest corner of the site, or the retaining wall along Richardson Drive. The Project is designed to minimize tree removal from the site.

PROJECT LOCATION

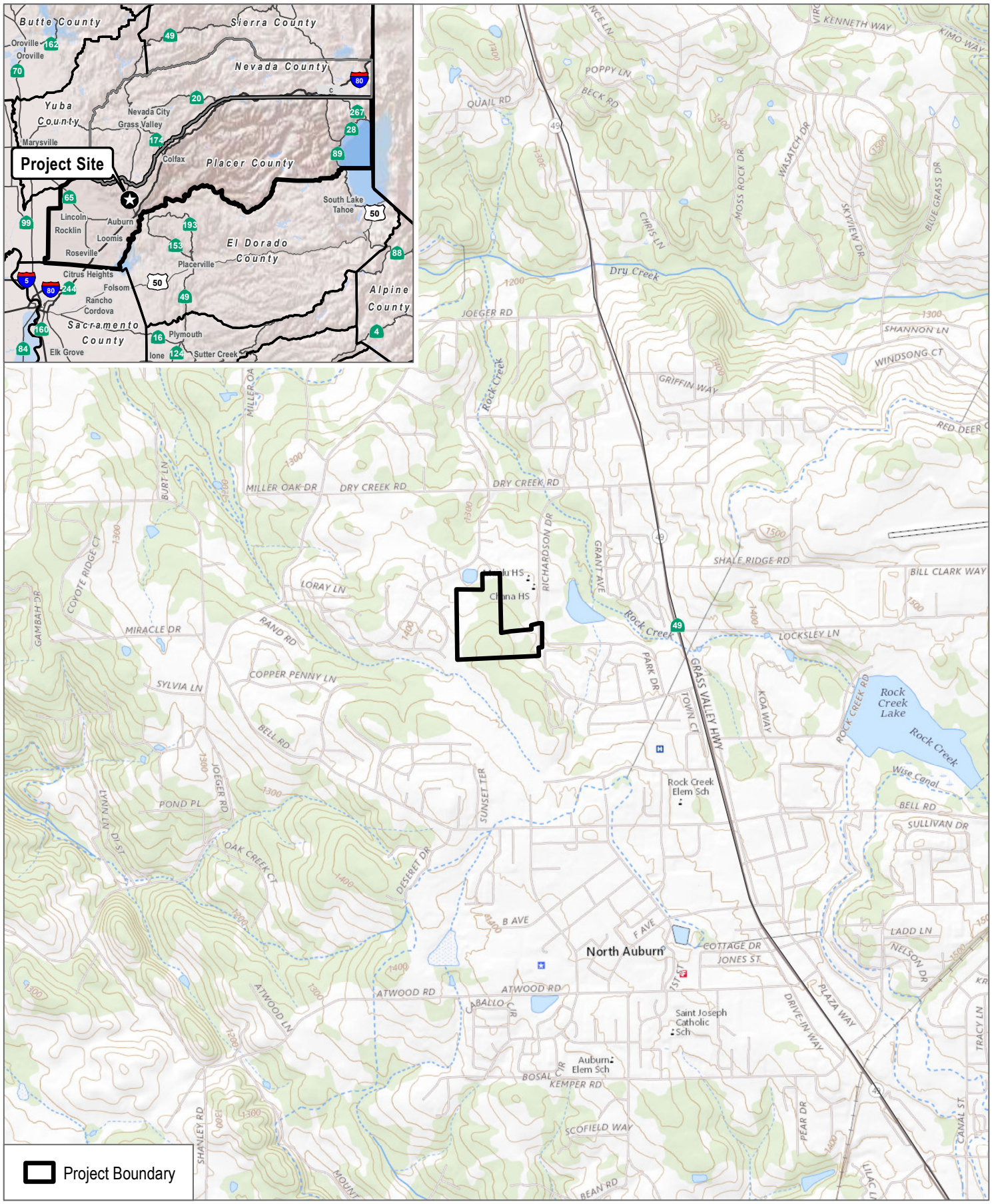
The Project site is within the unincorporated community of North Auburn in Placer County approximately 2.6 miles northwest of the limits of the City of Auburn and 1.1 miles west of the Auburn Municipal Airport. The Project site is approximately 0.5 mile west of State Route 49. The main access to the Project site is off of Richardson Drive just north of the existing baseball diamond on the site (Figures 1 and 2). The Placer County Assessor's Parcel Number (APN) for the site is 51-211-016. The site is located in Township 13 North, Range 8 East, Section 29 of the U.S. Geological Survey (USGS) Auburn, California 7.5-minute quadrangle (Figure 1). The approximate center of the Project site corresponds to 38°57'2.041" north latitude and 121°6'36.782" west longitude.

PROJECT SITE CHARACTERISTICS

The Project site is located in the western foothills of the Sierra Nevada Mountain Range. Elevations on the Project site range from approximately 1,345 feet to 1,430 feet above mean sea level. Urban development, including residential, recreational, and commercial uses occupy lands north, east, and west of the Project site, while undeveloped land consisting generally of scattered oak woodland and annual grassland is adjacent to the south. While land to the south is currently vacant, the land is approved for development of the Timberline active adult residential subdivision project.

The Project site occurs within the Orr Creek watershed, which drains approximately 25 square miles of land in Placer County. According to the USFWS National Wetlands Inventory (NWI), there are no aquatic resources mapped on the Project site; the nearest aquatic resource shown by the NWI is a constructed freshwater pond approximately 80 feet north of the Project site. Surface run-off from the western portion of the Project site is generally toward the scrub-shrub wetland in the western half of the Project site, while the eastern half of the Project site generally drains to constructed ditches and storm drain features along Richardson Drive. Irrigation run-off from urban development to the west appears to drain east onto the Project site providing a source of hydrology to the scrub-shrub wetland that runs north-south through the central-western portion of the Project site. This wetland may also be supported by the NID canal to the south.

Land cover on the Project site consists of terrestrial non-vegetative land covers and natural vegetation communities including blue oak woodland and forest, California annual grassland, and developed areas associated with the existing baseball field. There are approximately 1.44 acres of aquatic resources on the site that are anticipated to meet criteria to be considered jurisdictional aquatic resources subject to state agency regulation. This consists of one seasonal wetland in the western half of the Project site, one scrub-shrub wetland comprising approximately 1.29 acres near the western edge of the Project site, and one ephemeral drainage located downslope of the baseball field in the southeastern corner of the Project site. Additionally, there is one



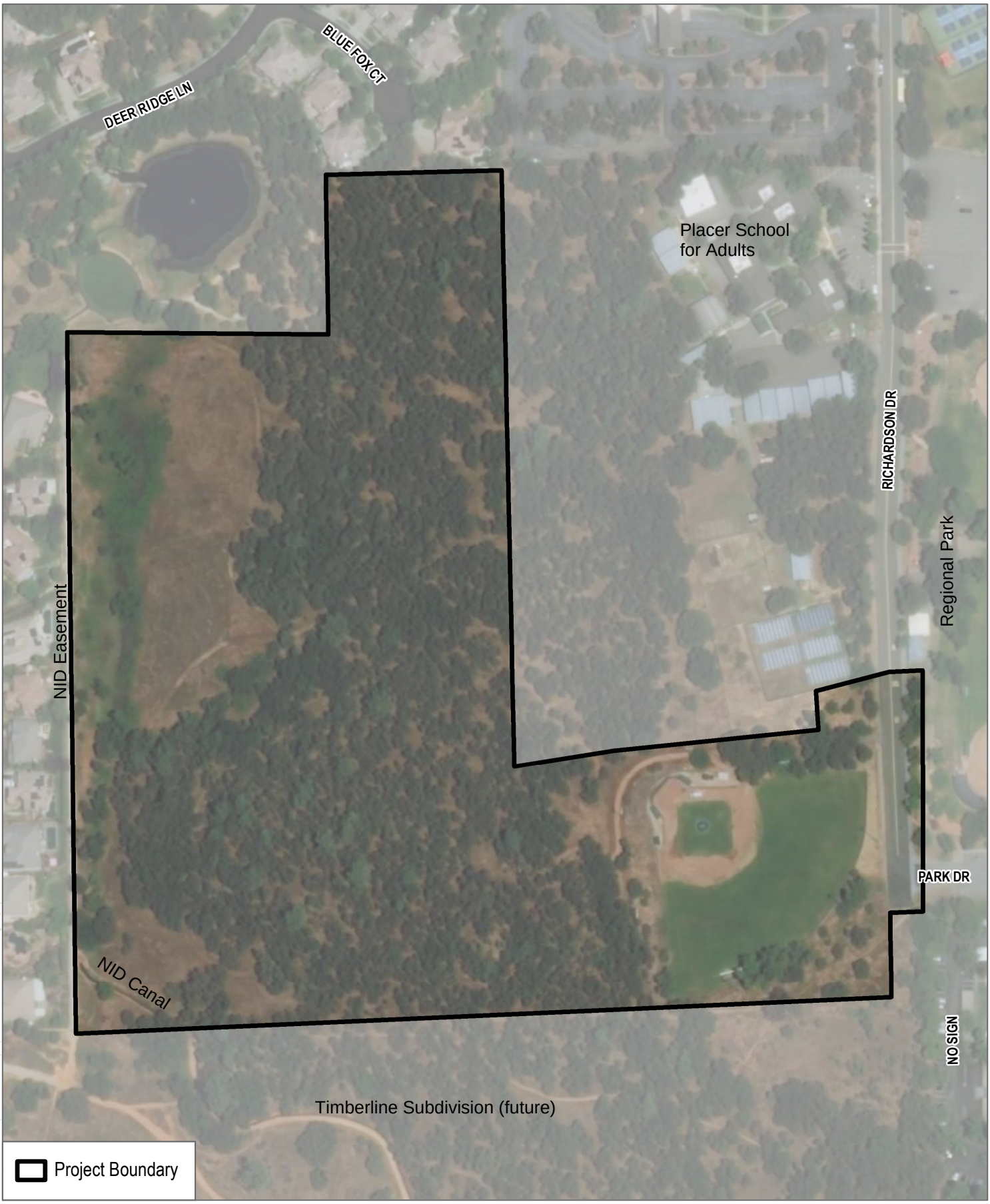
SOURCE: USGS 7.5-Minute Series Auburn Quadrangle

DUDEK

FIGURE 1

Project Location

Auburn Recreation District - 24-Acre Master Plan



SOURCE: ESRI (Accessed 2020)

DUDEK

0 100 200 Feet
0 25 50 Meters
1:2,400

FIGURE 2

Project Site

Auburn Recreation District - 24-Acre Master Plan

seasonal canal, owned and operated by NID, that bisects the southwest corner of the Project site. The earthen canal is approximately 3 feet deep by 3 feet wide and contains a mix of sand, gravel, and small cobble in its bed.

Surrounding Land Uses. Single-family residences and the Parkside Church are immediately north of the Project site. Placer School for adults is east of the northern portion of the site and ARD's Regional Park is located across Richardson Drive to the east. Land to the south is currently undeveloped but approved for the Timberline residential subdivision project. A single-family residential subdivision abuts the Project site on the west and an NID access and utility easement exists along the western edge of the proposed park site (Figure 2).

The Project site is within Zones C1 and C2 of the Airport Influence Area for the Auburn Municipal Airport as identified by Placer County Airport Land Use Compatibility Plan (ALUCP)(2014). Table AUB-4A of the ALUCP identifies local parks, neighborhood parks and playgrounds as normally compatible with the C1 and C2 zones. The ALUCP identifies the maximum intensity of use for the C1 zone as 100 people per acre sitewide average and 300 people per acre as maximum single acre use intensity, while maximum intensities for the C2 zone are identified as 200 people per acre sitewide average and 800 people per acre maximum single acre use intensity. Land uses allowed in the Airport Influence Area are the same as those allowed in the underlying zoning (F – Farm) except that the proposed use must be identified as a compatible land use by the applicable airport land use plan based on the policies of the plan regarding height, noise and safety. All discretionary land use permit applications filed for areas within the aircraft overflight combining zone district must be referred to the Airport Land Use Commission if the use is not identified as compatible by the ALUCP.

DESCRIPTION OF THE PROPOSED PROJECT

The proposed 24-Acre Park Master Plan Project would be developed within a mostly undeveloped site owned by ARD. The land was previously owned by Placer Joint Union High School District and was purchased by ARD in 2004. A conceptual master plan of proposed improvements at the 24.4-acre site was completed and approved by the ARD Board of Directors in 2017. Since then, ARD has held five public meetings and received public comments on the conceptual master plan and has further refined the master plan to reflect input received from the public. The proposed master plan includes the following park amenities and features, as shown in Figures 3A and 3B:

- Central gathering and activity plaza with safety lighting;
- Youth / toddler play area;
- Water play splash pad;
- Exercise stations;
- Shade shelters (2);
- Bocce Courts (2);
- Open turf area (0.75-acre) with ADA accessible perimeter loop path;
- Dog park with separate small and large dog play areas;
- Earth walking path (2,640 linear feet);
- Picnic tables (5) and benches (13);
- Wetland overlook and interpretive signs;
- Native plant display garden;
- Restroom facilities (4 stalls) and outdoor shower;
- Access drive with parallel parking (22 spaces);
- Parking lot (18 spaces).

PLAZA PLAY AREA DETAIL

PROPOSED AMENITIES

1. ACCESS DRIVE
2. HIGH VISIBILITY CROSSWALK
3. PARALLEL PARKING (22 SPACES)
4. PARKING LOT PERMEABLE PAVING IN PARKING STALLS (18 SPACES) & SECURITY LIGHTING
5. MULTI–USER RESTROOM (2 STALLS PER SIDE) WITH OUTDOOR SHOWER
6. PLAY AREA (TOT/YOUTH)
7. CENTRAL PLAZA WITH LOCKABLE ELECTRIC OUTLETS & SAFETY LIGHTING
8. SPLASH PAD
9. EXERCISE STATIONS
10. SHADE SHELTER (24' X 24')
11. OPEN TURF AREA (0.75 ACRE)
12. DOG PARK WITH BARK MULCH SURFACE, SEPARATE BIG AND SMALL DOG AREAS, HOSE SPIGOT AND DRINKING FOUNTAIN WITH DOG WATER BOWLS (1.24 ACRE)
13. ADA ACCESSIBLE LOOP PATH, PERMEABLE PAVING (830')
14. FENCE: A) WOVEN WIRE, B) POWDER–COATED STEEL
15. COMPACTED EARTH WALKING PATH (2,640')
16. BOCCE COURTS
17. INTERPRETIVE SIGN AND BENCH
18. PROPOSED ACCESS AND UTILITY EASEMENT EXPANSION
19. PIPE GATE
20. PICNIC TABLE (QTY. 5)
21. BENCH (QTY. 13)
22. VISUAL BUFFER PLANTINGS
23. WETLAND OVERLOOK WITH BENCH AND INTERPRETIVE SIGN
24. NATIVE PLANT DISPLAY GARDEN

NOT SHOWN: SECURITY CAMERAS AT SELECT LOCATIONS

EXISTING FEATURES

- E1 RETAINING WALL
- E2 WETLAND
- E3 INTERMITTENT DRAINAGE
- E4 NID DITCH
- E5 BALL FIELD

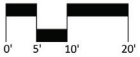
FIGURE 3A

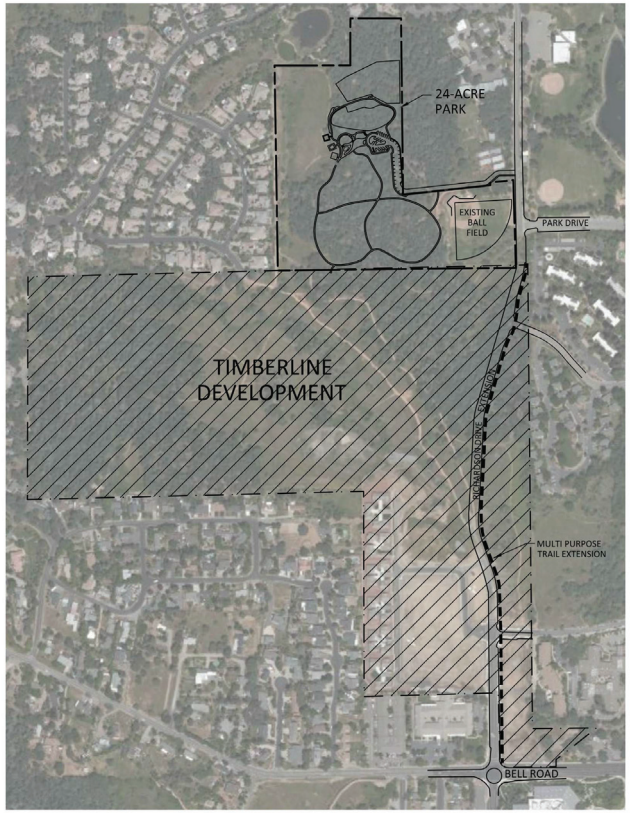
24-Acre Master Plan - Site Plan

Auburn Recreation District - 24-Acre Master Plan

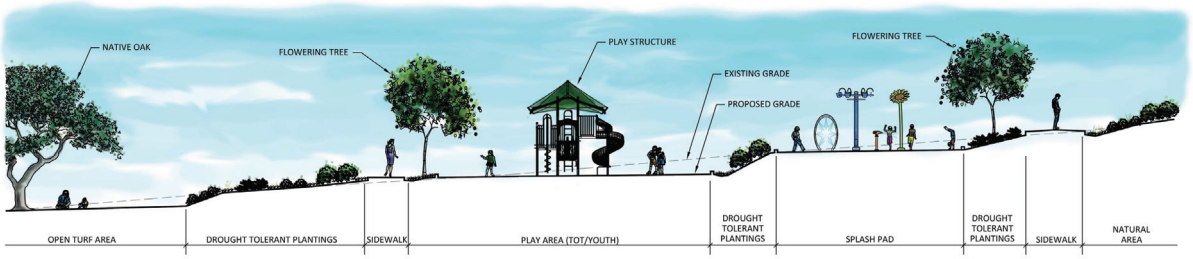
DUDEK

SECTION A





FUTURE BELL ROAD BIKE TRAIL CONNECTION



SECTION B

DUDEK

FIGURE 3B

24-Acre Master Plan - Plan Sections

Auburn Recreation District - 24-Acre Master Plan

Access Drive and Parking. The Project includes a new access drive that would be constructed from Richardson Drive and would run east-west just north of the existing baseball diamond to a parking lot in the central portion of the site. Parallel parking for 22 vehicles would be provided along the new access drive which would terminate in a dedicated parking lot that would provide an additional 18 parking spaces, including two ADA spaces. Pedestrian access from the existing Regional Park to the east would be via a high visibility crosswalk across Richardson Drive that would connect from the existing pedestrian trail in Regional Park to a walking lane along the south shoulder of the new access drive. Vehicle access to the park would be controlled via a pipe gate located at the new access drive near Richardson Drive. Construction of the proposed access road would require an access and utility easement from the neighboring property to ensure safe sight distance for vehicles entering and exiting the access drive.

Central Plaza. A central plaza would be located west of the main parking lot and would be accessed by paved walking paths and would consist of an open paved area with central architectural feature. The central plaza is designed as a gathering place for people and would offer a venue for small events and would have lockable electric outlets and safety lighting.

Splash Pad and Play Areas. A splash pad water play area and youth / toddler play area with play structure would be immediately west of the central plaza and connected to the central plaza by paved walking paths. The splash pad water play area would be user-activated and would consist of fountains or other spray features for children and other park users to use during warmer months of the year. The splash pad would use potable water that would be stored in an approximately 1,000-gallon tank. The water from each splash cycle would be captured, cleaned by a filtration system, and reused for additional splash cycles. Some water loss would occur over time and additional potable water would be added to the system to supplement losses. It is anticipated that the splash pad would operate approximately April through September.

Restrooms and Shade Structures. A restroom structure would be located west of these central plaza recreational facilities and connected to other facilities in the central plaza area by a paved walking path. The restrooms would consist of four stalls total and a shower would be located on the outside of the building. The restrooms would be closed during park closure hours and the shower would operate only when the park and restrooms are open for use. Two 24-foot by 24-foot shade structures with picnic tables and barbeque grills would be constructed near the restroom facility, with one structure installed north of the restroom and one on the south side of the restroom. Each shade structure would be constructed of metal and would be constructed over a concrete pad.

Turf Area, Bocce Courts, and ADA Loop Trail. To the north of the central plaza would be a 0.75-acre open natural turf area. Two bocce courts would be constructed immediately north of the large turf area. An 830-foot ADA accessible paved loop path would be constructed around the perimeter of the turf area and would provide connections to all existing park features in the surrounding central plaza area. Along this loop path would be exercise stations, four benches and one picnic table.

Large and Small Dog Park. A dedicated, fenced dog park would be constructed north of the bocce courts and turf area. The 1.24-acre dog park would be surfaced with bark mulch and would have separate large and small dog play areas. The dog park would include a water station in each dog play area. Access to the dog park would be double gated to allow for owners to transition their pets off and on leash and ensure that off-leash dogs remain in the fenced area, The dog park would include four benches. Tree removal would be limited in the dog park area and three existing larger diameter heritage oak trees in the dog park area would be retained for shade and aesthetic value.

Vegetative Landscape Screening. Densely planted landscape trees would provide a visual buffer between the wetland area to the west and the central plaza facilities. Plantings in this area would include a variety of drought resistant species including oaks and native shrubs. Plantings in this area would reduce the visibility of restrooms, shade structures, turf area, and the dog park area as viewed from the single-family residences to the west and would create distinct activity areas in the park.

Walking Path. To the south of the central plaza and west of the existing baseball diamond would be a 2640-foot earthen walking path that would follow a meandering alignment through the oak woodland forest in this portion of the park. Connected to the most western portion of the path would be a wetland overlook with bench and interpretive sign with information about wetland values and functions. Approximately 12 benches and several interpretive signs and four picnic tables would be distributed in various locations within the woodland along the walking path. Interpretive signs would include information about habitat types, local vegetation and wildlife, and local/cultural history or art. The existing oak woodland in this portion of the park would continue to be maintained for fire safety but would otherwise remain in a largely natural state.

Fencing around the perimeter of the park would include woven wire fencing at the NID easement along the park's west side and powder-coated steel fencing along the park's north boundary. Emergency access to the site would be from the NID easement that runs north-south along the park's west side and from the access drive and parking lot.

Lighting and Security

For safety and security purposes low-level lighting would be provided in the main parking lot and in the central plaza area of the park as well as at the restroom. Lighting would be down-shielded to minimize glare and lighting outside the intended area and would be operated with photosensors or timers to turn on during nighttime hours. In addition, security cameras would be located in several locations and signs would be posted as a deterrent to unauthorized use of the park.

Park Operations

Hours of operation for the park would be daily from dawn to dusk. The gate at the access drive would be closed each evening by ARD staff or contracted security and opened each morning. Use of the park outside of open hours would be prohibited and would be enforced in the same manner as Regional Park and other ARD facilities. The dog park would be open dawn to dusk to match operations of the park overall and would be closed intermittently for regularly scheduled and special maintenance activities as necessary. As noted above, security cameras would be installed in several locations as a deterrent to unauthorized activities and to allow review of footage to assist in resolving any necessary enforcement actions. Facilities within the park would be available for reservation and rental through ARD for small gatherings such as company picnics and birthday parties. The rental agreement requires that users follow various rules and regulations for the permitted use and includes rules for amplified sound, use of alcohol and the size or attendance for the rental. Special events, such as community art gatherings or other community events with larger attendance may be held at the park facility several times per year and would similarly be subject to ARD permit conditions, including rules and regulations for allowable noise, alcohol use, security requirements, post-event clean-up, and supplemental facilities. All rentals and events would be restricted to the hours between dawn and dusk.

Tree Removal

A heritage oak is defined by Placer County as an oak tree with a trunk diameter greater than 24 inches or multi-trunked oak tree with a cumulative circumference greater than 72 inches. The Project has been designed toretain 35 heritage oak trees but would require the removal of one heritage oak tree. The Project is designed tominimize impacts to oak woodland in the vicinity of the proposed walking path and dog park but would requireremoval of approximately 2.15 acres of oak woodland to provide proposed park amenities in the central plazaarea and for parking and access. Removal of oak trees would be mitigated in accordance with Placer Countyrequirements, which specify that impacts to heritage oak trees be provided on an inch-for-inch basis inaccordance with the County's Tree Ordinance and that impacts to oak woodland be mitigated by payment of in-lieu fees toward preservation of oak woodland or by preserving off-site oak woodland at a minimum 2:1(replacement:impact) ratio.

Construction Activities and Methods

Construction activities would be performed during normal daylight hours over a period of approximately 4 to 6 months. Construction activities and methodology would consist of the following:

- Clearing and grubbing of trees and shrubs, including stumps within portions of the site proposed for development. Cleared and grubbed vegetation would be chipped and spread onsite or removed and disposed of off-site at an approved location;
- Grading and paving of the proposed access drive and walking paths and paved areas;
- Installation/replacement of fencing around the perimeter of the site and proposed dog park;
- Trenching of utilities to support proposed restrooms, lighting, and plaza outlets;
- Clearing of vegetation for the earthen trail;
- Planting of trees and vegetation along the proposed access drive and central plaza;

Grading and Paving. The Project design minimizes overall grading required by retaining large natural areas of the site for park uses that require no modification of the natural landform. Grading will primarily be required for the access drive, parking area, central plaza and surrounding developed amenities, and minor grading will be required for walking paths. It is estimated that grading would occur over approximately 2.7 acres of the Project site and grading quantities would be 3600 cubic yards of cut and 3600 cubic yards of fill. Approximately 0.7 acres of the site would be paved with asphalt, including the access drive and main parking lot. Permeable paving would be used for the parking bays and plaza and amount to approximately 0.2 acres, and total concrete for sidewalks, shelters and restroom amount to approximately 0.4 acres.

Materials and Equipment Staging and Storage. Temporary construction staging and materials storage areas would be located within the Project boundary within areas proposed for grading. It is anticipated that staging would primarily occur along the access drive alignment and in the vicinity of the proposed central plaza. Following construction, any materials not used or reused in the Project would be hauled off-site and reused or disposed of in a permitted landfill or recycled at a permitted recycling facility.

Onsite Drainage and Erosion Control

The Project would be required to comply with the requirements of the National Pollutant Discharge Elimination System (NPDES) permit and Stormwater Pollution Prevention Plan (SWPPP) during and following construction activities. The Project would be designed and constructed in accordance with the Placer County Stormwater Management Manual (1990) and the West Placer Storm Water Quality Design Manual (2018), which require implementation of Low Impact Development (LID) design strategies to manage and treat stormwater. The NPDES permit would require implementation of the SWPPP during construction and would ensure that construction best management practices for stormwater management and erosion control, such as fiber wattles, silt fencing, covering exposed soil piles, and site stabilization by mulching disturbed areas during construction and revegetating disturbed areas post-construction, are implemented.

Schedule and Phasing

Construction (from mobilization to demobilization) for the Project is anticipated to take approximately 4 to 6 months (120 to 180 days) and is anticipated to be completed in a single construction season. Construction of the Project is anticipated to begin in May 2022 and be completed by the end of October.

Permits and Approvals Required

The following permits and approvals could be required to carry out the Project:

- Placer County

  - Minor Use Permit
  - Grading Permit
  - Tree Removal Permit
  - Airport Land Use Compatibility Plan consistency review
- Regional Water Quality Control Board, Central Valley Region (Region 5)
  - NPDES Construction General Permit

Environmental Factors Potentially Affected

The environmental factors checked below would be potentially affected by this Project, involving at least one impact that is a "Potentially Significant Impact," as indicated by the checklist on the following pages.

☒	Aesthetics	☐	Agriculture and Forestry Resources	☐	Air Quality
☒	Biological Resources	☒	Cultural Resources	☐	Energy
☒	Geology and Soils	☐	Greenhouse Gas Emissions	☒	Hazards and Hazardous Materials
☐	Hydrology and Water Quality	☐	Land Use and Planning	☐	Mineral Resources
☐	Noise	☐	Population and Housing	☐	Public Services
☐	Recreation	☐	Transportation	☒	Tribal Cultural Resources
☐	Utilities and Service Systems	☐	Wildfire	☐	Mandatory Findings of Significance

Determination (To be completed by the Lead Agency)

On the basis of this initial evaluation:

☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

☒ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

☐ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect (1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and (2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier ENVIRONMENTAL IMPACT REPORT or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier ENVIRONMENTAL IMPACT REPORT or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Kelly S. Mascott

Signature

4/26/2021

Date

Evaluation of Environmental Impacts

3.1 Aesthetics

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
I. AESTHETICS – Except as provided in Public Resources Code Section 21099, would the project:				
a) Have a substantial adverse effect on a scenic vista?	☐	☐	☒	☐
b) Substantially damage scenic resources including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☐	☒
c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	☐	☐	☒	☐
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☒	☐

Setting

The Project site is located in Placer County in the unincorporated community of North Auburn within an area of existing urban development. The site is bordered by Richardson Drive on the east, the Deer Ridge residential subdivision on the north, vacant land slated for the approved Timberline residential development to the south, and a single-family residence and the Parkside Church immediately north of the Project site's northern boundary. Placer School for adults abuts the northern portion of the site on the east and ARD's large Regional Park is located across Richardson Drive to the east. The Project site is undeveloped except for an existing baseball field that occupies approximately 4.8 acres in the southeast corner of the site; the portion of the site nearest to Richardson Drive. Undeveloped portions of the site are visually characterized by mixed oak woodland that runs generally north-south through the center of the site, and an open wetland swale and surrounding grassland that occupies several acres in the western portion of the site. From Richardson Drive the views of the site are generally characterized by the existing baseball field and retaining wall that runs adjacent to the roadway. Views into the site from areas to the north, west and south are generally characterized by oak woodland and the open wetland and annual grassland. No formally designated scenic vistas occur in the vicinity of the Project site and the site is not visible from any designated state scenic highway.

Impact Discussion

a) Would the project have a substantial adverse effect on a scenic vista?

No formally designated scenic vista is identified in the vicinity of the Project site and the Project site is not a component of any formally designated scenic vista. The Project is designed to largely retain the forested characteristics of the site and would make no change to the existing wetland in the western portion of the site. Vegetative plantings would be installed to screen the more intensively developed central portion of the park as viewed from the north and west. The Project would result in no change to any formally designated scenic vista, would largely retain woodland and wetland features, and would be visually consistent with surrounding urban development as well as recreational park development associated with ARD's adjacent Regional Park facility. Impacts to any scenic vista would be **less than significant**.

b) Would the project substantially damage scenic resources including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

The Project site would not be visible from SR 49 and the portion of SR 49 near the Project site is not designated or considered eligible for designation as a state scenic highway. The Project would result in **no impact** to scenic resources as viewed from a state scenic highway.

c) In non-urbanized areas, would the project substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?

The Project site is within an area of existing urban development and proposed park uses would be consistent with the existing zoning and the Project would be subject to review by Placer County to obtain approval of a minor use permit to allow for park uses. The site is currently used for park uses associated with the baseball field and informal user trails exist throughout the site. The Project would retain much of the existing character of the site by retaining large areas of oak woodlands and the existing wetlands and by providing vegetative screening of more intensive park uses in the central portion of the site. The park and recreational uses would be visually consistent with the urban development in the surrounding area and would complement the existing park uses at the adjacent Regional Park facility.

Project construction could temporarily degrade the existing visual character of the site and immediate surroundings as a result of disturbance associated with grading and construction activities. Construction equipment and materials could also contribute to temporary impacts to the visual quality of the site during construction, particularly from surrounding areas to the north and east, since more intensive construction would be limited to the central portion of the site.

The Project would not substantially degrade the existing visual character of the site and its surroundings, would be consistent with existing zoning and Placer County land use regulations, and impacts during construction would be temporary. Therefore, impacts from degrading the visual character or quality of the site and its surroundings would be **less than significant**.

d) Would the project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

Project implementation would not introduce new sources of substantial light or light that would adversely affect nighttime views in the area. The Project does not include land uses that typically cause glare such as windows and the park does not propose light sources that would impede nighttime views. As discussed above, the new structures and recreational facilities would be largely screened from view from the surrounding residential and commercial land uses. Additionally, only low-level security lighting would be installed in the vicinity of the central square area, the parking lot, and access drive, which would be consistent with lighting in the surrounding developed areas. This impact would be **less than significant**.

3.2 Agriculture and Forestry Resources

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
II. AGRICULTURE AND FORESTRY RESOURCES – In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☒
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	☐	☐	☐	☒
d) Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☐	☒

Setting

The Project site is located on land designated by the California Department of Conservation's Farmland Mapping and Monitoring Program (FMMP) as "Farmland of Local Importance" and is not designated as prime farmland, unique farmland or Farmland of Statewide Importance (CDC 2021). The site is zoned Farm – Combining Aircraft Overflight (F-AO). The F-AO zoning allows for park uses with approval of a minor use permit. The site does not support agricultural or timber operations and does not carry a zoning specific to forest land or timberland and is not within a Timber Production zone. The Project site is adjacent to the existing regional park and an existing baseball field occupies nearly 5 acres in the southwestern corner of the site and is frequently used by the public.

Impact Discussion

a) Would the project convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?

The Project site is located on land designated by the California Department of Conservation's Farmland Mapping and Monitoring Program (FMMP) as "Farmland of Local Importance" and do not include any prime farmland, unique farmland or Farmland of Statewide Importance (CDC 2021). Therefore, while the Project would construct a non-agricultural use, the Project would result in **no impact** to designated Prime Farmland, Unique Farmland, or Farmland of Statewide Importance.

b) Would the project conflict with existing zoning for agricultural use, or a Williamson Act contract?

Based on a review of the California Department of Conservation's 2013-2014 Williamson Act Map for Placer County, the Project site does not include land subject to a Williamson Act contract (CDC 2021). The Project site is zoned F-AO (Farm – Combining Aircraft Overflight) in the Placer County zoning ordinance and designated as Farmland of Local Importance under the FMMP. Park uses are identified by the Placer County zoning ordinance as allowable within the F-AO zone district with approval of a minor use permit. The Project site is located within an existing urban area and was previously planned for the development of a new school when the land was owned by Placer Union High School District (PUHSD) and an existing baseball field is in use on approximately 5 acres of the site. The Project site is also adjacent to ARD's existing Regional Park facility. Currently, the Project site does not support agricultural uses and would require substantial tree removal for such activities. Therefore, the Project would have **no impact** resulting from any conflict with existing agricultural zoning or Williamson Act contracts.

c) Would the project conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?

The Project site within an existing urban area, which does not include forest or timberland land use or zoning designations. The Project would not conflict with zoning for, or cause rezoning of, forest land, timberland, or timberland zoned Timberland Production land. The Project would result in **no impact** to forest land or timberland.

d) Would the project result in the loss of forest land or conversion of forest land to non-forest use?

The Project would not result in the loss of forest land or conversion of forest land to non-forest use. The Project would involve the construction of a new public park facility on land owned by ARD. **No impact** related to the loss or conversion of forest land would occur with implementation of the Project.

e) Would the project involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?

The Project site is zoned F-AO (Farm- Combining Airport Overflight) in the Placer County general plan. The Project site and surrounding area do not support active agricultural or farmland uses and the site is surrounded by existing urban development. The site was previously planned for development as a new school site when the site was owned by PUHSD. The site is not zoned as forestland and does not support timber uses. Therefore, the Project would have **no impact** with regards to the conversion of forestland or Farmland to non-agricultural uses.

3.3 Air Quality

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
III. AIR QUALITY – Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations. Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☐	☒
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	☐	☐	☒	☐
c) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☒	☐
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	☐	☐	☒	☐

Setting

The Project site is within Placer County Air Pollution Control District (PCAPCD), which is the local agency authorized to regulate stationary air quality sources in the Placer County. The Federal Clean Air Act and the California Clean Air Act mandate the control and reduction of specific air pollutants. Under these Acts, the U.S. Environmental Protection Agency and the California Air Resources Board have established ambient air quality standards for specific "criteria" pollutants, designed to protect public health and welfare. Primary criteria pollutants include carbon monoxide,

reactive organic gases (ROG), nitrogen oxides (NO_X), coarse particulate matter (PM_{10}), sulfur dioxide, and lead. Secondary criteria pollutants include ozone (O_3), and fine particulate matter ($PM_{2.5}$).

Sensitive receptors are defined as facilities where sensitive population groups are located, including residences, schools, childcare centers, convalescent homes, and medical facilities. Land uses such as schools and hospitals are considered more sensitive than the general public to poor air quality because of an increased susceptibility to respiratory distress within the populations associated with these uses. The closest sensitive receptors to the Project site are existing residences surrounding the Project site.

Common sources of odors and odor complaints include wastewater treatment plants, transfer stations, coffee roasters, painting/coating operations, and landfills. The Project is located close to small retail shops, electronic stores, and other similar uses that are not common sources of odors.

The PCAPCD regulates many sources of air pollutants and is responsible for implementing certain programs and regulations for controlling air pollutant emissions to improve air quality and attain National Ambient Air Quality Standards (NAAQS) and California Ambient Air Quality Standards (CAAQS). Development projects have the potential to generate air pollutants that would result in adverse environmental impacts. In order to evaluate air pollutant emissions from development projects, the PCAPCD recommends significance thresholds for emissions of ROG, NO_x, CO, and PM_{10}. The PCAPCD recommends significance thresholds as listed in Table AQ-1, expressed in pounds per day, which serve as air quality standards that may be used in the evaluation of air quality impacts associated with development projects. These thresholds were included in the 2017 update to PCAPCD's CEQA Air Quality Handbook.

Table AQ-1
PCAPCD Significance Thresholds for Criteria Pollutants

Pollutant	Construction Threshold	Operational Threshold	Operational Cumulative-Level Threshold
	Pounds per Day		
ROG	82	55	55
NO_X	82	55	55
PM_{10}	82	82	82

Source: PCAPCD 2017.

PCAPCD guidelines provide that a Project would not result in significant project-level criteria pollutant emissions of ROG, NO_x, and PM_{10}, for which the region is designated non-attainment if it does not exceed the construction and operational significance thresholds. In addition, a project would not be considered to be cumulatively considerable and would result in a less-than-significant cumulative impact if it does not exceed the PCAPCD cumulative-level significance thresholds.

Impact Discussion

a) Would the project conflict with or obstruct implementation of the applicable air quality plan?

The Project site is under the jurisdiction of the PCAPCD within the Sacramento Valley Air Basin (SVAB). The SVAB is designated nonattainment for both national and California ozone standards. Accordingly, the PCAPCD, along with other local air districts in the SVAB, is required to comply with and implement the State Implementation Plan (SIP) to demonstrate when and how the region can attain the federal O_3 standards.

As such, the PCAPCD, along with the other air districts in the region, prepared the Sacramento *Regional 8-Hour Ozone Attainment and Reasonable Further Progress Plan (Draft 2017 SIP Revisions)*. The Ozone Attainment Plan addresses attainment of the federal 8-hour O_3 standard, while the 2015 Triennial Report and Air Quality Plan Revision address attainment of the California 1-hour and 8-hour O_3 standards (SMAQMD 2016). These are the latest plans adopted by the PCAPCD in coordination with the air quality management districts and air pollution control districts of El Dorado, Sacramento, Solano, Sutter, and Yolo counties, and they incorporate land use assumptions and travel demand modeling provided by Sacramento Area Council of Governments (SACOG). The purpose of a consistency finding is to determine if a project is inconsistent with the assumptions and objectives of the regional air quality plans, and thus if it would interfere with the region's ability to comply with federal and state air quality standards. In general, projects are considered consistent with, and would not conflict with or obstruct implementation of the air quality plan if the growth in socioeconomic factors is consistent with the underlying regional plans used to develop the air quality management plan.

Demographic growth forecasts for various socioeconomic categories (e.g., population, housing, employment by industry) were developed by SACOG for its Metropolitan Transportation Plan/Sustainable Communities Strategy (MTP/SCS) (SACOG 2016) based on general plans for cities and counties in the SVAB. The air quality management plans rely on the land use and population projections provided in the MTP/SCS, which is generally consistent with the local plans; therefore, the air quality management plans are generally consistent with local government plans. Notably, the Project would result in a new 24-acre public park facility, which would not result in significant population growth associated with new residential housing or a large number of new jobs and would therefore not result in growth that would substantially exceed any established growth projections relied on by air qualify planning and adopted control strategies. As such, the Project would result in no conflict with the population projections of SACOG and the Project would have **no impacts** relating to the project's potential to conflict with or obstruct implementation of the applicable air quality management plan.

b) Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?

Non-attainment pollutants of concern include O_3 and PM_{10}. If a project exceeds the identified thresholds of significance, its emissions would result in significant adverse air quality impacts to the region's existing air quality conditions. The following discussion evaluates the potential for the Project's construction and operational emissions to result in a considerable contribution to the region's cumulative air quality impact.

Construction

Construction of the Project would generate construction-related air pollutant emissions from entrained dust, equipment and vehicle exhaust emissions, asphalt pavement, and architectural coatings. Exhaust from internal combustion engines used by construction equipment, vendor trucks (delivery trucks), haul trucks, and worker vehicles would result in emissions of ROG, NO_x, and PM_{10}. Construction of the Project would also generate CO, SO_x and $PM_{2.5}$ emissions; however, only the criteria air pollutants that the PCAPCD have adopted thresholds for are presented in Table AQ-1, though all criteria air pollutant emissions are included in Appendix A.

For purposes of estimating Project emissions, and based on information provided by ARD, it is assumed that construction of the Project would commence in May 2022 and would last approximately four to six

months. The analysis contained herein is based on the following schedule assumptions (duration of phases is approximate[1]):

- Site Preparation: 15 days
- Grading: 35 days
- Building Construction: 25 days
- Paving: 10 days

General construction equipment modeling assumptions are provided in Table AQ-2. The equipment mix was generated by CalEEMod. For the analysis, it was generally assumed that heavy-duty construction equipment would be operating at the site five days per week, up to a maximum of eight hours per day. It was assumed that building construction would require four vendor truck trips per day for material deliveries. Total haul trucks was assumed to be 30 trips, which accounts for the export of vegetation. Detailed construction equipment modeling assumptions are provided in Appendix A.

Table AQ-2
Construction Workers, Vendor Trips, and Equipment Use

	One-Way Vehicle Trips			*Equipment*		
Construction Phase	*Average Daily Worker Trips*	*Average Daily Vendor Truck Trips*	*Total Haul Truck Trips*	*Equipment Type*	*Quantity*	*Daily Usage Hours*
Site Preparation	18	0	30	Rubber Tired Dozers	3	8
				Tractors/Loaders/Backhoes	4	8
Grading	20	4	0	Excavators	2	8
				Grading	1	8
				Rubber Tired Dozers	1	8
				Tractors/Loaders/Backhoes	2	8
				Scrapers	2	8
Building Construction	18	4	0	Forklifts	3	8
				Generator Sets	1	8
				Tractors/Loaders/Backhoes	3	7
Paving	16	0	0	Pavers	2	8
				Paving Equipment	2	8
				Rollers	2	8

Notes: See Appendix A for additional details.

Entrained dust results from the exposure of earth surfaces to wind from the direct disturbance and movement of soil, resulting in PM_{10} and $PM_{2.5}$ emissions. To account for compliance with PCAPCD Rule 228 (fugitive dust), it was assumed that the active sites would be watered at least twice daily, or as necessary depending on weather conditions. The application of architectural coatings, such as exterior/interior paint and other finishes, would also produce VOC (ROG) emissions. The Project would also comply with the

[1] Note that the duration of phases and overall modeling assumptions were conservative to provide a potential worst-case scenario for potential construction emissions.

requirements of PCAPCD Rule 218 (Architectural Coatings) in regards to the application of paving and architectural coatings.

Predicted construction emissions for the worst-case day for the Project are presented in Table AQ-3 and are compared to the PCAPCD significance thresholds.

Table AQ-3
Maximum Daily Construction Criteria Air Pollutant Emissions

Year	ROG	NO_x	PM_{10}
	Pounds per Day		
2022	3.70	39.30	9.93
PCAPCD threshold	*82*	*82*	*82*
Threshold exceeded?	No	No	No

Notes: ROG = reactive organic gas; NO_x = oxides of nitrogen; PM_{10} = coarse particulate matter; PCAPCD = Placer County Air Pollution Control District.
The values shown are the maximum summer or winter daily emissions results from CalEEMod.
These estimates reflect implementation of PCAPCD Rule 228, which assumes watering of the site two times per day.
Emissions presented in the above table are provided in the "mitigated" CalEEMod output because the estimates include emission reductions associated with required compliance with regulations, but are not actual mitigation measures.
Source: See Appendix A for details.

As shown in Table AQ-3, ROG, NO_x and PM_{10} emissions during construction would not exceed the PCAPCD significance thresholds; therefore the Project would have a less than significant impact. As previously discussed, the Project would comply with Rule 228 in order to reduce fugitive dust impacts. Rule 228 requires a Dust Control Plan for any construction project or construction-related activity where greater than one acre of a project site's surface will be disturbed. Dust control requirements, summarized below, are to be initiated at the start and maintained throughout the duration of construction in accordance with Rule 228:

1. Unpaved areas subject to vehicle traffic must be stabilized by being kept wet, treated with a chemical dust suppressant, or covered. In geographic ultramafic rock units, or when naturally occurring asbestos, ultramafic rock, or serpentine is to be disturbed, the cover material shall contain less than 0.25 percent asbestos as determined using the bulk sampling method for asbestos in Section 502.
2. The speed of any vehicles and equipment traveling across unpaved areas must be no more than 15 miles per hour unless the road surface and surrounding area is sufficiently stabilized to prevent vehicles and equipment traveling more than 15 miles per hour from emitting dust exceeding Ringelmann 2 or visible emissions from crossing the project boundary line.
3. Storage piles and disturbed areas not subject to vehicular traffic must be stabilized by being kept wet, treated with a chemical dust suppressant, or covered when material is not being added to or removed from the pile.
4. Prior to any ground disturbance, including grading, excavating, and land clearing, sufficient water must be applied to the area to be disturbed to prevent emitting dust exceeding Ringelmann 2 and to minimize visible emissions from crossing the boundary line.

5. Construction vehicles leaving the site must be cleaned to prevent dust, silt, mud, and dirt from being released or tracked off site.
6. When wind speeds are high enough to result in dust emissions crossing the boundary line, despite the application of dust mitigation measures, grading and earthmoving operations shall be suspended.
7. No trucks are allowed to transport excavated material off-site unless the trucks are maintained such that no spillage can occur from holes or other openings in cargo compartments, and loads are either;
    i. Covered with tarps; or
    ii. Wetted and loaded such that the material does not touch the front, back, or sides of the cargo compartment at any point less than six inches from the top and that no point of the load extends above the top of the cargo compartment.
8. A person shall take actions such as surface stabilization, establishment of a vegetative cover, or paving, to minimize wind-driven dust from inactive disturbed surface areas.

Implementation of the fugitive dust control measures required by Rule 228 would ensure air quality and fugitive dust-related impacts associated with construction would remain **less than significant**.

Operation

Operation of the Project would produce ROG, NO_x, CO, SO_x, PM_{10}, and $PM_{2.5}$ emissions from area sources, including natural gas combustion, use of consumer products, and motor vehicle trips to the Project site. The estimation of operational emissions was based on proposed land use defaults and total area (i.e., acreage) of the Project that would be in operation by 2023 (first year of full operation).

CalEEMod was used to estimate daily emissions from Project-related operational sources. Table AQ-4 summarizes the operational emissions criteria pollutants that would be generated from the Project. Operational emissions were then compared to the PCAPCD operational thresholds.

Table AQ-4
Maximum Daily Operational Criteria Air Pollutant Emission

Emission Source	ROG	NO_x	PM_{10}
	Pounds per Day		
Area Sources	0.07	<0.01[a]	<0.01
Energy	0.00	0.00	0.00
Mobile	0.87	4.71	2.42
Total Project Emissions	**0.94**	**4.71**	**2.41**
PCAPCD threshold	*55*	*55*	*82*
Threshold exceeded?	No	No	No

Notes: ROG = reactive organic gas; NO_x = oxides of nitrogen; PM_{10} = coarse particulate matter; PCAPCD = Placer County Air Pollution Control District.
The values shown are the maximum summer or winter daily emissions results from CalEEMod.

Source: See Appendix A for details.
[a] <0.01 = value less than reported 0.01 pounds per day.

As shown in Table 4, maximum daily operational emissions would not exceed the PCAPCD thresholds for ROG, NO_x, and PM_{10}. As such, the Project would result in a **less than significant** impact in regards to operational impacts.

c) Would the project expose sensitive receptors to substantial pollutant concentrations?

Air quality varies as a direct function of the amount of pollutants emitted into the atmosphere, the size and topography of the air basin, and the prevailing meteorological conditions. Air quality problems arise when the rate of pollutant emissions exceeds the rate of dispersion. Reduced visibility, eye irritation, and adverse health impacts upon those persons termed "sensitive receptors" are the most serious hazards of existing air quality conditions. Some land uses are considered more sensitive to changes in air quality than others, depending on the population groups and the activities involved. People most likely to be affected by air pollution, include children, the elderly, athletes, and people with cardiovascular and chronic respiratory diseases. Sensitive receptors include residences, schools, playgrounds, child-care centers, athletic facilities, long-term health-care facilities, rehabilitation centers, convalescent centers, and retirement homes. The discussion below reviews the significance of emissions within the context of potential impacts to sensitive receptors. Sensitive receptors in the vicinity of the Project include single-family residential uses, located adjacent to the Project's boundary to the north, east, and west.

Toxic Air Contaminants

"Incremental cancer risk" is the net increased likelihood that a person continuously exposed to concentrations of Toxic Air Contaminants (TACs) resulting from a project over a 9-, 30-, and 70-year exposure period would contract cancer based on the use of standard California Office of Environmental Health Hazard Assessment (OEHHA) risk-assessment methodology (OEHHA 2015). In addition, some TACs have non-carcinogenic effects. TACs that would potentially be emitted during construction activities would be DPM emitted from heavy-duty construction equipment and heavy-duty trucks. Heavy-duty construction equipment and diesel trucks are subject to CARB ATCMs to reduce diesel particulate matter (DPM) emissions. According to the OEHHA, HRAs should be based on a 30-year exposure duration based on typical residency period; however, such assessments should be limited to the period/duration of activities associated with the Project (OEHHA 2015). Thus, the duration of proposed construction activities (approximately four to six months) would only constitute a small percentage of the total long-term exposure period and would not result in exposure of proximate sensitive receptors to substantial TACs.

In regards to operations, the Project does not include potential sources of substantial TACs, such as large boilers or emergency generators. As such, the Project would not result in a substantial increase in TAC generation from on-site sources during long-term operations and would not result in significant health risk at nearby sensitive receptors.

Health Effects of Criteria Air Pollutants

Construction and operation of the Project would not result in emissions that exceed the PCAPCD significance thresholds for any criteria air pollutants, including ROG, NO_x, or PM_{10}. ROG emissions would be associated with motor vehicles, construction equipment, and architectural coatings; however, Project-

generated ROG emissions would not result in exceedances of the PCAPCD significance thresholds, as shown in Table AQ-3 and Table AQ-4.

ROG and NO_x are precursors to O_3, for which the SVAB is designated as nonattainment with respect to the CAAQS. The health effects associated with O_3 are generally associated with reduced lung function. The contribution of ROG and NO_x to regional ambient O_3 concentrations is the result of complex photochemistry. The increases in O_3 concentrations in the SVAB due to O_3 precursor emissions tend to be found downwind from the source location to allow time for the photochemical reactions to occur. However, the potential for exacerbating excessive O_3 concentrations would also depend on the time of year that the precursor emissions would occur because exceedances of the O_3 AAQS tend to occur between April and October when solar radiation is highest. The holistic effect of a single project's emissions of O_3 precursors is speculative due to the lack of quantitative methods to assess this impact. Nonetheless, because ROG and NO_x emissions associated with Project construction and/or operation would not exceed the PCAPCD significance thresholds, it is not anticipated the Project would contribute substantially to regional O_3 concentrations and the associated health effects.

Construction and operation of the Project would not contribute to exceedances of the NAAQS and CAAQS for NO_2. Health effects that result from NO_2 (which is a constituent of NO_x) include respiratory irritation, which could be experienced by nearby receptors during the periods of heaviest use of off-road construction equipment. However, construction activities would be short-term after which activities would cease. In addition, existing NO_2 concentrations in the area are well below the NAAQS and CAAQS standards and construction and operation of the Project would not create substantial NO_x emissions. Therefore, the Project is not anticipated to result in potential health effects associated with NO_2.

Mobile source impacts occur on two scales of motion. Regionally, Project-related travel would add to regional trip generation and increase the VMT within the local airshed and the SVAB. Locally, Project-generated traffic would be added to the roadway system. If such traffic occurs during periods of poor atmospheric ventilation, is composed of a large number of vehicles "cold-started" and operating at pollution-inefficient speeds, and is operating on roadways already crowded with non-project traffic, there is a potential for the formation of microscale CO hotspots in the area immediately around points of substantially elevated and localized CO emissions, such as around congested intersections. During construction, the Project would result in CO emissions from construction worker vehicles, haul trucks, and off-road equipment. Title 40, section 93.123(c)(5) of the California Code of Regulations, Procedures for Determining Localized CO, PM_{10}, and $PM_{2.5}$ Concentrations (hot-spot analysis), states that "CO, PM_{10}, and $PM_{2.5}$ hot-spot analyses are not required to consider construction-related activities, which cause temporary increases in emissions. Each site which is affected by construction-related activities shall be considered separately, using established 'Guideline' methods. Temporary increases are defined as those which occur only during the construction phase and last five years or less at any individual site" (Cal. Code Regs., tit. 40, § 93.123). Since construction activities would be temporary a project-level construction hotspot analysis would not be required. In regards to operations, the Project would generate minimal new traffic trips associated with the proposed park. Thus, the Project's CO emissions would not contribute to significant health effects associated with this pollutant.

Construction and operation of the Project would also not exceed thresholds for PM_{10} and would not contribute to exceedances of the NAAQS and CAAQS for particulate matter or obstruct the SVAB from coming into attainment for these pollutants. Furthermore, the Project would be required to comply with PCAPCD Rule 228, which limits the amount of fugitive dust generated during construction. Due to the minimal

contribution of PM_{10} during construction and operation, it is not anticipated that the Project would result in potential health effects associated related to particulate matter.

In summary, because construction and operation of the Project would not result in exceedances of the PCAPCD significance thresholds for ROG, NO_x, and PM_{10}, and because the PCAPCD thresholds are based on levels that the SVAB can accommodate without affecting the attainment date for the AAQS, The AAQS have been developed to protect public health and welfare, it is anticipated that the Project would not result in health effects associated with criteria air pollutants and the impact would be **less than significant**.

d) Would the project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

The occurrence and severity of potential odor impacts depends on numerous factors. The nature, frequency, and intensity of the source; the wind speeds and direction; and the sensitivity of receiving location each contribute to the intensity of the impact. Although offensive odors seldom cause physical harm, they can be annoying and cause distress among the public and generate citizen complaints.

Potential odors produced during construction would be attributable to concentrations of unburned hydrocarbons from tailpipes of construction equipment, architectural coatings, and asphalt pavement application. In general, odors are highest near the source, but disperse quickly resulting in a reduced offsite exposure. Sensitive receptors located adjacent to the Project site may be affected. However, construction activities would use typical construction techniques in compliance with PCAPCD rules and any odors associated with Project construction activities would be temporary and would cease upon completion of construction. Therefore, impacts associated with odors during construction would be **less than significant**.

In regards to operations and land use compatibility, odor impacts are addressed qualitatively based on odor screening distances as recommended by PCAPCD guidance. Certain highly odiferous sources have screening distances of two miles. These include wastewater treatment plants, sanitary landfills, and certain industrial facilities (petroleum refineries, asphalt batch plants, and chemical manufacturing). Other odor sources have screening distances of one mile and include recycling and waste transfer stations, coffee roasters, and food processing facilities (PCAPCD 2017). The Project involves construction of a 24-acre park which would not result in sources commonly associated with odors. Therefore, impacts associated with odors generated from operations would be **less than significant**.

Mitigation Measures

No mitigation measures are required.

3.4 Biological Resources

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
IV. BIOLOGICAL RESOURCES – Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☒	☐	☐
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☐	☒	☐
c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☐	☒
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	☒	☐
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☒	☐
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☒

Setting

A biological resources assessment was prepared by Dudek to identify and characterize existing onsite biological resources, with particular focus on the potential of the Project site to support special-status plant and wildlife species and other sensitive resources, such as wetlands and other aquatic resources potentially under the regulatory jurisdiction of state and/or federal resource agencies (Dudek 2020; Appendix B). The approximately 24.79-acre Project site is adjacent to the ARD Regional Park in North Auburn within western Placer County, California. The site is located approximately 0.4 miles west of State Route (SR) 49, south of Dry Creek Road and

north of Bell Road. The biological resources assessment included a field survey as well as database and literature searches using the following sources to determine special-status species with potential to occur within the Project region: U.S. Fish and Wildlife Service (USFWS) IPaC Trust Resource Report; California Department of Fish and Wildlife (CDFW) California Natural Diversity Database (CNDDB); and the California Native Plant Society (CNPS) online Inventory of Rare and Endangered Vascular Plants.

A biological resources field survey of the Project site was performed on October 1, 2020. The survey was conducted on foot to visually cover the entire Project site. Concurrent with the fieldwork an aquatic resources delineation and was conducted to identify and map the extent of aquatic resources within or adjacent to the Project site that are potentially subject to regulation under federal Clean Water Act (CWA) Sections 401 and 404, California Fish and Game Code Section 1600, or the provisions of the Porter-Cologne Water Quality Control Act.

The survey mapped land cover on the Project site, including blue oak woodland and forest (15.52 acres), California annual grassland (4.84 acres), and developed areas (4.43 acres). Surface run-off on the Project site is generally directed to the scrub-shrub wetland in the western half of the Project site, to constructed ditches and storm drain features in adjacent urban areas, or to the Nevada Irrigation District (NID) canal. Irrigation run-off from urban development to the west sheet flows to the scrub-shrub wetland near the mid-western portion of the Project site. The field delineation mapped approximately 1.44 acres of aquatic resources anticipated to meet the criteria to be considered jurisdictional aquatic resources subject to state regulation.

Special-Status Wildlife. Results of the USFWS and CNDDB searches revealed 19 special-status wildlife species that are known to occur in the Project region. Of these special-status wildlife, 17 species were removed from consideration due to lack of suitable habitat within or adjacent to the Project site, or due to the site being outside of the species' known geographic or elevation range. The remaining two special-status wildlife species, pallid bat (*Antrozous pallidus*) and Townsend's big-eared bat (*Corynorhinus townsendii*), have low potential to occur on the Project site. In addition, the Project site provides habitat for nesting birds protected by the federal Migratory Bird Treaty Act (MBTA) and California Fish and Game Code, as well as other native bats protected by the California Fish and Game Code (CFGC). Review of special-status species databases identified two special-status wildlife species occurrences within 2 miles of the Project site – western pond turtle (*Emys marmorata*) and peregrine falcon (*Falco peregrinus anatum*); no suitable habitat for these species occurs on the Project site. No special-status wildlife species were detected during the October 2020 field survey

Nesting Birds - The study found that trees within or adjacent to the Project site could provide habitat for nesting birds. All native birds in California are protected by the federal Migratory Bird Treaty Act (MBTA) and Section 3503.5 of the California Fish and Game Code, which specifically protects raptors. The Project site provides habitat for numerous local and migratory bird species protected by the California Fish and Game Code and the federal MBTA. Specifically, trees, shrubs, and human-made structures and buildings provide bird nesting habitat on the Project site. Multiple common and migratory birds were detected during the October 2020 field survey, but no active nests were observed. A focused survey for nesting birds was not conducted.

Native Bats (including Pallid Bat and Townsend's Big-Eared Bat). The Project site provides potential habitat for two special-status bats (pallid bat and Townsend's big-eared bat) and other native bats protected by the California Fish and Game Code. Specifically, trees with exfoliating bark, crevices, and/or sufficient foliage could provide bat roosting habitat on the Project site. Pallid bat typically roost in remote areas containing rocky outcrops for roosting and open waters or grasslands for foraging. Townsend's big-eared bat normally occupy remote mesic habitats and roost in limestone caves, lava tubes, human-made structures, and other structures for roosting. Pallid bat and Townsend's big-eared bat have a low potential to occur on the Project site due to the level of existing human

disturbance in the area and limited preferred roosting habitat. No active bat roosts or signs of occupation, such as guano or staining, were detected during the field survey. A focused survey or habitat assessment for roosting bats was not conducted

Special-Status Plants: Results of USFWS, CNDDB, and CNPS searches revealed 14 special-status plant species that are known to occur in the Project region. All of these special-status plant species were removed from further consideration due to lack of suitable habitat within or adjacent to the Project site, due to the site being outside of the species' known geographic or elevation range, and/or the species not being identified during the field survey (for perennial species that could be evident and identifiable in October). There is one special-status plant species occurrence within 2 miles of the Project site – Jepson's onion (*Allium jepsonii*); no suitable habitat for this species occurs on the Project site. No special-status plants were identified during the October 2020 field survey.

Sensitive Vegetation Communities: None of the natural vegetation communities on the Project site are considered sensitive natural communities by CDFW. The shrub-scrub wetland, ephemeral drainage, and NID canal that convey water through the Project site may be protected by CDFW under Section 1602 of the California Fish and Game Code. Within Placer County, oak woodland, landmark trees (defined as 'a tree or grove of trees designated by resolution of the Board of Supervisors to be of historical or cultural value, an outstanding specimen, an unusual species and/or of significant community benefit'), riparian zone trees, and trees native to California with a diameter at breast height (DBH) of ≥6 inches (or combined multi-trunk DBH of ≥10 inches) are protected by the County's tree preservation ordinance, with the exception of foothill pine (County Code, Chapter 12, Article 16). Native tree or oak woodland removal or trimming on the Project site would be subject to this ordinance and likely require prior approval from the County (i.e., tree permit).

Impact Discussion

a) Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?

Special-Status Plants. As discussed in the setting section above, based on a field assessment and relevant literature, no special-status plant species are expected to occur on the Project site. In general, the Project site lacks unique habitat features normally required by special-status plants, such as exposed serpentinite or other rare soil types, rocky openings within chaparral or woodland habitat. No special-status plants were identified on the Project site during the biological fieldwork, which covered the entire Project site.

Special-Status Wildlife. As discussed in the *Setting* section above, 19 special-status wildlife species that are known to occur in the Project region but 17 species were removed from consideration due to lack of suitable habitat within or adjacent to the Project site. The remaining two special-status wildlife species, pallid bat (*Antrozous pallidus*) and Townsend's big-eared bat (*Corynorhinus townsendii*), have low potential to occur on the Project site.

Roosting Bats. If bats are roosting on or adjacent to the Project site, impacts could result from the permanent removal of roosting sites, such as trees and snags, or from Project-related disturbance to an occupied roosting site in the vicinity of construction. In addition to violating the protections under the California Fish and Game Code, direct or indirect impacts to special-status bat species would be considered a significant impact under CEQA. Implementation of Mitigation BIO-1 would

avoid or minimize impacts to bat roosts and ensure that impacts to native bats would be less than significant.

Nesting Birds. The Project site provides habitat for numerous local and migratory bird species protected by the California Fish and Game Code and federal MBTA. Specifically, trees, shrubs, and human-made structures and buildings provide bird nesting habitat on the Project site. Project implementation would require tree and vegetation removal, which has the potential to impact nesting birds protected by California Fish and Game Code and federal MBTA. In addition to violating the protections under the MBTA and CFGC, direct or indirect impacts to nesting birds would be considered a significant impact under CEQA. Implementation of Mitigation Measure BIO-2, which requires tree or vegetation removal outside of the nesting season (February through August) and pre-construction surveys for nesting birds if trees must be removed during the nesting season, would ensure that the Project would have a less than significant impact to nesting birds.

With the Implementation of Mitigation Measure BIO-1 and BIO-2, the Project would have a **less than significant** impact on special status species.

b) Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?

As discussed in the setting section above, none of the natural vegetation communities on the Project site are considered sensitive natural communities by CDFW. The shrub-scrub wetland, ephemeral drainage, and NID canal that convey water through the Project site may be protected by CDFW under Section 1602 of California Fish and Game Code but the Project would result in no impacts to these features. The Project would require removal of approximately 2.15 acres of oak woodland to provide proposed park amenities in the central plaza area and for parking and access. Removal of oak trees would be mitigated in accordance with Placer County requirements, which specify that impacts to oak woodland be mitigated by payment of in-lieu fees toward preservation of oak woodland or by preserving off-site oak woodland at a minimum 2:1 (replacement:impact) ratio. Therefore, the Project would have a **less than significant** impact through compliance with Placer County requirements.

c) Would the project have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

There are no aquatic resources within the Project site that are anticipated to meet the criteria for jurisdictional waters of the United States. The ephemeral drainage on the Project site only flows in direct response to precipitation and is therefore does not meet criteria to be considered a federally protected water of the United States. In addition, isolated wetlands, such as the small seasonal wetland in the western half of the Project site, are not considered waters of the United States unless abutting or adjacent to a traditional navigable water or tributary thereof. The scrub-shrub wetland on site terminates at a park pond approximately 90 feet north of the Project site. There is an outlet on the north side of the pond that transitions into a rocky channel, which enters a culvert below Deer Ridge Lane and through a park on the north side of the road. The channel appears to dissipate into a rocky basin within the park; the basin is approximately 0.30 air miles from Rock Creek to the northeast. There is no obvious topographic feature or drainage that connects the park basin to Rock Creek, which is the nearest potentially jurisdictional water

of the United States. Therefore, and based on the data and analysis presented herein, it is anticipated that none of the aquatic resources on the Project site meet the definition of waters of the United States subject to regulation by the U.S. Army Corps of Engineers (USACE).

Dudek mapped approximately 1.44 acres of aquatic resources on the Project site anticipated to meet the criteria for jurisdictional waters of the state subject to regulation by the RWQCB and/or CDFW. Impacts to jurisdictional waters of the state would be considered a significant impact under CEQA and would require permits from RWQCB and/or CDFW (e.g., 401 Water Quality Certification and 1602 Streambed Alteration Agreement), as well as an Approved Jurisdictional Delineation from USACE to document a lack of aquatic resources onsite within USACE jurisdiction. The Project would not result in impacts to any aquatic resources delineated on the Project site and would require no permits for impacts to aquatic features.

Appropriate best management practices and spill prevention measures would be implemented to ensure protection of jurisdictional aquatic resources during Project construction. The Project is designed to avoid construction that would affect the onsite wetlands on the western portion of the Project site. The Project would result in no placement of dredged or fill material or hydrological interruption that would be subject to permitting by the U.S. Army Corps of Engineers under Section 404 of the Clean Water Act. **No impact** would occur associated with an adverse effect on federally protected wetlands.

d) Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

The Project site is located in an urban area and is surrounded by development to the north, east and west. The parcel to the south is currently undeveloped but has been approved for the development of a 55+ community. Development of the park Project would not interfere substantially with movement of wildlife through the site as the southern portion of the site would not be subject to intensive use or development and would remain as open space, as would the scrub-shrub wetland corridor in the western portion of the Project site. Therefore, the Project would result in **less than significant** impacts associated with interference with animal movement or use of nursery sites.

e) Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

The Project site supports native trees (primarily oak species) and blue oak woodland protected by Placer County (with the exception of foothill pine). Impacts to native trees and woodland, including removal and trimming, would be considered a significant impact under CEQA without appropriate mitigation. The Project has been designed to retain 35 heritage trees but would require the removal of one heritage oak tree. The Project is designed to minimize impacts to oak woodland in the vicinity of the proposed walking path and dog park but would require removal of approximately 2.15 acres of oak woodland to provide proposed park amenities in the central plaza area and for parking and access. Removal of oak trees would be mitigated in accordance with Placer County requirements, which specify that impacts to heritage oak trees be provided on an inch-for-inch bases in accordance with the County's Tree Ordinance and that impacts to oak woodland be mitigated by payment of in-lieu fees toward preservation of oak woodland or by preserving off-site oak woodland at a minimum 2:1 (replacement:impact) ratio. Compliance with the Placer County tree ordinance would ensure that the Project would remain **less than significant**.

f) Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

On September 1, 2020, the Placer County Board of Supervisors adopted the Placer County Conservation Program (PCCP) adding Chapter 19, Article 19.10 to the Placer County Code. The PCCP allows for applicants to engage in a streamlined permitting process for mitigating project impacts to aquatic resources and sensitive wildlife species rather than obtaining permits from state and federal regulatory agencies. Projects that occur within the PCCP Plan Area are subject to applicable avoidance and minimization measures included in Chapter 6 (Program Participation and Conditions on Covered Activities) of the PCCP, which ensure that adverse effects to covered species and sensitive natural communities addressed by the PCCP are avoided and minimized. Any conversion (ground disturbance) of natural or semi-natural lands, including oak woodland, grasslands, and wetlands is subject to the applicable PCCP state and federal permits and impact fees. During the local impact authorization process, impact fees including Land Conversion fees and Aquatic/Wetland Special Habitat fees are calculated utilizing land cover data. The Project would comply with requirements oif the PCCP and **no impact** would occur from any conflict with an adopted conservation plan.

Mitigation Measures

BIO-1 Removal of potential bat roost habitat identified during the assessment shall be avoided during the bat maternity season (May 1 through August 15). If removal of potential bat roost habitat occurs outside of the maternity season, no further mitigation shall be required.

If removal of potential roost habitat must be conducted during the maternity season, a qualified biologist experienced with Sierra Nevada bat species shall conduct a survey to search for evidence of bat roosts in trees and structures subject to removal. If potential bat roosts are identified, pre-construction inspections for bats will be conducted using appropriate methods (e.g., camera inspection, exit survey with night optics, acoustic survey) within 2 weeks prior to said activities. If bats are found during inspections, removal of that roost feature will be delayed until the end of the maternity season or until a qualified bat biologist has determined that the young are capable of flight.

BIO-2: To the extent feasible, tree or vegetation removal shall occur outside of the nesting season (February through August). If vegetation removal must be carried out during the breeding season, a qualified biologist shall conduct a nesting bird survey within 1 week prior to said activities to determine if any birds are nesting on or near the Project site (including a 500-foot buffer for raptors). If any active nests are observed during surveys, a suitable avoidance buffer from the nests shall be determined and flagged by a qualified biologist based on species, location, and planned construction activities. Consultation with CDFW may be required to determine appropriate buffer distances. These nests shall be avoided until the chicks have fledged and the nests are no longer active, as determined by the qualified biologist.

3.5 Cultural Resources

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
V. CULTURAL RESOURCES – Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?	☐	☒	☐	☐
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	☐	☒	☐	☐
c) Disturb any human remains, including those interred outside of dedicated cemeteries?	☐	☒	☐	☐

Setting

The Project site is approximately 24 acres and consists of oak woodlands and a developed baseball field bounded by park facilities, landscaping, paved roads, and private land. The Project site for the purposes of the cultural resources analysis consists of the entire 24-acre area, although not all portions in this area will be subject to direct disturbance. The anticipated vertical disturbance is represented by the maximum depth of disturbance, including grading and trenching, which is assumed to be 15 feet below ground surface.

A cultural resources inventory report was prepared by Dudek for the Project site to satisfy the requirements of CEQA and Section 106 of the National Historic Preservation Act (NHPA). The inventory included a records search of previous studies of the APE and a surrounding half-mile radius conducted by staff of the North Central Information Center (NCIC) on October 13, 2020. The records search identified 21 previous studies which have been performed within the records search area. The NCIC records search identified any resources within the APE. The NCIC records search of the area identified one cultural resource (P-31-001171, Ophir Canal) within the Project site, and 16 additional cultural resources have been identified within a half-mile of the APE. Records indicate that an approximately 200-foot segment of the Ophir Canal runs through the southwestern corner of the Project site. This feature, consisting of an unlined earthen irrigation ditch which is currently still in use. The Native American Heritage Commission (NAHC) was contacted by Dudek on October 19, 2020 to request a search of the Sacred Lands File. This information is stored by the NAHC at the USGS Section level, and as such included Sections 19, 20, 28, 29, 30, which intersect the Project site and surrounding half-mile buffer. Results of a NAHC Sacred Lands File search, provided November 2, 2020, were positive for resources within this search area. United Auburn Indian Community (UAIC) was identified as having additional information related to identified resources in this search area. Dudek did not contact NAHC-listed tribes.

Dudek Archaeologist Ross Owen, MA, RPA conducted an intensive-level pedestrian survey of the entire Project APE on October 5, 2020 using standard archaeological procedures and techniques. All surface soils and subsurface exposures were inspected. Soils within the Project site appeared to be relatively undisturbed in most areas. The 200-foot segment of the Ophir Canal (P-31-001171) was re-identified during the pedestrian survey within the

southwestern portion of the Project site. The survey identified no other historic or prehistoric features within the Project site APE. The canal would not be affected by Project activities.

Impact Discussion

a) Would the project cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?

See 'b' below.

b) Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?

A records search was completed for the current Project site and a 0.5-mile radius at the NCIC at Sacramento State University on October 15, 2020 (Appendix C [Confidential]). Results of a NAHC Sacred Lands File search, provided November 2, 2020, were positive for resources within the search area, which included USGS Sections intersecting the Project site and surrounding half-mile buffer. UAIC was identified has having additional information related to identified resources in this search area. Dudek did not contact NAHC-listed tribes and Assembly Bill (AB) 52 outreach, as initiated by ARD, is presently ongoing. NCIC records identified a segment of an earthen ditch known as the Ophir Canal, P-31-001171, as intersecting the Project site. No additional archaeological or built environment resources are previously documented in the Project site. Sixteen cultural resources are on file with the NCIC as having been recorded within a half-mile surrounding the Project site.

Intensive pedestrian survey, conducted of the Project site on October 19, 2020, confirmed a 200-foot segment of Ophir Canal to be present. This ditch is outside of any planned disturbance area and would not be affected by Project construction or operation. No newly identified archaeological resources were recorded during the pedestrian survey of the Project site (Appendix B [Confidential]). Approximately one-third of the ground surface was directly observable through low laying grasses present at the time of survey. The Project site is mostly undeveloped but has been subject to past disturbances. Based on observation of present conditions and soil development in the area, there is a moderate potential for unanticipated cultural material or deposits to be encountered during Project implementation and/or future use of the area.

The Project, as currently designed, would have no impact to known cultural resources. However, in consideration of the presence of a number of archaeological and historic built environment resources in the surrounding area, there is considered to be some potential for the Project to inadvertently impact unanticipated cultural resources. Archaeological monitoring and protection measures for unanticipated discoveries of cultural resources and human remains are recommended and outlined below. With implementation of Mitigation Measures CUL-1 and CUL-2, impacts to archaeological resources would be **less than significant.**

c) Would the project disturb any human remains, including those interred outside of dedicated cemeteries?

The Project site does not have any association with a cemetery or mausoleum and was not used historically for burial or internment purposes. No known human remains or burial sites were discovered through the NCIC records search, pedestrian survey of the Project site, or NAHC Sacred Lands File search and subsequent tribal outreach. The construction of the Project has a low potential for encountering unknown

buried human remains based on the research findings above. However, the potential to encounter human remains still exists during ground-moving construction activities. As such, Mitigation Measure CUL-2 has been incorporated into the Project to ensure that potential impacts would be **less than significant** by providing standard procedures in the event that human remains are encountered during Project construction.

Mitigation Measures

CUL-1 In order to ensure that there will be no impacts to unanticipated cultural resources, It is recommended that an archaeological monitor be present during all initial ground-disturbing activities with the potential to encounter cultural resources. The requirement to include a Native American Monitor should be determined by ARD through consultation and review of the present report findings. Archaeological monitoring may be adjusted at the recommendation of an archaeological principal investigator who meets the Secretary of the Interior qualifications in Archaeology, and in consultation with ARD, based on inspection of exposed subsurface soils and their observed potential to contain intact cultural deposits or material. Prior to the initiation of ground-disturbing work, construction personnel shall complete a Worker Environmental Awareness Training (WEAT) to address the potential to encounter cultural resources and protocol should resources be encountered, as well as inform them of the requirement for cultural monitors to be present during initial ground-disturbing activities.

In the event that archaeological resources (sites, features, or artifacts) are exposed during construction activities for the Project, all construction work occurring within 100 feet of the find shall immediately stop until the archaeological principal investigator and designative archaeological staff can evaluate the significance of the find and determine whether or not additional study is warranted. Depending upon the significance of the find under CEQA (14 CCR 15064.5[f]; California Public Resources Code, Section 21082), the archaeologist may record the find and allow work to continue. If the discovery proves significant under CEQA, additional work such as preparation of an archaeological treatment plan, testing, or data recovery could be warranted.

CUL-2 In accordance with Section 7050.5 of the California Health and Safety Code, if human remains are found, the County Coroner shall be immediately notified of the discovery. No further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains shall occur until the County Coroner has determined, within 2 working days of notification of the discovery, if the remains are human in origin. If the County Coroner determines that the remains are, or are believed to be, Native American, he or she shall notify the Native American Heritage Commission in Sacramento within 24 hours. In accordance with California Public Resources Code, Section 5097.98, the Native American Heritage Commission must immediately notify those persons it believes to be the most likely descendant from the deceased Native American. The most likely descendant shall complete their inspection within 48 hours of being granted access to the site. The designated Native American representative would then determine, in consultation with the property owner, the disposition of the human remains.

3.6 Energy

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
VI. Energy – Would the project:				
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	☐	☐	☒	☐
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	☐	☐	☐	☒

Setting

The Project site is located within Auburn within Placer County and is surrounded by existing development, including residential, commercial, and existing recreational / parks development (Regional Park). Pacific Gas & Electric (PG&E) is the utility provider for Placer County. PG&E provides electric services to 5.4 million customers including 106,681 circuit miles of electric distribution lines and 18,466 circuit miles of interconnected transmission lines over a 70,000-square-mile service area that includes in northern and central California (PG&E 2016). PG&E receives electric power from a variety of sources. According to California Public Utilities Commission's (CPUC's) *2018 Renewable Portfolio Standard (RPS) Annual Report to the Legislature*, 39% of PG&E's power came from eligible renewable energy sources in 2018, including biomass/waste, geothermal, small hydroelectric, solar, and wind sources (PG&E 2019).

The California Public Utilities Commission (CPUC) regulates natural gas utility service for approximately 10.8 million customers who receive natural gas from PG&E, Southern California Gas, San Diego Gas and Electric, Southwest Gas, and several smaller natural gas utilities. CPUC also regulates independent storage operators Lodi Gas Storage, Wild Goose Storage, Central Valley Storage, and Gill Ranch Storage (CPUC 2017). PG&E provides natural gas service to most of northern California and would provide natural gas to the Project if there is a natural gas need.

There are more than 35 million registered vehicles in California, and those vehicles consume an estimated 17 billion gallons of fuel each year (CEC 2019; DMV 2019). Petroleum currently accounts for approximately 92% of California's transportation energy consumption (CEC 2019). However, technological advances, market trends, consumer behavior, and government policies could result in significant changes in fuel consumption by type and in total. At the federal and state levels, various policies, rules, and regulations have been enacted to improve vehicle fuel efficiency, promote the development and use of alternative fuels, reduce transportation-source air pollutants and greenhouse gas (GHG) emissions, and reduce vehicle miles traveled. Market forces have driven the price of petroleum products steadily upward over time, and technological advances have made use of other energy resources or alternative transportation modes increasingly feasible.

Largely as a result of and in response to these multiple factors, gasoline consumption within the state has declined in recent years, and availability of other alternative fuels/energy sources has increased. The quantity, availability, and reliability of transportation energy resources have increased in recent years, and this trend may likely continue and accelerate (CEC 2019). Increasingly available and diversified transportation energy

resources act to promote continuing reliable and affordable means to support vehicular transportation within the state.

Impact Discussion

a) Would the project result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?

Construction Energy Use

Electricity

Temporary electric power for as-necessary lighting and electronic equipment would be provided by PG&E. The amount of electricity used during construction would be minimal, since typical demand would be from from electrically powered hand tools. The electricity used for construction activities would be temporary and minimal; therefore, Project construction would not result in wasteful, inefficient, or unnecessary consumption of electricity. Impacts would be **less than significant**.

Natural Gas

Natural gas is not anticipated to be required during construction of the Project. Fuels used for construction would primarily consist of diesel and gasoline, which are discussed under the subsection "Petroleum." Any minor amounts of natural gas that may be consumed as a result of Project construction would be temporary and negligible and would not have an adverse effect; therefore, Project construction would not result in wasteful, inefficient, or unnecessary consumption of natural gas. Impacts would be **less than significant**.

Petroleum

Petroleum would be consumed throughout construction. Fuel consumed by construction equipment would be the primary energy resource expended over the course of construction. Transportation of construction materials and construction workers would also result in petroleum consumption. Heavy-duty construction equipment, vendor trucks, and haul trucks would use diesel fuel. Construction workers would likely travel to and from the Project area in gasoline-powered vehicles. Construction is expected to take approximately four to six months, beginning in approximately May 2022 and ending in the fall of 2022. Once construction activities cease, petroleum use from off-road equipment and transportation vehicles would end. Because of the short-term nature of construction and relatively small scale of the Project, the Project's petroleum consumption would be negligible when compared to California's daily total use of approximately 1.8 million barrels of petroleum. As such, impacts would be **less than significant**.

Operational Energy Use

Anticipated energy use would primarily be attributed to visitors and maintenance vehicles traveling to and from the Project site; the park is a recreational facility and would use minimal electricity, natural gas or petroleum in comparison with other types of development such as residential or industrial uses. Energy used from vehicles traveling to the Project site would decrease over time, as worker vehicles and equipment become increasingly efficient in accordance with the energy efficiency and GHG reduction standards. As such, energy use from Project operations would be **less than significant**.

b) Would the project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

The Project would follow applicable energy standards and regulations during the construction phases. In addition, the Project would be operated in accordance with all existing, applicable regulations and visitor vehicles and maintenance equipment and energy production related to park operations would be subject to all applicable regulations that implement state and local plans for renewable energy and efficiency. As such, it is anticipated that the Project would result in **no impact** resulting from conflict with or obstruction of a state or local plan for renewable energy and energy efficiency and no mitigation is required.

Mitigation Measures

No mitigation measures are required.

3.7 Geology and Soils

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
VII. GEOLOGY AND SOILS – Would the project:				
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☒	☐
ii) Strong seismic ground shaking?	☐	☐	☒	☐
iii) Seismic-related ground failure, including liquefaction?	☐	☐	☒	☐
iv) Landslides?	☐	☐	☒	☐
b) Result in substantial soil erosion or the loss of topsoil?	☐	☒	☐	☐
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, liquefaction or collapse?	☐	☐	☒	☐
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	☐	☐	☒	☐

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	☐	☐	☐	☒
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☒	☐	☐

Setting

The Project site is located within Placer County in the unincorporated community of North Auburn. The closest portion of an Alquist Priolo active fault is the Cleveland Hills Fault, which is located approximately 36 miles northwest of the City of Auburn (DOC, 2010). According to the California Department of Conservation map showing earthquake shaking potential for California, the Project site is located in a region that has the lowest level of earthquake hazard. The lowest level of earthquake hazard classification describes areas that are distant from known, active faults and will experience lower levels of shaking less frequently. The Project site and surrounding area are considered to have low seismic risk in terms of fault hazard, seismic ground shaking, and liquefaction based on review of the California Department of Conservation Geological Survey mapping of California 2010 Fault Activity and Earthquake Fault Zones (CDC 2010 and CDC 2015). According to the California Department of Conservation records, the Project site is located within an area of low landslide susceptibility (CDC 2011).

Impact Discussion

a) Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:

i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.

The California Geological Survey provides scientific information about the state's geology, seismology, and associated hazards. As part of their Seismic Hazards Program, areas prone to geological hazards are mapped on their California Earthquake Hazards Zone Application (EQ Zapp) (CDOC 2021). Based on a review of EQ Zapp, the Project site is not located within an Alquist-Priolo Earthquake Fault Zone. The nearest mapped fault, the Cleveland Hills Fault, is located about 30 miles to the north of Auburn but is not considered active. The Project includes minimal structures that would be likely to result pose substantial risk associated with seismic activity and the Project would be constructed in accordance with the California Building Code and local County codes, which take into account potential seismic events. Accordingly, risks associated with seismic events, including fault rupture, would be **less than significant**.

ii) Strong seismic ground shaking?

The Project would involve the construction of a new 24.4-acre park with associated infrastructure and parking. Ground shaking can result in structural failure and collapse of structures or cause non-structural building elements to fail, presenting a hazard to building occupants and contents. The Project site is located in an area of low earthquake hazard. Construction of the restrooms and shade structures would not significantly increase the risk of loss, injury, or death involving strong seismic ground shaking, as all construction would be constructed in compliance with the 2021 CBC standards and regulations. As such, impacts would be **less than significant**.

iii) Seismic-related ground failure, including liquefaction?

Liquefaction generally occurs as a result of strong ground shaking in areas where granular sediment or fill material either contains or is located immediately above high moisture content. The ground shaking transforms the material from a solid state to a temporarily liquid state. Liquefaction is a serious hazard because buildings in areas that experience liquefaction may sink or suffer major structural damage. The Project site is not within an area with a known risk of liquefaction. The Project would construct structures typically associated with parks including restrooms and shade structures. The site is underlain by shallow bedrock and conditions for liquefaction are not present. Construction of the park infrastructure and structures would not significantly increase the potential for liquefaction. As the Project site is located in an area of low liquefaction hazard and the Project would be constructed in compliance with CBC standards and regulations and in accordance with site specific geotechnical recommendations, impacts related to the risk of loss, injury, or death involving seismic-related ground failure would be **less than significant**.

iv) Landslides?

Landslides are movements of materials including rock, soil, artificial fill, or combinations of such materials, downslope under the influence of gravity. The size and distance of landslide movements can greatly vary. Construction of the Project would require minor to moderate grading. The Project design minimizes overall grading required by retaining large natural areas of the site for park uses that require no modification of the natural landform. Grading will primarily be required for the access drive, parking area, central plaza and surrounding developed amenities, and minor grading will be required for walking paths. It is estimated that grading would occur over approximately 2.7 acres of the Project site and grading quantities would be 3600 cubic yards of cut and 3600 cubic yards of fill. As documented by the Natural Resources Conservation Service, the Project site is underlain by moderately deep, well-drained soils formed in material weathered bedrock, which is not prone to instability and landslides (NRCS, 2021). All grading and construction would be completed in accordance with the current CBC and Placer County's grading and erosion prevention ordinance and the terms and conditions of a Placer County grading permit and a site specific geotechnical investigation. Thus, there would be **less-than-significant** impacts related to the risk of loss, injury, or death involving landslides.

b) Would the project result in substantial soil erosion or the loss of topsoil?

Grading and construction would be completed in accordance with the CBC and in compliance with the National Pollutant Discharge Elimination System Waste Discharge Requirements from Small Municipal

Separate Storm Sewer Systems (MS4s) and Placer County's grading and erosion prevention ordinance and the terms and conditions of the Placer County grading permit required for the Project. Because the area of ground disturbance would be greater than 1.0 acre, grading and construction would be subject to the State Construction General Permit, which requires completion and implementation of a Stormwater Pollution Prevention Plan (SWPPP) and associated BMPs. BMPs implemented as part of the SWPPP would include measures to stabilize work areas including fiber wattles, silt fencing, concrete washout areas, soil stabilizers, revegetation, or other appropriate measures. These measures would ensure that soil erosion during grading and construction is prevented, resulting in less-than-significant impacts. In the absence of proper drainage controls and vegetation cover following grading and construction, long-term erosion of exposed soils and on-site slopes could occur. However, implementation of GEO-1 and BMPs would ensure that erosion is minimized through long-term drainage control, placement of erosion control mats, and seeding following construction. Therefore, impacts would be **less than significant with mitigation incorporated**.

c) Would the project be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?

The Project site is underlain by well-drained, shallow bedrock and silt loam on the site, which is not typically associated with instability. Therefore, there is a low risk of landslide, lateral spreading, seismically induced ground settlement, liquefaction, subsidence, or collapse. As previously discussed, all grading and construction would be completed in accordance with the CBC, local codes, and a site-specific geotechnical investigation. Therefore, the Project would have a **less-than-significant** impact associated with an unstable geologic unit or soil.

d) Would the project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?

Expansive soils have a potential to undergo significant changes in volume in the form of either shrinking or swelling due to changes in moisture content. Periodic shrinking and swelling of expansive soils can cause extensive damage to buildings, other structures, and roads. There are two soil types mapped on the Project site: Auburn-Argonaut complex, 2% to 15% slopes, and Auburn-rock outcrop complex, 2% to 30% slopes. The Auburn soil series is found on foothills and consists of moderately deep, well-drained soils formed in material weathered from amphibolite schist. The Argonaut soil series is found on foothills and consists of moderately deep, well-drained soils formed in material weathered from meta-andesite. The Project site is underlain by moderately deep, well-drained bedrock with silt loam on top and therefore is at a low risk of damage as a result of expansive soils. Additionally, as stated, the Project would be constructed consistent with the CBC, local code, and a site-specific geotechnical investigation. Therefore, the Project would have a **less-than-significant** impact associated with expansive soils.

e) Would the project have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?

The Project would connect to the public wastewater system and would not require the use of septic tanks or alternative wastewater disposal systems. Therefore, the Project would have **no impact**.

f) Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

The Project site contains no known paleontological resources or unique geologic features and is not within an area considered sensitive for these resources. There is some potential to uncover previously undiscovered paleontological resources during ground disturbing activities; however, implementation of Mitigation Measure GEO-2 would ensure that the potential impacts associated with effects to unique paleontological or geological features would be **less than significant**.

Mitigation Measures

GEO-1 Erosion control measures shall be implemented in accordance with Placer County Resource Conservation District's "*Erosion and Sediment Control Guidelines for Developing Areas of the Sierra Foothills and Mountains*" and in accordance with the erosion control plan. This could include measures for slope stabilization, dust control, and temporary and permanent erosion control devices/BMPs such as straw wattles, track out control devices, silt fencing, sediment traps, tarping of stockpiled soils, revegetation treatments or other measures specified by the erosion and dust control plan or SWPPP or as determined to be necessary by the Project engineer.

GEO-2 In the event that paleontological resources (e.g., fossils) are exposed during construction activities for the Project, all construction work occurring within 50 feet of the find shall immediately stop until a qualified paleontologist meeting the professional standards of the Society of Vertebrate Paleontology can evaluate the significance of the find and determine whether or not additional study is warranted. If the discovery is clearly not significant, the paleontologist may document the find and allow work to continue. If the discovery proves potentially significant under CEQA, additional work such as preparation of a paleontological treatment plan and monitoring in the area of the find may be warranted.

3.8 Greenhouse Gas Emissions

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
VIII. GREENHOUSE GAS EMISSIONS – Would the project:				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☒	☐
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☒	☐

Setting

Greenhouse gases (GHGs) are gases that absorb infrared radiation in the atmosphere. The greenhouse effect is a natural process that contributes to regulating the Earth's temperature. Global climate change concerns are focused on whether human activities are leading to an enhancement of the greenhouse effect. Principal GHGs include carbon dioxide, methane, nitrous oxide, O_3, and water vapor. If the atmospheric concentrations of GHGs rise, the average temperature of the lower atmosphere will gradually increase. Globally, climate change has the potential to impact numerous environmental resources though uncertain impacts related to future air temperatures and precipitation patterns. Although climate change is driven by global atmospheric conditions, climate change impacts are felt locally. Climate change is already affecting California: average temperatures have increased, leading to more extreme hot days and fewer cold nights; shifts in the water cycle have been observed, with less winter precipitation falling as snow, and both snowmelt and rainwater running off earlier in the year; sea levels have risen; and wildland fires are becoming more frequent and intense due to dry seasons that start earlier and end later (CAT 2010).

The effect each GHG has on climate change is measured as a combination of the mass of its emissions and the potential of a gas or aerosol to trap heat in the atmosphere, known as its global warming potential (GWP), which varies among GHGs. Total GHG emissions are expressed as a function of how much warming would be caused by the same mass of CO_2. Thus, GHG emissions are typically measured in terms of pounds or tons of CO_2 equivalent (CO_2e).[2]

The Project is under the jurisdiction of the PCAPCD. To evaluate the impacts of projects on global climate change, the PCAPCD has established significance thresholds for GHG emissions. Thresholds used to determine significance are from the PCAPCD document *Placer County Air Pollution Control District Policy – Review of Land Use Projects*

[2] The CO_2E for a gas is derived by multiplying the mass of the gas by the associated GWP, such that metric tons of CO_2E = (metric tons of a GHG) × (GWP of the GHG). CalEEMod assumes that the GWP for CH_4 is 25, which means that emissions of 1 metric ton of CH_4 are equivalent to emissions of 25 metric tons of CO_2, and the GWP for N_2O is 298, based on the Intergovernmental Panel on Climate Change (IPCC) Fourth Assessment Report.

under CEQA (adopted October 13, 2016).The PCAPCD recommends the following approach to determine if a project's GHG emissions would result in a significant impact:

- Tier 1 consists of comparing the project's GHG emissions to the de minimis level of 1,100 MT CO_2e per year. If a project does not exceed this threshold, it would have GHG emissions that are not cumulatively considerable.
- Tier 2 is a bright line threshold level of 10,000 MT CO_2e per year, applied to land use projects' construction phase and stationary projects' construction and operational phases. If a project exceeds this cap, the project would be deemed to have a cumulatively considerable contribution to global climate change. A land use project with GHG operational emissions between 1,100 MT CO_2e and 10,000 MT CO_2e per year can still be found less than cumulatively considerable when the results of the project's related efficiency analysis meets one of the efficiency thresholds below.
- Tier 3 compares the project emissions to efficiency thresholds. The efficiency matrix and de minis level thresholds are only applied to a land use project's operational phase. These thresholds are 4.5 MT CO_2e per capita for residential projects in an urban area and 5.5 MT CO_2e per capita for residential projects in a rural area. For nonresidential development, the thresholds are 26.5 MT CO_2e per 1,000 square feet (sf) for projects in urban areas and 27.3 MT CO_2e per 1,000 sf for projects in rural areas. If a project does not exceed the applicable efficiency threshold, it would have GHG emissions that are not cumulatively considerable.

Impact Discussion

a) Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Construction

Construction of the Project would result in GHG emissions that are primarily associated with use of off-road construction equipment and off-site sources including haul trucks, vendor trucks, and worker vehicles. CalEEMod was used to calculate the annual GHG emissions based on the construction scenario as analyzed in Section 3.3, Air Quality. Modeling assumed that construction would begin in May 2022. Emissions from on-site and off-site sources are combined for the purposes of this analysis and are presented below in Table GHG-1.

Table GHG-1
Estimated Annual Construction GHG Emissions

Year	CO_2	CH_4	N_2O	CO_2e
	Metric Tons per Year			
2022	160.97	0.05	0.00	162.16
			PCAPCD GHG Threshold	10,000
			Threshold Exceeded?	No

Source: See Appendix A for detailed results.
Notes: MT = metric tons; CO_2 = carbon dioxide; CH_4 = methane; N_2O = nitrous oxide; CO_2e = carbon dioxide equivalent.

As shown in Table GHG-1, total construction GHG emissions would be approximately 162 MT CO_2e as a result of construction-related activities. Construction GHG emissions are a one-time release and are

typically considered separate from operational emissions, as global climate change is inherently a cumulative effect that occurs over a long period of time and is quantified on a yearly basis. As previously discussed, the PCAPCD identifies a GHG emission threshold for construction-related emissions of 10,000 MT CO_2e per year. Table GHG-1 indicates that the Project would not exceed the PCAPCD GHG threshold. Therefore, the Project's construction-related GHG emissions would represent a **less than significant** impact.

Operation

Following the completion of construction activities, the Project would generate GHG emissions from mobile sources (vehicle trips), area sources (landscaping equipment), energy sources (natural gas and electricity consumption), solid waste generation, water supply, and wastewater treatment. The estimated annual operational project-generated GHG emissions from these sources are shown in Table GHG-2.

Table GHG-2
Estimated Annual Operational GHG Emissions

Emission Source	CO_2	CH_4	N_2O	CO_2e
	Metric Tons per Year			
Area Sources	<0.01[a]	0.00	0.00	<0.01[a]
Energy	0.00	0.00	0.00	0.00
Mobile	156.57	<0.01[a]	0.00	156.71
Solid Waste	0.40	0.2	0.00	1.00
Water Supply and Wastewater	28.02	<0.01[a]	<0.01[a]	28.13
Total	184.99	0.20	<0.01[a]	185.84
			PCAPCD GHG Threshold	*1,100*
			Threshold Exceeded?	No

Source: See Appendix A for detailed results.
Notes: MT = metric tons; CO_2 = carbon dioxide; CH_4 = methane; N_2O = nitrous oxide; CO_2e = carbon dioxide equivalent.
[a] <0.01 = value less than reported 0.01 metric tons per year.

Table GHG-2 indicates that the GHG emissions associated with operation of the Project would be 186 MT CO_2e per year, which is well below PCAPCD's GHG threshold of 1,100 MT CO_2e per year. Therefore, the Project would not generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment and this would represent a cumulatively **less than significant** GHG impact.

b) Would the project generate conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

The Project would not impede the attainment of the GHG reduction goals for 2030 or 2050 identified in Executive Order (EO) S-3-05 and Senate Bill (SB) 32. EO S-3-05 establishes the following goals: GHG emissions should be reduced to 2000 levels by 2010, to 1990 levels by 2020, and to 80 percent below 1990 levels by 2050. SB 32 establishes a statewide GHG emissions reduction target whereby CARB, in adopting rules and regulations to achieve the maximum technologically feasible and cost-effective GHG emissions reductions, shall ensure that statewide GHG emissions are reduced to at least 40 percent below 1990 levels by December 31, 2030. While there are no established protocols or thresholds of significance for that future

year analysis, CARB forecasts that compliance with the current Scoping Plan puts the state on a trajectory of meeting these long-term GHG goals, although the specific path to compliance is unknown (CARB 2014).

CARB has expressed optimism with regard to both the 2030 and 2050 goals. It states in the First Update to the Climate Change Scoping Plan that "California is on track to meet the near-term 2020 GHG emissions limit and is well positioned to maintain and continue reductions beyond 2020 as required by Assembly Bill (AB) 32" (CARB 2014). With regard to the 2050 target for reducing GHG emissions to 80 percent below 1990 levels, the First Update to the Climate Change Scoping Plan states that the level of reduction is achievable in California (CARB 2014). In other words, CARB believes that the state is on a trajectory to meet the 2030 and 2050 GHG reduction targets set forth in AB 32, SB 32, and EO S-3-05. This is confirmed in the 2017 Scoping Plan, which states (CARB 2017):

> *The Scoping Plan builds upon the successful framework established by the Initial Scoping Plan and First Update, while identifying new, technologically feasible and cost-effective strategies to ensure that California meets its GHG reduction targets in a way that promotes and rewards innovation, continues to foster economic growth, and delivers improvements to the environment and public health, including in disadvantaged communities. The Scoping Plan is developed to be consistent with requirements set forth in AB 32, SB 32, and AB 197.*

The Project would not interfere with implementation of any of the above-described GHG reduction goals for 2030 or 2050 because the Project would not exceed the PCAPCD threshold of 1,100 MT CO_2e per year. Because the Project would not exceed the threshold, this analysis provides support for the conclusion that the Project would not impede the state's trajectory toward the above-described statewide GHG reduction goals for 2030 or 2050.

In addition, the specific path to compliance for the state in regards to the long-term, future goals will likely require development of new technology or other changes that are not currently known or available. As such, identifying ways that the Project would be consistent with future goals would be speculative and cannot be meaningfully discussed at this time. However, the Project's consistency with current goals, policies, and regulations would assist in meeting the City's contribution to GHG emission reduction targets in California. With respect to future GHG targets under SB 32 and EO S-3-05, CARB has also made clear its legal interpretation that it has the requisite authority to adopt whatever regulations are necessary, beyond the AB 32 horizon year of 2020, to meet the SB 32 40 percent reduction target by 2030 and the EO S-3-05 80 percent reduction target by 2050. This legal interpretation by an expert agency provides evidence that future regulations will be adopted to continue the trajectory toward meeting these future GHG targets.

Based on the above considerations, the Project would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs. This impact would be **less than significant**, and no mitigation is required.

Mitigation Measures

No mitigation measures are required.

3.9 Hazards and Hazardous Materials

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
IX. HAZARDS AND HAZARDOUS MATERIALS – Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☒	☐	☐
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☒	☐	☐
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	☒
d) Be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☐	☒
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	☐	☐	☐	☒
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	☐	☐	☐	☒

Setting

Hazardous materials stored and used in the area surrounding the Project area would likely be associated with common materials used in commercial and recreational activities, such as paints, cleaning solvents, bonding agents, and small quantity petroleum fuels and lubricants, as well as herbicides and pesticides used for common weed and pest control applications. A search of the State Geotracker and Envirostor databases determined that no active hazardous materials cleanup sites are located in proximity of the Project site. One school, Placer School for

Adults, directly adjacent to the Project site. The Project site is within the airport land use plan of Auburn Municipal Airport. Placer County Fire Department provides emergency response to the Project site.

Impact Discussion

a) Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

The Project would not require the routine transport, use, or disposal of large quantities of hazardous materials for park operations. Construction of the Project would involve the use of common hazardous materials used in construction, including bonding agents, paints and sealant coatings, and petroleum-based fuels, hydraulic fluids, and lubricants used in vehicles and equipment. Large quantities of these materials would not be stored at or transported to the construction site. All construction waste materials would be disposed of in compliance with state and federal hazardous waste requirements and at appropriate facilities. Construction would comply with the requirements for storage, spill prevention and response and reporting procedures, and by implementing spill prevention measures included in the SWPPP (see Sections 3.7 and 3.10 and Mitigation Measure GEO-1). Additionally, Mitigation Measure HAZ-1 requires specific measures for spill prevention and containment of hazardous materials on the Project site during construction. With implementation of mitigation measures and requirements identified above, impacts associated with transport, use, or disposal of hazardous materials would be **less than significant**.

b) Would the project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

Construction of the Project would involve temporary use of hazardous materials, including fuel for construction equipment, paints, solvents, and sealants. Storage, handling, and use of these materials would occur in accordance with standard construction BMPs to minimize the potential for spill or release and ensure that any such spill or release would be controlled on site. Construction plans and specifications would include standard construction BMPs for handling, storage, use and disposal of hazardous materials, such as requirement to contain materials inside buildings or under other cover, vehicle specifications for hazardous material transport and disposal, procedures for safe storage, and training requirements for those handling hazardous materials. All hazardous materials would be used and handled in accordance with the requirements for storage, spill prevention and response and reporting procedures, and the SWPPP. Additionally, Mitigation Measure HAZ-1 requires specific measures for spill prevention and containment of hazardous materials on the Project site during construction. Compliance with standard construction specifications, the Hazardous Substances Plan, and Mitigation Measure HAZ-1 would ensure that impacts would be **less than significant**.

c) Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

The Project site is within 0.25 miles of the Placer School for Adults. The Project would not result in routine transport, use, or disposal of large quantities of hazardous materials for park operations. Typical hazardous materials, such as glues, solvents, and petroleum products would be used, handled, transported and stored in accordance with labeling during construction and would not present a risk to offsite uses. No long-term storage of large quantities of hazardous materials would occur as a result of the Project. Compliance with storage and use requirements would ensure that **no impact** would result to any offsite schools.

d) Would the project be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?

The Project site is not on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, therefore, will have **no impact**.

e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?

The Project site is approximately 1.1 miles west of the Auburn Municipal Airport. The Project site is within Zones C1 and C2 of the Airport Influence Area for the Auburn Municipal Airport as identified by Placer County Airport Land Use Compatibility Plan (ALUCP)(2014). Table AUB-4A of the ALUCP identifies local parks, neighborhood parks and playgrounds as normally compatible with the C1 and C2 zones. The ALUCP identifies the maximum intensity of use for the C1 zone as 100 people per acre sitewide average and 300 people per acre as maximum single acre use intensity, while maximum intensities for the C2 zone are identified as 200 people per acre sitewide average and 800 people per acre as the maximum single acre use intensity. A majority of the Project site is within Zone C1, though the westernmost portion of the site is within Zone C2. The Project is designed to disperse uses and visitor activities and would not concentrate a large number of people within any single activity area and would not exceed the maximum average or single acre maximum use intensities identified for the C1 and C2 zones. It is further noted that park uses would be similar to the existing and adjacent Regional Park, which is within Zone C1 and is located nearer to the airport.

Land uses allowed in the Airport Influence Area are the same as those allowed in the underlying zoning (F – Farm) except that the proposed use must be identified as a compatible land use by the applicable airport land use plan based on the policies of the plan regarding height, noise and safety. All discretionary land use permit applications filed for areas within the aircraft overflight combining zone district must be referred to the Airport Land Use Commission if the use is not identified as compatible by the ALUCP. As noted above, the Project is compatible with the use intensities for park uses defined in the ALUCP. However, prior to construction, the Project would be reviewed by the Airport Land Use Commission or Placer County Transportation Planning Authority to confirm that all Project elements are compatible uses as defined by the ALUCP. The Project would result in no changes in the existing conditions with relation to the airport and its operations. The Project would result in **no impact** associated with a safety hazard or noise exposure associated with airport operations.

f) Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

The Project would construct recreational facilities as part of a new park owned and operated by ARD. The construction of the Project would not affect an adopted emergency response plan or emergency evacuation plan; therefore, the Project would have **no impact**.

g) Would the project expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires?

The Project is located adjacent to an urbanized area on a site surrounded with existing development. The Project site currently supports grassland and oak woodlands and informal trails on the site are frequently used by the general public. ARD currently performs vegetation treatments on the property to maintain defensible space requirements and reduce the potential for wildfire and would continue to perform these treatments following development of the new park. Development of the Project would allow for a more frequent presence of ARD staff, contracted security, and law enforcement for monitoring visitor activities, and signs would be posted onsite advising of park rules, including rules prohibiting activities with potential to result in wildfire ignition. Developed activity areas would be subject to defensible space treatments to further reduce the potential for wildfire ignition and spread, and the Project would facilitate better access for emergency responders if a fire occurs. It is anticipated that the Project would reduce the potential risk to people and property from wildfire and that **no impact** would result from increased fire hazard.

Mitigation Measures

HAZ-1 The following measures shall be implemented prior to and during construction and shall be incorporated into Project plans and specifications.

- All equipment shall be inspected by the contractor for leaks prior to the start of construction and regularly throughout Project construction. Leaks from any equipment shall be contained and the leak remedied before the equipment is again used on the site.
- Best management practices for spill prevention shall be incorporated into Project plans and specifications and shall contain measures for secondary containment and safe handling procedures.
- A spill kit shall be maintained on site throughout all construction activities and shall contain appropriate items to absorb, contain, neutralize, or remove hazardous materials stored or used in large quantities during construction.
- Project plans and specifications shall identify construction staging areas and designated areas where equipment refueling, lubrication, and maintenance may occur. Areas designated for refueling, lubrication, and maintenance of equipment shall be approved by the City.
- In the event of any spill or release of any chemical or wastewater during construction, the contractor shall immediately notify the City.
- Hazardous substances shall be handled in accordance with Title 22 of the California Code of Regulations, which prescribes measures to appropriately manage hazardous substances, including requirements for storage, spill prevention and response and reporting procedures.

3.10 Hydrology and Water Quality

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
X. HYDROLOGY AND WATER QUALITY – Would the project:				
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	☐	☒	☐	☐
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	☐	☐	☒	☐
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:				
i) result in substantial erosion or siltation on or off site;	☐	☒	☐	☐
ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on or off site;	☐	☐	☒	☐
iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	☐	☒	☐	☐
iv) impede or redirect flood flows?	☐	☐	☐	☒
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☐	☐	☒
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☐	☐	☒

Setting

The Project site is within the Orr Creek watershed, which drains approximately 25 square miles of land in Placer County (Hydrological Unit Code 180201610201). The USFWS National Wetlands Inventory (NWI) identifies no aquatic resources on the Project site; the nearest aquatic resource mapped by the is a freshwater pond approximately 80 feet north of the Project site in the adjacent neighborhood park. The National Wetlands Inventory

dataset is based on coarse aerial mapping and is unlikely to include features that are not visible in aerial photography, such as small wetlands or wetlands hidden by tree canopy.

An aquatic resources delineation report was prepared for the site and identified 1.44 acres of aquatic resources on the Project site (Dudek 2020). Hydrologic features identified onsite include a scrub-shrub wetland that generally bisects the Project site in a north – south alignment and receives hydrologic inputs from the NID canal at the south end of the Project site, as well as from adjacent residential properties on the west and uplands to the east, and conveys water north to the small offsite pond north of the Project site. The report also noted that stormwater runoff from the existing baseball field and the eastern portion of the site is generally by sheetflow or existing drainage features to existing constructed ditches and storm drain features along Richardson Drive.

There are two soil types mapped on the Project site: Auburn-Argonaut complex, 2% to 15% slopes, and Auburn-rock outcrop complex, 2% to 30% slopes. The Auburn soil series is found on foothills and consists of moderately deep, well-drained soils formed in material weathered from amphibolite schist. The Argonaut soil series is found on foothills and consists of moderately deep, well-drained soils formed in material weathered from meta-andesite. These soil units are both identified as hydric soils (USDA 2020c).

Impact Discussion

a) Would the project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?

Soil disturbance during grading and construction could potentially result in erosion and sedimentation of downstream water bodies. Erosion and sedimentation affect water quality and interferes with photosynthesis; oxygen exchange; and the respiration, growth, and reproduction of aquatic species. In addition to sediment, other pollutants associated with construction activity could include heavy metals, oil/grease, fuels, debris/trash from construction-related materials, and concrete curing compounds. Sediment can also be a carrier for these pollutants if such pollutants impact on-site soils and are subsequently transported off site.

Because the area of ground disturbance would be greater than 1.0 acre, grading and construction would be subject to the State Construction General Permit, which requires completion and implementation of a SWPPP and associated BMPs. BMPs implemented as part of the SWPPP would include measures to stabilize work areas including fiber wattles, silt fencing, concrete washout areas, soil stabilizers, revegetation, or other appropriate measures.

In the absence of proper drainage controls and vegetation cover following grading and construction, long-term erosion-induced sedimentation of downstream water bodies could occur. However, implementation of Mitigation Measure GEO-1 would ensure that erosion is minimized through long-term drainage control, placement of erosion control mats, and seeding following construction. With implementation of state-mandated water quality control measures, in combination with Mitigation Measure GEO-1, construction and operational impacts to downstream drainages would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality.

The Project would be developed in accordance with the Placer County Stormwater Management Manual (1990) and the West Placer Storm Water Quality Design Manual (2018), which require implementation of Low Impact Development (LID) design strategies to manage and treat stormwater from developed areas. With implementation of Mitigation Measure GEO-1 and LID design strategies, impacts from degradation of

water quality or violation of water quality standards during construction and Project operation would be **less than significant.**

b) Would the project substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?

The Project would obtain water service from NID for irrigation and potable use and would not rely on any groundwater sources and would not develop or use a groundwater supply well. Construction of the various Project components, including the restrooms, central gathering area, parking and access drive, would result in an increase in the extent of impervious surfaces on the Project site, which could reduce the potential for groundwater recharge in these areas; however, the Project would leave a majority of the site unpaved and would utilize LID strategies to reduce runoff and minimize impervious surfaces used on the site. Additionally, the Project would result in no change to the wetland existing along the western border or existing drainage patterns on the site overall. The existing wetland in the western portion of the site would continue to serve as a bioretention area, serving to reduce runoff velocities and enhance stormwater percolation into the soil and provide for groundwater recharge. Thus, while the construction of the park would increase impervious surfaces within the Project site, drainage would continue to be conveyed to areas where groundwater recharge potential remains. Therefore, the Project would not contribute to the depletion of groundwater supplies and impacts associated with interference with groundwater recharge would be **less than significant**.

c) Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:

i) result in substantial erosion or siltation on or off site;

The Project site is approximately 24.4 acres with elevations on the Project site range from approximately 1,345 feet to 1,430 feet above mean sea level. Minor to moderate grading would be required as a part of the Project and impervious surfaces would increase as a result of construction. In the event drainage patterns were altered and/or increased impervious surfaces resulted in increased stormwater runoff onto existing natural slopes, on-site or off-site erosive scour could occur. Stormwater runoff would continue to run to the wetlands on the western portion of the site and overall drainage patterns would remain unchanged. This would reduce runoff velocities, which in turn would prevent potential off-site erosive scour. In addition, implementation of Mitigation Measure GEO-1 would ensure that erosion is minimized through long-term drainage control, placement of erosion control mats, and seeding following construction. It should also be noted that LID design strategies would be incorporated into the Project design to further reduce stormwater runoff and erosion in the post-construction condition. As a result, the Project would not substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would result in substantial erosion or siltation on or off site. Impacts would be **less than significant with mitigation incorporated.**

ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on or off site;

In the event that Project paving results in an increase in the rate or amount of surface runoff, on- or off-site flooding could occur. As documented by the Natural Resources Conservation Service, the Project site is underlain by moderately deep, well-drained soils formed in material weathered bedrock, which is not prone to flooding (NRCS, 2021). Surface run-off on the Project site is generally directed to the scrub-shrub wetland in the western half of the Project site, to constructed ditches and storm drain features in adjacent urban areas, or to the Nevada Irrigation District (NID) canal. Project implementation would result in no change in overall drainage patterns. The Project would be designed to comply with the Placer County Stormwater Management Manual (1990) and the West Placer Storm Water Quality Design Manual (2018), which require implementation of Low Impact Development (LID) design strategies to manage and treat stormwater and require that a Project result in no net increase in offsite stormwater flows. As a result, implementation of the park Project result in no changes to drainage that would result in flooding on or off site. Impacts would be **less than significant**.

iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or

In the event that Project paving results in an increase in the rate or amount of surface runoff, the capacity of existing or planned stormwater drainages systems could be exceeded. After construction of the Project, drainage onsite would continue to drain to the scrub-shrub wetland in the western half of the Project site. The Project would increase the amount of impervious surface onsite by 1.1 acres. The wetland in the western portion of the site would continue to serve as a bioretention area. Bioretention areas would be designed to reduce runoff volumes, velocities, and peak flow rates, which in turn would prevent exceedance of downstream stormwater drainage systems. Because the area of ground disturbance would be greater than 1.0 acre, grading and construction would be subject to the State Construction General Permit, which requires completion and implementation of a SWPPP and associated BMPs. BMPs implemented as part of the SWPPP would include measures to stabilize work areas including fiber wattles, silt fencing, concrete washout areas, soil stabilizers, revegetation, or other appropriate measures. As noted previously, the Project would be designed to comply with the Placer County Stormwater Management Manual (1990) and the West Placer Storm Water Quality Design Manual (2018), which require implementation of Low Impact Development (LID) design strategies to manage and treat stormwater and require that a project result in no net increase in offsite stormwater flows and would not result in increased stormwater flows that could exceed the capacity of existing stormwater infrastructure.

As discussed in Section 3.9, Hazards and Hazardous Materials, construction of the Project would involve temporary use of common hazardous materials used for construction purposes. However, implementation of Mitigation Measure GEO-1, as well as appropriate materials handling and spill prevention measures required by Mitigation Measure HAZ-1, would ensure that water quality would not be degraded by materials used during construction or inadvertent release of those materials. Following construction, the Project would not be expected to release pollutants into the storm drain system. As a result, the Project would not substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the

addition of impervious surfaces, in a manner which would create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff. Impacts would be **less than significant with mitigation incorporated**.

iv) impede or redirect flood flows?

The Project site is located in Federal Emergency Management Agency Flood Insurance Rate Maps (Nos. 06061C0755H) and is not located within a 100-year or 500-year flood hazard zone (FEMA 2021). The Project would have **no impact** on flood flows.

d) In flood hazard, tsunami, or seiche zones, would the project risk release of pollutants due to project inundation?

Seiche and tsunami are short duration earthquake-generated water waves in large enclosed bodies of water and the open ocean, respectively. The extent and severity of a seiche or tsunami would be dependent upon ground motions and fault offset from nearby active faults. The Project site is not located adjacent to any large bodies of water and is not located downstream of a dam. In addition, the Project site is not located within a 100-year or 500-year flood hazard zone (FEMA 2021). Therefore, the Project is not located within a flood hazard, tsunami, or seiche zone, and is not expected to be inundated. The Project would have **no impact**.

e) Would the project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

The Project would have no impact on groundwater and would therefore have no impact on a groundwater management plan. Construction, which would include grading, drainage, and/or impervious surface improvements, would require compliance with the National Pollutant Discharge Elimination System Phase II MS4 Permit. Therefore, the Project would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan. **No impact.**

3.11 Land Use and Planning

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XI. LAND USE AND PLANNING – Would the project:				
a) Physically divide an established community?	☐	☐	☐	☒
b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☒	☐

Setting

Placer County within the unincorporated community of North Auburn, north of the City of Auburn. Single-family residences and the Parkside Church are immediately north of the Project site. Placer School for adults is east of the northern portion of the site and ARD's Regional Park is located across Richardson Drive to the east. Land to the south is currently undeveloped but approved for the Timberline residential subdivision project. A single-family residential subdivision abuts the Project site on the west and an NID access and utility easement exists along the western edge of the proposed park site.

Land use on the Project site is regulated by the Auburn Bowman Community Plan, and the Placer County Zoning Ordinance. The land use designation applied to the Project site by the Auburn Bowman Community Plan is Low Density Residential, which specifies single-family residential development with lot sizes ranging from 0.4 to 0.9 acres (1 to 2.5 dwelling units per acre). It should be noted that, while the land use designation allows for 1 to 2.5 dwelling units per acre of single-family residential development, the site is within an Airport Overflight Zone which allows for average residential density of only 1 dwelling unit per 2 acres and a maximum single acre density of 4 dwelling units per acre, as specified by the Auburn Municipal Airport ALUCP. Figure 10 of the Parks and Recreation Element of the Auburn Bowman Community Plan identifies the Project site area as a conceptual proposed park site, deeming it a desirable location for park development to meet the recreation needs with the Auburn/Bowman Community Plan area.

The site's zoning designation is F-AO (Farm - Combining Aircraft Overflight) 4.6 acre minimum, which allows for farming uses on 4.6 acre minimum lot sizes and allows for park uses with approval of a minor use permit. It should be noted that parks are allowable with a minor use permit under all residential zoning designations, which may be pertinent considering the low density residential land use designation applied to the site by the community plan.

The Project site is within the Zones C1 and C2 of the Airport Influence Area of the Auburn Municipal Airport. The ALUCP identifies the maximum intensity of use for the C1 zone as 100 people per acre sitewide average and 300 people per acre as maximum single acre use intensity, while maximum intensities for the C2 zone are identified as 200 people per acre sitewide average and 800 people per acre maximum single acre use intensity. Land uses allowed in the Airport Influence Area are the same as those allowed in the underlying zoning (F – Farm) except that

the proposed use must be identified as a compatible land use by the applicable airport land use plan based on the policies of the plan regarding height, noise and safety.

Impact Discussion

a) Would the project physically divide an established community?

The Project would construct a new 24.4-acre park on land currently owned by ARD. The Project site is adjacent to existing single family residential to the west and north, commercial to the east and land planned for single family residential to the south. The Project site would connect to an existing baseball diamond owned and maintained by ARD. The Project would not include any construction of a barrier that would physically divide the existing developed areas surrounding the Project site and would serve as a neighborhood and community gathering location and connection between neighborhood. No freeways or railroad tracks are included as part of the Project. Therefore, implementation of the Project would not result in the division of an established community and the Project would have **no impact**.

b) Would the project cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?

The Project would construct a new 24.4-acre park on land currently owned by ARD and would not require a land use designation change or rezone from Placer County. Land use on the Project site is regulated by the Auburn Bowman Community Plan, Placer County General Plan, and the Placer County Zoning Ordinance. The construction of the proposed park would be consistent with the County's parkland goals as outlined under Section 5 of the Placer County General Plan, which identifies a goal of 5 acres of improved, passive parkland per 1000 residents. With approval of a minor use permit, proposed park uses are allowable within the F-AO zone district (and all residential zone districts).

The Project site is within Zones C1 and C2 of the Airport Influence Area for the Auburn Municipal Airport as identified by Placer County Airport Land Use Compatibility Plan (ALUCP) (2014). Table AUB-4A of the ALUCP identifies local parks, neighborhood parks and playgrounds as normally compatible with the C1 and C2 zones. The ALUCP identifies the maximum intensity of use for the C1 zone as 100 people per acre sitewide average and 300 people per acre as maximum single acre use intensity, while maximum intensities for the C2 zone are identified as 200 people per acre sitewide average and 800 people per acre as the maximum single acre use intensity. Land uses allowed in the Airport Influence Area are the same as those allowed in the underlying zoning (F – Farm) except that the proposed use must be identified as a compatible land use by the applicable airport land use plan based on the policies of the plan regarding height, noise and safety. All discretionary land use permit applications filed for areas within the aircraft overflight combining zone district must be referred to the Airport Land Use Commission if the use is not identified as compatible by the ALUCP. The Project would not exceed maximum intensities identified in the ALUCP and would be developed consistent with requirements of the C1 and C2 zones. It is anticipated that the Project would be compatible with the ALUCP. Therefore, the Project is consistent with the Auburn Bowman Community Plan, Placer County General Plan, ALUCP, and zoning ordinance. Consistency with other regulations is discussed throughout this document in applicable resource sections. Impacts associated with inconsistency with local plans identified above would be **less than significant**.

3.12 Mineral Resources

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XII. MINERAL RESOURCES – Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☒
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?	☐	☐	☐	☒

Setting

The Project would occur on a site owned by ARD. The site does not support any mining activities and is not zoned specifically for mineral extraction or preservation and is not known to provide access to important mineral resources.

Impact Discussion

a) Would the project result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?

See 'b' below.

b) Would the project result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?

The Project would construct a new recreational park. Significant mineral deposits are not known to be present at the Project site and the site is not identified as containing important minerals by the general plan or community plan. As there are no known mineral resources underlying the Project site, implementation of the Project would not result in a loss of availability of any known mineral resource. The proposed Project would result in no loss of availability of any locally important mineral resources delineated on a local general plan or other land use plan; the Project would have **no impact.**

3.13 Noise

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XIII. NOISE – Would the project result in:				
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☐	☒	☐
b) Generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐
c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☒	☐

Setting

The Project site is in a semi-urbanized areas within Placer County. The Project is within areas of existing rural or urban development and near noise-generating land uses including public parks, commercial and residential development, and roads; noise levels in the vicinity of the project site are consistent with these uses. Noise generated by construction or maintenance activities is exempt from applicable Placer County noise standards if generated between 6:00 a.m. and 8:00 p.m. Monday through Friday, and 8:00 a.m. and 8:00 p.m. Saturday and Sunday and holidays. The Auburn Municipal Airport is located approximately 1.1 miles east of the Project site.

Impact Discussion

a) Would the project result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

Construction Noise

The Project site is surrounded by both open space and residential land uses. The primary source of noise in the area is roadway noise along Richardson Drive. The Project would be constructed in phases; the primary phases would consist of site preparation, grading, building construction, paving of the on-site roads, and parking areas, and application of architectural coatings. Construction activities could increase noise levels temporarily in the vicinity of the Project. Actual noise levels would depend on the type of construction equipment involved, distance to the source of fthe noise, time of day, and similar factors. For construction noise, because of the nature of the Project design two distances were evaluated in this analysis; distance

from the sensitive receptors to center of construction activity (450 feet) and distance from sensitive receptors to the edge of construction activity (250 feet).

Construction noise is complex to quantify because of the many variables involved, including the specific equipment types, size of equipment used, percentage of time, condition of each piece of equipment, and number of pieces of equipment that will actually operate on site. A noise analysis was performed using the Federal Highway Administration's Roadway Construction Noise Model (RCNM) (FHWA 2008). Input variables for RCNM consist of the receiver/land use types, the equipment type (e.g., backhoe, grader, scraper), the number of equipment pieces, the duty cycle for each piece of equipment (i.e., percentage of time the equipment typically works in a given time period), and the distance from the noise-sensitive receiver to the construction zone. The RCNM has default duty-cycle values for the various pieces of equipment, which were derived from an extensive study of typical construction activity patterns. Those default duty-cycle values were used for this analysis. The range of noise levels for the phases of construction at distances of 250 feet and 450 feet are depicted in Table NOISE-1.

Based on the calculated results in the RCNM model using the applied noise sensitive receptor distance from the edge of grading activity of the trails (250 feet) and from the Project center (450 feet), the calculated dBA L_{eq} values would range from approximately 55 to 68 dBA L_{eq} for a given phase of construction.

Table NOISE-1 Noise Levels for Project Construction Phases

Construction Phase	Typical Sound Level (dBA L_{eq}) 250 Feet from Source	Typical Sound Level (dBA L_{eq}) 450 Feet from Source
Site Preparation	63.7	65.7
Grading	65.6	67.6
Building Construction	NA	60.3
Paving	NA	62.3
Architectural Coating	NA	54.6

Source: FTA 2006.
Note: dBA = A-weighted decibel.

Although the anticipated construction noise levels would be readily noticeable to adjacent residences, construction noise would be regulated through Placer County Code. Pursuant to Article 9.36 of the Placer County Code, noise from construction activities is exempt from noise level requirements of the Code, provided that construction equipment is fitted with factory-installed muffling devices and is properly maintained and that construction occurs during the following periods:

- Monday through Friday, 6:00 a.m. to 8:00 p.m,
- Saturday and Sunday, 8:00 a.m. to 8:00 p.m.

Construction activities for the Project would occur between the permitted hours and would comply with other Placer County Code requirements; thus construction noise would result in a **less-than-significant** impact.

Operational Noise

After construction, operational noise from the Project site would consist of noise from vehicle trips associated with the Project as well as on-site activities .

Project-Related Traffic. Based upon the Project's traffic analysis, the Project is expected to generate an average of 54 daily trips, zero (0) a.m. peak hour trips, and two (2) p.m. peak hour trips during a typical weekday. During a typical weekend (Saturday), the Project would generate 296 daily trips and 54 midday peak hour trips (31 inbound and 23 outbound). However, on Saturdays, the roads for access to the Project site (Richardson Drive and Park Drive) have existing average daily trip (ADT) volumes of 1,524 and 1,322 vehicles per day, respectively. The increase in traffic volumes, even if all 296 Project trips were added to the lower of the existing volumes (1,322 vehicles per day, on Park Drive) would represent an increase of approximately 22 percent. It would require an increase of 100 percent in traffic volumes, all other variables remaining the same, to result in a 3 decibel (dB) increase in traffic noise. A 22 percent increase in traffic volumes would result in an increase of less than 1 dB. In the context of community noise (i.e., outside of a listening lab or other controlled environment), a change in noise levels of 1 dB or less is not audible or detectable. Therefore, the Project's impact relating to traffic noise would be **less than significant**.

On-Site Activities. On-site activities at the proposed park would result in relatively low noise levels. Most of the Project amenities in which groups of people would be likely to gather (such as the central plaza, the shade structures, the play area, and splash pad) would be located approximately 450 feet or more from nearby noise-sensitive uses (residences and the church). The two relatively small parking areas (22 spaces and 18 spaces) would be further removed from the nearby residences and church, and no public address or other amplified sound system would be installed as part of the Project. Furthermore, no team sports fields or courts, other than small group bocce courts, are proposed, and the park would be closed between dawn and dusk.

Although park facilities would be available for reservation and rental for small gatherings such as company picnics and birthday parties. the rental contract would require that users follow rules and regulations for the permitted use including the use of amplified sound, use of alcohol and group size. Special events, such as community art gatherings or other community events with larger attendance, may be held at the park facility several times per year and would similarly be subject to ARD permit conditions including rules and regulations for allowable noise. All rentals and events would be restricted to the park's regular hours of operation (i.e., between dawn and dusk).

Article 9.36.060 of the Placer County Code (Chapter 9, Public Peace, Safety and Welfare) sets noise exposure standards for evaluating non-transportation related noise impacts. The energy-averaged (i.e., L_{eq}) hourly standard at noise-sensitive receptors is 55 dBA for daytime noise (7 a.m. to 10 p.m.) and 45 dBA for nighttime noise (10:00 p.m. and 7:00 a.m).. The Placer County Code also prohibits creation of noises that would exceed the existing ambient sound level by 5 dB. The Project's operation would be subject to compliance with the County's noise regulations and is not expected to generate noise levels exceeding Placer County's standards since noise-sensitive uses would be over 450 feet from the central park activity

area and since larger gatherings would be required to comply with ARD's rental agreement. Therefore, operation of the Project would have a **less-than-significant impact**.

b) Would the project result in generation of excessive groundborne vibration or groundborne noise levels?

Construction activities may expose persons to excessive groundborne vibration or groundborne noise, causing a potentially significant impact. Caltrans has collected groundborne vibration information related to construction activities (Caltrans 2020). Information from Caltrans indicates that continuous vibrations with a peak particle velocity of approximately 0.1 inch/second begin to cause annoyance. Heavier pieces of construction equipment, such as bulldozers, have peak particle velocities of approximately 0.089 inch/second or less at a distance of 25 feet (FTA 2018).

Groundborne vibration typically attenuates over short distances. At the distance from the nearest sensitive uses (residences) to the Project boundary (approximately 250 feet) and with the anticipated construction equipment, the peak particle velocity would be approximately 0.0028 inch/second. At the closest sensitive receptors, vibration levels would be well below the vibration threshold of potential annoyance of 0.1 inch/second.

Construction can also affect nearby buildings by inflicting damage from vibration. However, construction vibration associated with this Project would not result in structural building damage. Building damage typically occurs at vibration levels of 0.5 inch/second or greater for buildings of reinforced-concrete, steel, or timber construction. The heavier pieces of construction equipment used for this Project would include backhoes, front-end loaders, and flat-bed trucks. Pile driving, blasting, or other special construction techniques would not be used for construction of the Project; therefore, excessive groundborne vibration and groundborne noise with the potential to adversely affect nearby buildings would not be generated. Once operational, the Project would not generate groundborne vibration. As such, no building damage would be expected to occur as a result of Project-related vibration during construction or operation, and impacts would be **less than significant**.

c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

The nearest airport to the Project site is Auburn Municipal Airport, located approximately 1.1 miles northeast of the Project site. Based upon the Auburn Municipal Airport Land Use Compatibility Plan (Placer County 2014), the Project site would be approximately 1 mile away from the airport's 65 dBA CNEL noise contour. Although noise from individual aircraft would be noticeable, the average noise levels from airport-related operations (which would be in the 55 to 60 dBA CNEL range) are not considered excessive. As such, the Project would result in **less-than-significant impacts** regarding exposure of people residing or working in the Project area to excessive noise levels.

3.14 Population and Housing

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XIV. POPULATION AND HOUSING – Would the project:				
a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☐	☒
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

Setting

The Project site is mostly undeveloped and no residential development currently exists on the site. The site is zoned for farm uses and minimum lot sizes of 4.6 acres and carries a low density residential land use designation that calls for densities of 1 to 2.5 dwelling units per acre, which would allow for up to 60 residential units on the 24-acre Project site. Existing residences are adjacent to the Project site on the north and west and the vacant site to the south is approved for the Timberline residential subdivision.

Impact Discussion

a) Would the project induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?

The Project would develop additional park uses on a site that is zoned to allow for large lot farming and associated residential uses and carries a land use designation that could allow for up to 60 residential units and approximately 160 people based on average household size in Placer County. The Project would require no substantial extension of infrastructure into unserved areas that would promote growth; the Project site is within an area of existing urban development already served by infrastructure. Since the Project would result in no population growth associated with new home construction or creation of a large number of new jobs, and would not extend infrastructure into new areas, **no impact** would result from unplanned population growth.

b) Would the project displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

The Project would construct new recreation facilities on land owned and managed by ARD. No housing currently exists on the Project site that would be displaced by the proposed park and the Project includes

no uses that would displace residents from existing residential uses in areas adjacent to the Project site. Therefore, the Project would result in **no impact** associated with construction of replacement housing due to displacement of people or existing housing.

3.15 Public Services

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XV. PUBLIC SERVICES				
a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:				
Fire protection?	☐	☐	☐	☒
Police protection?	☐	☐	☐	☒
Schools?	☐	☐	☐	☒
Parks?	☐	☐	☐	☒
Other public facilities?	☐	☐	☐	☒

Setting

Fire protection and emergency services to the Project site are provided by Placer County Fire Department, which contracts with CAL Fire for fire protection services. Law enforcement response is provided by Placer County Sheriff's Office.

Impact Discussion

a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:

Fire protection?

Police protection?

Schools?

Parks?

Other public facilities?

The Project proposes the construction of new recreational facilities adjacent to existing recreational facilities at Regional Park and the existing baseball field on the site. The Project would not induce

substantial population growth by constructing housing or generating a substantial number of new jobs or by extending infrastructure. No substantial additional demand for fire protection, police protection, schools, or other public services is expected that would result in the need to construct new public services facilities offsite to maintain existing service levels and performance objectives for services. The Project would be expected to decrease fire risk in the area by clearing brush and other fuels and reducing the potential for fire ignition as a result of informal or unauthorized use of the Project site. Therefore, **no impact** would result from construction of new facilities to meet an increased demand for services as a result of the Project.

3.16 Recreation

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XVI. RECREATION				
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☐	☒
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	☐	☒

Setting

The Project site is partially developed with an existing baseball field that occupies about 5 acres of the site. Regional Park is located immediately across Richardson Drive east of the Project site and residential uses occur in the surrounding area.

Impact Discussion

a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

Please refer to 'b' below.

b) Does the project include recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment?

The Project would add developed park facilities on approximately 19 acres of the 24.4-acre Project site and would help satisfy the demand for additional public park amenities to serve the local community in North Auburn. The Project includes no residential development and would not directly or indirectly induce substantial population growth in the Project area that would require additional recreation facilities or

generate increased demand for recreational facilities. The Project would therefore have **no impact** associated with deterioration of existing recreation facilities and **no impact** associated construction of new recreation facilities to meet increased demand.

3.17 Transportation

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XVII. TRANSPORTATION – Would the project:				
a) Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?	☐	☐	☒	☐
b) Conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	☐	☐	☒	☐
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☐	☒
d) Result in inadequate emergency access?	☐	☐	☐	☒

Setting

Roadway System and Regional Access. Regional access to the proposed Project would be via State Route 49 (SR-49). SR-49 provides access from Dry Creek Road to the north and Quartz Drive to the south. The following provides a discussion of the roadway network near the Project site.

SR-49 (Golden Chain Highway) is a north-south, four-lane, divided roadway with a two-way left-turn lane (TWLTL). SR-49 is classified as a State Highway – Conventional in the Placer County General Plan Land Use and Circulation Element. The posted speed limit ranges from 55 to 65 miles per hour (MPH) within the study area. On-street parking is generally not permitted along the roadway, and sidewalk and pedestrian facilities are only located along some segments.

Dry Creek Road is an east-west, two lane, divided roadway with a TWLTL between Dry Creek Road and SR-49, and a two-lane, undivided roadway west of Dry Creek Road and east of SR-49. Dry Creek Road is classified as a Rural Arterial in the Land Use and Circulation Element, and the posted speed limit is 35 mph within the study area. On-street parking is generally not permitted along the roadway, and sidewalk and pedestrian facilities are only located along some segments.

Richardson Drive is a north-south, two-lane, undivided roadway, and is classified as an Urban Suburban Major Collector in the Land Use and Circulation Element. Richardson Drive runs adjacent to the western boundary of the Project site and serves as the primary road to the proposed site access driveway. On-street

parking is permitted along some portions of the roadway, and sidewalk and pedestrian facilities are located along some segments. The posted speed limit is 25 mph within the study area.

Park Drive is an east-west, two-lane, undivided roadway that provides access to the Project site via Quartz Avenue and Richardson Drive. Park Drive is not classified in the Land Use and Circulation Element. On-street parking is permitted along most of the roadway, with a parking lot at the westernmost extent of the road, and sidewalk and pedestrian facilities are located along some segments. The posted speed limit is 25 mph within the study area.

Quartz Drive is an east-west, two-lane, undivided roadway that connects SR-49 to Park Drive and is classified as an Urban Suburban Major Collector in the Land Use and Circulation Element. On-street parking is permitted along most of the roadway, and sidewalk and pedestrian facilities are located along both sides of the street. The posted speed limit is 25 mph within the study area.

Transit, Bicycle, and Pedestrian Facilities. Existing transit facilities are shown on Figure 3. Existing bicycle and pedestrian volumes counts obtained at the study area intersections in October 2020 are provided in Appendix A. Adjustment to these volumes were made to reflect non-pandemic conditions.

Transit Facilities. Placer County Transit provides public transit service throughout Placer County, with bus service near the Project site. Placer County Transit Route 30 operates along SR-49, Quartz Drive, Dry Creek Road, and Richardson Drive, with several stops within ½ mile of the Project. Route 30 operates between the Auburn Amtrak Station and Richardson Drive/Chana Park, with hourly weekday service from approximately 5:30 a.m. to 6 p.m., as well as hourly Saturday service from approximately 7:30 a.m. to 5 p.m.

Additionally, the Nevada County Gold Country Stage offers Monday through Friday commute bus service along SR-49, with stops located at the intersections with Quartz Drive and Dry Creek Road for bus Route 5. These stops are not within ½ mile of the Project. Route 5 operates between the Auburn Amtrak Station and the Nevada County Airport Transit Office, with service every two hours during morning, midday, and afternoon commute periods.

Bicycle Facilities. There are no existing bicycle facilities within the study area, with exception of a bike route north of Dry Creek Road on Richardson Drive and south of Bell Road on Richardson Drive.

A Transportation and Circulation Assessment (traffic assessment) was prepared for the Project by Dudek in November 2020 (Appendix D). The traffic assessment provides an analysis of the vehicle miles traveled (VMT) that would be generated by the Project and analyzes impacts to roadway and intersection functioning in the Project area. The traffic assessment focused on evaluating functioning of the following intersections and roadway segments:

Intersections

1. Richardson Drive/Dry Creek Road
2. SR-49/Quartz Drive

Roadway Segments

1. Richardson Drive to Dry Creek Road
2. Richardson Drive to Park Drive to Quartz Drive

Impact Discussion

a) Would the project conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?

Trip Generation and Roadway Segment Level of Service: The traffic assessment modeled trip generation that would result from the Project based on trip rates for a County Park land use (ITE Code 412) and estimated that during a typical weekday the Project would generate approximately 54 daily trips with no trips during the a.m. peak hour and 2 trips during the p.m. peak hour. During a typical weekend, it was estimated that the Project would generate 296 daily trips, including 54 trips during the Saturday mid-day peak hour (31 inbound and 23 outbound). Project trip distribution percentages for the traffic assessment were based on logical travel paths to commute corridors in the study area and using engineering judgement. Approximately, 40% of the Project traffic was assigned to roadways north of the site along Richardson Drive, while 60% of trips were assigned to travel roadways south of the Project site, including Park Drive and Quartz Drive.

Due to the higher trip generation that would occur during a typical weekend, a Saturday daily and midday peak hour analysis were used to analyze changes in roadway and intersection level of service (LOS) that could result from the Project. The LOS analysis was prepared for the Existing and Existing plus Project condition. The LOS at the Project access driveway, as well as the Richardson Drive/Dry Creek Road and SR-49/Quartz Drive intersections, as well as the Project access onto Richardson Drive, is provided in Table Traffic-1, below. The analysis indicates that the Richardson Drive/Dry Creek Road intersection would continue to operate at LOS B, SR-49/Quartz Drive would go from LOS A to LOS B with a potential change in delay of 1.6 seconds per vehicle, and the Richardson Drive access would operate at LOS A.

Table TRAFFIC-1. Existing plus Project Saturday Midday Peak Hour Intersection Level of Service

No.	Intersection	Jurisdiction	Control	Saturday Midday Peak				Change in Delay[1]	Inconsistent with County LOS Standard?
				Existing		Existing plus Project			
				Delay[1]	*LOS[2]*	*Delay[1]*	*LOS[2]*		
1	Richardson Drive/Dry Creek Road	Placer County	TWSC	12.6	B	13.1	B	0.5	No
2	SR-49/Quartz Drive	Placer County	Signal	8.5	A	10.1	B	1.6	No
3	Richardson Drive/ Project Driveway	Placer County	TWSC	Does Not Exist		9.1	A	-	No

Notes: TWSC = Two-Way Stop-Controlled
1 Delay in seconds per vehicle
2 Level of Service (LOS)

The Saturday midday peak hour intersection LOS analysis conducted at the two study intersections and Project driveway indicates LOS C or better intersection operations with the addition of Project traffic, which exceeds Placer County's LOS C minimum standard.

Additionally, a Saturday daily roadway segment LOS analysis of the two roadway segments evaluated, Richardson Drive to Dry Creek Road and Richardson Drive to Quartz Drive, indicates that there would be no change in LOS for these segments as a result of the Project and both segments would continue to operate at LOS A. Table TRAFFIC-2 provides results of the LOS analysis conducted, which used the volume to capacity ratios, based on capacities established in the Placer County General Plan EIR.

Table TRAFFIC-2. Existing plus Project Roadway Segment Level of Service

Segment	LOS "C" Capacity	Existing Saturday ADT			Existing plus Project Saturday ADT		
		ADT	*V/C*[1]	*LOS*[2]	*ADT*	*V/C*[1]	*LOS*[2]
Richardson Drive, Park Drive to Dry Creek Road	14,400	1,524	0.11	A	1,643	0.12	A
Park Drive, Richardson Drive to Quartz Drive	12,000	1,322	0.11	A	1,499	0.12	A

Notes:
1 Volume to Capacity ratio
2 Level of Service (LOS)

Intersection Queuing: A queuing analysis was also conducted for the two study intersections and Project driveway. Although the analysis found that queues at the eastbound left-turn lane of the SR-49/Quartz Drive intersection would exceed the striped vehicle storage length, it was determined that queues would only increase by 4 feet with the addition of Project traffic, and that the combined 95th percentile queues for the eastbound turning movement would not extend into and affect function of the nearest intersection at Opal Drive. Additionally, the analysis determined that although queues at the northbound left-turn lane at the SR-49/Quartz Drive intersection would exceed the striped storage length, the analysis found that queues would decrease with the addition of Project traffic, and the two-way left-turn lane along SR-49 would provide sufficient storage capacity for queuing vehicles. This analysis determined that the addition of Project traffic would meet queuing standards and would not decrease the level of service at these intersections and would not warrant improvements to either the SR-49/Quartz Drive or Richardson Drive/Dry Creek Road intersections. The analysis further found that there is adequate storage capacity within the Project site such that vehicles can queue on-site as needed and no offsite improvements are required for queuing at the Project driveway. Results of the analysis are provided in Table TRAFFIC-3, below.

Table TRAFFIC-3 Existing plus Project Queuing Summary

Intersection/ Driveway	Movement	Vehicle Storage Length[1]	Existing[2]	Exceeds Vehicle Storage Length?	Existing plus Project[2]	Exceeds Vehicle Storage Length?	Improvement Warranted?
			Saturday Midday Peak		*Saturday Midday Peak*		
Richardson Drive/Dry Creek Road	EBTR[3]	>1,000	0	No	0	No	No
	WBL	100	20	No	21	No	No
	NBLT[3]	>1,000	31	No	35	No	No
	NBR[4]	65	41	No	42	No	No
SR-49/Quartz Drive	EBL	55	62	**Yes**	66	**Yes**	No[7]
	EBR[5]	250	111	No	128	No	No
	NBL	150	250	**Yes**	245	**Yes**	No[8]
	SBTR[3]	>1,000	154	No	177	No	No
Richardson Drive/Project Dwy	EBLR	865	Does Not Exist		44	No	No
	NBLT[6]	200	Does Not Exist		12	No	No

Notes: EBTR = eastbound through-right; EBLR = eastbound left-right; EBL = eastbound left; EBR = eastbound right; WBL = westbound left; NBL = northbound left; NBLT = northbound left-through; NBR = northbound right; SBTR = southbound through-right

1 Measured in feet.
2 Based on 95th percentile (design) queue length in SimTraffic 10.
3 Greater than 1,000 feet to nearest major intersection or driveway.
4 Length measured as approximate storage length based on roadway width.
5 Length measured from intersection stop bar to Opal Drive.
6 Length measured from intersection with Park Drive to Project driveway.
7 Queue does not increase greater than one car length, nor would the queue extend into the nearest intersection with Opal Drive.
8 Queue decreases between the Existing and Existing plus Project conditions, and the TWLTL would provide additional queuing to the striped left-turn storage pocket.

bold Queue exceeds storage length

As such, the Project would not generate traffic at volumes that have the potential to conflict with a program, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system, including transit, roadway, bicycle, and pedestrian facilities. Temporary impacts include an increase in construction-related traffic levels, which would temporarily increase the traffic volumes on Richardson Drive in the vicinity of the Project site. Vehicle trips would be generated by construction workers commuting to and from the work site, and by trucks hauling materials and equipment to and from the site. The Project would not generate enough traffic to result in area intersections or roadway segments falling below LOS C and would therefore meet County standards. As such, the Project would not have substantial temporary or long-term effects on traffic levels on roadways serving the Project site and would result in no conflict with any program, plan, ordinance, or policy addressing transit, roadway, bicycle, or pedestrian facilities. Therefore, the Project would have a **less-than-significant** impact related to conflicts with transit, roadway, bicycle, and pedestrian circulation systems.

b) Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?

Per SB 743, CEQA Guidelines Section 15064.3 establishes vehicle miles traveled (VMT) as the most appropriate measure of transportation impacts, shifting away from the LOS analysis that has generally been used to evaluate a Project's impacts on traffic conditions on nearby roadways and intersections. The traffic assessment, attached as Appendix D to this Initial Study, provides a VMT screening analysis for the Project

using available state and county guidance. The Placer County Planning Services Division and Department of Public Works released a memo to the Placer County Planning Commission dated May 11, 2020, providing an informational update on Placer County's SB 743 Implementation Plan. The County has not approved this implementation plan, nor has a planned VMT estimation tool been adopted; however, the County provided initial guidance for VMT metrics, methodology, thresholds, and screening criteria which were relied on by the traffic assessment for the VMT screening analysis. In general, the state Office of Planning and Research (OPR) recommends assessing the change in VMT that would result from a project; based on a variety of factors, some projects would add to VMT and some projects could reduce VMT (if they are local-serving projects and overall trip distance is reduced). OPR's guidance is that a net increase in VMT may indicate a significant transportation impact.

OPR and Placer County guidance suggests that initial screening of a project's specific characteristics and uses may allow for a project to be screened out of further VMP impacts analysis and considered to have a less than significant impact with respect to VMP. For example, OPR recommends that local-serving retail and projects near major transit stops or a high-quality transit corridor can be presumed to have less than significant VMT impact if they meet certain criteria. In general, these uses can be screened out since they can be assumed to result in fewer vehicle miles traveled since they provide services that reduce vehicle trip length or promote or make practical use of public transit.

Placer County Transit bus Route 30 operates along Richardson Drive, Quartz Drive, Park Drive, Dry Creek Road, and SR-49 in the vicinity of the Project and this route has several bus stops within ½ mile of the Project site, including a bus stop adjacent to the Project site on Richardson Drive. However, the peak service frequency at these stops is greater than 15 minutes and this transit corridor therefore does not meet the definition of a high quality transit corridor as contained in Public Resources Code § 21155.

Placer County's preliminary guidance for VMT impacts analysis indicates that local-serving recreational amenities, including parks, can be screened out of further VMT analysis and presumed to have a less than significant impact. Since the Project is situated within an area of existing mixed residential development and includes local-serving recreational amenities including a dog park, splash park, walking paths, picnic areas, and bocce courts for which there is a demand in the local community, it can be assumed that the Project could reduce VMT since it would offer alternatives to driving longer distances to enjoy these amenities elsewhere. Additionally, the Project would build on amenities already provided at Regional Park and therefore provide a greater variety of activities in a single geographic location, further encouraging carpooling or group outings to the park complex. Consistent with Placer County's preliminary guidance for VMT, the Project can therefore be screened out of detailed VMT analysis and can be considered to have a less than significant impact associated with an increase in VMT.

The traffic assessment provides further support for a finding of less than significant VMT impacts by providing a qualitative analysis and comparison of recreational amenities in the area around the Project site. The analysis notes that two ARD parks (Regional Park and Atwood) are located closest to the proposed Project and neither of these parks offer a dog park, bocce courts, or a splash pad/park. To enjoy these recreational amenities, residents within the local area would have to travel farther in the existing condition. With the exception of Atwood Park and Regional Park, all other ARD park facilities are greater than 3 miles from the Project site; therefore, the proposed Project would create a closer alternative for the nearby residential communities.

Further, as mentioned in OPR's Technical Advisory, because new retail development typically redistributes shopping trips rather than create new trips – and similarly new park facilities would generally redistribute trips rather than create new ones – it can be inferred that the trips that are currently destined to existing parks within the City of Auburn or to the northeast would be re-routed to the proposed 24-acre park site. Therefore, the net new trips generated by the proposed Project would not cause a substantial increase in VMT, and Project impacts related to increased VMT would be **less than significant**.

c) Would the project substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

The Project site would be accessed by the existing Richardson Drive. The Project does not require street reconfiguring, lane geometry and re-striping for vehicles and bicycles, lane transitions, transit stop and bus shelters, or curb and street engineering modifications. As part of the Project, an easement would be obtained from the property to the north along Richardson Drive to allow the proposed driveway access to be aligned farther north to improve line of sight to the south for vehicles exiting the proposed access road and turning left onto northbound Richardson Drive. The traffic assessment included a sight distance analysis to determine whether the line of sight from the proposed driveway would provide for safe vehicle egress from the Project driveway onto northbound Richardson Drive. The analysis determined that the existing retaining wall along the west side of Richardson Drive, south of the proposed Project driveway, would not extend into the sight triangle for vehicles performing left turning movement from the Project driveway onto northbound Richardson Drive and that adequate sight distance would be available for a safe turning movement. No other potential hazards related to roadway or access design features were identified or evaluated. The Project would introduce no incompatible uses to the local roadway system. The Project is expected to have **no impact** associated with hazards due to roadway geometry or incompatible roadway uses.

d) Would the project result in inadequate emergency access?

Emergency access would be maintained on all public roads at all times during Project construction and operation. As discussed in Section 3.15, Public Services, during operation, the Project site would be served adequately by CAL FIRE and Placer County Sheriff's Department during an emergency. The Project would not change or reconstruct existing roadways and would result in no impediment to existing emergency access in the area. The proposed driveway would be constructed to meet emergency access standards for lane width and turning radius and additional access to the site for emergency purposes could be obtained from the end of Golden Eagle Drive. The Project would result in **no impact** resulting from inadequate emergency access.

3.18 Tribal Cultural Resources

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XVIII. TRIBAL CULTURAL RESOURCES				
Would the project 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:				
a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or	☐	☒	☐	☐
b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe?	☐	☒	☐	☐

Setting

The Project is subject to compliance with AB 52 (California Public Resources Code, Section 21074), which requires consideration of impacts to tribal cultural resources as part of the CEQA process and requires the CEQA lead agency to notify any groups (who have requested notification) who are traditionally or culturally affiliated with the geographic area of the Project. AB 52 requires lead agencies to consult with California Native American Tribes that request such consultation prior to completing environmental review in accordance with CEQA. AB 52 provides for the inclusion of California tribes' expertise regarding cultural resources and a process for governing bodies to incorporate tribal knowledge into the CEQA review process.

ARD notified the United Auburn Indian Community (UAIC) of the Project and the opportunity to consult or comment on the Project in accordance with AB 52. Notification was provided prior to public circulation of the Notice of Intent and this IS/MND. The consultation process had not been concluded at the time this IS/MND was released for public review.

Impact Discussion

a) Would the project 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:

i) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k)?

No known tribal cultural resources that are listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k) have been identified through cultural resources investigations conducted on the Project site to date. However, AB 52 consultation has not been concluded and tribal cultural resources could be identified through the Tribal consultation process. ARD has provided information about the Project to the UAIC and notified the UAIC of the opportunity to consult regarding tribal cultural resources. Mitigation Measure TCR-1 identifies measures that would be carried out by ARD to complete consultation, if requested by UAIC, and measures to avoid or minimize impacts to tribal cultural resources identified during consultation. With implementation of Mitigation Measure TCR-1 impacts to tribal cultural resources would be **less than significant**.

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

The Native American Heritage Commission (NAHC) was contacted by Dudek on October 19, 2020 to request a search of the Sacred Lands File. This information is stored by the NAHC at the USGS Section level, and as such included Sections 19, 20, 28, 29, 30, which intersect the Project site and surrounding half-mile buffer. Results of a NAHC Sacred Lands File search, provided November 2, 2020, were positive for resources within the search area. The UAIC was identified by the NAHC as having additional information related to identified resources in this search area. As noted above, ARD has sent a letter to the UAIC providing information about the Project and notifying the UAIC of the opportunity to consult regarding potential tribal cultural resources.

As noted in Section 3.5 Cultural Resources, NCIC records identified a segment of an earthen ditch known as the Ophir Canal, P-31-001171, as intersecting the Project site. No additional cultural resources are previously documented in the Project site, though sixteen cultural resources are on file with the NCIC as having been recorded within a half-mile surrounding the Project site. No tribal cultural resources, as defined in California Public Resources Code, Section 21074, have been identified within the Project site or in its immediate vicinity to date. It is possible that the consultation process with UAIC could identify previously unknown resources or that ground disturbing activities associated with the Project, such as grading, could uncover previously undiscovered tribal cultural resources. Implementation of TCR-1 and TCR-2 would ensure that appropriate protocol and best management practices are followed to ensure an effective consultation process and appropriate treatment of any tribal cultural resources identified through

consultation or as a result of construction activities and that Project impacts to tribal cultural resources would remain **less than significant**.

Mitigation Measures

TCR-1 **Implement Best Management Practices to Reduce or Avoid Impacts on Tribal Cultural Resources.** ARD shall implement the following measures to reduce or avoid impacts to tribal cultural resources. If interested Native American Tribe(s) provide information demonstrating the significance of the Project site and substantial evidence supporting the determination that the site is highly sensitive for tribal cultural resources, ARD will conduct a site visit with Tribal Representatives to evaluate the potential for tribal cultural resources at the Project site. If Tribal Representatives and ARD determine the site is highly sensitive for tribal cultural resources and that the Project may have a significant impact on tribal cultural resources, ARD, in consultation with Tribal Representatives or others, will develop and implement best management practices (BMPs) to reduce or avoid impacts on tribal cultural resources. BMPs may include, but are not limited to: 1) modify the Project to preserve the tribal cultural resources in place, 2) establish exclusion zones and/or minimize work activities in proximity to tribal cultural resources, 3) provide notice at least seven days prior to the start of the Project to invite Tribal Representatives to observe and inspect the Project site during initial ground disturbing activities, 4) prepare a tribal cultural resources awareness brochure and provide tribal cultural resources training to construction personnel, 5) provide notice at least seven days prior to the start of the Project to invite Tribal Representatives to provide training of construction personnel involved in Project implementation.

TCR-2 **Inadvertent Discovery of Tribal Cultural Resources.** While no tribal cultural resources have been identified that could be affected by the Project, the following approach for the inadvertent discovery of tribal cultural resources has been prepared to ensure there are no impacts to unanticipated resources. The topic of tribal cultural resources and appropriate management requirements will be addressed within the WEAT materials provided to all construction personnel prior to initiation of construction activities. This is included as a requirement under Mitigation Measure CUL-1. Should a potential tribal cultural resource be inadvertently encountered, construction activities near the encounter shall be temporarily halted and ARD shall be notified. ARD will notify Native American tribes that have been identified by the NAHC to be traditionally and culturally affiliated with the geographic area of the Project. If ARD determines that the potential resource appears to be a tribal cultural resource (as defined by PRC Section 21074), any affected tribe would be provided a reasonable period of time to conduct a site visit and make recommendations regarding future ground disturbance activities as well as the treatment and disposition of any discovered tribal cultural resources. Depending on the nature of the potential resource and Tribal recommendations, review by a qualified archaeologist may be required. Implementation of proposed recommendations will be made based on the determination by ARD that the approach is reasonable and feasible. All activities shall be conducted in accordance with regulatory requirements.

3.19 Utilities and Service Systems

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XIX. UTILITIES AND SERVICE SYSTEMS – Would the project:				
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment, or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	☐	☐	☒	☐
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years?	☐	☐	☒	☐
c) Result in a determination by the wastewater treatment provider, which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☒	☐
d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	☐	☐	☒	☐
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	☐	☐	☐	☒

Setting

The Placer County Sewer Maintenance District #1 currently provides wastewater to the Project area. Water to the Project site would be provided by NID. PG&E provides both electricity and natural gas to the Project area.

Impact Discussion

a) Would the project require or result in the relocation or construction of new or expanded water, wastewater treatment, or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?

The construction of facilities to support the construction of park facilities would require the extension of potable water, electric power, natural gas, and/or telecommunications lines to the Project site from Richardson Drive and is considered part of the Project analyzed throughout this Initial Study. Utility extensions would be within the overall Project footprint and offsite construction of infrastructure would not

be required. The Project would not result in substantial additional population in the area and would not require a substantial increase in demand for water, wastewater, electrical power and natural gas; thus the Project would require no new or expanded facilities to support adequate water service, wastewater treatment, electric power, natural gas, or telecommunications facilities. Impacts would be **less than significant**.

b) Would the project have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years?

Water demand for the Park would be generated primarily by on-site bathrooms, irrigation needs, and supplemental water for the splash park during the warmer months of the year. These uses would be served by existing NID supplies and would be within NID's capacity for service. Therefore, the Project would have a **less than significant** impact on water supply availability.

c) Would the project result in a determination by the wastewater treatment provider, which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

Wastewater collection, conveyance, and treatment in the Project area is provided by the Placer County Sewer Maintenance District and conveyed through the Mid-Western Placer Regional Sewer Pipeline to the City of Lincoln's Wastewater Treatment and Reclamation Facility (WTRF). The Lincoln WTRF is a permitted facility that meets all applicable wastewater treatment requirements. The proposed two restrooms proposed as part of the Project would be expected to generate a less than substantial increase in wastewater flows. The addition of wastewater flows from the Project would not exceed the capacity of the wastewater treatment plant. **No impact** would result from inadequate capacity to serve the Project's projected demand for wastewater treatment.

d) Would the project generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?

Solid waste within the North Auburn area is collected by Recology Auburn Placer and transported to the Western Placer Waste Management Authority (WPWMA) Materials Recovery Facility (MRF) located at 3033 Fiddyment Road in the City of Roseville. Solid waste is sorted at the MRF and recyclable materials, including wood and green waste, are recovered from the waste and recycled. Wood and green waste are processed for composting at the MRF. Remaining solid waste that cannot be recycled is disposed of at the Western Regional Sanitary Landfill (WRSL) in the City of Lincoln.

The WRSL is permitted to accept 1,900 tons per day and 624 vehicles per day; in 2013, the WRSL received an average of 638 tons per weekday and 86 vehicles per day (Placer County Facility Services Department 2015). The landfill has a permitted design capacity of 36,350,000 cubic yards with a permitted lifespan extending to 2058 (Placer County Facility Services Department 2015). The MRF has a permitted processing capacity of 1,750 tons per day and 1,014 vehicles per day. The MRF has a permitted processing capacity of 2,200 tons per day for municipal solid waste and construction and demolition debris; the compost portion of the MRF has a permitted processing capacity of 75,000 cubic yards (37,500 tons) and a design capacity of approximately 164,000 cubic yards (82,000 tons).

Some debris would be generated during construction of the Project. However, the amount of waste generated would be minor and would be accommodated by existing capacity at the WRSL. The Project

would generate small quantities of waste during operation. Waste would be collected by Recology Auburn Placer and transported to the WRSL. The WRSL has existing permitted capacity to accept small quantities of waste that would be generated by the Project. All waste would be transported and disposed of by Recology Auburn Place in accordance with applicable regulations. No impact would occur associated with solid waste exceeding State or local standards or the capacity of the WRSL and all solid waste would be handled in accordance with solid waste reduction goals and recycling mandates. Impacts associated with solid waste generated by the Project would be **less than significant**.

e) Would the project comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

Project construction would generate solid waste in the form of building materials, asphalt, and general construction waste. Construction waste materials would be hauled to the WRSL, which has adequate permitted and physical capacity to accept construction waste materials. Park operations would not generate large quantities of solid waste. Solid waste generated during park operatons would be collected by Recology Auburn Placer and transported to the WRSL. Solid waste transport and disposal would comply with all applicable regulations for solid waste handling, disposal, and recycling and **no impact** would result from non-compliance with applicable statutes and regulations.

3.20 Wildfire

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XX. WILDFIRE – If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:				
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐
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?	☐	☐	☐	☒
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines, or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	☐	☐	☒	☐
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?	☐	☐	☐	☒

Setting

The Project site is within the service area of Placer County Fire Department, which contracts with CAL FIRE for fire protection services. CAL FIRE mapping identifies the Project site as a Moderate Fire Hazard Severity Zone in a State Responsibility Area (CAL FIRE 2021).

Impact Discussion

a) Would the project substantially impair an adopted emergency response plan or emergency evacuation plan?

The Project would construct new recreational facilities adjacent to the existing Regional Park. The Project would not increase traffic in the Project area in a way that could impede emergency response and does not include any structures or features that would physically interfere with implementation of emergency response or evacuation plans. The Project would rely on access via existing roadways and would not alter any public streets in such a way that would impair emergency response. The Project would not increase population that could result in indirect effects associated with impairing implementation of emergency response or evacuation plans. Therefore, the Project would have a **less than significant impact**.

b) Due to slope, prevailing winds, and other factors, would the project exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?

The Project site is not located within a High or Very High Fire Hazard Severity Zone, as mapped by CAL FIRE (CAL FIRE 2021). Urbanized areas and existing development exist adjacent to the Project site on the west, north, and east. The Project site currently supports grassland and oak woodlands and informal trails on the site are frequently used by the general public. ARD currently performs vegetation treatments on the property to maintain defensible space requirements and reduce the potential for wildfire and would continue to perform these treatments following development of the Project. Development of the Project would allow for a more frequent presence of ARD staff, contracted security, and law enforcement for monitoring visitor activities, and signs would be posted onsite advising of park rules, including rules prohibiting activities with potential to result in wildfire ignition. Developed activity areas would be subject to defensible space treatments to further reduce the potential for wildfire ignition and spread, and the Project would facilitate better access for emergency responders if a fire occurs. It is anticipated that the Project would reduce the potential risk to people and property from wildfire and that **no impact** would result from increased fire hazard or pollution generated from wildfire.

c) Would the project require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines, or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?

The Project would rely on an existing driveway for access to the proposed parking lot and would not require the installation or maintenance of a new road, fuel break, or emergency water source. Utilities would be brought onsite via the proposed driveway and would connect to existing utility lines along Richardson Drive. Vegetation maintenance and maintenance of defensible space would continue to occur as it does in the existing condition and impacts associated with elevated risk of fire as a result of park operations and maintenance would be **less than significant**.

d) Would the project 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?

The Project site is not located within a High or Very High Fire Hazard Severity Area Zone, as mapped by CAL FIRE (CALFIRE 2021), and topography onsite is mildly sloped and would not be subject to post-fire slope instability or landslides, rapid runoff, or drainage changes resulting in flooding if a fire were to occur. As discussed above, the Project would be expected to reduce the risk of wildfire occurring on the Project site and would therefore reduce associated post-fire risks related to geologic instability and changes in runoff; **no impact** is expected to occur associated with from changes resulting from the Project.

3.21 Mandatory Findings of Significance

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XXI. MANDATORY FINDINGS OF SIGNIFICANCE				
a) Does the project have the potential to substantially 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, substantially 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) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	☐	☒	☐	☐
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☒	☐	☐

a) Does the project have the potential to substantially 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, substantially 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?

The Project site include oak woodland habitat and provides suitable habitat for nesting birds and other wildlife, as discussed in Section 3.4 of this Initial Study. With implementation of mitigation measures identified in Section 3.4 and as conditions of permit issuance by CDFW and compliance with the PCCP, the Project would not reduce habitat for fish or wildlife species, threaten to eliminate a plant or animal community, or adversely affect rare or endangered species. Implementation of Mitigation Measures BIO.1 through BIO.3 would ensure that project impacts to biological resources would be less than significant.

As discussed in Section 3.5, no known cultural resources would be affected by the Project, though known resources exist within ½ mile of the Project site. Implementation of Mitigation Measure CUL.1 would ensure that appropriate measures are implemented to ensure that impacts to any inadvertent discovery of cultural resources during ground- disturbing activities remains less than significant. Mitigation Measure CUL.2 would ensure compliance with applicable regulations and appropriate protocol should human remains be unearthed during Project construction. With implementation of mitigation measures impacts would be less than significant.

b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?

The Project would develop a park on approximately 19 acres of a 24 acre site. impact analyses included in this Initial Study takes into account nearby projects and considers the Project within the context of local and regional planning guidance. Cumulative impacts of the project and other similar projects would result in less than significant effects with implementation of the mitigation measures identified throughout this Initial Study.

c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?

The Project would be consistent with applicable local ordinances and policies related to land use, noise, and protection of natural resources and the environment, as disclosed by this Initial Study. The analyses of impacts provided throughout this Initial Study evaluates direct and indirect impacts that could result from the Project. Impacts within all resource categories evaluated would be less than significant with implementation of mitigation measures identified throughout this document.

4 References and Preparers

4.1 References Cited

14 CCR 15000–15387 and Appendices A through L. Guidelines for Implementation of the California Environmental Quality Act, as amended.

CAL FIRE. 2021. California Fire Hazard Severity Zone Viewer. https://gis.data.ca.gov/datasets/789d5286736248f69c4515c04f58f414. Accessed March 2021.

California Department of Transportation (Caltrans). 2020. Transportation and Construction Vibration Guidance Manual. Division of Environmental Analysis, Environmental Engineering, Hazardous Waste, Air, Noise, Paleontology Office. April 2020. California Public Resources Code, Section 21000–21177. California Environmental Quality Act, as amended.

CARB (California Air Resources Board). 2014. First Update to the Climate Change Scoping Plan Building on the Framework Pursuant to AB 32 – The California Global Warming Solutions Act of 2006. May 2014. Accessed October 2020. http://www.arb.ca.gov/cc/scopingplan/2013_update/first_update_ climate_change_scoping_plan.pdf.

CARB. 2017. *California's 2017 Climate Change Scoping Plan: The Strategy for Achieving California's 2030 Greenhouse Gas Target*. November 2017. Accessed October 2020. https://www.arb.ca.gov/cc/ scopingplan/scoping_plan_2017.pdf.

CAT. 2010. *Climate Action Team Biennial Report*. Sacramento, California. Accessed October 2020.

CDC 2010. California Department of Conservation. California Geologic Survey. "2010 Fault Activity Map of California." https://gis.data.ca.gov/datasets/6724f0fc640e4e9aba3b849a47da4c3a. Accessed February 2021.

CDC. 2021. California Department of Conservation, Division of Land Resource Protection. Land Conservation Act. "Placer County Williamson Act FY 2013/2014." ftp://ftp.consrv.ca.gov/pub/dlrp/wa/Placer_w_13_14_WA.pdf. Accessed February 2021.

CDC. 2021. California Department of Conservation, Division of Land Resource Protection. Farmland Mapping and Monitoring Program. "Placer County Important Farmland 2021." ftp://ftp.consrv.ca.gov/pub/dlrp/FMMP/pdf/2012/pla12.pdf. Accessed February 2021.

CDC 2015. California Department of Conservation. California Geologic Survey. "Alquist-Priolo Fault Zone Map." https://www.conservation.ca.gov/cgs/geohazards/eq-zapp. Accessed February 2021.

CEC. 2019. "Diesel Fuel Data, Facts, and Statistics." Accessed October 2020. http://www.energy.ca.gov/almanac/transportation_data/diesel.html.

CPUC (California Public Utilities Commission). 2017. Renewable Portfolio Standard Annual Report. November 2017. Accessed October 2020. http://www.cpuc.ca.gov/uploadedFiles/CPUC_Website/Content/Utilities_and_Industries/Energy/Reports_and_White_Papers/Nov%202017%20-%20RPS%20Annual%20Report.pdf.

DMV (California Department of Motor Vehicles). 2019. Statistics for Publication, January through December 2018. Accessed October 2020. https://www.dmv.ca.gov/portal/wcm/connect/5aa16cd3-39a5-402f-9453-0d353706cc9a/official.pdf?MOD=AJPERES.

Dudek. 2020. Aquatic Resources Delineation Report for the 24-Acre Site Master Plan Project. October 2020. Dudek.

FEMA. 2021. FEMA Flood Map Service Center. Federal Emergency Management Agency. https://msc.fema.gov/portal/search?AddressQuery=auburn%2C%20ca#searchresultsanchor. Accessed April 2021

FHWA. 2008. *Roadway Construction Noise Model (RCNM), Software Version 1.1.* Washington, DC: U.S. Department of Transportation, Research and Innovative Technology Administration, John A. Volpe National Transportation Systems Center, Environmental Measurement and Modeling Division.

FTA (U.S. Department of Transportation, Federal Transit Administration). 2018. Transit Noise and Vibration Impact Assessment Manual. September 2018.

NRCS. 2021. *Web Soil Survey*. United States Department of Agriculture, Natural Resources Conservation Service. https://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm. Accessed April 5, 2021.

OEHHA (Office of Environmental Health Hazard Assessment). 2015. *Air Toxics Hot Spots Program Risk Assessment Guidelines – Guidance Manual for Preparation of Health Risk Assessments*. Accessed October 2020. https://oehha.ca.gov/air/crnr/notice-adoption-air-toxics-hot-spots-program-guidance-manual-preparation-health-risk-0.Placer County, 2013. *Placer County General Plan*. Updated May 2013.

PCAPCD. 2017. CEQA Air Quality Handbook. Accessed October 2020.

PG&E (Pacific Gas & Electric Company). 2016. Company Profile. Accessed October 2020. https://www.pge.com/en_US/about-pge/company-information/profile/profile.page.

PG&E. 2019. 2019 Corporate Responsibility and Sustainability Report. Accessed October 2020. http://www.pgecorp.com/corp_responsibility/reports/2019/assets/PGE_CRSR_2019.pdf.

Placer County. 2014. Placer County Airport Land Use Compatibility Plan. February 2014.

Placer County Facility Services Department. Letter to Jim Bermudez. April 29, 2015.

SACOG (Sacramento Area Council of Governments). 2016. *Metropolitan Transportation Plan/Sustainable Communities Strategy (MTP/SCS) for 2036*. Adopted February 18, 2016.SMAQMD (Sacramento Metropolitan Air Quality Management District). 2016. *2015 Triennial Progress Report*. Accessed October 2020. http://www.airquality.org/ProgramCoordination/Documents/11)%20%202015TriennialReportandProgressRevision.pdf.

SMAQMD (Sacramento Metropolitan Air Quality Management District). 2016. *2015 Triennial Progress Report*. Accessed October 2020. http://www.airquality.org/ProgramCoordination/Documents/11)%20%202015TriennialReportandProgressRevision.pdf.

Western Placer Waste Management Authority, 2015. "Western Regional Sanitary Landfill." http://www.wpwma.com/landfill.html.

4.2 List of Preparers

Markus Lang, Dudek
Kimberly Asbury, Dudek

Kahl Muscott, Auburn Area Recreation and Park District
Michael Scheele, Auburn Area Recreation and Park District

INTENTIONALLY LEFT BLANK

Appendix A

Air Quality Modeling Results

CalEEMod Version: CalEEMod.2016.3.2

Date: 10/7/2020 11:02 AM

Auburn Recreational District 24-Acre Regional Park

Placer-Sacramento County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
City Park	23.10	Acre	23.10	1,006,236.00	0
Other Asphalt Surfaces	0.90	Acre	0.90	39,204.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	74
Climate Zone	1			**Operational Year**	2023
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - ARD 24-Acres Site MP Refinement. PCAPCD. Default energy intensity factors assumed for PG&E.

Land Use - Construction of 24-acre park with approximately 0.9-acre of paving.

Construction Phase - 5-month construction duration starting in May 2022.

Off-road Equipment - Default equipment assumed.

Off-road Equipment - Default equipment assumed.

Off-road Equipment - Assume no cranes or welders.

Off-road Equipment - Default equipment assumed.

Trips and VMT - Assume 2 water trucks.

Construction Off-road Equipment Mitigation - Water twice daily.

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	370.00	25.00
tblConstructionPhase	NumDays	20.00	10.00
tblConstructionPhase	NumDays	10.00	15.00
tblConstructionPhase	PhaseEndDate	12/1/2023	8/12/2022
tblConstructionPhase	PhaseEndDate	7/1/2022	7/8/2022
tblConstructionPhase	PhaseEndDate	12/29/2023	8/26/2022
tblConstructionPhase	PhaseEndDate	5/13/2022	5/20/2022
tblConstructionPhase	PhaseStartDate	7/2/2022	7/9/2022
tblConstructionPhase	PhaseStartDate	5/14/2022	5/21/2022
tblConstructionPhase	PhaseStartDate	12/2/2023	8/13/2022
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	UsageHours	7.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblTripsAndVMT	HaulingTripNumber	0.00	30.00
tblTripsAndVMT	VendorTripNumber	171.00	4.00
tblTripsAndVMT	VendorTripNumber	0.00	4.00
tblTripsAndVMT	WorkerTripNumber	439.00	18.00
tblTripsAndVMT	WorkerTripNumber	15.00	16.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	0.1105	1.1321	0.9117	1.8300e-003	0.2945	0.0510	0.3456	0.1394	0.0471	0.1865	0.0000	160.9737	160.9737	0.0474	0.0000	162.1579
Maximum	**0.1105**	**1.1321**	**0.9117**	**1.8300e-003**	**0.2945**	**0.0510**	**0.3456**	**0.1394**	**0.0471**	**0.1865**	**0.0000**	**160.9737**	**160.9737**	**0.0474**	**0.0000**	**162.1579**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	0.1105	1.1321	0.9117	1.8300e-003	0.1365	0.0510	0.1876	0.0638	0.0471	0.1109	0.0000	160.9735	160.9735	0.0474	0.0000	162.1577
Maximum	**0.1105**	**1.1321**	**0.9117**	**1.8300e-003**	**0.1365**	**0.0510**	**0.1876**	**0.0638**	**0.0471**	**0.1109**	**0.0000**	**160.9735**	**160.9735**	**0.0474**	**0.0000**	**162.1577**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**53.65**	**0.00**	**45.72**	**54.23**	**0.00**	**40.53**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0126	0.0000	2.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.3000e-004	4.3000e-004	0.0000	0.0000	4.6000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0394	0.2614	0.4201	1.7000e-003	0.1282	1.2000e-003	0.1294	0.0345	1.1200e-003	0.0356	0.0000	156.5689	156.5689	5.6500e-003	0.0000	156.7101
Waste						0.0000	0.0000		0.0000	0.0000	0.4040	0.0000	0.4040	0.0239	0.0000	1.0008
Water						0.0000	0.0000		0.0000	0.0000	0.0000	28.0239	28.0239	1.2700e-003	2.6000e-004	28.1337
Total	**0.0520**	**0.2614**	**0.4203**	**1.7000e-003**	**0.1282**	**1.2000e-003**	**0.1294**	**0.0345**	**1.1200e-003**	**0.0356**	**0.4040**	**184.5932**	**184.9971**	**0.0308**	**2.6000e-004**	**185.8450**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0126	0.0000	2.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.3000e-004	4.3000e-004	0.0000	0.0000	4.6000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0394	0.2614	0.4201	1.7000e-003	0.1282	1.2000e-003	0.1294	0.0345	1.1200e-003	0.0356	0.0000	156.5689	156.5689	5.6500e-003	0.0000	156.7101
Waste						0.0000	0.0000		0.0000	0.0000	0.4040	0.0000	0.4040	0.0239	0.0000	1.0008
Water						0.0000	0.0000		0.0000	0.0000	0.0000	28.0239	28.0239	1.2700e-003	2.6000e-004	28.1337
Total	**0.0520**	**0.2614**	**0.4203**	**1.7000e-003**	**0.1282**	**1.2000e-003**	**0.1294**	**0.0345**	**1.1200e-003**	**0.0356**	**0.4040**	**184.5932**	**184.9971**	**0.0308**	**2.6000e-004**	**185.8450**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	5/2/2022	5/20/2022	5	15	
2	Grading	Grading	5/21/2022	7/8/2022	5	35	
3	Building Construction	Building Construction	7/9/2022	8/12/2022	5	25	
4	Paving	Paving	8/13/2022	8/26/2022	5	10	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 87.5

Acres of Paving: 0.9

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading	Excavators	2	8.00	158	0.38
Building Construction	Cranes	0	0.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Paving	Pavers	2	8.00	130	0.42
Paving	Rollers	2	8.00	80	0.38
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37

Paving	Paving Equipment	2	8.00	132	0.36
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Building Construction	Welders	0	0.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Building Construction	9	18.00	4.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	4.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	16.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	30.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Site Preparation - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1355	0.0000	0.1355	0.0745	0.0000	0.0745	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0238	0.2481	0.1477	2.9000e-004		0.0121	0.0121		0.0111	0.0111	0.0000	25.0795	25.0795	8.1100e-003	0.0000	25.2823
Total	**0.0238**	**0.2481**	**0.1477**	**2.9000e-004**	**0.1355**	**0.0121**	**0.1476**	**0.0745**	**0.0111**	**0.0856**	**0.0000**	**25.0795**	**25.0795**	**8.1100e-003**	**0.0000**	**25.2823**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.1000e-004	3.4900e-003	6.2000e-004	1.0000e-005	2.5000e-004	1.0000e-005	2.6000e-004	7.0000e-005	1.0000e-005	8.0000e-005	0.0000	1.1408	1.1408	4.0000e-005	0.0000	1.1416
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.1000e-004	2.6000e-004	2.9500e-003	1.0000e-005	1.0600e-003	1.0000e-005	1.0700e-003	2.8000e-004	1.0000e-005	2.9000e-004	0.0000	0.8505	0.8505	2.0000e-005	0.0000	0.8510
Total	**5.2000e-004**	**3.7500e-003**	**3.5700e-003**	**2.0000e-005**	**1.3100e-003**	**2.0000e-005**	**1.3300e-003**	**3.5000e-004**	**2.0000e-005**	**3.7000e-004**	**0.0000**	**1.9913**	**1.9913**	**6.0000e-005**	**0.0000**	**1.9926**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0610	0.0000	0.0610	0.0335	0.0000	0.0335	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0238	0.2481	0.1477	2.9000e-004		0.0121	0.0121		0.0111	0.0111	0.0000	25.0795	25.0795	8.1100e-003	0.0000	25.2823
Total	**0.0238**	**0.2481**	**0.1477**	**2.9000e-004**	**0.0610**	**0.0121**	**0.0731**	**0.0335**	**0.0111**	**0.0447**	**0.0000**	**25.0795**	**25.0795**	**8.1100e-003**	**0.0000**	**25.2823**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.1000e-004	3.4900e-003	6.2000e-004	1.0000e-005	2.5000e-004	1.0000e-005	2.6000e-004	7.0000e-005	1.0000e-005	8.0000e-005	0.0000	1.1408	1.1408	4.0000e-005	0.0000	1.1416
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.1000e-004	2.6000e-004	2.9500e-003	1.0000e-005	1.0600e-003	1.0000e-005	1.0700e-003	2.8000e-004	1.0000e-005	2.9000e-004	0.0000	0.8505	0.8505	2.0000e-005	0.0000	0.8510
Total	**5.2000e-004**	**3.7500e-003**	**3.5700e-003**	**2.0000e-005**	**1.3100e-003**	**2.0000e-005**	**1.3300e-003**	**3.5000e-004**	**2.0000e-005**	**3.7000e-004**	**0.0000**	**1.9913**	**1.9913**	**6.0000e-005**	**0.0000**	**1.9926**

3.3 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1518	0.0000	0.1518	0.0629	0.0000	0.0629	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0634	0.6798	0.5082	1.0900e-003		0.0286	0.0286		0.0263	0.0263	0.0000	95.4356	95.4356	0.0309	0.0000	96.2072
Total	**0.0634**	**0.6798**	**0.5082**	**1.0900e-003**	**0.1518**	**0.0286**	**0.1804**	**0.0629**	**0.0263**	**0.0893**	**0.0000**	**95.4356**	**95.4356**	**0.0309**	**0.0000**	**96.2072**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.0000e-004	7.2500e-003	1.3600e-003	2.0000e-005	4.6000e-004	1.0000e-005	4.7000e-004	1.3000e-004	1.0000e-005	1.5000e-004	0.0000	1.9012	1.9012	8.0000e-005	0.0000	1.9033
Worker	1.0600e-003	6.8000e-004	7.6500e-003	2.0000e-005	2.7500e-003	2.0000e-005	2.7700e-003	7.3000e-004	2.0000e-005	7.5000e-004	0.0000	2.2050	2.2050	5.0000e-005	0.0000	2.2062
Total	**1.2600e-003**	**7.9300e-003**	**9.0100e-003**	**4.0000e-005**	**3.2100e-003**	**3.0000e-005**	**3.2400e-003**	**8.6000e-004**	**3.0000e-005**	**9.0000e-004**	**0.0000**	**4.1061**	**4.1061**	**1.3000e-004**	**0.0000**	**4.1094**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0683	0.0000	0.0683	0.0283	0.0000	0.0283	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0634	0.6798	0.5082	1.0900e-003		0.0286	0.0286		0.0263	0.0263	0.0000	95.4354	95.4354	0.0309	0.0000	96.2071
Total	**0.0634**	**0.6798**	**0.5082**	**1.0900e-003**	**0.0683**	**0.0286**	**0.0969**	**0.0283**	**0.0263**	**0.0546**	**0.0000**	**95.4354**	**95.4354**	**0.0309**	**0.0000**	**96.2071**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.0000e-004	7.2500e-003	1.3600e-003	2.0000e-005	4.6000e-004	1.0000e-005	4.7000e-004	1.3000e-004	1.0000e-005	1.5000e-004	0.0000	1.9012	1.9012	8.0000e-005	0.0000	1.9033
Worker	1.0600e-003	6.8000e-004	7.6500e-003	2.0000e-005	2.7500e-003	2.0000e-005	2.7700e-003	7.3000e-004	2.0000e-005	7.5000e-004	0.0000	2.2050	2.2050	5.0000e-005	0.0000	2.2062
Total	**1.2600e-003**	**7.9300e-003**	**9.0100e-003**	**4.0000e-005**	**3.2100e-003**	**3.0000e-005**	**3.2400e-003**	**8.6000e-004**	**3.0000e-005**	**9.0000e-004**	**0.0000**	**4.1061**	**4.1061**	**1.3000e-004**	**0.0000**	**4.1094**

3.4 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0138	0.1311	0.1627	2.4000e-004		7.4100e-003	7.4100e-003		6.9700e-003	6.9700e-003	0.0000	21.0680	21.0680	4.8600e-003	0.0000	21.1896
Total	**0.0138**	**0.1311**	**0.1627**	**2.4000e-004**		**7.4100e-003**	**7.4100e-003**		**6.9700e-003**	**6.9700e-003**	**0.0000**	**21.0680**	**21.0680**	**4.8600e-003**	**0.0000**	**21.1896**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.4000e-004	5.1800e-003	9.7000e-004	1.0000e-005	3.3000e-004	1.0000e-005	3.4000e-004	9.0000e-005	1.0000e-005	1.0000e-004	0.0000	1.3580	1.3580	6.0000e-005	0.0000	1.3595
Worker	6.8000e-004	4.4000e-004	4.9200e-003	2.0000e-005	1.7700e-003	1.0000e-005	1.7800e-003	4.7000e-004	1.0000e-005	4.8000e-004	0.0000	1.4175	1.4175	3.0000e-005	0.0000	1.4183
Total	**8.2000e-004**	**5.6200e-003**	**5.8900e-003**	**3.0000e-005**	**2.1000e-003**	**2.0000e-005**	**2.1200e-003**	**5.6000e-004**	**2.0000e-005**	**5.8000e-004**	**0.0000**	**2.7755**	**2.7755**	**9.0000e-005**	**0.0000**	**2.7777**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0138	0.1311	0.1627	2.4000e-004		7.4100e-003	7.4100e-003		6.9700e-003	6.9700e-003	0.0000	21.0680	21.0680	4.8600e-003	0.0000	21.1896
Total	**0.0138**	**0.1311**	**0.1627**	**2.4000e-004**		**7.4100e-003**	**7.4100e-003**		**6.9700e-003**	**6.9700e-003**	**0.0000**	**21.0680**	**21.0680**	**4.8600e-003**	**0.0000**	**21.1896**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.4000e-004	5.1800e-003	9.7000e-004	1.0000e-005	3.3000e-004	1.0000e-005	3.4000e-004	9.0000e-005	1.0000e-005	1.0000e-004	0.0000	1.3580	1.3580	6.0000e-005	0.0000	1.3595
Worker	6.8000e-004	4.4000e-004	4.9200e-003	2.0000e-005	1.7700e-003	1.0000e-005	1.7800e-003	4.7000e-004	1.0000e-005	4.8000e-004	0.0000	1.4175	1.4175	3.0000e-005	0.0000	1.4183
Total	**8.2000e-004**	**5.6200e-003**	**5.8900e-003**	**3.0000e-005**	**2.1000e-003**	**2.0000e-005**	**2.1200e-003**	**5.6000e-004**	**2.0000e-005**	**5.8000e-004**	**0.0000**	**2.7755**	**2.7755**	**9.0000e-005**	**0.0000**	**2.7777**

3.5 Paving - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	5.5100e-003	0.0556	0.0729	1.1000e-004		2.8400e-003	2.8400e-003		2.6100e-003	2.6100e-003	0.0000	10.0138	10.0138	3.2400e-003	0.0000	10.0948
Paving	1.1800e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**6.6900e-003**	**0.0556**	**0.0729**	**1.1000e-004**		**2.8400e-003**	**2.8400e-003**		**2.6100e-003**	**2.6100e-003**	**0.0000**	**10.0138**	**10.0138**	**3.2400e-003**	**0.0000**	**10.0948**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.4000e-004	1.6000e-004	1.7500e-003	1.0000e-005	6.3000e-004	0.0000	6.3000e-004	1.7000e-004	0.0000	1.7000e-004	0.0000	0.5040	0.5040	1.0000e-005	0.0000	0.5043
Total	**2.4000e-004**	**1.6000e-004**	**1.7500e-003**	**1.0000e-005**	**6.3000e-004**	**0.0000**	**6.3000e-004**	**1.7000e-004**	**0.0000**	**1.7000e-004**	**0.0000**	**0.5040**	**0.5040**	**1.0000e-005**	**0.0000**	**0.5043**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	5.5100e-003	0.0556	0.0729	1.1000e-004		2.8400e-003	2.8400e-003		2.6100e-003	2.6100e-003	0.0000	10.0138	10.0138	3.2400e-003	0.0000	10.0947
Paving	1.1800e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**6.6900e-003**	**0.0556**	**0.0729**	**1.1000e-004**		**2.8400e-003**	**2.8400e-003**		**2.6100e-003**	**2.6100e-003**	**0.0000**	**10.0138**	**10.0138**	**3.2400e-003**	**0.0000**	**10.0947**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.4000e-004	1.6000e-004	1.7500e-003	1.0000e-005	6.3000e-004	0.0000	6.3000e-004	1.7000e-004	0.0000	1.7000e-004	0.0000	0.5040	0.5040	1.0000e-005	0.0000	0.5043
Total	**2.4000e-004**	**1.6000e-004**	**1.7500e-003**	**1.0000e-005**	**6.3000e-004**	**0.0000**	**6.3000e-004**	**1.7000e-004**	**0.0000**	**1.7000e-004**	**0.0000**	**0.5040**	**0.5040**	**1.0000e-005**	**0.0000**	**0.5043**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0394	0.2614	0.4201	1.7000e-003	0.1282	1.2000e-003	0.1294	0.0345	1.1200e-003	0.0356	0.0000	156.5689	156.5689	5.6500e-003	0.0000	156.7101
Unmitigated	0.0394	0.2614	0.4201	1.7000e-003	0.1282	1.2000e-003	0.1294	0.0345	1.1200e-003	0.0356	0.0000	156.5689	156.5689	5.6500e-003	0.0000	156.7101

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	43.66	525.53	386.69	344,783	344,783
Other Asphalt Surfaces	0.00	0.00	0.00		
Total	43.66	525.53	386.69	344,783	344,783

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
City Park	9.50	7.30	7.30	33.00	48.00	19.00	66	28	6
Other Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
City Park	0.504187	0.038691	0.220388	0.121642	0.020356	0.005773	0.031759	0.047089	0.001411	0.001172	0.005719	0.000756	0.001058
Other Asphalt Surfaces	0.504187	0.038691	0.220388	0.121642	0.020356	0.005773	0.031759	0.047089	0.001411	0.001172	0.005719	0.000756	0.001058

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0126	0.0000	2.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.3000e-004	4.3000e-004	0.0000	0.0000	4.6000e-004
Unmitigated	0.0126	0.0000	2.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.3000e-004	4.3000e-004	0.0000	0.0000	4.6000e-004

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	5.5000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0120					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.0000e-005	0.0000	2.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.3000e-004	4.3000e-004	0.0000	0.0000	4.6000e-004
Total	**0.0126**	**0.0000**	**2.2000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**4.3000e-004**	**4.3000e-004**	**0.0000**	**0.0000**	**4.6000e-004**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	5.5000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0120					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.0000e-005	0.0000	2.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.3000e-004	4.3000e-004	0.0000	0.0000	4.6000e-004
Total	**0.0126**	**0.0000**	**2.2000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**4.3000e-004**	**4.3000e-004**	**0.0000**	**0.0000**	**4.6000e-004**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	28.0239	1.2700e-003	2.6000e-004	28.1337
Unmitigated	28.0239	1.2700e-003	2.6000e-004	28.1337

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 27.5232	28.0239	1.2700e-003	2.6000e-004	28.1337
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**28.0239**	**1.2700e-003**	**2.6000e-004**	**28.1337**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 27.5232	28.0239	1.2700e-003	2.6000e-004	28.1337
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**28.0239**	**1.2700e-003**	**2.6000e-004**	**28.1337**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.4040	0.0239	0.0000	1.0008
Unmitigated	0.4040	0.0239	0.0000	1.0008

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	1.99	0.4040	0.0239	0.0000	1.0008
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		**0.4040**	**0.0239**	**0.0000**	**1.0008**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	1.99	0.4040	0.0239	0.0000	1.0008
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		**0.4040**	**0.0239**	**0.0000**	**1.0008**

Appendix B

Biological Resources Study

853 LINCOLN WAY, SUITE 208
AUBURN, CALIFORNIA 95603
T 530.887.8500 F 530.887.1250

December 2, 2020 12978

Mike Scheele
Auburn Recreation District
471 Maidu Drive #200
Auburn, California 95603

Subject: Biological Resources Assessment for the 24-Acre Site Master Plan Project in Placer County, California

Dear Mr. Scheele:

Dudek has prepared this Biological Resources Assessment (BRA) for the Auburn Recreation District (ARD) 24-Acre Site Master Plan Project (project) located in the community of North Auburn, in Placer County, California (Figure 1, Project Location). The purpose of the BRA is to identify and characterize existing onsite biological resources, with particular focus on the potential of the project site to support special-status plant and wildlife species and other sensitive resources, such as wetlands and other aquatic resources potentially under the regulatory jurisdiction of state and/or federal resource agencies. This assessment also identifies potential constraints to project implementation posed by the presence or potential presence of sensitive resources, as well as recommendations to avoid impacts to these resources.

1 Project Site

The approximately 24.79-acre project site is adjacent to the Auburn Recreation District Regional Park in North Auburn within western Placer County, California (Figure 1, Project Location). The site is located approximately 0.4 miles west of State Route (SR) 49, south of Dry Creek Road and north of Bell Road, and is is situated in Township 13 North, Range 8 East, Section 29 of the U.S. Geological Survey (USGS) Auburn, California 7.5-minute quadrangle (Figure 2, Project Site). The approximate center of the project site corresponds to 38°57'2.041" north latitude and 121°6'36.782" west longitude.

2 Project Description

The proposed project (Project) is a recreational park development. The Project conceptual plan includes a parking lot and access drive and a variety of recreational components including a central plaza area with gathering and play areas, walking paths and fitness stations, dog park, turf area and bocce ball courts, picnic and shade facilities, and a splash pad and restrooms.

3 Methods

3.1 Preliminary Site Evaluation

Prior to conducting the survey, Dudek performed a review of pertinent online and literature sources. This review consisted of the following online databases and reports: the U.S. Fish and Wildlife Service (USFWS) Information,

Planning, and Conservation (IPaC) Trust Resource Report, California Department of Fish and Wildlife (CDFW) California Natural Diversity Database (CNDDB), and the California Native Plant Society (CNPS) online Inventory of Rare and Endangered Vascular Plants(USFWS 2020a; CDFW 2020b; CNPS 2020a). The IPaC report was based on a query for the project site. The CNDDB and CNPS databases were queried for the nine USGS 7.5-minute quadrangles containing and immediately surrounding the project site (*Wolf, Lake Combie, Colfax, Gold Hill, Auburn, Greenwood, Rocklin, Pilot* Hill, and *Coloma*). Following a review of these resources, Dudek biologists determined the potential for special-status plant and wildlife species to occur onsite. Determinations were based on a review of habitat types, soils, and elevation preferences, as well as the known geographic range and nearest occurrence records of each species (Attachment A, Special-Status Plant Species Potential to Occur, and Attachment B, Special-Status Wildlife Species Potential to Occur). No protocol-level surveys for special-status species were conducted.

For this report, special-status plant and wildlife species are defined as those that are (1) listed, proposed for listing, or candidates for listing as Threatened or Endangered under the federal Endangered Species Act; (2) listed or candidates as Threatened or Endangered for listing under the California Endangered Species Act; (3) a state fully protected species; (4) a CDFW Species of Special Concern; or (5) a species listed on the CNPS Inventory of Rare and Endangered Plants with a California Rare Plant Rank (CRPR) of 1 or 2.

3.2 Field Survey

Dudek biologist Allie Sennett performed a field survey of the approximately 24-acre project site on October 1, 2020. The survey was conducted on foot to visually cover the entire project site. Field notes, an aerial photograph with an overlay of the property boundary, and a Trimble Geo 7X Global Positioning System (GPS) unit were used to map vegetation communities and record any sensitive biological resources within the project site. Representative site photographs of the project site are included in Attachment C.

All plant species encountered were identified to the lowest taxonomic level needed to determine rarity. Those species that could not be immediately identified were brought into the laboratory for further investigation. Latin names follow the Jepson Interchange List of Currently Accepted Names of Native and Naturalized Plants of California (Jepson Flora Project 2020), and common names follow the U.S. Department of Agriculture Natural Resources Conservation Service PLANTS Database (USDA 2020a). Wildlife species detected during the field survey by sight, calls, tracks, scat, or other signs were recorded directly into a field notebook. The site was also scanned with binoculars to aid in the identification of wildlife. A list of plant and wildlife species identified during the survey is included in Attachment D.

3.3 Aquatic Resources Delineation

Concurrent with the fieldwork on October 1, 2020, Ms. Sennett performed a preliminary field delineation to identify and map the extent of aquatic resources within or adjacent to the project site that are potentially subject to regulation under federal Clean Water Act (CWA) Sections 401 and 404, California Fish and Game Code Section 1600, or the provisions of the Porter-Cologne Water Quality Act (Dudek 2020). Results of the aquatic resources delineation are incorporated into this assessment.

4 Results

4.1 Site Description

The project site is located in the western foothills of the Sierra Nevada Mountain Range. Elevations on the project site range from approximately 1,345 feet to 1,430 feet above mean sea level. The project site is surrounded by urban development, including residential, recreational, and commercial development and open space generally composed of scattered oak woodland and annual grassland. The project site is located in a semi-arid climate where annual temperatures range from 36.6°F to 92.5°F, and the average annual precipitation is 34.39 inches. On average, the months with the highest rainfall are January and February, and July has the least precipitation (WRCC 2020).

4.2 Soils

There are two soil types mapped on the project site: Auburn-Argonaut complex, 2% to 15% slopes, and Auburn-rock outcrop complex, 2% to 30% slopes (USDA 2020b) (Figure 3, Project Soils). The Auburn soil series is found on foothills and consists of moderately deep, well-drained soils formed in material weathered from amphibolite schist. The Argonaut soil series is found on foothills and consists of moderately deep, well-drained soils formed in material weathered from meta-andesite (USDA 2020b). These soil units are both identified as hydric[1] soils (USDA 2020c).

4.3 Hydrology

The project site occurs within the Orr Creek watershed, which drains approximately 25 square miles of land in Placer County (Hydrological Unit Code 180201610201) (CDFW 2020b). According to the USFWS National Wetlands Inventory, there are no aquatic resources mapped on the project site; the nearest aquatic resource is a freshwater pond approximately 80 feet north of the project site (USFWS 2020b) (Figure 4, Hydrologic Setting). The National Wetlands Inventory dataset is based on coarse aerial mapping and is unlikely to include features that are not visible in aerial photography, such as small wetlands or wetlands hidden by tree canopy.

Surface run-off on the project site is generally directed to the scrub-shrub wetland in the western half of the project site, to constructed ditches and storm drain features in adjacent urban areas, or to the Nevada Irrigation District (NID) canal. Irrigation run-off from urban development to the west appears to sheet flow toward the scrub-shrub wetland near the mid-western portion of the project site.

4.4 Vegetation Communities and Land Cover Types

Land cover on the project site consists of terrestrial non-vegetative land covers and natural vegetation communities. The vegetation communities and land covers have been adapted from the Manual of California Vegetation, Online Edition (CNPS 2020b). The following vegetation communities and land cover types were documented on the project site: blue oak woodland and forest, California annual grassland, and developed (Figure 5, Vegetation Communities

[1] Hydric soils are commonly associated with wetlands and exhibit characteristic resulting from repeated periods of saturation or inundation for more than a few days.

and Land Cover Types). Table 1 provides a breakdown of the cover types present, and a detailed discussion of cover types on the project site is included below.

Table 1. Vegetation Communities and Land Cover Types on the Project Site

Vegetation Community/Land Cover Type	Vegetation Alliance and CDFW Alliance Code	Rarity Rank	Acreage
Blue Oak Woodland and Forest	*Quercus douglasii* woodland alliance; 71.020.00	S4, G4	15.52
California Annual Grassland	*Avena fatua* herbaceous alliance, *Bromus* (*diandrus*, *hordeaceus*, *madritensis*) herbaceous alliance; 42.027.00	NA	4.84
Developed	NA	NA	4.43
		Total:	**24.79**

Notes: NA: not applicable; alliance is not ranked. State (S) ranks of 1-3 are considered highly imperiled by CDFW (2020a).

Blue Oak Woodland and Forest. The blue oak woodland and forest alliance includes blue oak as a dominant or co-dominant in the intermittent to continuous or savanna-like tree canopy which may be one to two tiered. The shrub layer is sparse to intermittent, and the herbaceous layer is sparse or grassy with forbs present seasonally (CNPS 2020b). Blue oak woodland is the dominant vegetation community present on the project site. Blue oak (*Quercus douglasii*) is the dominant overstory species, with a lesser abundance of foothill pine (*Pinus sabiniana*). Shrubs occur intermittently and include pink honeysuckle (*Lonicera hispidula*), Himalayan blackberry (*Rubus armeniacus*), and buckbrush (*Ceanothus cuneatus* var. *cuneatus*). The herbaceous layer is generally sparse where leaf litter is thick on the ground surface. Where present in openings and disturbed areas, herbs include a similar assemblage of species as in the grassland community (discussed below). There are multiple dirt trails that meander through the woodland, and evidence of other disturbances, including brush and log piles, vehicle tracks, and miscellaneous trash and debris.

California Annual Grassland. California annual grassland resembles the wild oats and annual brome grassland alliance, which includes wild oat and brome dominant or co-dominant in the herbaceous layer. The herbaceous layer is open to continuous and less than 4 feet in height (CNPS 2020b). California annual grassland is present in the western portion of the project site. Dominant species in this community include medusa head (*Elymus caput-medusae*), dogtail grass (*Cynosurus echinatus*), wild oat (*Avena barbata*), soft brome (*Bromus hordeaceus*), field hedge parsley (*Torilis arvensis*), and pale flax (*Linum bienne*). The shrub and tree layer is absent from this vegetation community.

Developed. This land cover type includes areas that have been completely altered by human activities and contain little to no vegetation. Such areas include buildings, paved and gravel roadways and trails, gravel lots, and other constructed environments. Other developed areas on the project site include a baseball field and associated driveway, paved Richardson/Quartz Drive, and adjacent disturbed areas.

4.5 Jurisdictional Aquatic Resources

During the field delineation, Dudek mapped approximately 1.442 acres of aquatic resources anticipated to meet the criteria to be considered jurisdictional aquatic resources subject to state regulation (Table 2) (Figure 5, Biological Resources). Refer to the Aquatic Resources Delineation Report for further details (Dudek 2020).

Table 2. Jurisdictional Aquatic Resources on the Project Site

Feature Type	Anticipated Jurisdiction	Linear Feet	Acreage
Wetlands			
Seasonal Wetland	RWQCB	NA	0.016
Scrub-Shrub Wetland	RWQCB/CDFW	NA	1.288
	Subtotal:	***NA***	***1.304***
Other Waters			
Ephemeral Drainage	RWQCB/CDFW	210	0.083
NID Canal	RWQCB/CDFW	208	0.055
	Subtotal:	***418***	***0.138***
	Total:	**418**	**1.442**

Notes: RWQCB: Regional Water Quality Control Board; CDFW: California Department of Fish and Wildlife.

Scrub-Shrub Wetland. There is one scrub-shrub wetland comprising approximately 1.288 acres near the western edge of the project site. This feature lacks a defined bed and bank and only appears to be inundated seasonally. The wetland is swale-like and drains the surrounding uplands into a culvert at the northern edge of the project site. The culvert outfalls to a managed pond and rocky basin within Deer Ridge Park, just south of Deer Ridge Lane. The wetland is dominated by sweet vernal grass (*Anthoxanthum odoratum*), dallisgrass (*Paspalum dilatatum*), Himalayan blackberry, perennial rye grass (*Festuca perennis*), and coyote brush (*Baccharis pilularis*). The wetland also supports scattered trees, including blue oak and shining willow (*Salix lasiandra*). No surface water or saturation was present in the wetland during the October 2020 field survey. Based on a review of available aerial photography, the wetland has been disturbed by mowing activities since at least 2013 (Google Earth 2020).

Seasonal Wetland. There is one seasonal wetland in the western half of the project site. This wetland is located 30 feet east of the seasonal wetland swale and only appears to be inundated seasonally. The wetland contains a dominance of hydrophytic species, including Great Valley eryngo (*Eryngium castrense*), perennial rye grass, and hyssop loosestrife (*Lythrum hyssopifolium*). No surface water or saturation were present in the wetland during the October 2020 field survey.

Nevada Irrigation District (NID) Canal. There is one canal, owned and operated by NID, that flows through the southwest corner of the project site. The earthen canal is approximately 3 feet deep by 3 feet wide and contains a mix of sand, gravel, and small cobble in its bed. The canal supports emergent vegetation along its bank margins, including fringed willowherb (*Epilobium ciliatum*), field horsetail (*Equisetum arvense*), and western rush (*Juncus patens*). Water approximately 2 to 3 inches deep was observed flowing in the canal during the October 2020 field survey. The canal flows into two subsurface inlets and outside of the project site. The canal appears to provide subsurface hydrologic inputs to the scrub-shrub wetland, described above, as the upper wetland feature terminates

at the canal. Vegetation is sparse around the canal, which is regularly treated by NID to control vegetation, and there is no continuous riparian corridor associated with the NID canal on the project site.

Ephemeral Drainage. There is one ephemeral drainage located downslope of the baseball field in the southeastern corner of the project site. A 4-inch-diameter pipe on the hillside between the drainage and adjacent irrigated field outfalls to the drainage. Hydrology of the drainage is dependent on inputs during rain events and run-off from the adjacent baseball field and other surrounding uplands. The drainage empties into a culvert below Richardson Drive/Quartz Road and outside of the project site. The drainage was dry during the October 2020 field survey. Upland plant species are similar to those found in the annual grassland community (described above). A few small blue oaks (diameter at standard height ±6 inches) and a willow overhang the drainage. There is no continuous riparian corridor associated with this feature on the project site.

4.6 Plant and Wildlife Species Observed

A total of 62 species of native or naturalized plant species was recorded on the project site during the October 2020 field survey. There are two invasive non-native plant species present on the project site: Himalayan blackberry and yellow starthistle (*Centaurea solstitialis*).

Dudek biologists directly observed, or documented via scat, sign, or call, 19 wildlife species on the project site during the field surveys. Observed wildlife primarily included bird species such as California scrub-jay (*Aphelocoma californica*), black phoebe (*Sayornis nigricans*), western bluebird (*Sialia mexicana*), and American robin (*Turdus migratorius*). Other wildlife species directly observed or detected via scat or other sign included western fence lizard (*Sceloporus occidentalis*) and California ground squirrel (*Otospermophilus beecheyi*). A list of the plant and wildlife species identified on the project site during the field survey is included in Attachment D.

4.7 Special-Status Plant Species

Results of USFWS, CNDDB, and CNPS searches revealed 14 special-status plant species that are known to occur in the project site region (see Attachment A). All of these special-status plant species were removed from further consideration due to lack of suitable habitat within or adjacent to the project site, due to the site being outside of the species' known geographic or elevation range, and/or the species not being identified during the field survey (for perennial species that could be evident and identifiable in October). There is one special-status plant species occurrence within 2 miles of the project site – Jepson's onion (*Allium jepsonii*) (Figure 6, CNDDB Occurrences Within 2 Miles of Project Site); this species was determined to lack habitat onsite (see Attachment A). No special-status plants were identified during the October 2020 field survey.

4.8 Special-Status Wildlife Species

Results of the USFWS and CNDDB searches revealed 19 special-status wildlife species that are known to occur in the project site region (see Attachment B). Of these special-status wildlife, 17 species were removed from consideration due to lack of suitable habitat within or adjacent to the project site, or due to the site being outside of the species' known geographic or elevation range. The remaining two special-status wildlife species, pallid bat (*Antrozous pallidus*) and Townsend's big-eared bat (*Corynorhinus townsendii*), have low potential to occur on the project site and are discussed below. In addition, the project site provides habitat for nesting birds protected by the

federal Migratory Bird Treaty Act (MBTA) and California Fish and Game Code (CFGC), as well as other native bats protected by CFGC. There are two special-status wildlife species occurrences within 2 miles of the project site – western pond turtle (*Emys marmorata*) and peregrine falcon (*Falco peregrinus anatum*) (Figure 6, CNDDB Occurrences Within 2 Miles of Project Site); these species were determined to lack habitat onsite (see Attachment B). No special-status wildlife species were detected during the October 2020 field survey.

Nesting Birds. The project site provides habitat for numerous local and migratory bird species protected by CFGC and the federal MBTA. Specifically, trees, shrubs, and human-made structures and buildings provide bird nesting habitat on the project site. Multiple common and migratory birds were detected during the October 2020 field survey, but no active nests were observed. A focused survey for nesting birds was not conducted.

Native Bats (including Pallid Bat and Townsend's Big-Eared Bat). The project site provides potential habitat for two special-status bats (pallid bat and Townsend's big-ear bat) and other native bats protected by CFGC. Specifically, trees with exfoliating bark, crevices, and/or sufficient foliage could provide bat roosting habitat on the project site. Pallid bat typically roost in remote areas containing rocky outcrops for roosting and open waters or grasslands for foraging. Townsend's big-eared bat normally occupy remote mesic habitats and roost in limestone caves, lava tubes, human-made structures, and other structures for roosting. Pallid bat and Townsend's big-eared bat have a low potential to occur on the project site due to the level of existing human disturbance in the area and limited preferred roosting habitat. No active bat roosts or signs of occupation, such as guano or staining, were detected during the field survey. A focused survey or habitat assessment for roosting bats was not conducted.

4.9 Sensitive Vegetation Communities

None of the natural vegetation communities on the project site are considered sensitive natural communities by CDFW. The shrub-scrub wetland, ephemeral drainage, and NID canal that convey water through the project site may be protected by CDFW under Section 1602 of CFGC. Native trees and oak woodlands on the project site are protected by the Placer County Tree Ordinance (County Code Article 12.16) and impacts to oak woodlands are evaluated under the County's 2007 Guidelines for Evaluating Impacts to Oak Woodlands. Please refer to the arborist report prepared for the project site under separate cover.

5 Conclusions and Recommendations

5.1 Special-Status Plants

Based on a field assessment and relevant literature, no special-status plant species are expected to occur on the project site. In general, the project site lacks unique habitat features normally required by special-status plants, such as exposed serpentinite or other rare soil types, rocky openings within chaparral or woodland habitat. No special-status plants were identified on the project site during the biological fieldwork, which covered the entire project site.

5.2 Special-Status Wildlife

Nesting Birds. Eventual project implementation could involve tree and vegetation removal, which has the potential to impact nesting birds protected by the federal MBTA and CFGC. In addition to violating the protections under the

MBTA and CFGC, direct or indirect impacts to nesting birds would likely be considered a potentially significant impact under CEQA. To avoid impacting active nests, Dudek recommends conducting tree or vegetation removal outside of the nesting season (February through August). If not feasible, Dudek recommends implementing measures to avoid or minimize impacts to nesting birds, which may include a preconstruction survey for active bird nests, avoidance buffers for any active nests identified, and monitoring active nests during construction.

Native Bats (Pallid Bat and Townsend's Big-Eared Bat). If bats are roosting on or adjacent to the project site, impacts could result from the permanent removal of roosting sites, such as trees and snags, or from project-related noise disturbance to an occupied roosting site in the vicinity of construction. In addition to violating the protections under CFGC, direct or indirect impacts to roosting bats would likely be considered a potentially significant impact under CEQA. Dudek recommends implementing measures to avoid or minimize impacts to bat roosts, which may include a habitat assessment prior to construction to identify potential roost sites, avoidance of roost habitat if found, removal of roost habitat outside of the active maternity season, and active roost exclusion and monitoring.

5.3 Aquatic Resources

Dudek mapped approximately 1.442 acres of aquatic resources on the project site that are anticipated to meet the criteria for jurisdictional waters of the state subject to regulation by the RWQCB and/or CDFW. Dudek recommends that eventual development on the project site avoid aquatic resources where possible. Impacts to jurisdictional aquatic resources would be considered a significant impact under CEQA and would require aquatic resource permits from RWQCB and/or CDFW (e.g., 401 Water Quality Certification and 1602 Streambed Alteration Agreement), as well as an Approved Jurisdictional Delineation from the U.S. Army Corps of Engineers (USACE) to document a lack of aquatic resources onsite within USACE jurisdiction (see additional details in Dudek 2020). In addition, compensatory mitigation may be required for permanent impacts to aquatic resources to ensure no net loss of these resources. Potential compensatory mitigation options include purchasing mitigation credits from an agency-approved wetlands mitigation bank or paying an agency-approved in-lieu fee. Where direct impacts to jurisdictional aquatic resources can be avoided, exclusion fencing should be installed between the avoided aquatic resource and limits of disturbance during construction to protect aquatic resources from indirect impacts. A qualified wetland specialist should guide installation of the exclusion fencing to ensure features are adequately protected. Appropriate best management practices and spill prevention measures should also be implemented to ensure protection of jurisdictional aquatic resources during project construction.

5.4 Protected Trees

The project site supports native trees and oak woodland protected by Placer County. Impacts to native trees and woodland, including removal and trimming, would be considered a significant impact under CEQA without appropriate mitigation. Dudek recommends limiting tree and woodland impacts to the maximum extent feasible. If impacts are necessary, mitigation options may include 1) on-site or off-site oak woodland restoration or creation, 2) contributing to the County's oak woodland conservation fund, or 3) obtaining a conservation easement over an off-site property that includes blue oak woodland. Any mitigation should be in accordance with the Placer County Tree Ordinance (County Code Article 12.16).

If you have any questions or concerns regarding the content of this report, please contact me at 760.936.7969 or asennett@dudek.com.

Sincerely,

Allie Sennett, M.S.
Biologist

Att.: *Figure 1 – Project Location*
Figure 2 – Project Site
Figure 3 – Project Soils
Figure 4 – Vegetation Communities and Land Cover Types
Figure 5 – Biological Resources
Figure 6 – CNDDB Occurrences within 2 Miles of the Project Site
Attachment A, Special-Status Plant Species Potential to Occur Within the Project Area
Attachment B, Special-Status Wildlife Species Potential to Occur Within the Project Area
Attachment C, Representative Project Site Photographs
Attachment D, List of Plant and Wildlife Species Observed

cc: *Markus Lang, Dudek*

6 References Cited

CDFW (California Department of Fish and Wildlife). 2020a. California Natural Community List. Biogeographic Data Branch, Sacramento, CA. September 9, 2020. https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=153398&inline.

CDFW. 2020b. RareFind 5. California Natural Diversity Database. CDFW, Biogeographic Data Branch. Accessed October and November 2020. https://www.dfg.ca.gov/biogeodata/cnddb/mapsanddata.asp.

CDFW. 2020c. California Wildlife Habitat Relationships: Life History Accounts and Range Maps. Accessed October and November 2020. https://www.wildlife.ca.gov/Data/CWHR/Life-History-and-Range

CNPS (California Native Plant Society), Rare Plant Program. 2020a. Inventory of Rare and Endangered Plants (online edition, v8-02). California Native Plant Society, Sacramento, CA. Accessed October and November 2020. http://www.rareplants.cnps.org

CNPS. 2020b. A Manual of California Vegetation Online. Accessed October 2020. http://vegetation.cnps.org/.

Dudek. 2020. Aquatic Resources Delineation Report for the 24-Acre Site Master Plan Project. Prepared for: Auburn Recreation District.

Google Earth. 2020. "Project Site" 38°57'2.041" N and 121°6'36.782" W. August 16, 2018. Google Earth (Version 7). North Auburn, California: Google Earth Mapping Service. Accessed October and November 2020.

Jepson Flora Project. 2020. Jepson eFlora. Berkeley, California: University of California. Accessed October and November 2020. http://ucjeps.berkeley.edu/IJM.html.

USDA (United States Department of Agriculture). 2020a. PLANTS database. USDA Natural Resources Conservation Service. Last updated November 11, 2019. Accessed September 2020. http://plants.usda.gov/java/.

USDA. 2020b. Web Soil Survey for Placer County. USDA Natural Resources Conservation Service, Soil Survey Staff. Accessed September 2020. http://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm.

USDA. 2020c. List of Hydric Soils. USDA Natural Resources Conservation Service, Soil Survey Staff. Accessed September 2020. https://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/use/hydric/.

USFWS (United States Fish and Wildlife Service). 2020a. IPaC (Information for Planning and Consultation) Search. Accessed September 2020. https://ecos.fws.gov/ipac/.

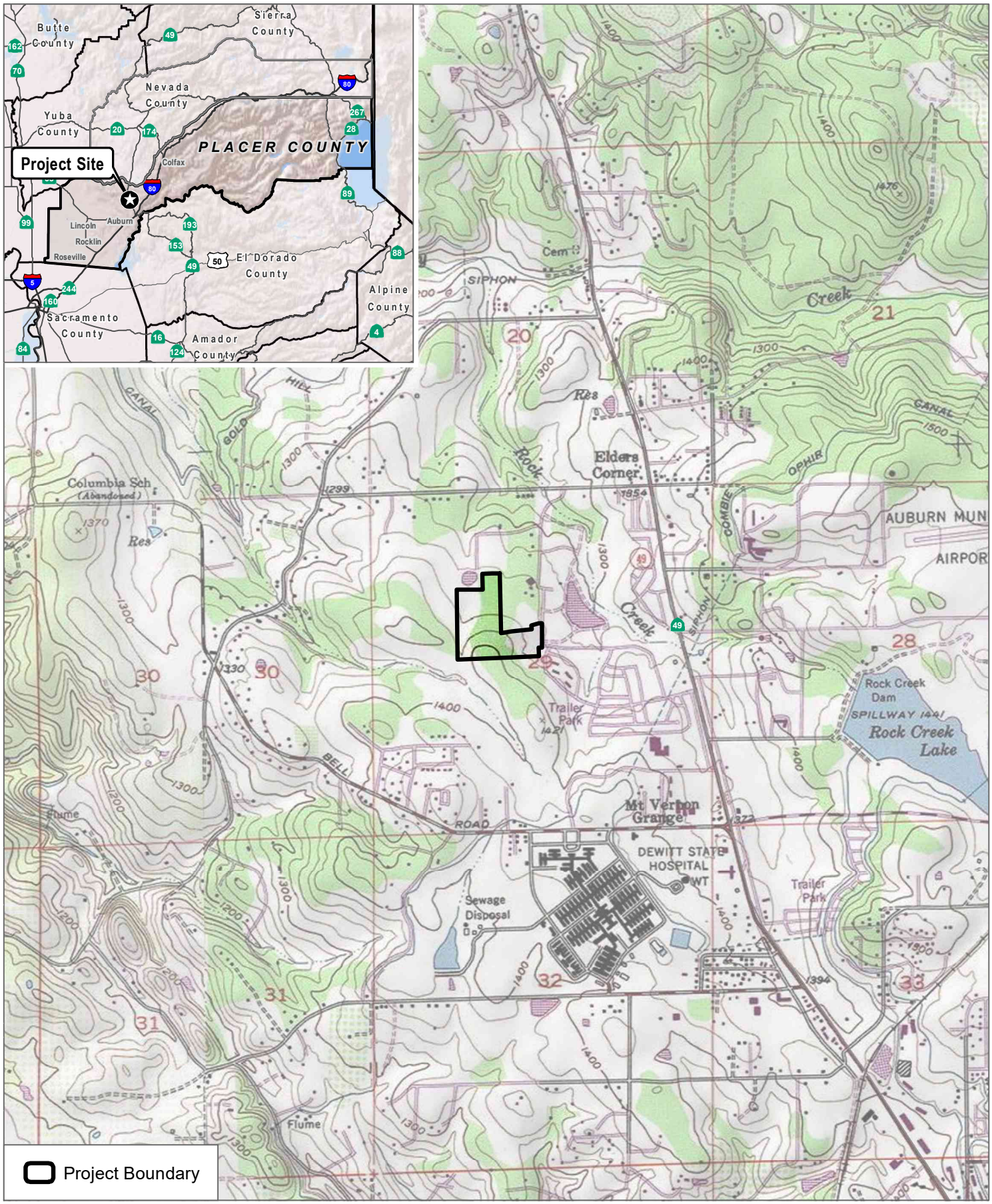
USFWS. 2020b. "The National Wetlands Inventory." Accessed September and October 2020. fws.gov/wetlands/NWI/index.html.

USGS (U.S. Geological Survey). 2020. "Auburn, CA" [map]. 7.5-Minute Series (Topographic). Accessed October and November 2020. https://www.usgs.gov/core-science-systems/ngp/tnm-delivery/.

USGS. 2020. National Hydrography Dataset: GIS Online viewer. Accessed October and November 2020. http://nhd.usgs.gov/.

WRCC (Western Regional Climate Center). 2020. Historical Climate Information: Auburn, California (040383). Accessed September 2020. https://wrcc.dri.edu/cgi-bin/cliMAIN.pl?ca0383.

Figures 1-6



SOURCE: USGS 7.5-Minute Series Auburn Quadrangle

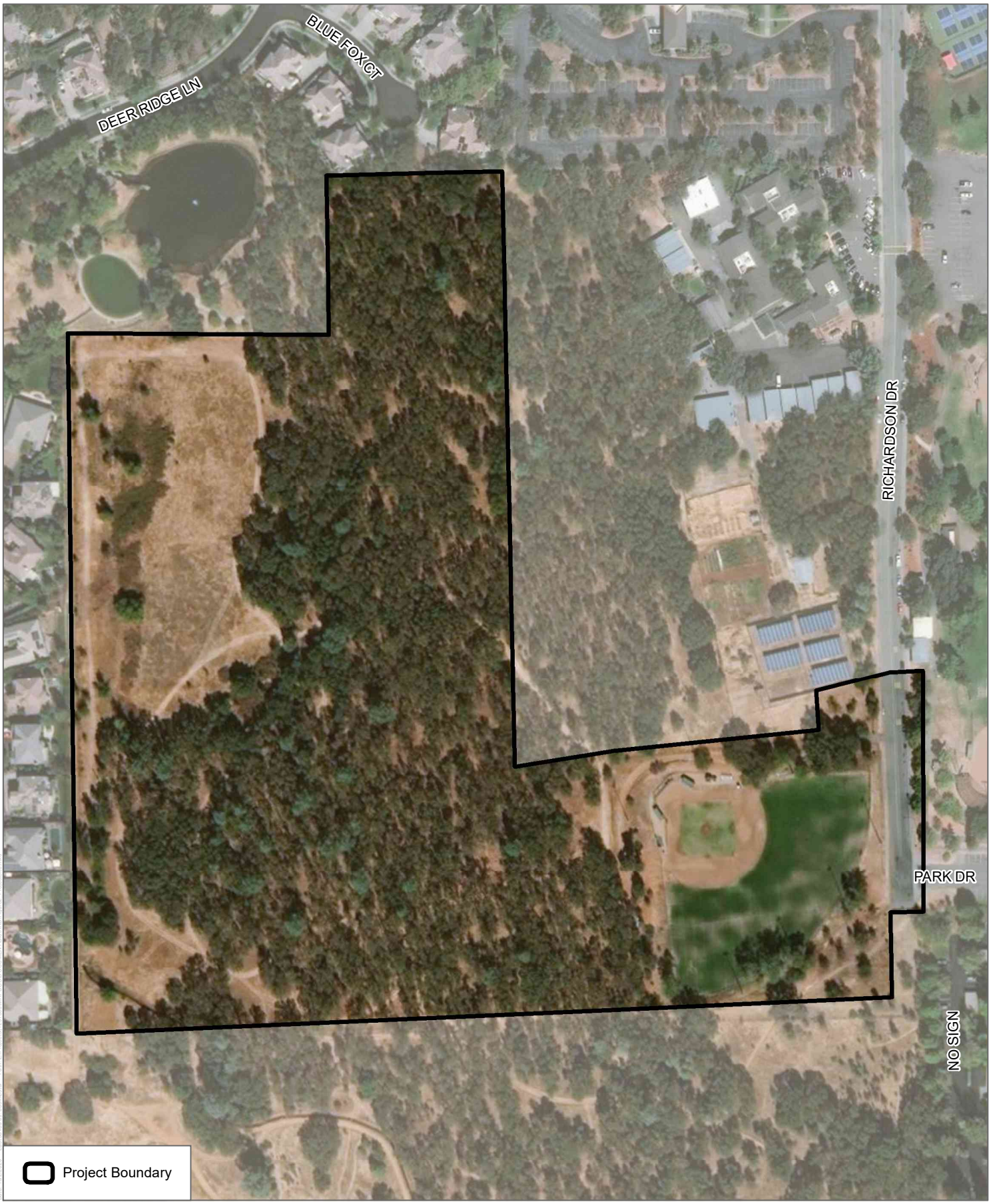
DUDEK

0 1,000 2,000 Feet

FIGURE 1

Project Location

Auburn Recreation District 24-acre Master Plan Project



SOURCE: ESRI(Accessed 2020), Placer County 2020

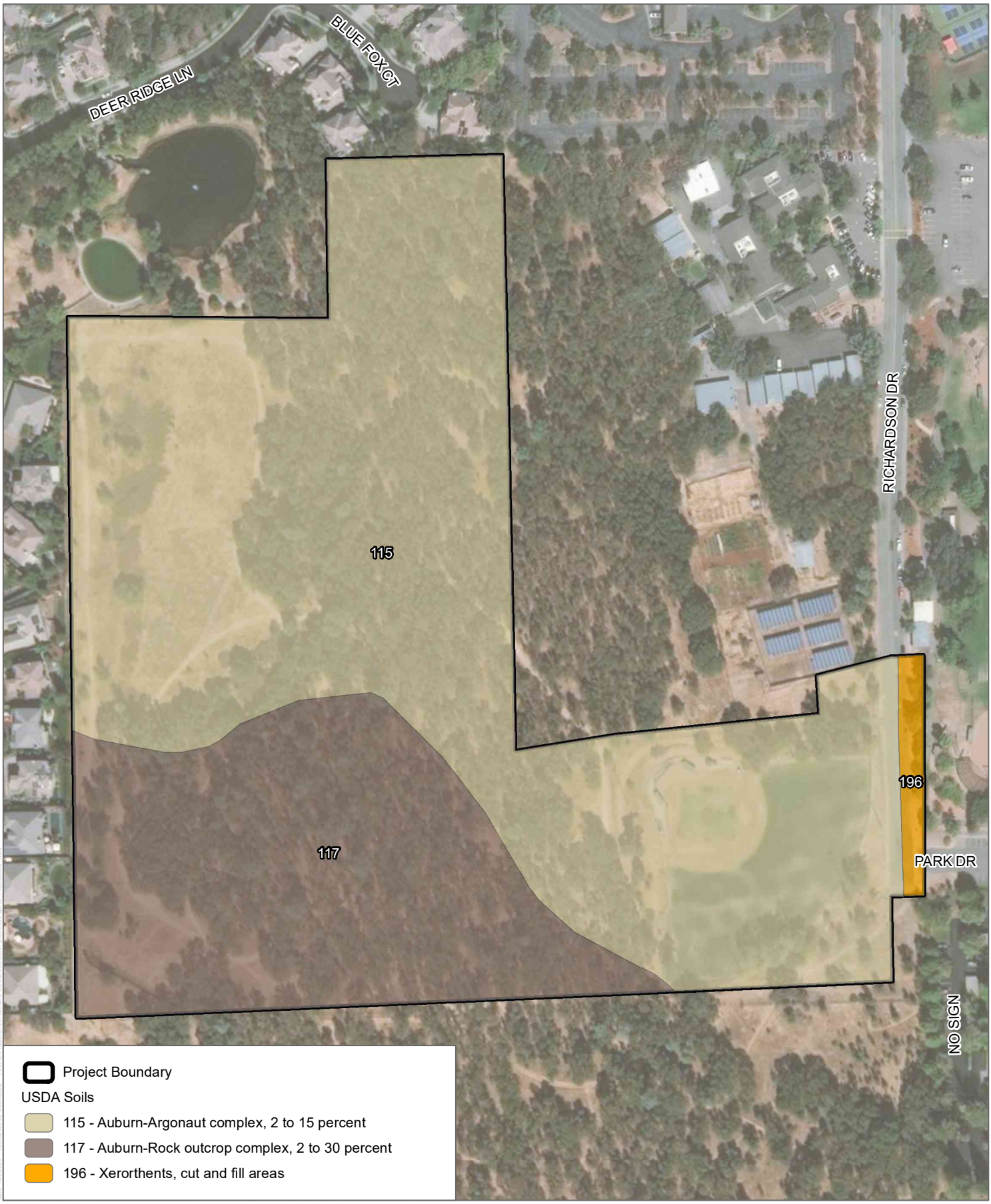
DUDEK

0 100 200 Feet
0 25 50 Meters
1:2,400

FIGURE 2

Project Site

Auburn Recreation District 24-acre Master Plan Project



SOURCE: ESRI(Accessed 2020), Placer County 2020

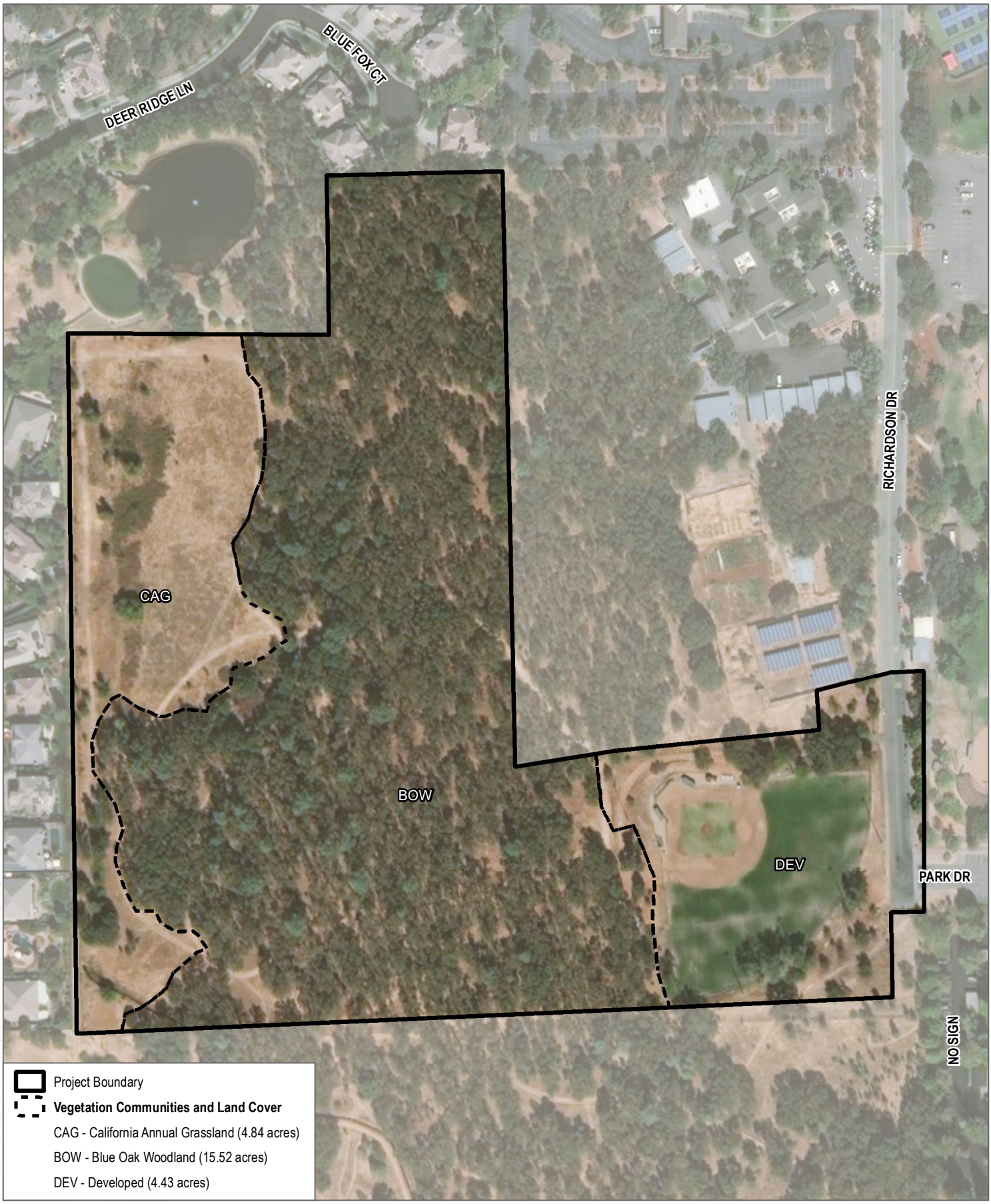
DUDEK

0 100 200 Feet
0 25 50 Meters
1:2,400

FIGURE 3

Project Soils

Auburn Recreation District 24-acre Master Plan Project



SOURCE: ESRI(Accessed 2020), Placer County (Accessed 2020)

DUDEK

0 100 200 Feet
0 25 50 Meters
1:2,400

FIGURE 4

Vegetation Communities and Land Cover Types

Auburn Recreation District 24-Acre Master Plan Project

Project Boundary (24.79 acres)

Aquatic Resources

ED - Ephemeral Drainage (0.083 acre) (210 linear feet)

NIC - Nevada Irrigation District Canal (0.055 acre) (208 linear feet)

SW - Seasonal Wetland (0.016 acre)

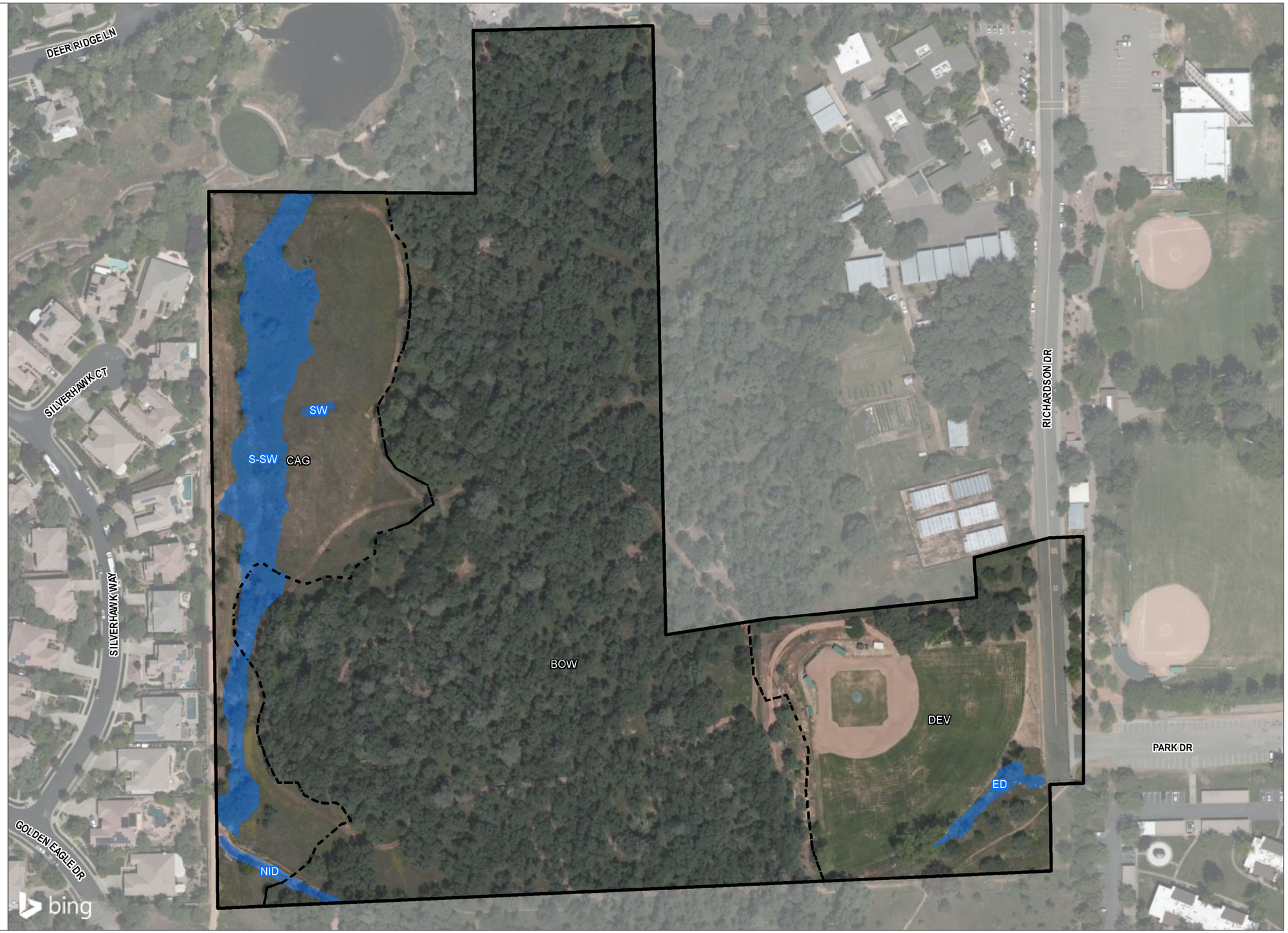
S-SW - Scrub-Shrub Wetland (1.288 acres)

Vegetation Communities and Land Cover

CAG - California Annual Grassland (4.84 acres)

BOW - Blue Oak Woodland (15.52 acres)

DEV - Developed (4.43 acres)



SOURCE: Bing 2020, Placer County 2020

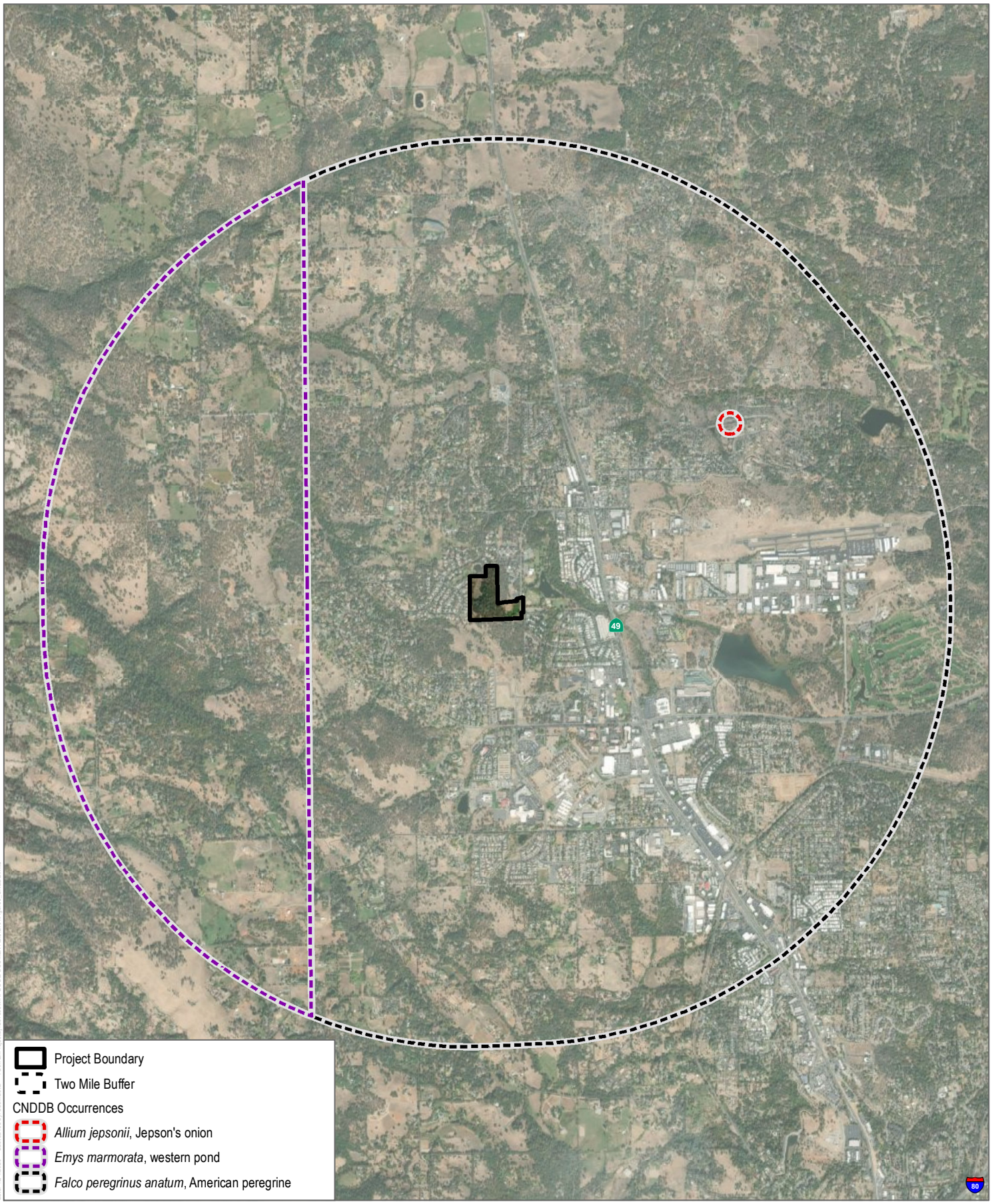
DUDEK

0 75 150 Feet

FIGURE 5

Biological Resources

Auburn Recreation District 24-acre Master Plan Project



SOURCE: ESRI(Accessed 2020), CDFW (Accessed 2020)

DUDEK

0 1,500 3,000 Feet
0 450 900 Meters
1:38,000

FIGURE 6

CNDDB Occurrences Within 2 Miles of Project Site

Auburn Recreation District 24-acre Master Plan Project

Attachment A

Special-Status Plant Species Potential to Occur Within the Project Area

Scientific Name	Common Name	Status (Federal/State/CRPR)[1]	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)[2]	Potential to Occur
Allium jepsonii	Jepson's onion	None/None/1B.2	Chaparral, Cismontane woodland, Lower montane coniferous forest; Serpentinite or volcanic, exposed slopes or flat areas/perennial bulbiferous herb/Apr–Aug/984–4,330	**Not expected to occur.** The project lacks open serpentinite or volcanic slopes or flat areas. The nearest documented occurrence is for plants observed growing on a serpentine outcrop with a seep in 2003, approximately 1.3 miles northeast of the project site (Calflora 2020).
Balsamorhiza macrolepis	big-scale balsamroot	None/None/1B.2	Chaparral, Cismontane woodland, Valley and foothill grassland; sometimes serpentinite, open grassy or rocky slopes and valleys/perennial herb/Mar–June/148–5,100	**Not expected to occur.** The project site lacks rocky slopes and valleys, and grassy slopes onsite are dominated by dense annual grasses and provide poor quality habitat. In addition, no plants in the genus *Balsamorhiza* were identified onsite during the field survey. The nearest documented occurrence is for multiple special-status plants, including big-scale balsamroot, observed growing in a canyon near Folsom Lake in 2010, approximately 6.2 miles south of the project site (Calflora 2020).
Calystegia stebbinsii	Stebbins' morning-glory	FE/SE/1B.1	Chaparral (openings), Cismontane woodland; gabbroic or serpentinite/perennial rhizomatous herb/Apr–July/607–3,575	**Not expected to occur.** The project site lacks chaparral openings and suitable substrate. The nearest documented occurrence is for multiple special-status plants, including Stebbins' morning-glory, observed growing in a canyon near Folsom Lake in 2010, approximately 6.2 miles south of the project site (Calflora 2020).
Carex xerophila	chaparral sedge	None/None/1B.2	Chaparral, Cismontane woodland, Lower montane coniferous forest; serpentinite, gabbroic/perennial herb/Mar–June/1,440–2,525	**Not expected to occur.** The project site lacks preferred substrate, and this species is not known to occur in Placer County (CNPS 2020). The nearest documented occurrence is approximately 15 miles north of the project site (Calflora 2020).
Ceanothus roderickii	Pine Hill ceanothus	FE/SR/1B.1	Chaparral, Cismontane woodland; Serpentinite or gabbroic (nutrient-deficient forms of gabbro-derived soils characterized by low concentrations of available K, P, S, Fe, and Zn)/perennial evergreen shrub/Apr–June/804–3,575	**Not expected to occur.** The project site lacks suitable substrate, and this species is only known to occur in El Dorado County (CNPS 2020). The nearest documented occurrence is for multiple special-status plants, including Pine Hill ceanothus,

				observed growing in a canyon near Folsom Lake in 2010, approximately 6.2 miles south of the project site (Calflora 2020).
Chlorogalum grandiflorum	Red Hills soaproot	None/None/1B.2	Chaparral, Cismontane woodland, Lower montane coniferous forest; serpentinite, gabbroic and other soils, open shrubby or wooded hills /perennial bulbiferous herb/May–June/804–5,540	**Not expected to occur.** The project site lacks suitable substrate and open shrubby or wooded hills. The nearest documented occurrence is for multiple special-status plants, including Red Hills soaproot, observed growing in a canyon near Folsom Lake in 2010, approximately 6.2 miles south of the project site (Calflora 2020).
Eryngium jepsonii	Jepson's coyote thistle	None/None/1B.2	Valley and foothill grassland, Vernal pools; clay/perennial herb/Apr–Aug/10–985	**Not expected to occur.** Although the seasonal wetland onsite provides habitat, this species was not identified in the wetland during the field survey. *Eryngium* samples collected from the wetland were keyed to *Eryngium castrense*, and no other *Eryngium* sp. were identified. The nearest documented occurrence, which lacks specific location and habitat details, is from a remote forested area with exposed serpentine ridges in 2019, approximately 12 miles northeast of the project site (CDFW 2020).
Galium californicum ssp. *sierrae*	El Dorado bedstraw	FE/SR/1B.2	Chaparral, Cismontane woodland, Lower montane coniferous forest; gabbroic/perennial herb/May–June/328–1,915	**Not expected to occur.** The project site lacks open habitat with preferred substrate, and this species is only known to occur in El Dorado County (CNPS 2020). The nearest documented occurrence is for multiple special-status plants, including El Dorado bedstraw, observed growing in a canyon near Folsom Lake in 2010, approximately 6.2 miles south of the project site (Calflora 2020).
Gratiola heterosepala	Boggs Lake hedge-hyssop	None/SE/1B.2	Marshes and swamps (lake margins), Vernal pools; clay/annual herb/Apr–Aug/33–7,790	**Not expected to occur.** The project site lacks marshes, swamps, and vernal pools. The nearest documented occurrence is for multiple special-status plants, including Boggs Lake hedge-hyssop, observed growing in a canyon near Folsom Lake in

				2010, approximately 6.2 miles south of the project site (Calflora 2020).
Horkelia parryi	Parry's horkelia	None/None/1B.2	Chaparral, Cismontane woodland; Ione formation and other soils, openings/perennial herb/Apr–Sep/262–3,510	**Not expected to occur.** The project site lacks open chaparral or woodland habitat with preferred substrate. The understory of the woodland onsite is dominated by dense annual grasslands or leave litter and thus, provides poor quality habitat. The nearest documented occurrence is for Parry's horkelia and sierra blue grass observed growing in a forested area with exposed serpentine ridges in 2019, approximately 16 miles east of the project site (Calflora 2020).
Packera layneae	Layne's ragwort	FT/SR/1B.2	Chaparral, Cismontane woodland; serpentinite or gabbroic, rocky, openings/perennial herb/Apr–Aug/656–3,555	**Not expected to occur.** The project site lacks openings with suitable substrate. The nearest documented occurrence is for multiple special-status plants, including Layne's ragwort, observed growing in a canyon near Folsom Lake in 2010, approximately 6.2 miles south of the project site (Calflora 2020).
Poa sierrae	Sierra blue grass	None/None/1B.3	Lower montane coniferous forest; Openings, moist shaded slopes, canyons /perennial rhizomatous herb/Apr–July/1,195–4,920	**Not expected to occur.** The project site lacks moist shaded slopes within canyons or forest habitat. The nearest documented occurrence is for sierra blue grass and Parry's horkelia observed growing in a forested area with exposed serpentine ridges in 2019, approximately 16 miles east of the project site (Calflora 2020).
Viburnum ellipticum	oval-leaved viburnum	None/None/2B.3	Chaparral, Cismontane woodland, Lower montane coniferous forest, north-facing slopes/perennial deciduous shrub/May–June/705–4,590	**Not expected to occur.** The project site lacks north-facing slopes within chaparral, woodland, or forest habitat. The nearest documented occurrence is from a forested area in the vicinity of the Auburn Church of Christ in 2019, approximately 2.5 miles east-southeast of the project site (Calflora 2020).
Wyethia reticulata	El Dorado County mule ears	None/None/1B.2	Chaparral, Cismontane woodland, Lower montane coniferous forest; clay or	**Not expected to occur.** The understory of the woodland onsite is dominated by dense annual grasslands or leaf litter and

			gabbroic, slopes/perennial herb/Apr–Aug/607–2,065	provides poor quality habitat, and no plants in the genus *Wyethia* were identified onsite during the field survey. The nearest documented occurrence is for multiple special-status plants, including El Dorado County mule ears, observed growing in a canyon near Folsom Lake in 2010, approximately 6.2 miles south of the project site (Calflora 2020).

[1] **Status Abbreviations**:
FE: Federally listed as endangered
SE: State listed as endangered
SR: State Rare
CRPR 1A: Plants presumed extirpated in California and either rare or extinct elsewhere
CRPR 1B: Plants rare, threatened, or endangered in California and elsewhere
CRPR 2A: Plants presumed extirpated in California but common elsewhere
CRPR 2B: Plants rare, threatened, or endangered in California but more common elsewhere

[2] **Sources:** CNPS 2020 and Jepson Flora Project 2020.

Attachment B

Special-Status Wildlife Species Potential to Occur Within the Project Area

Row Labels	Common Name	Status (Federal/State)	Habitat	Potential to Occur
Invertebrates				
Bombus occidentalis	western bumble bee	None/PSE	Once common and widespread, species has declined precipitously from central California to southern British Columbia, perhaps from disease	**Not expected to occur.** Much of the project site is disturbed, lacks native grassland and scrubland habitat, and provides limited year-round nectar resources for this species. No potential overwintering or nesting sites were observed during the survey. The nearest documented occurrence is based on a collection from an unknown location in 1976, approximately 8.4 miles southeast of the site (CDFW 2020b).
Branchinecta lynchi	vernal pool fairy shrimp	FT/None	Vernal pools, seasonally ponded areas within vernal swales, and ephemeral freshwater habitats	**Not expected to occur.** There are no wetlands with sufficient inundation periods to support this species. There are no documented occurrences of this species within 8 miles of the site (CDFW 2020b).
Desmocerus californicus dimorphus	valley elderberry longhorn beetle	FT/None	Occurs only in the Central Valley of California, in association with blue elderberry (*Sambucus nigra* ssp. *caerulea*)	**Not expected to occur.** There are no elderberries on the project site.
Fishes				
Oncorhynchus mykiss irideus pop. 11	steelhead - Central Valley DPS	FT/None	Coastal basins from Redwood Creek south to the Gualala River, inclusive; does not include summer-run steelhead	**Not expected to occur.** The project sites lack suitable aquatic habitat.
Hypomesus transpacificus	Delta smelt	FT/SE	Sacramento–San Joaquin Delta; seasonally in Suisun Bay, Carquinez Strait, and San Pablo Bay	**Not expected to occur.** The project site is outside of the species geographic range and lacks suitable aquatic habitat.
Amphibians				

Rana boylii	foothill yellow-legged frog	None/SSC, SE	Rocky streams and rivers with open banks in forest, chaparral, and woodland	**Not expected to occur.** The project site lacks rocky streams. The nearest documented occurrence is based on two collections in 1952 and 1953, approximately 4 miles southeast of the site (CDFW 2020b).
Reptiles				
Emys marmorata	western pond turtle	None/SSC	Slow-moving permanent or intermittent streams, ponds, small lakes, and reservoirs with emergent basking sites; adjacent uplands used for nesting and during winter	**Not expected to occur.** The project site lacks aquatic habitat with sufficient basking and upland nesting habitat. The nearest documented occurrence is for an observation in woodland habitat among a network of wetlands and seasonal creek, approximately 0.7 mile west of the site (CDFW 2020b).
Phrynosoma blainvillii	Blainville's horned lizard	None/SSC	Open areas of sandy soil in valleys, foothills, and semi-arid mountains including coastal scrub, chaparral, valley–foothill hardwood, conifer, riparian, pine–cypress, juniper, and annual grassland habitats	**Not expected to occur.** The project site lacks friable soils and open arid habitats. There are no documented occurrences within 10 miles of the site (CDFW 2020b).
Birds				
Agelaius tricolor (nesting colony)	tricolored blackbird	BCC/SSC, ST	Nests near freshwater, emergent wetland with cattails or tules, but also in Himalayan blackberrry; forages in grasslands, woodland, and agriculture. Requires expansive insect-rich foraging habitat for successful reproduction	**Not expected to occur.** The project site is located in a relatively urban area at the eastern extent of the species geographic range and lacks expansive foraging habitat to support a colony. The nearest documented occurrence is for a nesting colony detected in blackberry brambles in 2014, approximately 7.8 miles west of the site (CDFW 2020b).

Elanus leucurus (nesting)	white-tailed kite	None/FP	Nests in woodland, riparian, and individual trees near open lands; forages opportunistically in grassland, meadows, scrubs, agriculture, emergent wetland, savanna, and disturbed lands	**Not expected to occur.** The project site lacks suitable nesting and foraging habitat to support this species. The nearest documented occurrence is for an active nest observed in the vicinity of oak woodland and riparian habitat along Antelope Creek in 2003, approximately 8.4 miles southwest of the site (CDFW 2020b).
Falco peregrinus anatum (nesting)	American peregrine falcon	FDL, BCC/FP, SDL	Nests on cliffs, buildings, and bridges; forages in wetlands, riparian, meadows, croplands, especially where waterfowl are present	**Not expected to occur.** The project site lacks cliffs, bridges, meadows, and other preferred habitat to support this species. The nearest documented occurrence is for a non-specific location that overlaps the project site; the occurrence is for falcons observed in the vicinity of cliffs near a limestone quarry in 2015 (CDFW 2020b).
Haliaeetus leucocephalus (nesting & wintering)	bald eagle	FDL, BCC/FP, SE	Nests in forested areas adjacent to large bodies of water, including seacoasts, rivers, swamps, large lakes; winters near large bodies of water in lowlands and mountains	**Not expected to occur.** The project site lacks suitable nesting or wintering habitat to support this species. There are no documented occurrences within 10 miles of the site (CDFW 2020b).
Laterallus jamaicensis coturniculus	California black rail	BCC/FP, ST	Tidal marshes, shallow freshwater margins, wet meadows, and flooded grassy vegetation; suitable habitats are often supplied by canal leakage in Sierra Nevada foothill populations	**Not expected to occur.** The project site lacks marshes, meadows, and other preferred habitat to support this species. There are no documented occurrences within 5 miles of the site (CDFW 2020b).
Pandion haliaetus (nesting)	osprey	None/WL	Large waters (lakes, reservoirs, rivers) supporting fish; usually near forest habitats, but widely observed along the coast	**Not expected to occur.** The project site lacks large open waters and suitable nesting habitat to support this species. There are no

				documented occurrences within 9 miles of the site (CDFW 2020b).
Progne subis (nesting)	purple martin	None/SSC	Nests and forages in woodland habitats including riparian, coniferous, and valley foothill and montane woodlands; in the Sacramento region often nests in weep holes under elevated freeways	**Not expected to occur.** The project site is outside of the species geographic range, and there are no documented occurrences within 10 miles of the site (CDFW 2020b).
Riparia riparia (nesting)	bank swallow	None/ST	Nests in riparian, lacustrine, and coastal areas with vertical banks, bluffs, and cliffs with sandy soils; open country and water during migration	**Not expected to occur.** The project site lacks habitat and is outside of the species geographic range. There are no documented occurrences within 15 miles of the site (CDFW 2020b).
Mammals				
Antrozous pallidus	pallid bat	None/SSC	Grasslands, shrublands, woodlands, forests; most common in open, dry habitats with rocky outcrops for roosting, but also roosts in man-made structures and trees	**Low potential to occur.** The project site is located in an area of regular human disturbance and provides poor quality roosting habitat. There are no documented occurrences within 15 miles of the site (CDFW 2020b).
Corynorhinus townsendii	Townsend's big-eared bat	None/SSC	Mesic habitats characterized by coniferous and deciduous forests and riparian habitat, but also xeric areas; roosts in limestone caves and lava tubes, man-made structures, and tunnels	**Low potential to occur.** The project site is located in an area of regular human disturbance and provides poor quality roosting habitat. The nearest documented occurrence is based on two collections from an unspecified location in1950, approximately 3.8 miles southeast of the site (CDFW 2020b).
Pekania pennanti	fisher	None/SSC	Ranges widely in forested regions; uses heavy stands of mixed species of mature trees	**Not expected to occur.** The project site lacks forest habitat and is located in an area of regular human disturbance. There are no

				documented occurrences within 15 miles of the site (CDFW 2020b).

Status Abbreviations:

FT: Federally Threatened
FDL: Federally Delisted
BCC: U.S. Fish and Wildlife Service Bird of Conservation Concern
SSC: California Species of Special Concern
FP: California Fully Protected Species
WL: California Watch List Species
SE: State Endangered
ST: State Threatened
PSE: Proposed State Endangered
PST: Proposed State Threatened

Sources:

CDFW (California Department of Fish and Wildlife). 2020a. California Natural Diversity Database (CNDDB). RareFind, Version 5. (Commercial Subscription). Sacramento, California: CDFW, Biogeographic Data Branch. Accessed October 2020. http://www.dfg.ca.gov/biogeodata/ cnddb/mapsanddata.asp.

Attachment C

Representative Project Site Photographs

Photo 1. View facing west at the terminus of Richardson/Quartz Drive near the southeastern corner of the project site (October 1, 2020).

Photo 2. View facing north at a tree snag and blue oak woodland west of the baseball field in the southeast corner of the project site (October 1, 2020).

Photo 3. View facing southeast at the baseball field in the southeast corner of the project site (October 1, 2020).

Photo 4. View facing west at blue oak woodland in the southern portion of the project site. A structure consisting of painted wood and tires is visible in the background (October 1, 2020).

Photo 5. View of debris piles within the woodland near the middle of the project site (October 1, 2020).

Photo 6. View of two-track roads near the middle of the project site (October 1, 2020).

Photo 7. View facing southeast at the NID canal in the southwest corner of the project site (October 1, 2020).

Photo 8. View facing northwest at the NID canal on the project site (October 1, 2020).

Photo 9. View facing north at the scrub-shrub wetland in the northwest portion of the project site (October 1, 2020).

Photo 10. View facing south at the scrub-shrub wetland near the southwest corner of the project site (October 1, 2020).

Attachment D

List of Plant and Wildlife Species Observed

Plant Species

EUDICOTS

VASCULAR SPECIES

ANACARDIACEAE—Sumac or Cashew Family
Toxicodendron diversilobum—poison oak

APIACEAE—Carrot Family
Eryngium castrense—Great Valley eryngo
Torilis arvensis—spreading hedgeparsley*

ASTERACEAE—Sunflower Family
Agoseris sp.—no common name
Baccharis pilularis—coyote brush
Carduus pycnocephalus—Italian plumeless thistle*
Centaurea solstitialis—yellow star-thistle*
Centromadia fitchii—Fitch's tarweed
Erigeron canadensis—Canadian horseweed
Helminthotheca echioides—bristly oxtongue*
Lactuca serriola—prickly lettuce*
Solidago sp.—goldenrod
Tragopogon porrifolius—salsify*
Xanthium strumarium—cocklebur

CAPRIFOLIACEAE—Honeysuckle Family
Lonicera hispidula—pink honeysuckle

CONVOLVULACEAE—Morning-glory Family
Convolvulus arvensis—field bindweed*

EUPHORBIACEAE—Spurge Family
Croton setiger—dove weed
Euphorbia maculata—spotted sandmat*

FABACEAE—Legume Family
Acmispon americanus var. *americanus*—American bird's-foot trefoil
Trifolium microcephalum—smallhead clover

FAGACEAE—Oak Family
Quercus douglasii—blue oak
Quercus lobata—valley oak

Quercus wislizeni—interior live oak

GERANIACEAE—Geranium Family
Erodium cicutarium—redstem stork's bill*
Geranium dissectum—cutleaf geranium*

LINACEAE—Flax Family
Linum bienne—pale flax*

LYTHRACEAE—Loosestrife Family
Lythrum hyssopifolia—hyssop loosestrife*

MALVACEAE—Mallow Family
Malva parviflora—cheeseweed mallow*

MYRTACEAE—Myrtle Family
Eucalyptus globulus—Tasmanian bluegum*

ONAGRACEAE—Evening Primrose Family
Epilobium ciliatum—fringed willowherb

PLANTAGINACEAE—Plantain Family
Plantago lanceolata—narrowleaf plantain*

POLYGONACEAE—Buckwheat Family
Rumex crispus—curly dock*

RHAMNACEAE—Buckthorn Family
Ceanothus cuneatus var. *cuneatus*—buckbrush

ROSACEAE—Rose Family
Prunus sp.—no common name*
Pyracantha angustifolia—narrowleaf firethorn*
Rosa californica—California rose
Rubus armeniacus—Himalayan blackberry*

SALICACEAE—Willow Family
Salix lasiandra—shining willow

SIMAROUBACEAE—Quassia Or Simarouba Family
Ailanthus altissima—tree of heaven*

VISCACEAE—Mistletoe Family
Phoradendron leucarpum—oak mistletoe

VITACEAE—Grape Family

Vitis californica—California wild grape

FERNS AND FERN ALLIES

VASCULAR SPECIES

EQUISETACEAE—Horsetail Family

Equisetum arvense—field horsetail

GYMNOSPERMS AND GNETOPHYTES

VASCULAR SPECIES

PINACEAE—Pine Family

Pinus sabiniana—foothill pine

MONOCOTS

VASCULAR SPECIES

ALISMATACEAE—Water-plantain Family

Alisma lanceolatum—lanceleaf water plantain*

CYPERACEAE—Sedge Family

Carex sp.—sedge
Cyperus eragrostis—tall flatsedge

JUNCACEAE—Rush Family

Juncus balticus—no common name
Juncus bufonius—toad rush
Juncus patens—western rush
Juncus sp.—rush

POACEAE—Grass Family

Anthoxanthum odoratum—sweet vernal grass*
Avena barbata—slender oat*
Avena fatua—wild oat*
Bromus diandrus—ripgut brome*
Bromus hordeaceus—soft brome*
Cynodon dactylon—Bermudagrass*

Cynosurus echinatus—annual dogtails*
Elymus caput-medusae—medusahead*
Festuca perennis—perennial rye grass*
Paspalum dilatatum—dallisgrass*
Polypogon monspeliensis—annual rabbitsfoot grass*

THEMIDACEAE—Brodiaea Family
Brodiaea sp.—brodiaea

* Indicates non-native species.

Wildlife Species

BIRDS

BUSHTITS

AEGITHALIDAE—LONG-TAILED TITS & BUSHTITS
Psaltriparus minimus—bushtit

FINCHES

FRINGILLIDAE—FRINGILLINE & CARDUELINE FINCHES & ALLIES
Spinus tristis—American goldfinch

FLYCATCHERS

TYRANNIDAE—TYRANT FLYCATCHERS
Sayornis nigricans—black phoebe

HUMMINGBIRDS

TROCHILIDAE—HUMMINGBIRDS
Calypte anna—Anna's hummingbird

JAYS, MAGPIES & CROWS

CORVIDAE—CROWS & JAYS

Aphelocoma californica—California scrub-jay
Cyanocitta stelleri—Steller's jay

NEW WORLD VULTURES

CATHARTIDAE—NEW WORLD VULTURES

Cathartes aura—turkey vulture

NUTHATCHES

SITTIDAE—NUTHATCHES

Sitta carolinensis—white-breasted nuthatch

SHOREBIRDS

CHARADRIIDAE—LAPWINGS & PLOVERS

Charadrius vociferus—killdeer

THRUSHES

TURDIDAE—THRUSHES

Sialia mexicana—western bluebird
Turdus migratorius—American robin

WATERFOWL

ANATIDAE—DUCKS, GEESE, & SWANS

Branta canadensis—Canada goose

WOODPECKERS

PICIDAE—WOODPECKERS & ALLIES

Colaptes auratus—northern flicker
Melanerpes formicivorus—acorn woodpecker
Sphyrapicus ruber—red-breasted sapsucker

NEW WORLD SPARROWS

PASSERELLIDAE—NEW WORLD SPARROWS

Melozone crissalis—California towhee
Zonotrichia leucophrys—white-crowned sparrow

MAMMALS

SQUIRRELS

SCIURIDAE—SQUIRRELS

Spermophilus (*Otospermophilus*) *beecheyi*—California ground squirrel

REPTILES

LIZARDS

PHRYNOSOMATIDAE—IGUANID LIZARDS

Sceloporus occidentalis—western fence lizard

DRAFT
Aquatic Resources Delineation Report for the 24-Acre Site Master Plan Project

Prepared for:

Auburn Recreation District
471 Maidu Drive #200
Auburn, California 95603
Contact: Mike Scheele

Prepared by:

DUDEK
853 Lincoln Way, Suite No. 208
Auburn, California 95603
Contact: Allie Sennett

OCTOBER 2020

Printed on 30% post-consumer recycled material.

Table of Contents

ATTACHMENTS

FIGURES

TABLES

Acronyms and Abbreviations

Acronym/Abbreviation	Definition
APN	Assessor's Parcel Number
CDFW	California Department of Fish and Wildlife
CFR	Code of Federal Regulations
CWA	Clean Water Act
FAC	Facultative
FACW	Facultative Wetland
NL	Not Listed
OBL	Obligate
OHWM	ordinary high water mark
project	Auburn Recreation District 24-Acre Master Plan Project
RWQCB	Regional Water Quality Control Board
SR	State Route
SWANCC	Solid Waste Agency of Northern Cook County
TNW	traditionally navigable water
USACE	United States Army Corps of Engineers

INTENTIONALLY LEFT BLANK

1 Executive Summary

This Aquatic Resources Delineation Report was prepared in accordance with the U.S. Army Corps of Engineers (USACE) Sacramento District minimum standards (USACE 2016), Wetland Delineation Manual (USACE 1987), the Regional Supplement to the Wetland Delineation Manual: Arid West Region (USACE 2008a), and the Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region (USACE 2008b). Dudek biologists conducted a field delineation on October 1, 2020, to identify aquatic resources on the approximately 24.79-acre project site potentially subject to agency jurisdiction pursuant to regulations in Sections 401 and 404 of the Clean Water Act (CWA), Porter-Cologne Water Quality Act, and California Fish and Game Code. Table 1 summarizes the delineation findings. Potential jurisdiction discussed in Section 6, Conclusions, is preliminary until verified by the USACE Sacramento District.

Table 1. Summary of Aquatic Resources on the Project Site

Feature ID	Cowardin Code[1]	Latitude/Longitude	General Condition[2]	Acres[3]	Linear Feet
Wetlands					
Seasonal Wetland	PEM2	38.951229, -121.111415	Average	0.016	—
Scrub-Shrub Wetland	PSS	38.951294, -121.111647	Average	1.288	—
			Total Wetlands	*1.304*	—
Drainages					
Ephemeral Drainage	R6	38.949666, -121.107603	Degraded	0.083	210
Nevada Irrigation District Canal	R2	38.949247, -121.111535	Average	0.055	208
			Total Drainages	*0.138*	*418*
			Total	1.442	418

Source: USFWS 1992.

1 PEM2 = palustrine, persistent, non-emergent; PSS = palustrine, scrub-shrub; R2 = riverine, lower perennial; R6 = riverine, ephemeral.

2 Average: Minimal to some disturbance, resources still intact. Degraded: Extensive disturbance, resources depleted/not intact.

3 Acreage of the Nevada Irrigation District canal and ephemeral drainage extend to top of bank or ordinary high water mark, whichever is farther.

INTENTIONALLY LEFT BLANK

2 Introduction

This report documents the methods and results of a preliminary delineation of potentially jurisdictional aquatic resources conducted for the Auburn Recreation District 24-Acre Master Plan Project (project) in Placer County, California (Figure 1, Project Location). This report was produced in accordance with the USACE Sacramento District's Minimum Standards for Acceptance of Aquatic Resources Delineation Reports (USACE 2016). The results of this delineation are preliminary until verified by the Sacramento District of USACE.

Dudek biologists conducted a preliminary aquatic resources delineation of the project site on October 1, 2020. The approximately 24.79-acre project site for which the delineation was conducted consists of Assessor's Parcel Number (APN) 051-211-016-000 and a ±345-foot-long segment of Richardson/Quartz Drive (within APN 001-211-018-000). The main project site is located on land owned and managed by the Auburn Recreation District (see contact information below).

Property Owner:
Auburn Recreation District
471 Maidu Drive #200
Auburn, California 95603

2.1 Project Description

The proposed project is a recreational park development. Project design is preliminary and not yet finalized.

2.2 Project Location

The approximately 24.79-acre project site is adjacent to the Auburn Recreation District Regional Park in North Auburn within western Placer County (Figure 1, Project Location). The site is approximately 0.4 miles west of State Route (SR) 49. The site is situated in Township 13 North, Range 8 East, Section 29 of the 7.5-minute U.S. Geological Survey Auburn quadrangle (Figure 2, Project Site). The approximate center of the site corresponds to 38°57'2.041" north latitude and 121°6'36.782" west longitude.

2.3 Directions to the Project Site

From Sacramento, travel east on Interstate 80 toward Reno for approximately 31 miles. Take exit 119B for SR-49 toward Grass Valley/Placerville. After exiting Interstate 80, turn left onto SR-49. Continue on SR-49 for 4.2 miles, then turn left onto Richardson/Quartz Drive. After approximately 490 feet, turn right onto Park Drive and travel for 0.4 miles. The eastern end of the project site is located at the terminus of Park Drive where it meets Richardson/Quartz Drive. The project site can be accessed from Richardson/Quartz Drive.

INTENTIONALLY LEFT BLANK

3 Regulatory Setting

3.1 Federal

3.1.1 U.S. Army Corps of Engineers

Under Section 404 of the CWA, USACE regulates activities that involve a discharge of dredged or fill material, including grading, placing riprap for erosion control, pouring concrete, laying sod, and stockpiling excavated material into waters of the United States. Activities that generally do not involve a regulated discharge (if performed specifically in a manner to avoid discharges) include driving pilings, providing some drainage channel maintenance activities, and excavating without stockpiling. Any person or public agency proposing to discharge dredged or fill material into waters of the United States, including jurisdictional wetlands, must obtain a permit from USACE.

Wetlands are "those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions" (33 CFR 328.3). USACE predominantly uses Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region (USACE 2010), or Arid West Region (USACE 2008a) methodology to determine the presence of jurisdictional wetlands in California. According to the manuals (USACE 2008a, 2010), three criteria must be satisfied to classify an area as a wetland: (1) a predominance of plant life that is adapted to life in wet conditions (hydrophytic vegetation); (2) soils that saturate, flood, or pond long enough during the growing season to develop anaerobic conditions in the upper part (hydric soils); and (3) permanent or periodic inundation or soils saturation, at least seasonally (wetland hydrology).

For linear waters of the United States (e.g., perennial, intermittent, or ephemeral drainages), the lateral limits of USACE jurisdiction extend to the OHWM when no adjacent wetlands are present. As defined in the Code of Federal Regulations (CFR) Title 33, Section 328.3(e), the OHWM is "that line on the shore established by the fluctuations of water and indicated by physical characteristics such as a clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas." If adjacent wetlands are present, the jurisdiction extends to the limit of these wetlands. Further guidance for determining jurisdictional limits in riverine systems in California is detailed in A Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States (USACE 2008b) or A Guide to Ordinary High Water Mark (OHWM) Delineation for Non-Perennial Streams in the Western Mountains, Valleys, and Coast Region of the United States (USACE 2014).

3.1.1.1 Navigable Waters Protection Rule

On January 23, 2020, USACE and the U.S. Environmental Protection Agency finalized the Navigable Waters Protection Rule, which established a new definition of waters of the United States under the CWA. The revised Navigable Waters Protection Rule redefining waters of the United States was published in the Federal Register on April 21, 2020 and became effective on June 22, 2020.

The new Navigable Waters Protection Rule repealed the Obama-era 2015 CWA and replaced it with a definition that limits the scope of federal regulation to a much narrower collection of aquatic resource features. Among the greatest changes, the Navigable Waters Protection Rule eliminates "significant nexus" determinations to determine if potential tributaries have a significant effect on the "chemical, physical, and biological integrity of downstream traditional navigable waters." The Navigable Waters Protection Rule also redefines the term "adjacent." Now, for an adjacent wetland to be jurisdictional, it must touch "at least one point or side of a jurisdictional water" or have a direct hydrological surface connection to a traditional navigable waterway. Hydrological connections through groundwater, which have been suggested to maintain federal jurisdiction in the past, are now outside the scope of federal purview.

Most importantly, the Navigable Waters Protection Rule identifies four categories of aquatic resource features that are regulated by the federal government under the CWA, leaving oversight for other "excluded" waterbodies to states and tribes. The four categories of aquatic resources subject to federal regulation are the following: (1) territorial seas and traditional navigable waters; (2) perennial and intermittent tributaries; (3) certain lakes, ponds, and impoundments; and (4) wetlands that are adjacent to jurisdictional waters. The revised Navigable Waters Protection Rule does not expand federal regulation to include new categories of aquatic features; however, it does provide a list of excluded features that are no longer considered waters of the United States under the final Navigable Waters Protection Rule. Most significantly, "ephemeral" streams and other features that only flow in direct response to precipitation, and are particularly prevalent in the western United States, are no longer subject to CWA regulation.

3.2 State

3.2.1 California Department of Fish and Wildlife

Pursuant to Section 1602 of the California Fish and Game Code, the California Department of Fish and Wildlife (CDFW) regulates all diversions, obstructions, or changes to the natural flow or bed, channel, or bank of any river, stream, or lake that supports fish or other aquatic wildlife.

In Title 14 of the California Code of Regulations, Section 1.56, CDFW's definition of "lake" includes "natural lakes or man-made reservoirs." Diversion, obstruction, or change to the natural flow or bed, channel, or bank of any river, stream, or lake that supports fish or other aquatic wildlife requires authorization from CDFW by entering into an agreement pursuant to Section 1602 of the California Fish and Game Code.

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

3.2.2 Regional Water Quality Control Board

Pursuant to provisions of the Porter-Cologne Water Quality Act, the Regional Water Quality Control Board (RWQCB) regulates discharging waste, or proposing to discharge waste, within any region that could affect a water of the state (California Water Code Section 13260[a]). The State Water Resources Control Board defines a water of the state as "any surface water or groundwater, including saline waters, within the boundaries of the state" (California Water Code Section 13050[e]). As of April 2019, the State Water Resources Control Board has narrowed its definition of a water of the state to include the following (SWRCB 2019):

1. Natural wetlands,
2. Wetlands created by modification of a surface water of the state,
3. Artificial wetlands that meet any of the following criteria:
    a. Approved by an agency as compensatory mitigation for impacts to other waters of the state, except where the approving agency explicitly identifies the mitigation as being of limited duration;
    b. Specifically identified in a water quality control plan as a wetland or other water of the state;
    c. Resulted from historic human activity, is not subject to ongoing operation and maintenance, and has become a relatively permanent part of the natural landscape; or
    d. Greater than or equal to one acre in size unless the artificial wetland was constructed and is currently used and maintained, primarily for one or more of the following purposes: industrial or municipal wastewater treatment or disposal; settling of sediment; detention, retention, infiltration, or treatment of stormwater runoff and other pollutants or runoff subject to regulation under a municipal, construction, or industrial permitting program; treatment of surface waters; agricultural crop irrigation or stock watering; fire suppression; industrial processing or cooling water; active surface mining – even if the site is managed for interim wetlands functions and values; log storage; treatment, storage, or distribution of recycled water; maximizing groundwater recharge (this does not include wetlands that have incidental groundwater recharge benefits); or fields flooded for rice growing.

All waters of the United States are waters of the state. Wetlands, such as isolated seasonal wetlands, that are not generally considered waters of the United States, are considered waters of the state if, "under normal circumstances, (1) the area has continuous or recurrent saturation of the upper substrate caused by groundwater, or shallow surface water, or both; (2) the duration of such saturation is sufficient to cause anaerobic conditions in the upper substrate; and (3) the area's vegetation is dominated by hydrophytes or the area lacks vegetation" (SWRCB 2019).

Before USACE will issue a CWA Section 404 permit, applicants must receive a CWA Section 401 Water Quality Certification from the RWQCB. If a CWA Section 404 permit is not required for the project, the RWQCB may still require a permit for impacts to waters of the state under the Porter-Cologne Water Quality Act.

INTENTIONALLY LEFT BLANK

4 Methodology

4.1 Desktop Analysis

Prior to conducting fieldwork, Dudek biologists reviewed the following available resources to identify portions of the project site with a probability for containing potential jurisdictional aquatic resources:

- Google Earth current and historical aerial imagery (Google Earth Pro 2020)
- Natural Resources Conservation Service Web Soil Survey (USDA 2020a)
- U.S. Fish and Wildlife Service National Wetlands Inventory Mapper (USFWS 2020)
- U.S. Geological Survey Historical Topographical map data (USGS 2020a)
- U.S. Geological Survey National Hydrography Dataset (USGS 2020b)

4.2 Field Delineation

Dudek biologists conducted a preliminary aquatic resources delineation of the approximately 24.79-acre project site on October 1, 2020. Potential aquatic resources were delineated based on methodology described in the USACE Wetlands Delineation Manual (USACE 1987) and the Regional Supplement for the Arid West Region (USACE 2008a). Non-wetland waters of the United States or state were delineated based on the presence of an OHWM, as determined using the methodology in the OHWM Field Guide for the Arid West Region (USACE 2008b). Representative photographs of the project site are included in Attachment A.

All plant species encountered were identified to the lowest taxonomic level needed to determine wetland plant indicator status. Those species that could not be immediately identified were brought into the laboratory for further investigation. Latin names follow the Jepson Interchange List of Currently Accepted Names of Native and Naturalized Plants of California (Jepson Flora Project 2020), and common names follow the U.S. Department of Agriculture Natural Resources Conservation Service PLANTS Database (USDA 2020a). Wetland plant indicator status for each plant was determined using the Arid West 2018 Regional Wetland Plant List (USACE 2018). Attachment B contains a complete list of plant species observed during the field delineation.

Dudek biologists took sample points on standardized wetland delineation data forms in representative locations to assess the potential for hydric soils, hydrophytic vegetation, and hydrology (see details in Section 4.3, Wetland Indicator Assessment). Data at representative stream transects were collected on standardized OHWM data forms to assess channel hydrology and geomorphology. Sample point data sheets and OHWM data forms are included in this report as Attachment C. Wetland sample points and stream transects were recorded in the field using a Trimble Geo 7X GPS unit with sub-meter accuracy. Results of the wetland sample points and stream transect analyses are presented in Section 5.3, Aquatic Resources Data Summary.

4.3 Wetland Indicator Assessment

Pursuant to the USACE 1987 Manual and 2008 Regional Supplement, key explicit environmental criteria for determining the presence of potential jurisdictional aquatic resources on the project site are as follows:

- **Soil:** Soil characteristics that result from the influence of periodic or permanent inundation or soil saturation for extended periods that further affect anaerobic conditions (i.e., chemical reduction in the soils or hydric soils).
- **Hydrology:** The presence of inundated or saturated soil conditions resulting from permanent or periodic inundation by groundwater or surface water.
- **Vegetation:** A prevalence of vegetation typically adapted for life in saturated soil conditions (i.e., hydrophytic vegetation).

Positive indicators of all three parameters are normally present in wetlands. Presence of primary and secondary wetland hydrology indicators were documented for each identified aquatic resource feature on the project site. Potential jurisdictional wetlands exhibiting atypical conditions were delineated in accordance with the 2008 Regional Supplement for situations involving vegetation, soil, and hydrology that may be naturally problematic and/or significantly disturbed.

4.4 Ordinary High Water Mark Assessment

The OHWM Field Guide was used to provide technical guidance for delineating the OHWM, which is based on the physical and biological signatures established and maintained at the boundaries of an active channel. The OHWM Field Guide addresses the underlying hydrologic and geomorphic concepts pertaining to the OHWM and the field indicators, methods, and additional lines of evidence used to assess and delineate the OHWM. Delineation of the active channel signature (i.e., the OHWM) is based largely on identification of three primary physical or biological indicators (USACE 2008b):

- Topographic break in slope
- Change in sediment characteristics
- Change in vegetation characteristics (species or cover)

5 Results

5.1 Environmental Setting

The project site is surrounded by urban development, including residential, recreational, and commercial development and open space generally composed of scattered oak woodland and annual grassland. The Auburn Recreation District Regional Park is east of the project site and includes a pond, athletic fields, tennis courts, and a recreation center.

5.1.1 Climate and Rainfall

The project site is located in a semi-arid climate where annual temperatures range from 36.6°F to 92.5°F, and the average annual precipitation is 34.39 inches. On average, the months with the highest rainfall are January and February, and July has the least precipitation (WRCC 2020).

According to data from the Auburn Weather Station Gauge, total precipitation recorded from October 1, 2020, through September 30, 2020, was 15.98 inches, approximately 46% of normal (CDEC 2020). Therefore, the project region had below normal hydrological conditions in the year preceding the survey. The Auburn Weather Station Gauge is located approximately 2.5 miles southeast of the project site at an elevation of approximately 1,425 feet above mean sea level.

5.1.2 Topography and Soils

The project site is located in the western foothills of the Sierra Nevada Mountain Range. Elevations on the project site range from approximately 1,345 feet above mean sea level in the northwest corner of the project site to 1,430 feet above mean sea level in the oak woodland areas near the middle of the site.

According to the Natural Resources Conservation Service (USDA 2020b), there are two soil types mapped on the project site: Auburn-Argonaut complex, 2% to 15% slopes, and Auburn-rock outcrop complex, 2% to 30% slopes (Figure 3, Project Soils). The Auburn soil series is found on foothills and consists of moderately deep, well-drained soils formed in material weathered from amphibolite schist. The Argonaut soil series is found on foothills and consists of moderately deep, well-drained soils formed in material weathered from meta-andesite (USDA 2020b). Both of these soil units are identified as hydric soils (USDA 2020c).

5.1.3 Watershed and Hydrology

The project site occurs within the Orr Creek watershed, which drains approximately 25 square miles of land in Placer County (Hydrological Unit Code 180201610201) (CDFW 2020). According to the U.S. Fish and Wildlife Service National Wetlands Inventory, there are no aquatic resources mapped on the project site (USFWS 2020). The nearest aquatic resource is a freshwater pond approximately 80 feet north of the project site (Figure 4, Hydrologic Setting). The National Wetlands Inventory dataset is based on coarse aerial mapping.

Surface run-off on the project site is generally directed to the scrub-shrub wetland in the western half of the project site, to constructed ditches and storm drain features in adjacent urban areas, or to the Nevada Irrigation District

(NID) canal. Irrigation run-off from urban development to the west appears to sheet flow toward the scrub-shrub wetland near the mid-western portion of the project site.

5.1.4 Vegetation Communities and Other Land Cover Types

Land cover within the project site consists of a combination of terrestrial non-vegetative land covers and natural vegetation communities. The vegetation communities and land covers have been adapted from the Manual of California Vegetation, Online Edition (CNPS 2020). The following vegetation communities and land cover types were documented on the project site and are described in further detail below: blue oak woodland, California annual grassland, and disturbed/developed. A total of 62 species of native or naturalized plants, 30 native (48%) and 32 non-native (52%), was recorded on the project site during the field delineation (see Attachment B).

5.1.4.1 Natural Vegetation Communities

Blue Oak Woodland. Blue oak woodland is the dominant vegetation community present on the project site. Blue oak (*Quercus douglasii*) is the dominant overstory species, with a lesser abundance of foothill pine (*Pinus sabiniana*). Shrubs occur intermittently and include pink honeysuckle (*Lonicera hispidula*), Himalayan blackberry (*Rubus armeniacus*), and buckbrush (*Ceanothus cuneatus* var. *cuneatus*). The herbaceous layer is generally sparse where leaf litter is thick on the ground surface. Where present in openings and disturbed areas, herbs include a similar assemblage of species as in the grassland community (discussed below). There are multiple dirt trails that meander through the woodland, and evidence of other disturbances, including brush and log piles, vehicle tracks, and miscellaneous trash and debris.

California Annual Grassland. California annual grassland is present in the western portion of the project site. Dominant species in this community include medusa head (*Elymus caput-medusae*), dogtail grass (*Cynosurus echinatus*), wild oat (*Avena barbata*), soft brome (*Bromus hordeaceus*), field hedge parsley (*Torilis arvensis*), and pale flax (*Linum bienne*). The shrub and tree layer is absent from this vegetation community. There is one scrub-shrub wetland that runs north/south through the grassland (discussed below).

5.1.4.2 Other Land Cover Types

Disturbed/Developed. This land cover type includes areas that have been completely altered by human activities and contain little to no vegetation. Such areas include buildings, paved and gravel roadways and trails, gravel lots, and other constructed environments. Disturbed/developed areas on the project site include a baseball field and associated driveway, paved Richardson Drive, and adjacent disturbed areas.

5.2 Aquatic Resources

Three aquatic resource types were documented on the project site and are described in further detail below: scrub-shrub wetland, seasonal wetland, and other waters (a Nevada Irrigation District canal and an ephemeral drainage). Figure 5, Aquatic Resources Delineation, visually depicts aquatic resources mapped on the project site.

5.2.1 Wetlands

5.2.1.1 Scrub-Shrub Wetland

There is one scrub-shrub wetland comprising approximately 1.288 acres near the western edge of the project site. This feature is a result of a leak originating from the NID canal (discussed below). In past years the leak was repaired by NID by lining the canal. To prevent the wetland from converting to dry land as a result of the repair, an overflow structure was constructed in the canal to provide continued seasonal inputs to the wetland.

The scrub-shrub wetland lacks a defined bed and bank and only appears to be inundated seasonally. The wetland is swale-like and drains the surrounding uplands into a culvert at the northern edge of the project site. The culvert outfalls to a constructed and managed pond, which empties into a rocky channel that eventually empties into a rocky basin within Deer Ridge Park, north of Deer Ridge Lane. The wetland is discernible from the adjacent upland areas by a distinct change in vegetation. The wetland contains a dominance of hydrophytic species, including sweet vernal grass (*Anthoxanthum odoratum*; Facultative [FAC]), dallisgrass (*Paspalum dilatatum*; FAC), Himalayan blackberry (FAC), and perennial rye grass (*Festuca perennis*; FAC). The wetland is also dominated by coyote brush (*Baccharis pilularis*; Not Listed [NL]), and supports scattered trees at its southern end, including blue oak (NL) and shining willow (*Salix lasiandra*; Facultative Wetland [FACW]). The wetland contained obvious hydric soils, as indicated by redox dark surface (Hydric Soil Indicator F6). Wetland hydrology was confirmed by the presence of oxidized rhizospheres along living roots (Hydrology Indicator C3). No surface water or saturation was present in the wetland during the October 2020 fieldwork.

5.2.1.2 Seasonal Wetland

There is one seasonal wetland comprising approximately 0.016 acres in the western half of the project site. This feature is located 30 feet east of the seasonal wetland swale and only appears to be inundated seasonally. The wetland is discernible from the adjacent upland areas by a distinct change in vegetation. The swale contains a dominance of hydrophytic species, including Great Valley eryngo (*Eryngium castrense*; Obligate [OBL]), perennial rye grass (FAC), and hyssop loosestrife (*Lythrum hyssopifolium*; OBL). The wetland contained obvious hydric soils, as indicated by redox depressions (Hydric Soil Indicator F8). Wetland hydrology was confirmed by the presence of oxidized rhizospheres along living roots (Hydrology Indicator C3) and surface soil cracks (Hydrology Indicator B6). No surface water or saturation was present in the wetland during the October 2020 fieldwork.

5.2.2 Other Waters

5.2.2.1 Nevada Irrigation District Canal

Approximately 208 linear feet (0.055 acres) of a canal that is owned and operated by the Nevada Irrigation District flows through the southwest corner of the project site. Within the site, the earthen canal is approximately 3 feet deep by 3 feet wide. Evidence of an OHWM includes shelving, a break in slope, sediment sorting, bed and bank, and change in plant community. The drainage supports emergent vegetation along the bank margins, and the bed contains a mix of sand, gravel, and small cobble. Water approximately 2 to 3 inches deep was observed flowing in the canal during the October 2020 field delineation. The canal flows into two subsurface inlets and outside of the project site. There is no continuous riparian corridor associated with this feature on the project site.

5.2.2.2 Ephemeral Drainage

An approximately 210-foot-long (0.083 acres) ephemeral drainage is located downslope of the baseball field in the southeastern corner of the project site. A 4-inch-diameter pipe on the hillside between the drainage and adjacent irrigated field outfalls to the drainage. Hydrology of the drainage is dependent on inputs during rain events and run-off from the baseball field and other surrounding uplands. The drainage empties into a culvert below Richardson Drive/Quartz Road and outside of the project site.

The western end of the drainage upstream of the pipe outfall is narrow (1 foot wide) and lacks a defined bed and bank. Following the outfall, the drainage is approximately 3 feet deep by 2 feet wide. Evidence of an OHWM includes shelving, a break in slope, sediment sorting, bed and bank, bent vegetation, and a change in plant community and cover. The bed is mostly dominated by silt/clay with scattered cobble and boulders. The drainage was dry during the October 2020 field delineation. Upland plant species are similar to those found in the annual grassland community (described above). A few small blue oaks (diameter at standard height ±6 inches) and a willow overhang the drainage. There is no continuous riparian corridor associated with this feature on the project site.

5.3 Aquatic Resources Data Summary

Results from observable field indicators from four wetland data points and four stream transects indicate that approximately 1.442 acres of aquatic resources occur on the project site (Figure 5, Aquatic Resources Delineation). The data collected at each data point and transect are included in Attachment C and summarized in Tables 2 and 3.

Table 2. Wetland Data Point Summary

Data Point	Wetland Determination Field Indicators			Location (Lat, Long)	Determination
	Vegetation	*Soils*	*Hydrology*		
1	Yes	Yes	Yes	38.951294, -121.111647	Scrub-shrub wetland
2	No	No	Yes	38.951283, -121.11574	Upland
3	Yes	Yes	Yes	38.951229, -121.111415	Seasonal wetland
4	No	No	Yes	38.951207, -121.111447	Upland

Table 3. Ordinary High Water Mark Transect Data Summary

Transect	Ordinary High Water Mark Field Indicators	Location (Lat, Long)	Determination
1	Break in slope, bed and bank, change in vegetation type and cover	38.951229, -121.111415	Nevada Irrigation District canal
2	Change in vegetation type and cover, break in slope	38.950116, -121.111848	Scrub-shrub wetland
3A	Shelving, sediment sorting, bed and bank	38.949666, -121.107603	Ephemeral drainage (east)
3B	Vegetation matted down, sediment sorting, change in plant community	38.949572, -121.107817	Ephemeral drainage (west)

6 Conclusions

Based on the data collected during the field delineation, Dudek biologists determined that approximately 1.442 acres of aquatic resources occur on the project site (see Table 4). In accordance with the USACE Sacramento District minimum standards, a completed aquatic resources excel spreadsheet and shapefiles are provided as electronic files. The jurisdictional determinations for aquatic resources delineated on the project site are preliminary until verified by the USACE Sacramento District.

Table 4. Summary of Aquatic Resources on the Project Site

Feature ID	Cowardin Code	Location (Lat, Long)	Acres	Linear Feet
Wetlands				
Seasonal wetland	PEM2	38.951229, -121.111415	0.016	—
Scrub-shrub wetland	PSS	38.951294, -121.111647	1.288	—
		Total Wetlands	*1.304*	—
Drainages				
Ephemeral drainage (OHWM limits)	R6	38.949572, -121.107817	0.041	210
Ephemeral drainage (TOB limits)	R6	38.949572, -121.107817	0.042	—
NID canal (OHWM limits)	R2	38.951229, -121.111415	0.026	208
NID canal (TOB limits)	R2	38.951229, -121.111415	0.029	—
		Total Drainages	*0.138*	*418*
		Total	1.442	418

PEM2 = palustrine, persistent, non-emergent; PSS = palustrine, scrub-shrub; R2 = riverine, lower perennial; R6 = riverine, ephemeral; OHWM = Ordinary High Water Mark; TOB = top of bank; NID = Nevada Irrigation District

6.1 Waters of the United States

There are no aquatic resources within the project site that are anticipated to meet the criteria for jurisdictional waters of the United States. The ephemeral drainage on the project site only flows in direct response to precipitation and is therefore not considered a water of the United States. In addition, isolated wetlands, such as the seasonal wetland in the western half of the project site, are not considered waters of the United States unless abutting or adjacent to a TNW or tributary thereof. The scrub-shrub wetland on site terminates at a park pond approximately 90 feet north of the project site. There is an outlet on the north side of the pond that transitions into a rocky channel, which enters a culvert below Deer Ridge Lane and runs through a park on the north side of the road. The channel appears to dissipate into a rocky basin within the park; the basin is approximately 0.30 air miles from Rock Creek to the northeast. There is no obvious topographic feature or drainage that connects the park basin to Rock Creek, which is the nearest potentially jurisdictional water of the United States. Therefore, and based on the data and

analysis presented herein, it is anticipated that none of the aquatic resources on the project site will be considered waters of the United States subject to USACE jurisdiction.

6.2 Waters of the State

Approximately 1.442 acres of aquatic resources occurs on site would be anticipated to meet the criteria for jurisdictional waters of the state. Specifically, all aquatic resources mapped on the project site are assumed to be waters of the state. Contrary to the USACE, the RWQCB asserts jurisdiction over ephemeral drainages and isolated wetlands, and CDFW jurisdiction extends to the top of bank or edge of wetland or riparian vegetation (if present) rather than the OHWM of applicable aquatic resources. The scrub-shrub wetland, seasonal wetland, Nevada Irrigation District canal, and ephemeral drainage are considered waters of the state subject to RWQCB and/or CDFW jurisdiction.

7 References Cited

CDEC (California Data Exchange Center). 2020. Real-Time Station Locator. Auburn, California Weather Station (Station ID-AUB). Accessed September 2020. https://cdec.water.ca.gov/webgis/?appid=cdecstation.

CDFW (California Department of Fish and Wildlife). 2020. Biogeographic Information and Observation System: BIOS viewer version 5.94.01. Accessed October 2020. http://www.dfg.ca.gov/biogeodata/bios/.

CNPS (California Native Plant Society). 2020. A Manual of California Vegetation Online. Accessed October 2020. http://vegetation.cnps.org/.

EPA (U.S. Environmental Protection Agency). 2020. Legal Memoranda Regarding Solid Waste Agency of Northern Cook County (SWANCC) v. United States. Navigable Waters Protection Rule. Accessed May 2020. https://www.epa.gov/nwpr/legal-memoranda-regarding-solid-waste-agency-northern-cook-county-swancc-v-united-states.

Google Earth. 2020. Google Earth Pro (version 7.3.2.5776). Google LCC. Accessed September 2020.

Jepson Flora Project. 2020. Jepson eFlora. Berkeley, California: University of California. Accessed September 2020. http://ucjeps.berkeley.edu/IJM.html.

SWRCB (State Water Resources Control Board). 2019. State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State [For Inclusion in the Water Quality Control Plans for Inland Surface Waters and Enclosed Bays and Estuaries and Ocean Waters of California]. Adopted April 2, 2019.

USACE (United States Army Corps of Engineers). 1987. *Corps of Engineers Wetlands Delineation Manual.* Online ed. Environmental Laboratory, Wetlands Research Program Technical Report Y-87-1. Vicksburg, Mississippi: United States Army Engineer Waterways Experiment Station. January 1987.

USACE. 2008a. *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0)*. Environmental Laboratory, ERDC/EL TR-08-28. U.S. Army Engineer Research and Development Center. Vicksburg, Mississippi. September 2008.

USACE. 2008b. *A Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the United States*. Cold Regions Research and Engineering Laboratory, ERDC/CRREL TR-08-12. U.S. Army Engineer Research and Development Center. Hanover, New Hampshire. August 2008.

USACE. 2010. *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region (Version 2.0)*. Environmental Laboratory, ERDC/EL TR-10-3. U.S. Army Engineer Research and Development Center. Vicksburg, Mississippi. May 2010. https://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/stelprdb1046494.pdf.

USACE. 2014. *A Guide to Ordinary High Water Mark (OHWM) Delineation for Non-Perennial Streams in the Western Mountains, Valleys, and Coast Region of the United States*. Matthew K. Mersel and Robert W. Lickvar, Cold Regions Research and Engineering Laboratory, ERDC/CRREL TR-14-13, Hanover, New Hampshire. August 2014.

USACE. 2016. *Minimum Standards for Acceptance of Aquatic Resources Delineation Reports*. Accessed December 2019. https://www.spk.usace.army.mil/Portals/12/documents/regulatory/jd/minimum-standards/Minimum_Standards_for_Delineation_with_Template-final.pdf.

USACE. 2018. Arid West 2018 Regional Wetland Plant List. Accessed September 2020. http://wetland-plants.usace.army.mil/nwpl_static/data/DOC/lists_2018/Regions/pdf/reg_AW_2018v1.pdf.

USDA (United States Department of Agriculture). 2020a. PLANTS database. USDA Natural Resources Conservation Service. Last updated November 11, 2019. Accessed September 2020. http://plants.usda.gov/java/.

USDA. 2020b. Web Soil Survey for Placer County. USDA Natural Resources Conservation Service, Soil Survey Staff. Accessed September 2020. http://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm.

USDA. 2020c. List of Hydric Soils. USDA Natural Resources Conservation Service, Soil Survey Staff. Accessed September 2020. https://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/use/hydric/.

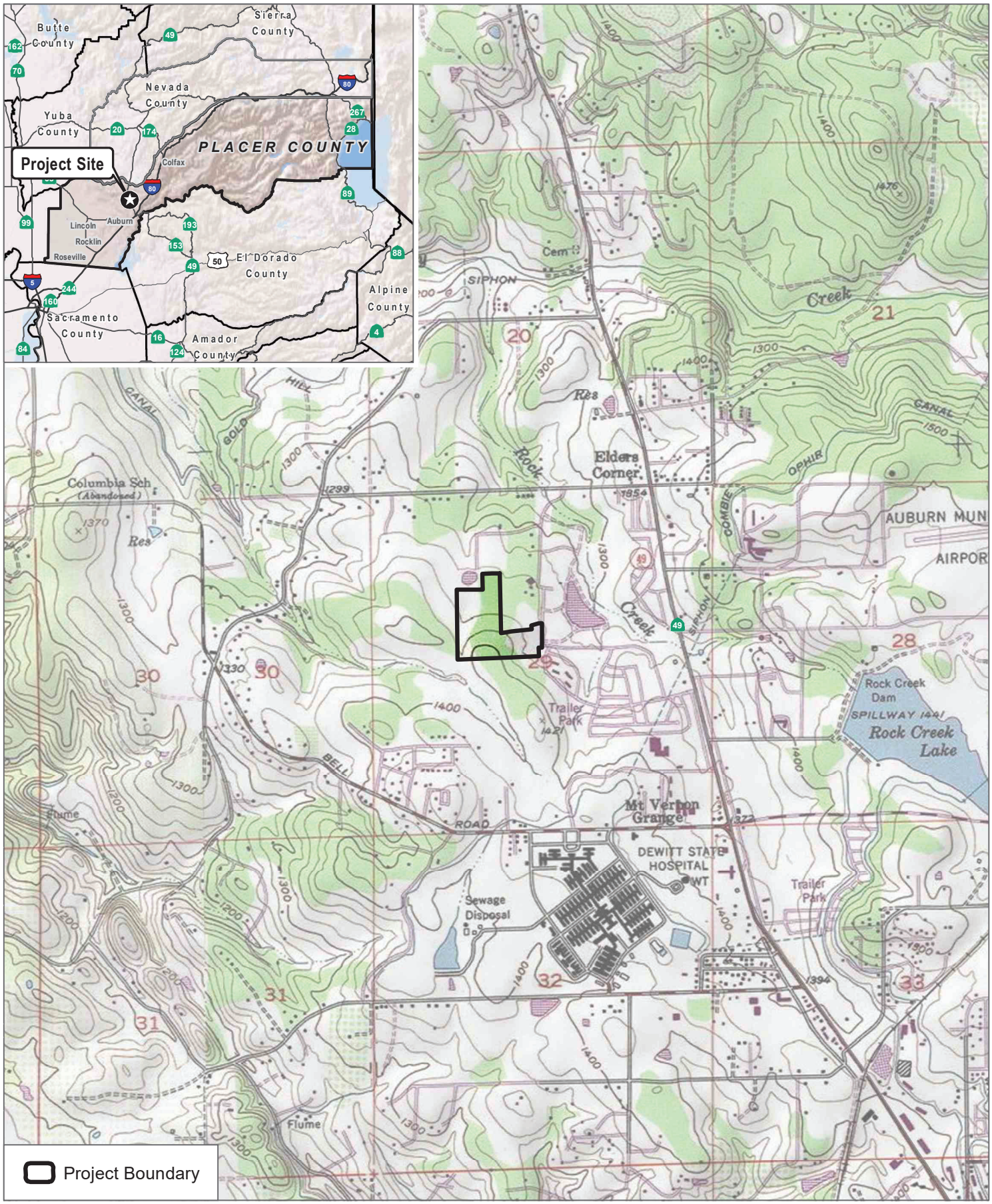
USFWS (United States Fish and Wildlife Service). 1992. Classification of Wetlands and Deepwater Habitats of the United States. United States Department of the Interior. Accessed August 2020. https://www.fws.gov/wetlands/Documents/Classification-of-Wetlands-and-Deepwater-Habitats-of-the-United-States.pdf.

USFWS (United States Fish and Wildlife Service). 2020. "The National Wetlands Inventory." Accessed September 2020. fws.gov/wetlands/NWI/index.html.

USGS (United States Geological Survey). 2020a. Historical Topographic Map Explorer. Accessed September 2020. https://livingatlas.arcgis.com/topoexplorer/index.html.

USGS. 2020b. National Hydrography Dataset: GIS Online viewer. Accessed June 2020. http://nhd.usgs.gov/.

WRCC (Western Regional Climate Center). 2020. Historical Climate Information: Auburn, California (040383). Accessed September 2020. https://wrcc.dri.edu/cgi-bin/cliMAIN.pl?ca0383.



SOURCE: USGS 7.5-Minute Series Auburn Quadrangle

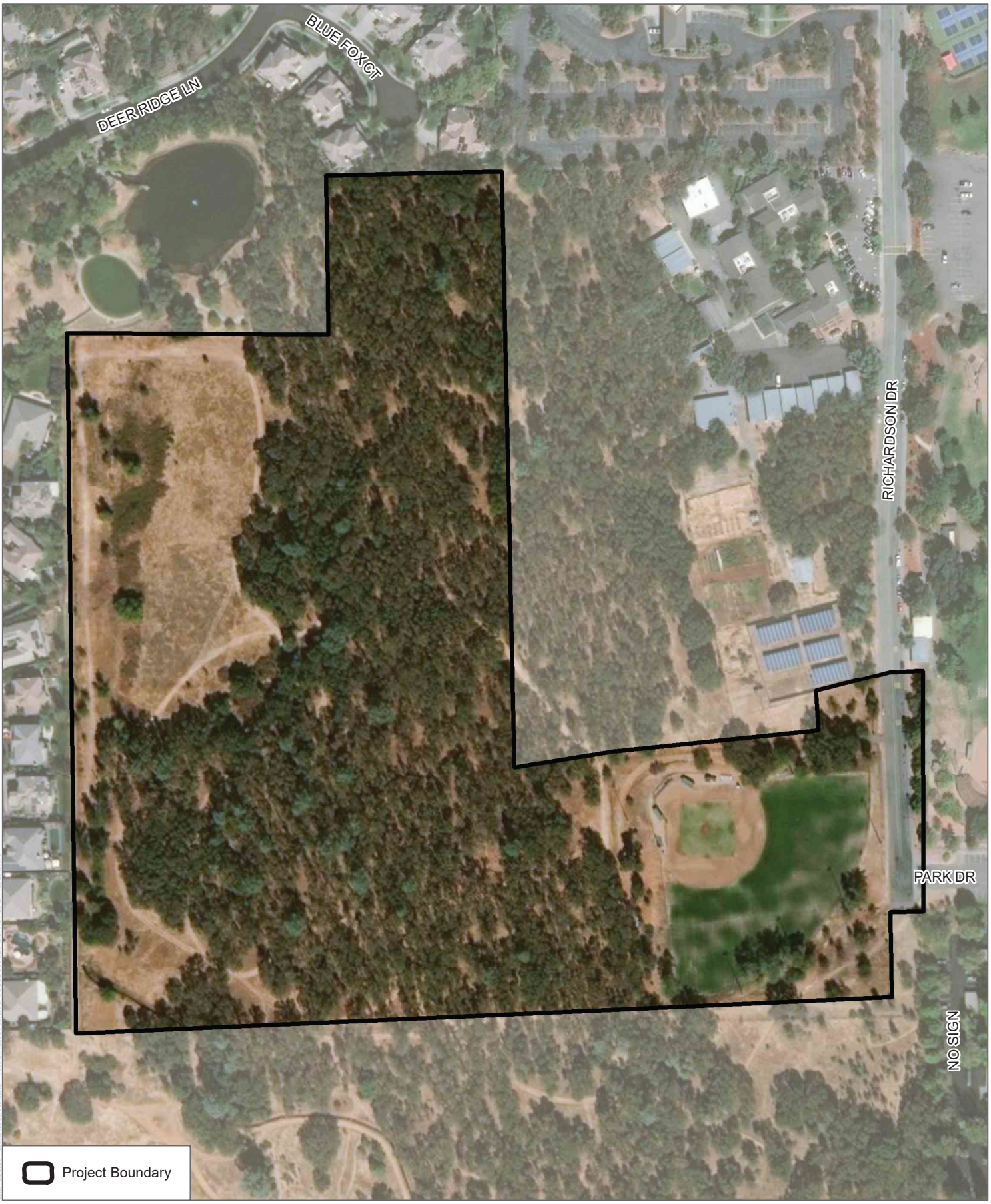
DUDEK

0 1,000 2,000 Feet

FIGURE 1

Project Location

Auburn Recreation District 24-acre Master Plan Project



SOURCE: ESRI(Accessed 2020), Placer County 2020

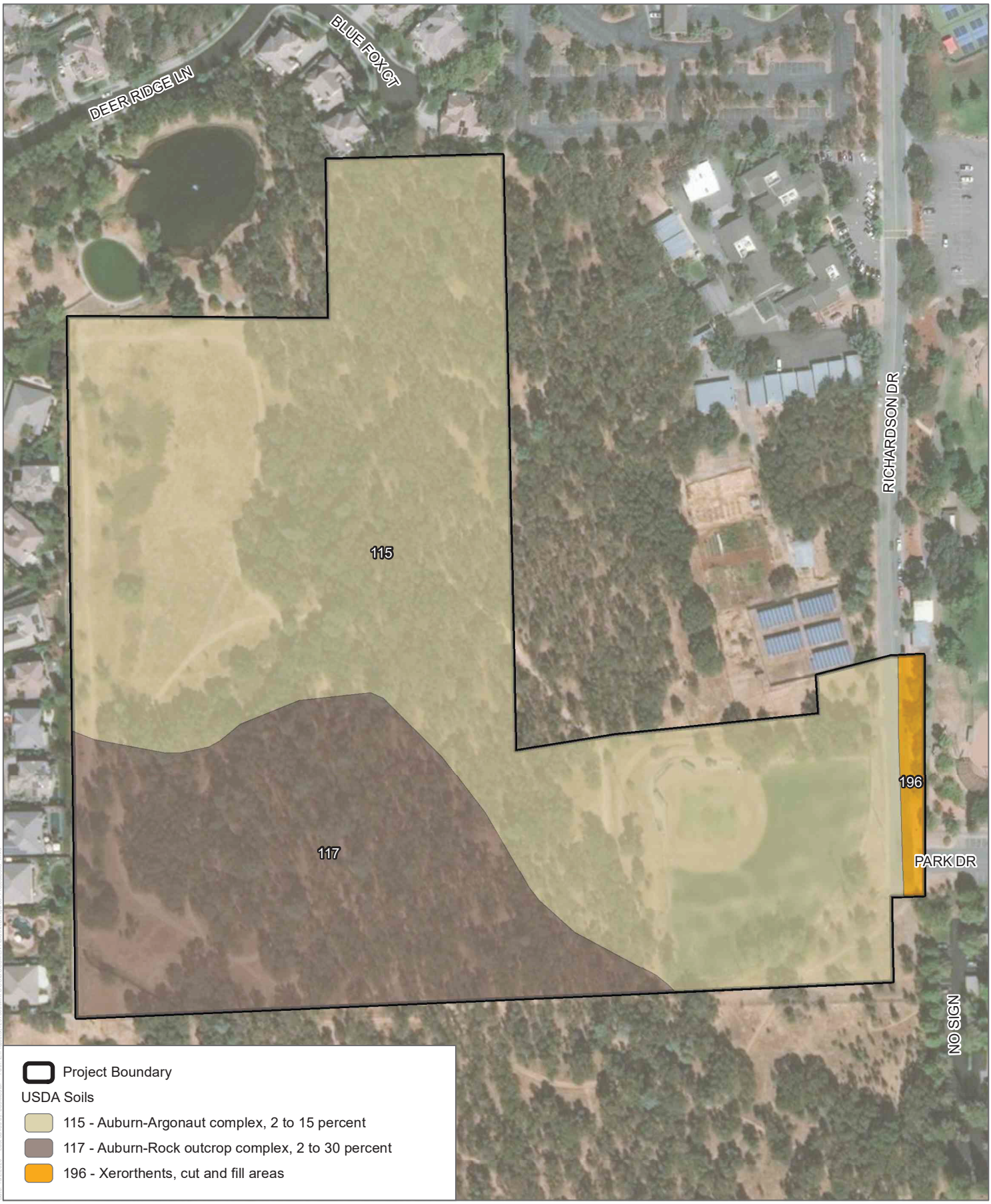
DUDEK

0 100 200 Feet
0 25 50 Meters
1:2,400

FIGURE 2

Project Site

Auburn Recreation District 24-acre Master Plan Project



SOURCE: ESRI(Accessed 2020), Placer County 2020

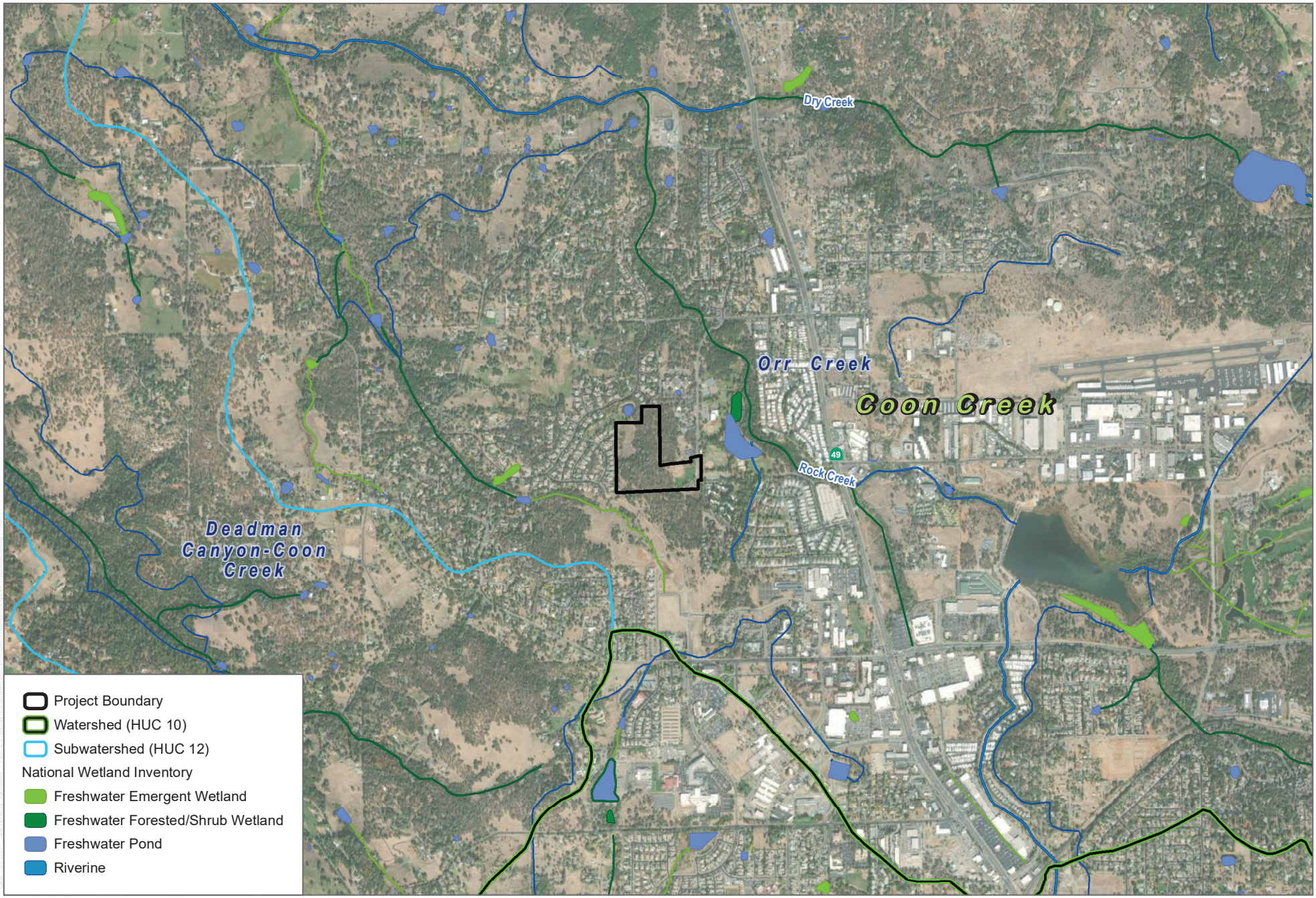
DUDEK

0 100 200 Feet
0 25 50 Meters
1:2,400

FIGURE 3

Project Soils

Auburn Recreation District 24-acre Master Plan Project



SOURCE: USGS 2019, USFWS 2019, ESRI (Accssed 2020)

DUDEK

0 1,000 2,000 Feet

FIGURE 4

Hydrologic Setting

Auburn Recreation District 24-acre Master Plan Project

Project Boundary (24.79 acres)
Upland Sample Point
Wetland Sample Point
Culvert Inlet / Outlet
Pipe Outfall
Transects
20-foot Contours

Aquatic Resources

Waters (0.138 acre) (418 linear feet)

Ephemeral Drainage OHWM (0.041 acre) (210 linear feet)
Ephemeral Drainage TOB (0.042 acre)
Nevada Irrigation District (NID) Canal OHWM (0.026 acre) (208 linear feet)
Nevada Irrigation District (NID) Canal TOB (0.029 acre)

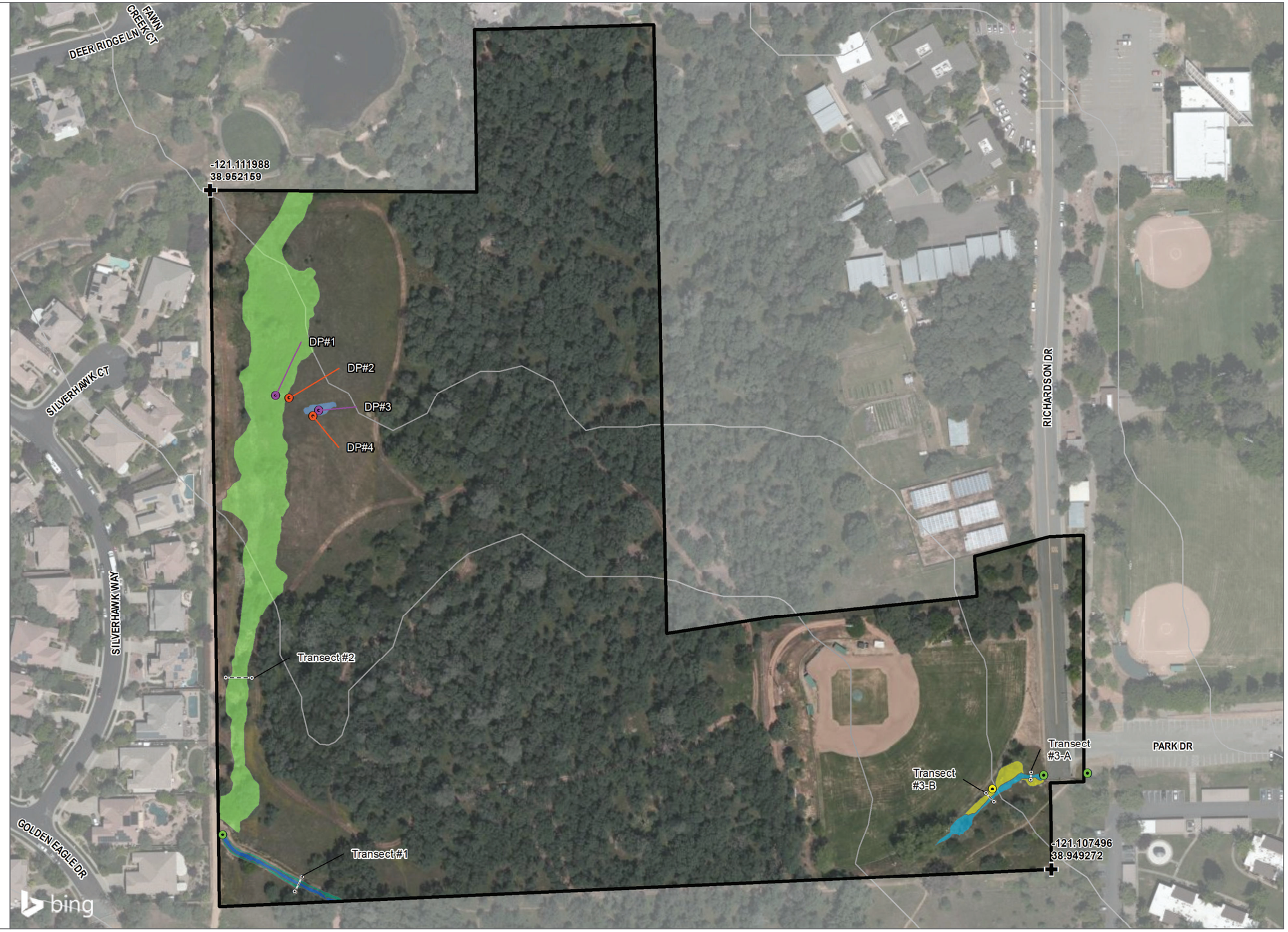
Wetlands (1.304 acres)

Seasonal Wetland (0.016 acre)
Scrub-Shrub Wetland (1.288 acres)

Coordinate System: NAD 1983 State Plane (Zone II)
Projection: Lambert Conformal Conic
Datum: North American 1983
Vertical Datum: NAVD 88, U.S. Feet
1 inch = 150 feet

Created on October 16th, 2020
Updated on October 20th, 2020

Made in accordance with the
Updated Map and Drawing Standards for the South Pacific Division Regulatory Program,
as amended on February 10, 2016, by:
U.S. Army Corps of Engineers
South Pacific Division
Sacramento District, Regulatory Division
1325 J Street, Room 1350



SOURCE: Bing 2020, Placer County 2020

DUDEK

0 75 150 Feet

FIGURE 5

Aquatic Resources Delineation

Auburn Recreation District 24-acre Master Plan Project

Attachment A

Photo Log

	
Photo 1. View facing west at blue oak woodland in the southeast portion of the project site (October 1, 2020).	**Photo 2.** View facing southeast at NID canal at Transect 1. Blue oak woodland is present on both banks (October 1, 2020).
	
Photo 3. View facing southeast at the NID canal downstream of Transect 1 in the southeast corner of the project site (October 1, 2020).	**Photo 4.** View facing north at the shrub-scrub wetland at Transect 2 (October 1, 2020).

	
Photo 5. View facing north at the shrub-scrub wetland in the northwest portion of the project site. The approximate location of the seasonal wetland is indicated by the red arrow (October 1, 2020).	**Photo 6.** View facing west at Data Point 1 within shrub-scrub wetland in the northwest portion of the project site (October 1, 2020).
	
Photo 7. View facing east at the ephemeral drainage in the southeast portion of the project site (October 1, 2020).	**Photo 8.** View facing east at the baseball field in the southeast portion of the project site (October 1, 2020).

Attachment B

List of Plant Species Observed

Plant Species

EUDICOTS

VASCULAR SPECIES

ANACARDIACEAE—Sumac or Cashew Family
Toxicodendron diversilobum—poison oak
FACU
APIACEAE—Carrot Family
Eryngium castrense—Great Valley eryngo
OBL
Torilis arvensis—spreading hedgeparsley*
Not Listed
ASTERACEAE—Sunflower Family
Agoseris sp.—no common name
Varies
Baccharis pilularis—coyote brush
Not Listed
Carduus pycnocephalus—Italian plumeless thistle*
Not Listed
Centaurea solstitialis—yellow star-thistle*
Not Listed
Centromadia fitchii—Fitch's tarweed
FACU
Erigeron canadensis—Canadian horseweed
FACU
Helminthotheca echioides—bristly oxtongue*
FAC
Lactuca serriola—prickly lettuce*
FACU
Solidago sp.—goldenrod
Not Listed
Tragopogon porrifolius—salsify*
Not Listed
Xanthium strumarium—cocklebur
FAC
CAPRIFOLIACEAE—Honeysuckle Family
Lonicera hispidula—pink honeysuckle
FACU

CONVOLVULACEAE—Morning-glory Family
Convolvulus arvensis—field bindweed*
Not Listed
EUPHORBIACEAE—Spurge Family
Croton setiger—dove weed
Not Listed
Euphorbia maculata—spotted sandmat*
UPL
FABACEAE—Legume Family
Acmispon americanus var. *americanus*—American bird's-foot trefoil
UPL
Trifolium microcephalum—smallhead clover
FAC
FAGACEAE—Oak Family
Quercus douglasii—blue oak
Not Listed
Quercus lobata—valley oak
FACU
Quercus wislizeni—interior live oak
Not Listed
GERANIACEAE—Geranium Family
Erodium cicutarium—redstem stork's bill*
Not Listed
Geranium dissectum—cutleaf geranium*
Not Listed
LINACEAE—Flax Family
Linum bienne—pale flax*
Not Listed
LYTHRACEAE—Loosestrife Family
Lythrum hyssopifolia—hyssop loosestrife*
OBL
MALVACEAE—Mallow Family
Malva parviflora—cheeseweed mallow*
Not Listed
MYRTACEAE—Myrtle Family
Eucalyptus globulus—Tasmanian bluegum*
Not Listed
ONAGRACEAE—Evening Primrose Family
Epilobium ciliatum—fringed willowherb
FACW
PLANTAGINACEAE—Plantain Family

Plantago lanceolata—narrowleaf plantain*
FAC
POLYGONACEAE—Buckwheat Family
Rumex crispus—curly dock*
FAC
RHAMNACEAE—Buckthorn Family
Ceanothus cuneatus var. *cuneatus*—buckbrush
Not Listed
ROSACEAE—Rose Family
Prunus sp.—no common name*
Varies
Pyracantha angustifolia—narrowleaf firethorn*
Not Listed
Rosa californica—California rose
FAC
Rubus armeniacus—Himalayan blackberry*
FAC
SALICACEAE—Willow Family
Salix lasiandra—shining willow
FACW
SIMAROUBACEAE—Quassia Or Simarouba Family
Ailanthus altissima—tree of heaven*
FACU
VISCACEAE—Mistletoe Family
Phoradendron leucarpum—oak mistletoe
Not Listed
VITACEAE—Grape Family
Vitis californica—California wild grape
FACU

FERNS AND FERN ALLIES

VASCULAR SPECIES

EQUISETACEAE—Horsetail Family
Equisetum arvense—field horsetail
FAC

GYMNOSPERMS AND GNETOPHYTES

VASCULAR SPECIES

PINACEAE—Pine Family
Pinus sabiniana—foothill pine
Not Listed

MONOCOTS

VASCULAR SPECIES

ALISMATACEAE—Water-plantain Family
Alisma lanceolatum—lanceleaf water plantain*
OBL
CYPERACEAE—Sedge Family
Carex sp.—sedge
Varies
Cyperus eragrostis—tall flatsedge
FACW
JUNCACEAE—Rush Family
Juncus balticus—no common name
FACW
Juncus bufonius—toad rush
FACW
Juncus patens—western rush
FACW
Juncus sp.—rush
Varies
POACEAE—Grass Family
Anthoxanthum odoratum—sweet vernal grass*
FAC
Avena barbata—slender oat*
Not Listed
Avena fatua—wild oat*
Not Listed
Bromus diandrus—ripgut brome*
Not Listed
Bromus hordeaceus—soft brome*
FACU
Cynodon dactylon—Bermudagrass*

FACU

Cynosurus echinatus—annual dogtails*

Not Listed

Elymus caput-medusae—medusahead*

Not Listed

Festuca perennis—perennial rye grass*

FAC

Paspalum dilatatum—dallisgrass*

FAC

Polypogon monspeliensis—annual rabbitsfoot grass*

FACW

THEMIDACEAE—Brodiaea Family

Brodiaea sp.—brodiaea

Varies

* Indicates non-native species.

Attachment C

Datasheets

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: ARD 24-acre site City/County: Placer Sampling Date: 10/1/2020
Applicant/Owner: ARD – Auburn Recreation District State: CA Sampling Point: 1
Investigator(s): A. Sennett Section, Township, Range: See report
Landform (hillslope, terrace, etc.): swale Local relief (concave, convex, none): Concave Slope (%): <1
Subregion (LRR): C Lat: 38.951294 Long: -121.111647 Datum: WGS84
Soil Map Unit Name: See report NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No ____ (If no, explain in Remarks.)
Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No ____
Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓ No ____	Is the Sampled Area within a Wetland? Yes ✓ No ____
Hydric Soil Present?	Yes ✓ No ____	
Wetland Hydrology Present?	Yes ✓ No ____	

Remarks: vegetated swale in western portion of project site

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: ____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	____ = Total Cover		
Sapling/Shrub Stratum (Plot size: 10 m²)			
1. Rubus armeniacus	25	Y	FAC
2. Baccharis pilarus	10	Y	NL
3.			
4.			
5.			
	35 = Total Cover		
Herb Stratum (Plot size: 5 m²)			
1. Paspalum dilatatum	20	Y	FAC
2. Anthoxanthum odoratum	20	Y	FAC
3. Rumex crispus	2	N	FAC
4. Festuca perennis	5	N	FAC
5. Elymus caput-medusae	10	N	NL
6. Juncus patens	10	N	FACW
7. Solidago sp.	5	N	varies
8.			
	72 = Total Cover		
Woody Vine Stratum (Plot size: ____)			
1.			
2.			
	____ = Total Cover		

% Bare Ground in Herb Stratum 28 % Cover of Biotic Crust Ø

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)
Total Number of Dominant Species Across All Strata: 4 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 75 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species ____	x 1 = ____
FACW species ____	x 2 = ____
FAC species ____	x 3 = ____
FACU species ____	x 4 = ____
UPL species ____	x 5 = ____
Column Totals: ____ (A)	____ (B)

Prevalence Index = B/A = ____

Hydrophytic Vegetation Indicators:
✓ Dominance Test is >50%
__ Prevalence Index is ≤3.0[1]
__ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
__ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ✓ No ____

Remarks:

SOIL

Sampling Point: 1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-6	7.5YR 4/3	95	5YR 5/8	5	C	PL,M	silty clay	some gravel
								Prominent redox concentrations

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) **(LRR C)**
- ___ 1 cm Muck (A9) **(LRR D)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ✓ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) **(LRR C)**
- ___ 2 cm Muck (A10) **(LRR B)**
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: clay / cobble

Depth (inches): 6

Hydric Soil Present? Yes ✓ No ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) **(Nonriverine)**
- ___ Sediment Deposits (B2) **(Nonriverine)**
- ___ Drift Deposits (B3) **(Nonriverine)**
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ✓ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) **(Riverine)**
- ✓ Sediment Deposits (B2) **(Riverine)**
- ___ Drift Deposits (B3) **(Riverine)**
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ✓ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No ✓ Depth (inches): ___

Water Table Present? Yes ___ No ✓ Depth (inches): ___

Saturation Present? (includes capillary fringe) Yes ___ No ✓ Depth (inches): ___

Wetland Hydrology Present? Yes ✓ No ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: ARD 24-acre site City/County: Placer Sampling Date: 10/1/2020
Applicant/Owner: ARD State: CA Sampling Point: 2
Investigator(s): A. Sennett Section, Township, Range: See report
Landform (hillslope, terrace, etc.): Flat Local relief (concave, convex, none): none Slope (%): 0
Subregion (LRR): C Lat: 38.951283 Long: -121.111574 Datum: WGS84
Soil Map Unit Name: See report NWI classification: none
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No ____ (If no, explain in Remarks.)
Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No ____
Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No ✓	Is the Sampled Area within a Wetland? Yes ____ No ✓
Hydric Soil Present?	Yes ____	No ✓	
Wetland Hydrology Present?	Yes ✓	No ____	

Remarks: Upland point east of seasonal wetland swale

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: ____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	____ = Total Cover		

Sapling/Shrub Stratum (Plot size: ____)			
1.			
2.			
3.			
4.			
5.			
	____ = Total Cover		

Herb Stratum (Plot size: 5m²)			
1. Elymus caput-medusae	50	Y	NL
2. Linum bienne	30	Y	NL
3. Paspalum dilatatum	10	N	FAC
4. Solidago sp.	5	N	varies
5. Cynosurus echinatus	5	N	NL
6. Croton setigerus	1	N	NL
7. Festuca perennis	3	N	FAC
8. Plantago lanceolata	1	N	FAC
	105 = Total Cover		

Woody Vine Stratum (Plot size: ____)			
1.			
2.			
	____ = Total Cover		

% Bare Ground in Herb Stratum Ø % Cover of Biotic Crust Ø

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species ____	x 1 = ____
FACW species ____	x 2 = ____
FAC species ____	x 3 = ____
FACU species ____	x 4 = ____
UPL species ____	x 5 = ____
Column Totals: ____ (A)	____ (B)

Prevalence Index = B/A = ____

Hydrophytic Vegetation Indicators:

- ___ Dominance Test is >50%
- ___ Prevalence Index is ≤3.0[1]
- ___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ____ No ✓

Remarks: thatch is thick, some plants [illegible]

SOIL

Sampling Point: 2

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-3	7.5YR 4/4	98	5YR 5/8	2	C	PL	silty clay	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) **(LRR C)**
- ___ 1 cm Muck (A9) **(LRR D)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) **(LRR C)**
- ___ 2 cm Muck (A10) **(LRR B)**
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: clay

Depth (inches): 3

Hydric Soil Present? Yes ___ No ✓

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) **(Nonriverine)**
- ___ Sediment Deposits (B2) **(Nonriverine)**
- ___ Drift Deposits (B3) **(Nonriverine)**
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ✓ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) **(Riverine)**
- ___ Sediment Deposits (B2) **(Riverine)**
- ___ Drift Deposits (B3) **(Riverine)**
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No ✓ Depth (inches): ___

Water Table Present? Yes ___ No ✓ Depth (inches): ___

Saturation Present? (includes capillary fringe) Yes ___ No ✓ Depth (inches): ___

Wetland Hydrology Present? Yes ✓ No ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: ARD 24-acre City/County: Placer Sampling Date: 10/1/2020
Applicant/Owner: ARD State: CA Sampling Point: 3
Investigator(s): A. Sennett Section, Township, Range: see report
Landform (hillslope, terrace, etc.): flat Local relief (concave, convex, none): concave Slope (%): ϕ
Subregion (LRR): C Lat: 38.951229 Long: -121.111415 Datum: WGS84
Soil Map Unit Name: see report NWI classification: none
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No ___ (If no, explain in Remarks.)
Are Vegetation ___, Soil ___, or Hydrology ___ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No ___
Are Vegetation ___, Soil ___, or Hydrology ___ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓	No ___
Hydric Soil Present?	Yes ✓	No ___
Wetland Hydrology Present?	Yes ✓	No ___

Is the Sampled Area within a Wetland? Yes ✓ No ___

Remarks: seasonal wetland east of swale in western portion of project site

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: ___)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	___ = Total Cover		

Sapling/Shrub Stratum (Plot size: ___)			
1.			
2.			
3.			
4.			
5.			
	___ = Total Cover		

Herb Stratum (Plot size: 5 m²)			
1. Eryngium castrense	20	Y	OBG
2. Festuca perennis	10	Y	FAC
3. Lythrum hyssopifolium	10	Y	OBG
4. Centromadia fitchii	2	N	FACU
5.			
6.			
7.			
8.			
	42 = Total Cover		

Woody Vine Stratum (Plot size: ___)			
1.			
2.			
	___ = Total Cover		

% Bare Ground in Herb Stratum 58 % Cover of Biotic Crust 0

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)
Total Number of Dominant Species Across All Strata: 3 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species ___	x 1 = ___
FACW species ___	x 2 = ___
FAC species ___	x 3 = ___
FACU species ___	x 4 = ___
UPL species ___	x 5 = ___
Column Totals: ___ (A)	___ (B)

Prevalence Index = B/A = ___

Hydrophytic Vegetation Indicators:
✓ Dominance Test is >50%
___ Prevalence Index is ≤3.0[1]
___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ✓ No ___

Remarks: plants crispy

SOIL

Sampling Point: 3

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-8	10YR 5/4	95	7.5YR 5/6	5	C	M, PL	clay/silt	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR C**)
- ___ 1 cm Muck (A9) (**LRR D**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ✓ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR C**)
- ___ 2 cm Muck (A10) (**LRR B**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: Clay

Depth (inches): 0-8 in (varies)

Hydric Soil Present? Yes ✓ No ___

Remarks:

deep ~0.5-1inch wide, cracks present - some very deep. (max. depth unknown, but 2-feet deep in some places.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (**Nonriverine**)
- ___ Sediment Deposits (B2) (**Nonriverine**)
- ___ Drift Deposits (B3) (**Nonriverine**)
- ✓ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ✓ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (**Riverine**)
- ___ Sediment Deposits (B2) (**Riverine**)
- ___ Drift Deposits (B3) (**Riverine**)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No ✓ Depth (inches): ___

Water Table Present? Yes ___ No ✓ Depth (inches): ___

Saturation Present? (includes capillary fringe) Yes ___ No ✓ Depth (inches): ___

Wetland Hydrology Present? Yes ✓ No ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: ARD 24-acre City/County: Placer Sampling Date: 10/1/2020
Applicant/Owner: ARD State: CA Sampling Point: 4
Investigator(s): A. Sennett Section, Township, Range: See report
Landform (hillslope, terrace, etc.): flat Local relief (concave, convex, none): none Slope (%): Ø
Subregion (LRR): C Lat: 38.951207 Long: -121.111447 Datum: WGS84
Soil Map Unit Name: see report NWI classification: none
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No ____ (If no, explain in Remarks.)
Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No ____
Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No ✓	Is the Sampled Area within a Wetland? Yes ____ No ✓
Hydric Soil Present?	Yes ____	No ✓	
Wetland Hydrology Present?	Yes ✓	No ____	

Remarks: upland point next to seasonal wetland

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: ____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	____ = Total Cover		

Sapling/Shrub Stratum (Plot size: ____)			
1.			
2.			
3.			
4.			
5.			
	____ = Total Cover		

Herb Stratum (Plot size: 5m²)			
1. Elymus caput-medusae	30	Y	NL
2. Linum bienne	10	Y	NL
3. Eryngium castrense	5	N	OBG
4. Centromadia fitchii	1	N	FACU
5.			
6.			
7.			
8.			
	46 = Total Cover		

Woody Vine Stratum (Plot size: ____)			
1.			
2.			
	____ = Total Cover		

% Bare Ground in Herb Stratum 54 % Cover of Biotic Crust 0

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:
OBL species	____	x 1 = ____
FACW species	____	x 2 = ____
FAC species	____	x 3 = ____
FACU species	____	x 4 = ____
UPL species	____	x 5 = ____
Column Totals:	____ (A)	____ (B)

Prevalence Index = B/A = ____

Hydrophytic Vegetation Indicators:

- ___ Dominance Test is >50%
- ___ Prevalence Index is ≤3.0[1]
- ___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ____ No ✓

Remarks:

SOIL

Sampling Point: 4

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-4	7.5YR 4/4	98	5YR 5/8	2	C	PL	silty clay	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR C**)
- ___ 1 cm Muck (A9) (**LRR D**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR C**)
- ___ 2 cm Muck (A10) (**LRR B**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: clay

Depth (inches): 4

Hydric Soil Present? Yes ___ No ✓

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (**Nonriverine**)
- ___ Sediment Deposits (B2) (**Nonriverine**)
- ___ Drift Deposits (B3) (**Nonriverine**)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ✓ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (**Riverine**)
- ___ Sediment Deposits (B2) (**Riverine**)
- ___ Drift Deposits (B3) (**Riverine**)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No ✓ Depth (inches): ___

Water Table Present? Yes ___ No ✓ Depth (inches): ___

Saturation Present? (includes capillary fringe) Yes ___ No ✓ Depth (inches): ___

Wetland Hydrology Present? Yes ✓ No ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

38.949247, -121.111535

OHWM DATA SHEET

Project: ARD 24-ac Date: 10/1/2020 Transect: 1

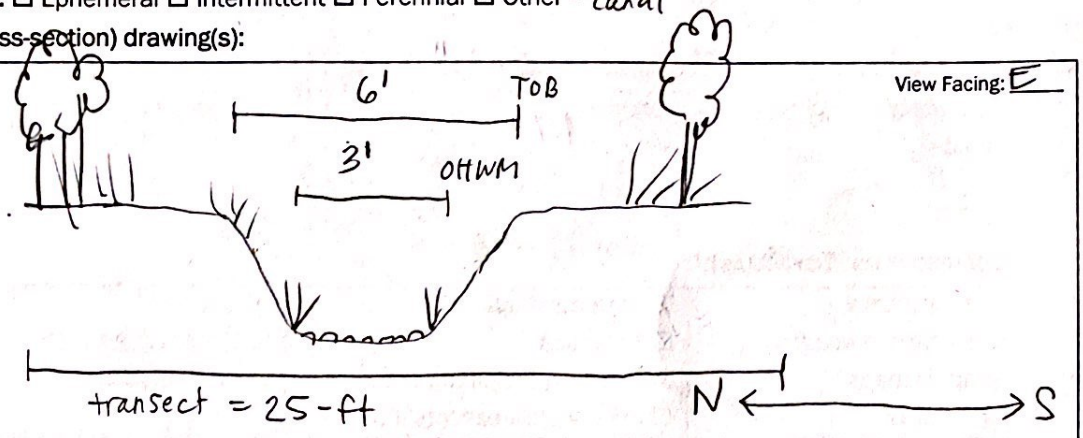
Investigator(s): A. Sennett Feature Name: NID Canal

Site Location: Nevada irrigation canal in the southeast corner of project site

Feature Type: ☐ Ephemeral ☐ Intermittent ☑ Perennial ☑ Other - canal

Transect (cross-section) drawing(s):

View Facing: E



☑ Transect length
☑ OHWM width
☑ Channel depth — 3 feet
☑ Photo

Break in Slope at OHWM: ☐ Sharp (>60°) ☑ Moderate (30-60°) ☐ Gentle (<30°)

☐ Natural line impressed on the bank	☑ Sediment sorting
☑ Shelving	☐ Leaf litter disturbed or washed away
☐ Changes in the character of soil	☐ Scour
☐ Destruction of terrestrial vegetation	☐ Deposition
☐ Presence of litter and debris	☑ Bed and banks
☐ Wracking	☐ Water staining
☐ Vegetation matted down, bent, or absent	☑ Change in plant community

	Clay/Silt	Sand	Gravel	Cobbles	Boulders
Above OHWM	75	0	20	5	0
Below OHWM	10	50	20	20	0

	Tree (%)	Shrub (%)	Herb (%)	Bare (%)
Above OHWM	10	0	0-50	50-90
Below OHWM	0	0	0	100

Stage: ☐ Early (herbs & seedlings) ☐ Mid (herbs, shrubs, saplings) ☐ Late (herbs, shrubs, mature trees)

Upland Species:	*Bank Species:*	*Emergent Species:*
Same as annual grassland community + scattered Croton setigerus	Epilobium ciliatum Cyperus eriorostis Polypogon monospelensis Carex sp. Juncus bufonius Equisetum arvense	Alisma gramineum Equisetum arvense (sparse below OHWM)

OHWM DATA SHEET

Condition/Disturbances (e.g., erosion, grazing, culverts, etc.):

Some bank erosion, under cutting.
trail parallel canal- soil disturbance/compaction

Hydrology:

- ☑ Flowing water
- ☐ Standing water
- ☐ Saturated
- ☐ Dry

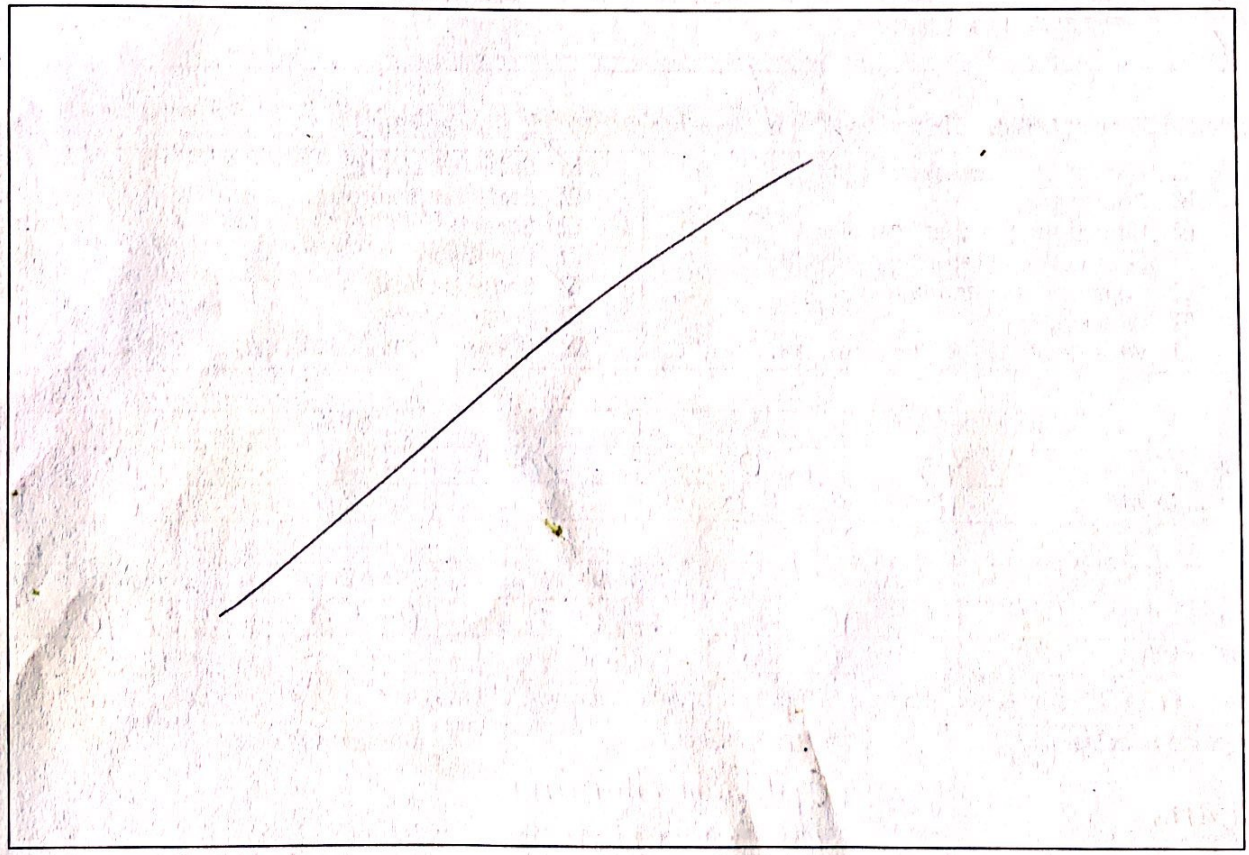
Avg. depth: 2-3" Min. depth: 0.5"

Temp: NA Max. depth: 6" – 12' @ prior to outfall

Checklist of resources (if available):

☑ Aerial photography	☑ Vegetation maps	☑ GPS unit
☐ Remotely-sensed images	☑ Soil maps	☐ Stream gage data
☑ Topographic maps	☑ Rainfall/precipitation data	☐ Other studies:
☐ Geologic maps	☐ Existing delineation(s) for site	

Other drawings (plan view), notes:



Other forms related to this feature: ☐ Yes ☑ No

☐ Terrace, fringe, or floodplain wetland (wetland datasheet)
☐ Low flow channel or other representative section (OHWM datasheet)

38.950116, -121.111848

OHWM DATA SHEET

Project: ARD 24-ac Date: 10/1/2020 Transect: 2

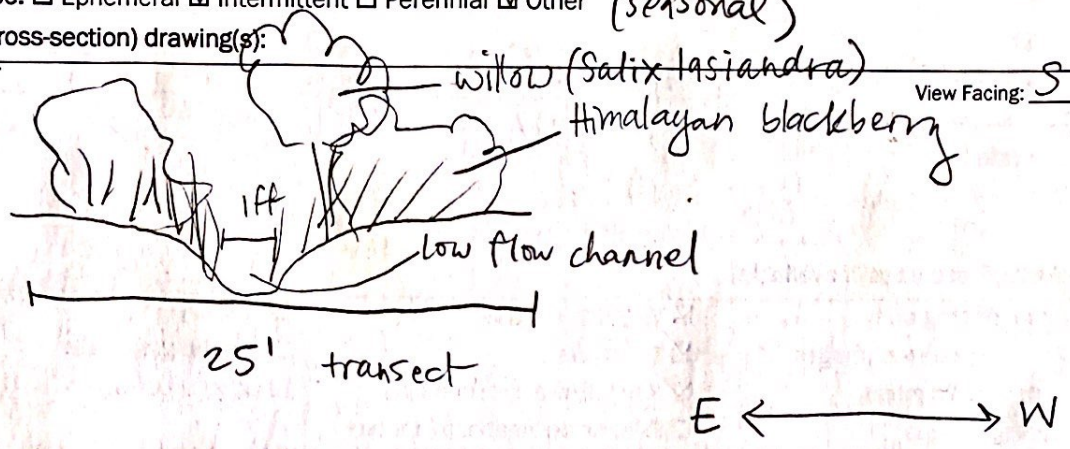
Investigator(s): A. Sennett Feature Name: SWS-1

Site Location:
seasonal wetland swale in western portion of project site

Feature Type: ☐ Ephemeral ☑ Intermittent ☐ Perennial ☑ Other (seasonal)

Transect (cross-section) drawing(s):

View Facing: S



☑ Transect length
☑ OHWM width
☑ Channel depth — 6"
☑ Photo

Break in Slope at OHWM: ☐ Sharp (>60°) ☐ Moderate (30-60°) ☑ Gentle (<30°)

☐ Natural line impressed on the bank	☑ Sediment sorting
☐ Shelving	☐ Leaf litter disturbed or washed away
☐ Changes in the character of soil	☐ Scour
☐ Destruction of terrestrial vegetation	☐ Deposition
☐ Presence of litter and debris	☐ Bed and banks
☐ Wracking	☐ Water staining
☑ Vegetation matted down, bent, or absent	☑ Change in plant community

	Clay/Silt	Sand	Gravel	Cobbles	Boulders
Above OHWM	70	25	5	0	0
Below OHWM	75	5	10	10	

	Tree (%)	Shrub (%)	Herb (%)	Bare (%)
Above OHWM	0	0	80	20
Below OHWM	10	30	15	45

Stage: ☐ Early (herbs & seedlings) ☐ Mid (herbs, shrubs, saplings) ☐ Late (herbs, shrubs, mature trees)

Upland Species:	*Bank Species:*	*Emergent Species:*
same as grassland community	Paspalum dilatatum Rubus armeniacus Rosa cal. Salix spp. Prunus sp. Epilobium sp. Solidago sp. Baccharis pilularis	Juncus sp.

OHWM DATA SHEET

Condition/Disturbances (e.g., erosion, grazing, culverts, etc.):
choked w/ Himalayan blackberry

Hydrology:

- ☐ Flowing water
- ☐ Standing water
- ☑ Saturated
- ☐ Dry

Avg. depth: Ø
Min. depth: Ø
Temp: NA
Max. depth: Ø

Checklist of resources (if available):

☑ Aerial photography	☑ Vegetation maps	☑ GPS unit
☑ Remotely-sensed images	☑ Soil maps	☐ Stream gage data
☑ Topographic maps	☑ Rainfall/precipitation data	☐ Other studies:
☐ Geologic maps	☐ Existing delineation(s) for site	

Other drawings (plan view), notes:

Other forms related to this feature: ☑ Yes ☐ No — DP-1

☐ Terrace, fringe, or floodplain wetland (wetland datasheet)
☐ Low flow channel or other representative section (OHWM datasheet)

38.949666, -121.107603

OHWM DATA SHEET

Project: ARD 24-ac Date: 10/1/2020 Transect: 3a

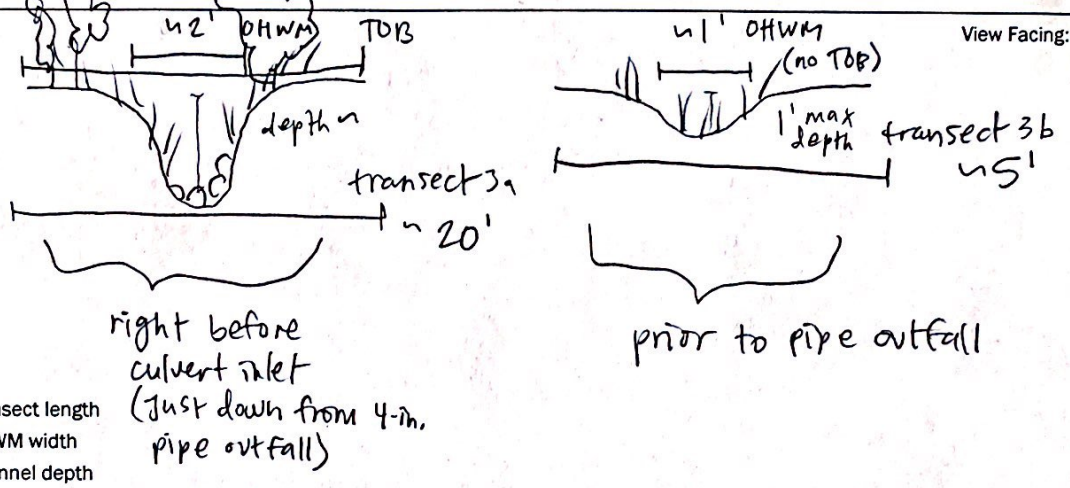
Investigator(s): A. Sennett Feature Name: ED-1

Site Location: Ephemeral drainage downhill (south of) baseball field - gets run-off from field (pipe outfall)

Feature Type: ☑ Ephemeral ☐ Intermittent ☐ Perennial ☐ Other

Transect (cross-section) drawing(s):

View Facing: W



☑ Transect length
☑ OHWM width
☐ Channel depth
☐ Photo

Break in Slope at OHWM: ☑ Sharp (>60°) ☐ Moderate (30-60°) ☐ Gentle (<30°)

☐ Natural line impressed on the bank	☑ Sediment sorting
☑ Shelving	☐ Leaf litter disturbed or washed away
☐ Changes in the character of soil	☐ Scour
☐ Destruction of terrestrial vegetation	☐ Deposition
☐ Presence of litter and debris	☑ Bed and banks
☐ Wracking	☐ Water staining
☐ Vegetation matted down, bent, or absent	☐ Change in plant community

	Clay/Silt	Sand	Gravel	Cobbles	Boulders
Above OHWM	100	0	0	0	0
Below OHWM	75	0	5	10	10

	Tree (%)	Shrub (%)	Herb (%)	Bare (%)
Above OHWM	10	5	50	35
Below OHWM	5	0	10	85

Stage: ☐ Early (herbs & seedlings) ☑ Mid (herbs, shrubs, saplings) ☐ Late (herbs, shrubs, mature trees)

Upland Species:	*Bank Species:*	*Emergent Species:*
Quercus douglasii (6in DBH)	Cynoculus echiodes	Cyperus eriogrostis

OHWM DATA SHEET

Condition/Disturbances (e.g., erosion, grazing, culverts, etc.):

culverted at Park Drive

Hydrology:

- ☐ Flowing water
- ☐ Standing water
- ☐ Saturated
- ☑ Dry

Avg. depth: Ø

Min. depth: Ø

Temp: Ø

Max. depth: Ø

Checklist of resources (if available):

☑ Aerial photography	☑ Vegetation maps	☑ GPS unit
☐ Remotely-sensed images	☑ Soil maps	☐ Stream gage data
☑ Topographic maps	☑ Rainfall/precipitation data	☐ Other studies:
☐ Geologic maps	☐ Existing delineation(s) for site	

Other drawings (plan view), notes:

4-in pipe outfalls run off from baseball field to drainage

Other forms related to this feature: ☐ Yes ☑ No

- ☐ Terrace, fringe, or floodplain wetland (wetland datasheet)
- ☐ Low flow channel or other representative section (OHWM datasheet)

38.949572, -121.107817

OHWM DATA SHEET

Project: ARD 24-9c Date: 10/1/2020 Transect: 3b

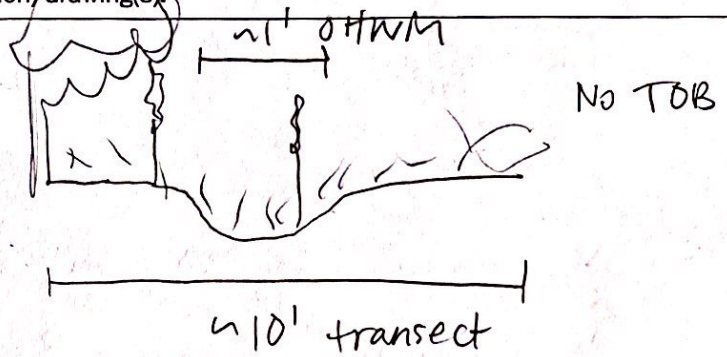
Investigator(s): A. Sennett Feature Name: ED-1

Site Location: Ephemeral drainage near/above pipe outfall

Feature Type: ☑ Ephemeral ☐ Intermittent ☐ Perennial ☐ Other

Transect (cross-section) drawing(s):

View Facing: E



☑ Transect length
☑ OHWM width ~1 ft max
☑ Channel depth
☑ Photo

Break in Slope at OHWM: ☐ Sharp (>60°) ☐ Moderate (30-60°) ☑ Gentle (<30°)

☐ Natural line impressed on the bank	☑ Sediment sorting
☐ Shelving	☐ Leaf litter disturbed or washed away
☐ Changes in the character of soil	☐ Scour
☐ Destruction of terrestrial vegetation	☐ Deposition
☐ Presence of litter and debris	☐ Bed and banks
☐ Wracking	☐ Water staining
☑ Vegetation matted down, bent, or absent	☑ Change in plant community (slight Δ)

	Clay/Silt	Sand	Gravel	Cobbles	Boulders
Above OHWM	100	0	0	0	0
Below OHWM	85	10	5	0	0

	Tree (%)	Shrub (%)	Herb (%)	Bare (%)
Above OHWM	5	0	70	30
Below OHWM	0	0	80	20

Stage: ☐ Early (herbs & seedlings) ☐ Mid (herbs, shrubs, saplings) ☐ Late (herbs, shrubs, mature trees)

Upland Species:	*Bank Species:*	*Emergent Species:*
Salix sp. + grassland community	Rumex crispis ←→	Same
	Elymus caput-medusae ←→	Cyperus eriogrostis

OHWM DATA SHEET

Condition/Disturbances (e.g., erosion, grazing, culverts, etc.):

trail next to feature

Hydrology:

- ☐ Flowing water
- ☐ Standing water
- ☐ Saturated
- ☑ Dry

Avg. depth: Ø

Min. depth: Ø

Temp: Ø

Max. depth: Ø

Checklist of resources (if available):

☑ Aerial photography	☑ Vegetation maps	☑ GPS unit
☑ Remotely-sensed images	☑ Soil maps	☐ Stream gage data
☑ Topographic maps	☑ Rainfall/precipitation data	☐ Other studies:
☐ Geologic maps	☐ Existing delineation(s) for site	

Other drawings (plan view), notes:

Other forms related to this feature: ☐ Yes ☑ No

- ☐ Terrace, fringe, or floodplain wetland (wetland datasheet)
- ☐ Low flow channel or other representative section (OHWM datasheet)

Arborist Report and Oak Woodland Inventory

ARD Regional Park Expansion ±24-Acre Site
Placer County, California

Prepared for:

Auburn Area Recreation and Parks District

August 16, 2016

Prepared by:

FOOTHILL ASSOCIATES

TABLE OF CONTENTS

List of Tables

List of Figures

List of Appendices

1.0 INTRODUCTION

This report presents the results of a significant tree survey conducted for the Auburn Area Recreation and Parks District's (ARD) 24-acre site (Site) Assessor's Parcel Number (APN) 051-211-016-000 located in Auburn, Placer County, California. The Site is located west of Highway 49 and Richardson Drive and south of Dry Creek Road. The Site is bordered by residential development to the west and north, by oak woodland and a Nevada Irrigation District (NID) canal to the south, and by ARD's Regional Park to the east (**Figure 1**).

Placer County evaluates impacts to oak trees and oak woodlands under two policies, the Placer County Tree Ordinance (Tree Ordinance) (County Code Article 12.16) and the 2007 *Guidelines for Evaluating Impacts to Oak Woodlands* (Guidelines). Generally, projects with more than two acres of impacts to oak canopy are evaluated using the Guidelines and all other projects are evaluated using the Tree Ordinance. Under the Guidelines, impacts to significant trees, defined as oak trees with a trunk diameter at breast height (DBH) greater than 24 inches or multi-trunked oak trees with a total circumference greater than 72 inches (22-inch diameter) at ground level, require mitigation in addition to impacts to oak woodland habitat. Under the Tree Ordinance, a permit is required prior to removing or doing any development activity around a protected tree, which is defined as any native tree, excluding gray pines (*Pinus sabiniana*) with a single trunk of at least six inches DBH and a multi-trunked tree with an aggregate of at least 10 inches DBH. Additionally, the Placer County Planning Checklist requires that all native trees with a DBH of five inches or greater be mapped pursuant to the Tree Ordinance.

Since the Site has over 24 acres of oak woodland, impacts are assessed using the Guidelines. The purpose of this report is to document the tree type, extent, and function of oak woodlands on the Site and to assess the impacts to them from the proposed development. Additionally, significant trees and potential impacts to them from the proposed development are identified.

2.0 METHODS

The Site was surveyed by ISA-Certified Arborist Meredith Branstad, WE-6727A, on April 15, 2016 to identify significant trees and assess the condition of the oak woodland habitat. The Site was systematically surveyed on foot to ensure total search coverage. All existing trees were closely examined to determine their species type and diameter at breast height (DBH) or basal circumference. A diameter tape or calipers were used to verify each trunk diameter at the industry standard of 54 inches above grade. The measurement from the trunk to the end of the longest lateral limb was used as the dripline radius (DLR). Recommendations for removal or suitability for preservation were noted for each tree. All trees that met the criteria for a significant tree were inventoried, with the exception of re-sprout or "ring" trees without at least one trunk with a DBH of 10 inches or greater. Ring trees form with the growth of multiple suckers from a tree that has died or been cut down, resulting in a ring of similar-sized, or connected trunks around a decaying center. Due to this structure, they often meet the technical size requirements to be considered a significant tree, but are not consistent with the size and presence of other significant trees.

The health and structural condition of each tree was rated according to **Table 1** below. The health rating considers factors such as the size, color, and density of the foliage; the amount of deadwood within the canopy; bud viability; evidence of wound closure; and the presence or evidence of stress, disease, nutrient deficiency, and/or insect infestation. The structural rating reflects the trunk and branch configuration; the canopy balance; the presence of included bark and other structural defects such as decay; and the potential for structural failure. In cases where conditions fall between the Good, Fair, and Poor ratings, intermediate ratings of Fair-Good and Fair-Poor were used.

Initial mapping of the oak woodland boundaries was completed on an aerial photograph of the Site using ArcMap 10.3 and verified on April 15, 2016. Areas where the oak tree canopy is less than 10 percent of the overall canopy and oak stands smaller than one acre in size were not mapped as oak woodlands.

TABLE 1 — TREE RATING SYSTEM

Rating	Tree Health
Good	There is an average or below-average amount of deadwood/dieback with respect to the tree's size and growing environment; leaf size, color, and density are typical for the species; buds are normal size, viable, abundant, and uniform throughout the canopy; current and past growth increments are generally average or better; any callusing is vigorous. This health rating indicates that there is very little, if any, evidence of stress, disease, nutrient deficiency, and/or insect infestation.
Fair	There is an above-average amount of deadwood/dieback with respect to the tree's size and growing environment; leaf size, color, and density may be below what is typically expected for the species; buds are normal size and viable, but slightly sparse throughout the canopy; current and past growth increments may be below average; tree may be slow to callus around old wounds. This health rating indicates that there is moderate evidence of stress, disease, nutrient deficiency, and/or insect infestation.
Poor	There is an extreme amount of deadwood/dieback with respect to the tree's size and growing environment; leaf size, color, and density are clearly compromised; very few viable buds are present throughout the canopy; current and past growth increments are meager; no evidence of callusing around old wounds. This health rating indicates that there is widespread evidence of stress, disease, nutrient deficiency, and/or insect infestation.
	Tree Structure
Good	No wounds, cavities, decay, or indication of hollowness are evident in the root crown, trunk, or primary and secondary limbs; no anchor roots are exposed; no codominant branching or multiple trunk attachments are present; very little included bark at branch attachments exists; no dead primary or secondary limbs are present in canopy; there have been no major limb failures; limbs are not overburdened; branching structure is appropriate for species; any decay is limited to small dead branches/stubs. This structure rating represents a low potential for failure.
Fair	With respect to the size of the tree, small to moderate wounds, cavities, decay, and indication of hollowness may be evident in the root crown, trunk, and/or primary and secondary limbs; some anchor roots may be exposed; codominant branching or multiple trunk attachments may be present, but included bark does not exist or is not well developed; minor to moderate amounts of included bark at branch attachments may exist; there may be small to moderate amounts of large dead limbs in canopy, but there is no evidence of large limb failures; limbs may be slightly overburdened; branching structure and/or canopy balance may be moderately altered by the tree's growing environment. This structure rating represents a moderate potential for failure.
Poor	With respect to the size of the tree, significant wounds, cavities, decay, and/or indication of hollowness may be evident in the root crown, trunk, and/or primary and secondary limbs; anchor roots may be exposed and/or the tree may have lost anchorage; codominant branching or multiple trunk attachments may be present; significant amounts of included bark may exist in trunk and branch attachments; there may be significant amounts of large dead limbs in the canopy; there may be evidence of trunk or large limb failures; limbs may be severely overburdened; branching structure and/or canopy balance may be drastically altered by the tree's growing environment. This structure rating represents a high potential for failure.

3.0 RESULTS AND DISCUSSION

3.1. Significant Trees

A total of 37 significant trees were inventoried on the Site. These consisted of 27 blue oaks (*Quercus douglasii*), 8 interior live oaks (*Quercus wislizeni*), and 2 valley oaks (*Quercus lobata*). Eighteen of the 37 significant trees are single-trunked and the remaining trees have between two and four trunks. Detailed data on the surveyed trees is included in **Appendix A**. Approximate locations of surveyed trees are shown on **Figure 2**.

In general, the inventoried trees are in good health with respect to tree vigor and live canopy density. Five trees were recommended for consideration for removal based on poor health and/or structure. Many of these trees have basal cavities, large trunk wounds, or limb failure, all of which provide entry points for disease and decay organisms. However, dead trees provide vital habitat functions as nest and breeding locations and should be preserved where possible. Trees recommended for consideration for removal in the table in **Appendix A** should not be removed unless they are near proposed development and their failure would pose a hazard to people or property. The remaining surveyed trees are suitable for preservation, but should be re-evaluated to determine their suitability to remain and any remediation measures necessary to improve tree health. **Table 2** shows the number of surveyed trees by health and structure ratings. **Appendix** includes the data collected for each inventoried tree.

TABLE 2 — NUMBER OF TREES BY HEALTH AND STRUCTURE RATINGS

		Health					
		Good	***Fair-Good***	***Fair***	***Poor-Fair***	***Poor***	***Total Trees***
Structure	***Good***	2	0	0	0	0	**2**
	Fair-Good	2	3	4	0	0	**9**
	Fair	2	6	10	0	0	**18**
	Poor-Fair	0	3	2	0	0	**5**
	Poor	0	2	1	0	0	**3**
	Total Trees	**6**	**14**	**17**	**0**	**0**	**37**

3.2. Oak Woodlands

The majority of the Site is blue oak woodland habitat totaling approximately 16 acres. This woodland covers the ridge that runs from north to south through the center of the Site. An existing baseball field and associated landscaping occupies four acres in the southeastern corner of the Site. The western edge of the Site consists primarily of non-native annual grassland, which is dominated by ripgut brome (*Bromus diandrus*), medusahead (*Elymus caput-medusae*), and wild oat (*Avena fatua*) with scattered wildflowers such as (*Ranunculus* sp.) and blue-eyed grass (*Sisyrinchium bellum*). A riverine seasonal wetland and intermittent drainage

flow through the annual grassland from the irrigation canal in the southwest corner of the Site to the northern boundary.

3.2.1. Blue Oak Woodland

Approximately 65 percent of the Site is blue oak woodland habitat. This ecotype is dominated by blue oak, with scattered gray pine, interior live oak, valley oak, and California black oak (*Quercus kelloggii*). Typically, blue oak woodland exhibits a continuous, intermittent, or savanna-like canopy that is one- or two-tiered; shrubs are infrequent or common; and ground cover is grassy (Sawyer and Keeler-Wolf 1995). The understory of this community is similar to the non-native annual grassland community.

3.2.2. Habitat Value and Woodland Function

Oak woodlands provide wildlife habitat for a variety of animals. Some wildlife species observed on the site included: red-shouldered hawk (*Buteo lineatus*), turkey vulture (*Cathartes aura*), acorn woodpecker (*Melanerpes formicivorus*), black-tailed jackrabbit (*Lepus californicus*), and western fence lizard (*Sceloporus occidentalis*). Additionally, oak woodlands provide nesting and foraging habitat for many species of migratory birds.

While the oak woodlands on the Site are part of a larger approximate 70-acre mosaic of undeveloped oak woodland area and annual grassland, the entire area is surrounded by development. Maintaining connectivity to offsite habitats, particularly along the southern and northeastern boundary will maximize the potential for preserving this as a significant island of natural habitat in the urban area. Factors impacting oak woodlands on the Site are the surrounding developments on the western, eastern, and northern borders. Invasive species in the oak woodlands are relatively minimal, although Himalayan blackberry (*Rubus armeniacus*) is present in the seasonal wetlands in the annual grassland.

3.2.3. Woodland Protection Recommendations

Habitat value and woodland function of oak woodlands can best be preserved by limiting fragmentation in addition to limiting direct impacts. However, the majority of the Site is occupied by oak woodlands and significant impacts will be unavoidable. Where possible, removal of trees, especially identified significant trees with no removal recommendations should be avoided. Care should be taken during construction activities to avoid unnecessary impacts on trees and tree root systems that do not need removal. This will help to ensure the continued health of the trees and also provide the opportunity to maintain the connection to surrounding woodlands as the adjacent properties are developed.

The majority of the woodlands on the Site are in good health and need no special treatment or remediation. Significant trees in Poor health and/or structure have been recommended for consideration for removal (**Appendix A**). Once the proposed project footprint is developed, it may be advisable to survey all trees overhanging the project footprint to assess their health and to avoid potential hazards near pedestrian traffic.

3.3. Impacts and Mitigation

Impacts to significant trees are mitigated in accordance with the Tree Ordinance on an inch-for-inch basis for trunk-inches removed. There are five significant trees recommended for consideration for removal due to Poor or Poor-Fair structural condition, as identified in the table in **Appendix A**. These five trees do not require mitigation. The remaining 32 significant trees will require mitigation if they are impacted. Significant trees are considered impacted if there are changes in grade, drainage, soil, or understory vegetation within 10 feet from the outside edge of the canopy. If all 32 significant trees are removed, mitigation will be required for a total of 900 trunk-inches.

Impacts to oak woodlands are calculated by overlaying the development footprint on the oak woodland map. The development footprint includes the entire area proposed for grading or construction plus a surrounding 50-foot buffer. Mitigation for oak woodland impacts may be completed by preservation of off-site oak woodland at a 2:1 ratio or payment of in-lieu fees. The current fee is $24,000 per acre of impact.

Once the final project design is developed, the final impact assessment and total mitigation will be calculated.

3.4. Tree Preservation Recommendations

The following measures should be implemented to protect all trees to remain:

- Tree Protection Fencing, consisting of four-foot-tall, brightly-colored, high-visibility plastic fencing, shall be placed around the perimeter of the tree protection zone (TPZ) (dripline radius + 10 feet for significant trees, dripline radius + 1 foot for all other trees). The TPZ is the minimum distance for placing protective fencing. Tree protection fencing should be placed as far outside of the TPZ as possible. Signs shall be placed along the fence denoting this as a Tree Protection Zone that shall not be moved until construction is complete. Trees or tree clusters with canopy extending beyond 50 feet from proposed project boundaries may be fenced only along sides facing the project. In cases where proposed work infringes on TPZ, fence shall be placed at edge of work.
- Whenever possible, fence multiple trees together in a single TPZ.
- Tree protection fencing shall not be moved without prior authorization from the Project Arborist and the County of Placer.
- No parking, portable toilets, dumping, or storage of any construction materials, grading, excavation, trenching, or other infringement by workers or domesticated animals is allowed in the TPZ.
- No signs, ropes, cables, or any other item shall be attached to a protected tree, unless recommended by an ISA-Certified Arborist.

- Underground utilities should be avoided in the TPZ, but if necessary shall be bored or drilled. If boring is impossible, all trenching will be done by hand under the supervision of an ISA-Certified Arborist.
- No cut or fill within the dripline of existing native oak or significant tree is permitted. If cut or fill within the dripline is unavoidable, any mitigation requirements shall be determined by the County of Placer.
- Pruning of living limbs or roots over two inches in diameter shall be done under the supervision of an ISA-Certified Arborist.
- All wood plant material smaller than six inches in diameter shall be mulched on site. Resulting mulch shall be spread in a layer four to six inches deep in the TPZ of preserved trees. Mulch shall not be placed touching the trunk of preserved trees.
- At the discretion of project owner and arborist, indirectly impacted significant trees should be deep watered once per month in July, August, September, and October to a soil saturation depth of 16-18 inches. Indirect impacts are those incurred by trees after construction has ceased, (i.e. changes to soils around the tree, loss of surrounding canopy causing more exposure, etc.) resulting in chronic changes months or even years later.
- Appropriate fire prevention techniques shall be employed around all significant trees to be preserved. This includes cutting tall grass, removing flammable debris within the TPZ, and prohibiting the use of tools that may cause sparks, such as metal-bladed trimmers or mowers.

Periodic monitoring of native oak trees provides an opportunity for a decline in health to be identified while it is still possible to take corrective actions to preserve the tree. It can also allow potential hazards to people and property to be identified before a catastrophic failure occurs. An inspection of all significant trees on the Site by an ISA-Certified Arborist is recommended every two years following construction of the project. More frequent inspection is recommended for specific trees showing signs of stress.

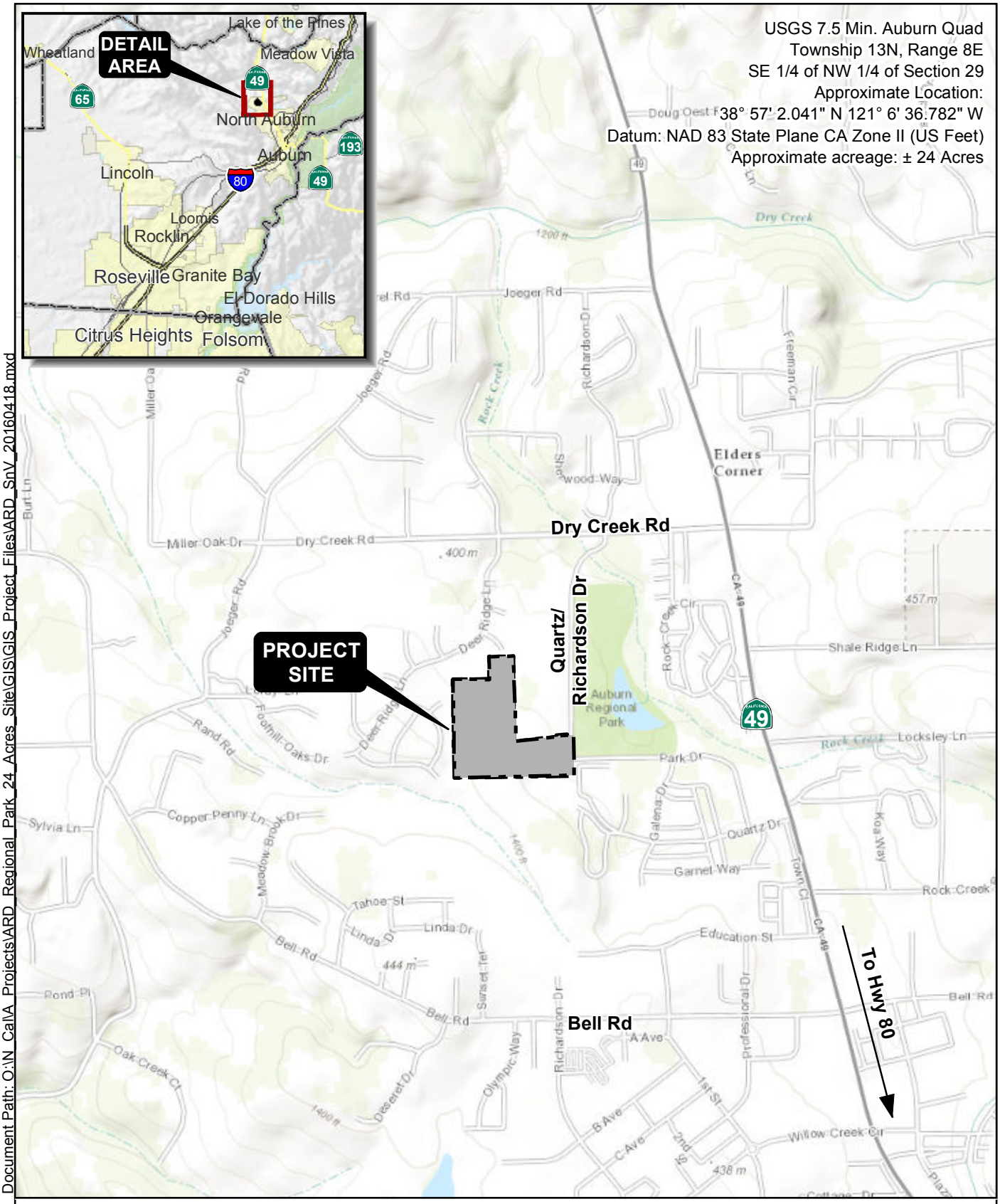
4.0 REFERENCES

Calflora. 2016. *The Calflora Database: Information on California plants for Education, Research and Conservation*. Berkeley, California. Available online at: http://www.calflora.org. [Accessed 05/02/16].

California Native Plant Society (CNPS). 2016. *Inventory of Rare and Endangered Plants* (online edition, v8-02) (CNPS: *Auburn* U.S. Geological Survey (USGS) 7.5-minute series quadrangle). [Accessed 04/29/2016].

GoogleEarth. Aerial Imagery from May 1993 – April 2016.

Sawyer, John O. and Todd Keeler-Wolf. 1995. *A Manual of California Vegetation*. California Native Plant Society (CNPS), Sacramento, CA.



SITE AND VICINITY

FOOTHILL ASSOCIATES
ENVIRONMENTAL CONSULTING • PLANNING • LANDSCAPE ARCHITECTURE
© 2016

N

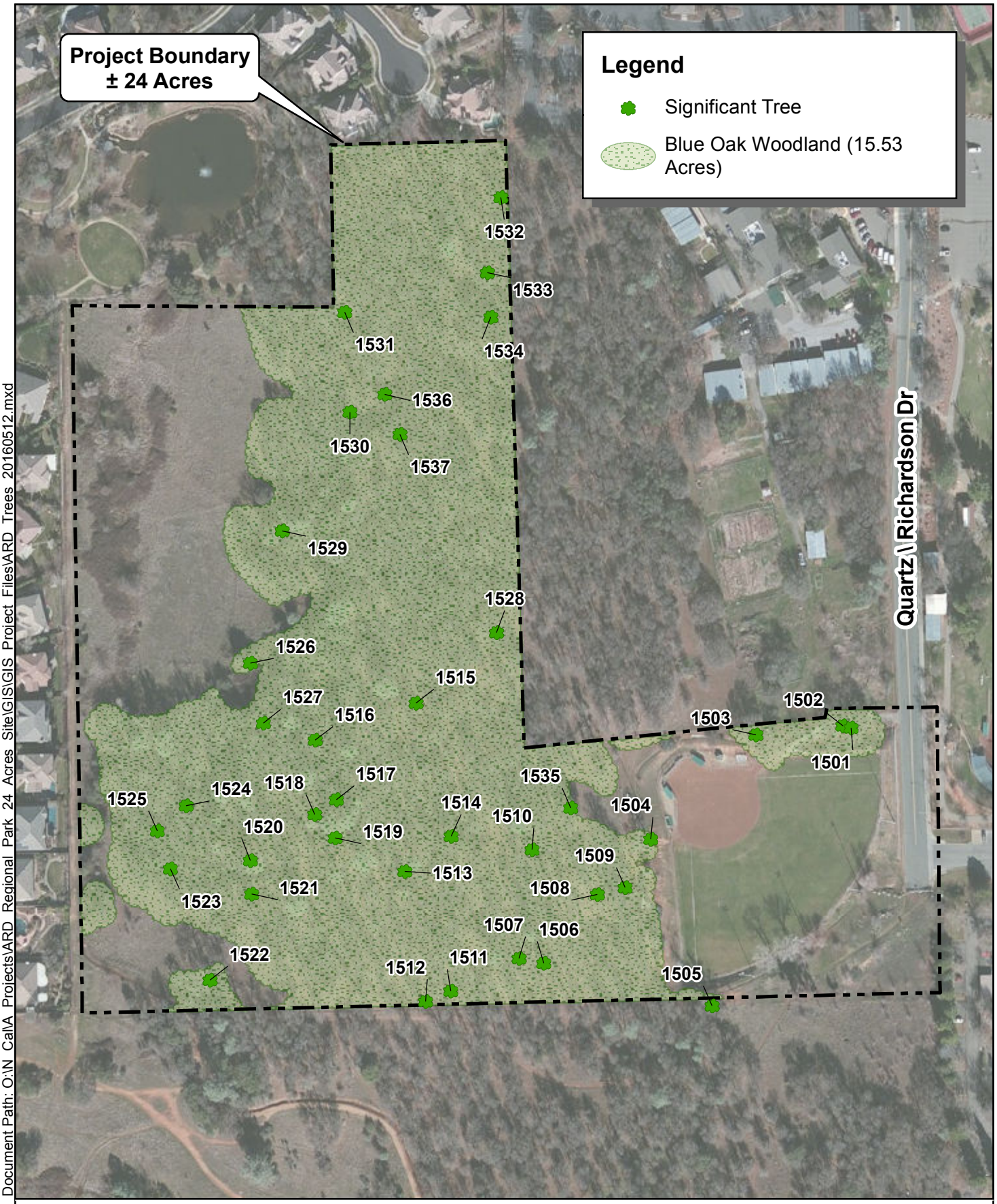
0 0.15 0.3
Miles
1 in = 0.3 miles

Drawn By: MUB
Date: 05/19/2015

FIGURE 1

ARD REGIONAL PARK EXPANSION

Document Name: ARD_SnV_20160418.mxd : 5/19/2016 3:55:38 PM



Document Path: O:\N Cal\A Projects\ARD Regional Park 24 Acres Site\GIS\GIS Project Files\ARD Trees 20160512.mxd

SIGNIFICANT TREES AND OAK WOODLANDS

FOOTHILL ASSOCIATES
ENVIRONMENTAL CONSULTING • PLANNING • LANDSCAPE ARCHITECTURE
© 2016

N

0 100 200
Feet
1 inch = 200 feet

Drawn By: MUB
Date: 05/19/2016

FIGURE 2

Appendix A — Significant Tree Data

Appendix A — Signifciant Tree Data

Tree #	Species	# of Trunks	Basal Dia. (inches)	DBH (inches)	DLR (feet)	Health	Structure	Additional Comments
1501	Valley Oak	1	N/A	33	38	Fair-Good	Fair	basal wound, codominant, asymmetrical canopy, sprout growth, pruning wounds
1502	Valley Oak	1	N/A	31	36	Fair	Fair	asymmetrical canopy, mistletoe, sprout growth
1503	Blue Oak	1	N/A	25	22	Good	Good	
1504	Blue Oak	1	N/A	39	21	Fair-Good	Poor	multiple nest cavities, limb failure, limb wound, squirrel cavities, **Remove**
1505	Blue Oak	1	N/A	24	25	Fair	Fair	dead wood, mistletoe, asymmetrical canopy, nest cavity, included bark, ingrown barbed wire
1506	Blue Oak	1	N/A	37	36	Fair	Fair	dead wood, sparse canopy, dieback (also 1550)
1507	Blue Oak	1	N/A	25	18	Fair	Poor	trunk wound, decay, asymmetrical canopy, limb failure, decay (also 1554) **Remove**
1508	Blue Oak	2	22	8, 9	13	Fair	Fair	dead wood, dieback, codominant (also 1848)
1509	Blue Oak	2	22	7, 10	13	Fair-Good	Fair	codominant, dead wood
1510	Blue Oak	1	N/A	34	40	Fair-Good	Poor-Fair	dead wood, sparse canopy, dieback, topping cuts
1511	Blue Oak	1	N/A	24	23	Fair	Poor-Fair	dead wood, dieback, limb failure
1512	Blue Oak	1	N/A	28	22	Fair	Fair	trunk wound, asymmetrical canopy, sparse canopy, dieback
1513	Blue Oak	2	23	18, 20	35	Fair-Good	Fair	dead wood, nest cavity
1514	Blue Oak	1	N/A	26	38	Fair-Good	Fair-Good	dead wood, nest cavity
1515	Blue Oak	2	24	7, 16	16	Fair	Fair	codominant, nest cavity, included bark, dieback
1516	Blue Oak	1	N/A	27	38	Fair-Good	Fair-Good	minor limb failure, dead wood
1517	Blue Oak	2	22	8, 10	12	Fair-Good	Poor	codominant, dead wood, large basal cavity, **Remove**
1518	Blue Oak	3	22	9, 10, 11	22	Fair-Good	Poor-Fair	codominant, included bark, nest cavity, dead wood
1519	Blue Oak	3	22	8, 8, 7	14	Fair-Good	Fair-Good	codominant, trunk decay, sprout growth, included bark, nest cavity
1520	Blue Oak	2	26	13, 13	28	Fair-Good	Fair	codominant, wood cuts
1521	Blue Oak	4	42	10, 16, 23, 9	40	Fair	Fair	dead wood, dieback, sparse canopy
1522	Blue Oak	1	22	26	28	Fair	Fair-Good	codominant, dieback (also 1622)

Appendix A — Signifciant Tree Data

Tree #	Species	# of Trunks	Basal Dia. (inches)	DBH (inches)	DLR (feet)	Health	Structure	Additional Comments
1523	Interior Live Oak	2	22	8, 11	18	Fair-Good	Fair	included bark, nest cavity, dead wood, trunk decay, lean, codominant (also 1637)
1524	Interior Live Oak	3	28	15, 14, 5	17	Fair	Fair-Good	dead wood, codominant, pruning wounds
1525	Interior Live Oak	4	33	7, 7, 5, 6	15	Fair-Good	Poor-Fair	trunk decay, dead wood, included bark, nest cavity, codominant (also 1647) **Remove**
1526	Interior Live Oak	2	22	19, 8	26	Good	Good	codominant
1527	Interior Live Oak	2	26	11, 12	18	Fair	Fair	codominant, dead wood
1528	Blue Oak	1	N/A	37	34	Fair	Fair	nest cavity, sparse canopy (also 1806)
1529	Interior Live Oak	4	31	16, 11, 6, 5	21	Good	Fair-Good	codominant, dead wood
1530	Interior Live Oak	3	28	11, 12, 13	19	Fair	Poor-Fair	codominant, included bark, nest cavity, dead wood, limb decay, asymmetrical canopy, **Remove**
1531	Blue Oak	1	N/A	24	26	Fair	Fair-Good	sparse canopy, dead wood
1532	Blue Oak	2	23	14, 15	21	Good	Fair	codominant, nest cavity
1533	Blue Oak	2	26	15, 16	29	Good	Fair	codominant, included bark, nest cavity
1534	Blue Oak	1	N/A	25	24	Fair	Fair	codominant, sparse canopy, dead wood, nest cavity
1535	Interior Live Oak	1	N/A	27	25	Good	Fair-Good	dead wood, codominant (also 1835)
1536	Blue Oak	2	22	10, 13	27	Fair	Fair-Good	asymmetrical canopy, dead wood, codominant, trunk decay
1537	Blue Oak	1	N/A	26	28	Fair-Good	Fair	dead wood, codominant, nest cavity

853 LINCOLN WAY, SUITE 208
AUBURN, CALIFORNIA 95603
T 530.887.8500 F 530.887.1250

MEMORANDUM

To:	Markus Lang, Project Manager, Dudek
From:	Scott Eckardt, Forester, Dudek
Subject:	Review of the Arborist Report and Oak Woodland Inventory for the ARD Regional Park Expansion ±24-Acre Project and Confirmation of Project Impacts
Date:	April 21, 2021
cc:	n/a
Attachment(s):	A. Site Map B. Site Photographs

Assessment Summary

This memo summarizes our evaluation of oak woodlands on the ARD Regional Park Expansion ±24-Acre Project site, review of the project's Arborist Report and Oak Woodland Inventory, and review of anticipated project-related impacts to oak woodlands. To complete our assessment, we conducted the following tasks:

1. Completed a review of the project's Arborist Report and Oak Woodland Inventory[1]. This review involved evaluating the report for accuracy and completeness and consistency with Placer County's oak woodland assessment and mitigation approach. The report was completed using Placer County's Guidelines for Evaluating Impacts to Oak Woodlands (2007). The Guidelines are used when oak woodland impacts exceed 2 acres. A component of the review was a field assessment of the project site's oak woodlands (discussed below). The Biological Resources Assessment[2] prepared for the project was also reviewed, specifically the discussion and mapping of on-site oak woodlands.

2. Conducted a field assessment on October 23, 2020 to confirm the accuracy of oak woodland extents and location/size of signature trees (trees >24" diameter breast height and oak clumps >72" in circumference at ground level (referred to as Heritage Trees on the project's Conceptual Site Plan)) mapped for the 2016 Oak Woodland Inventory and the oak woodland extents mapped for the 2020 Biological Resources Assessment. The field assessment also evaluated the proposed access and utility easement area of the project, located in the northeast corner of the project site, as this area was omitted from the 2016 assessment. The field assessment included a pedestrian survey of the project site. Measurements of some individual tree trunk diameters were also made to confirm signature tree data accuracy and to confirm that other, non-mapped individual trees did not meet the signature tree size criteria.

[1] *Arborist Report and Oak Woodland Inventory for the ARD Regional Park Expansion ±24-Acre Site (Foothill Associates, August 16, 2016).*

[2] *Biological Resources Assessment for the 24-Acre Site Master Plan Project in Placer County, California (Dudek, December 2, 2020)*

3. Reviewed the project's conceptual site plan[3] to determine potential impacts to the project site's oak woodlands and signature trees. The conceptual site plan was georeferenced using GIS software, and the 2020 oak woodland vegetation mapping data was overlayed on the site plan base. The site plan development areas were digitized to determine the extent of potential oak woodland impacts.

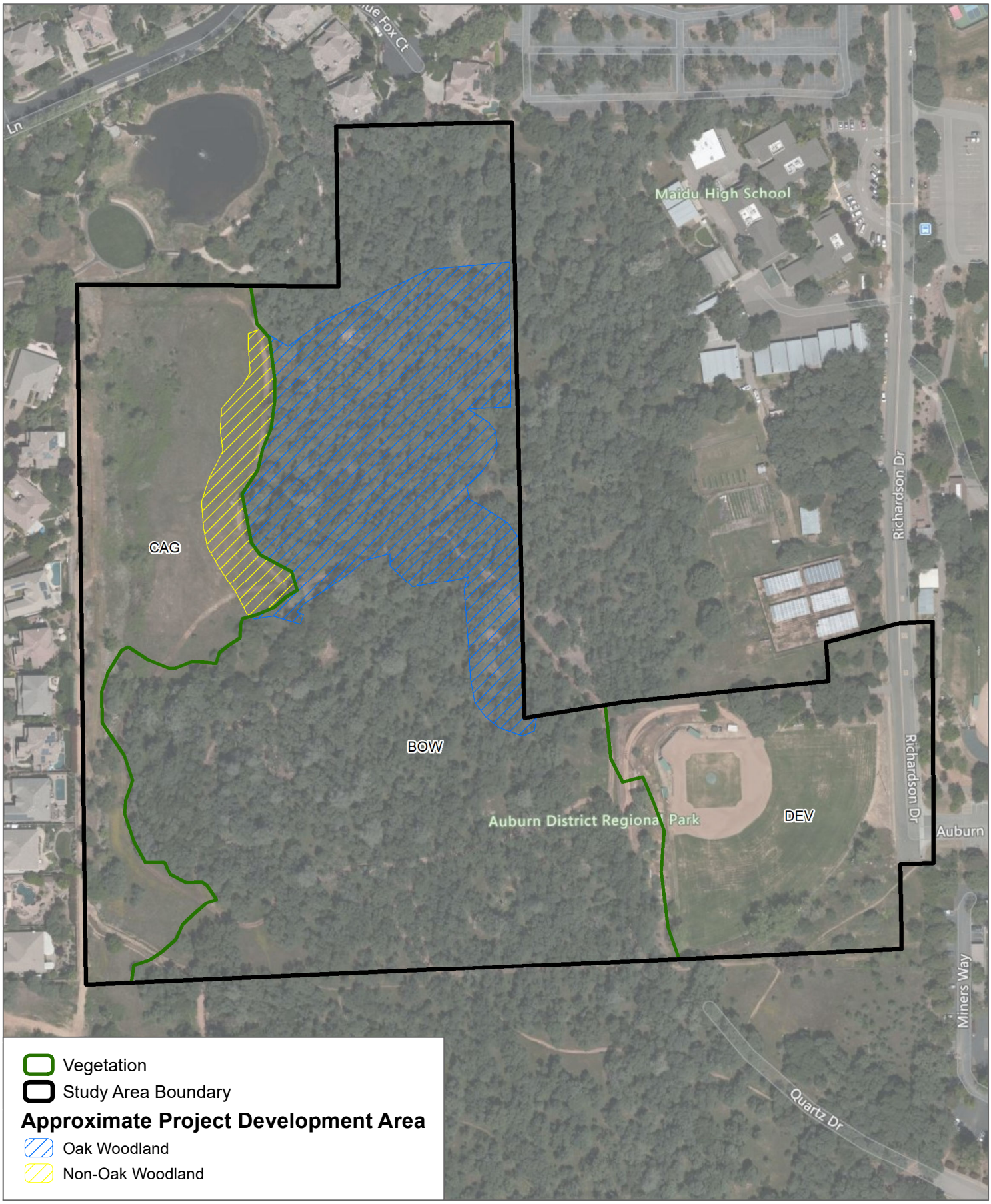
Findings

1. The 2016 Arborist Report and Oak Woodland Inventory was found to be complete. Given the extent and anticipated impacts to oak woodlands on the site (>2 acres), the use of Placer County's 2007 Guidelines was appropriate.

2. The field assessment confirmed the accuracy of the signature tree inventory and documentation presented in the 2016 report (total of 37 signature trees). The 2016 report delineated approximately 16 acres of oak woodlands on the site, and the 2020 Biological Resources Assessment delineated 15.52 acres of blue oak woodland. This review concurs with the oak woodland mapping presented in the 2020 Biological Resources Assessment. The proposed access and utility easement area includes several fruit trees and several small diameter valley and live oak trees. This area does not include habitat characteristics consistent with oak woodland mapping for the site. None of the small diameter oak trees in this area meet the size criteria for signature trees.

3. Approximately 4.28 acres of oak woodland would be impacted by the project. This total is based on a review of the conceptual site plan. Analysis of detailed project grading plans will be needed to finalize the extent of oak woodland impact acreage for the project. Based on the conceptual site plan, one signature tree (#1528) would require removal. One other signature tree (#1510) was observed to be dead during the site evaluation and should also be removed.

[3] *Final Conceptual Site Plan, 24-Acres Site Mater Plan (Dudek, January 14, 2021).*



SOURCE: Bing Maps 2021, Placer County, Dudek 2020

DUDEK

0 100 200 Feet

Attachment A. Site Map

Auburn Recreation District 24-acre Master Plan - Arborist Report and Oak Woodland Inventory Review

	
1. Proposed access and utility easement area, fruit trees in background.	2. Signature Tree #1510, dead with canopy failure. Recommended for removal.
	
3. Western edge of oak woodland area.	4. Eastern edge of oak woodland area, near existing ball fields.

Appendix C (Confidential)

Cultural Resources Study

Confidential Appendix – please contact ARD for further information

Appendix D

Transportation and Circulation Assessment

DRAFT Transportation and Circulation Assessment
24-Acre Site Master Plan Refinement
Auburn Recreational District, Placer County

Prepared for:

Auburn Recreational District
471 Maidu Drive #200
Auburn, California 95603
Contact: Michael Scheele

Prepared by:

DUDEK
853 Lincoln Way, Suite 208
Auburn, California 95603
Contact: Dennis Pascua, Transportation Services Manager

NOVEMBER 2020

Printed on 30% post-consumer recycled material.

Table of Contents

APPENDICES

FIGURES

TABLES

1 Introduction

1.1 Purpose and Scope

The purpose of this focused traffic analysis is to analyze the vehicle miles traveled (VMT) and site circulation and access effects associated with the Auburn Area Recreation and Parks District's (ARD) proposed 24-Acre Site Master Plan Refinement project (proposed project) located in Placer County (County). The project site is located on an approximately 24.4 acre parcel adjacent to Richardson Drive at Regional Park, and proposes to partially develop the site with an access driveway, parking lot, play area, dog park, and other amenities. The objectives of this analysis are to:

- Document the existing transportation setting in the study area;
- Estimate trip generation, distribution, and assignment characteristics of the project;
- Provide a VMT analysis per Senate Bill (SB) 743 requirements under California Environmental Quality Act (CEQA);
- Analyze the vehicular queuing effects that would occur under project conditions; and,
- If required, identify improvement and traffic control measures for the study intersections and/or project driveway.

The scope of this assessment is consistent with the current requirements of all applicable County and State regulations, including SB 743 and CEQA requirements.

1.2 Project Description, Location and Study Area

Figure 1 shows the project location and site, study area, and regional location of the project site. The 24-Acre Site Master Plan Refinement proposes to partially develop the project site with playground areas, bocce ball courts, a dog park, trails, and other recreational amenities. Figure 2 provides the project's site plan.

The project site is located west of the intersection of Park Drive with Richardson Drive, in the northwestern part of central Placer Country. It is located west of State Route 49 (SR-49), and local access to the proposed project would be provided via a driveway along Richardson Drive that would be accessed either from the signalized intersection of Quartz Drive at SR-49 southeast of the site or from the unsignalized intersection of Richardson Drive at Dry Creek Road to the north. As illustrated in Figure 1, the study area is comprised of the following intersections and roadway segments:

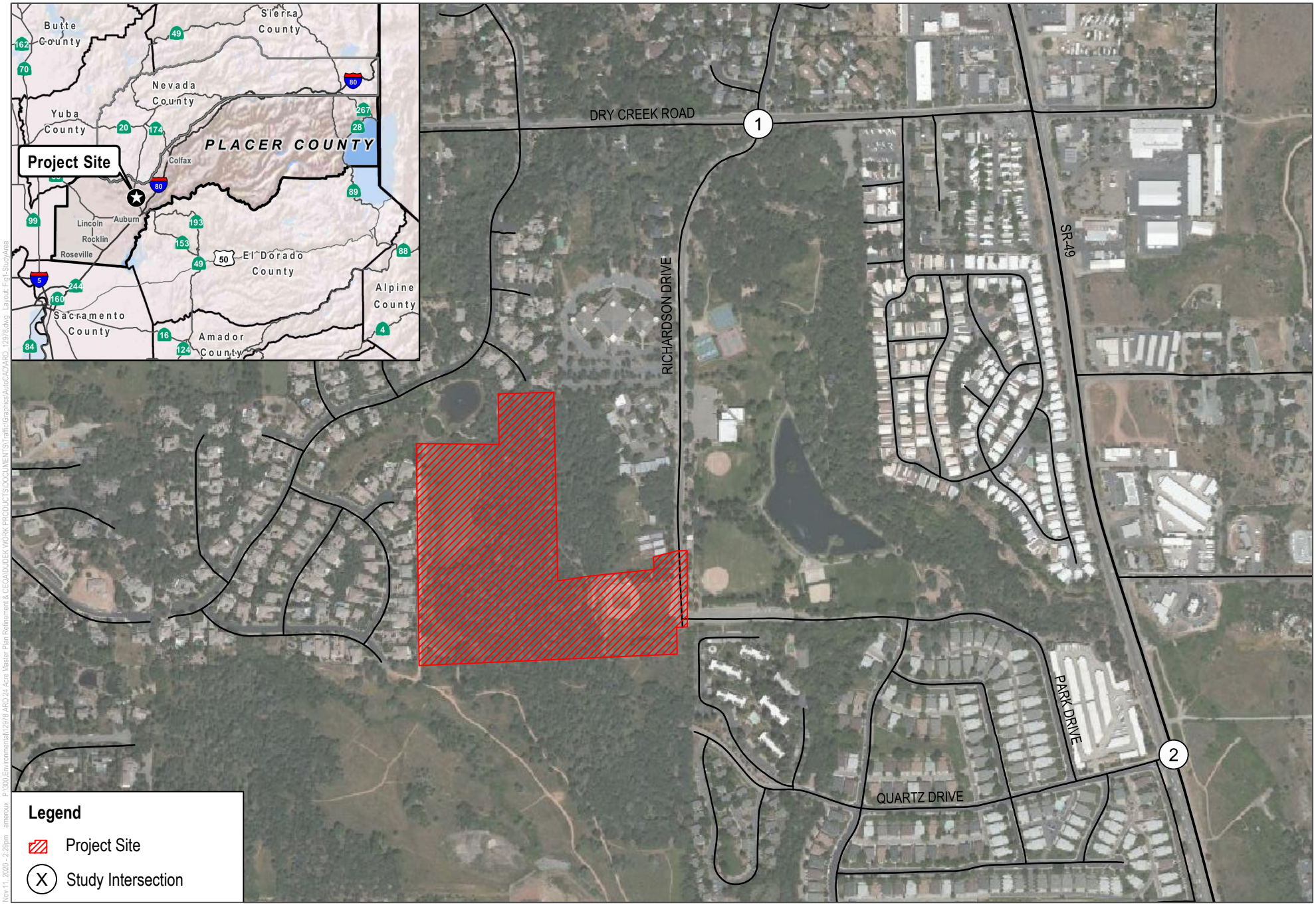
Intersections

1. Richardson Drive/Dry Creek Road
2. SR-49/Quartz Drive

Roadway Segments

1. Richardson Drive to Dry Creek Road
2. Richardson Drive, Park Drive, to Quartz Drive

INTENTIONALLY LEFT BLANK



SOURCE: Bing 2020

DUDEK

NOT TO SCALE

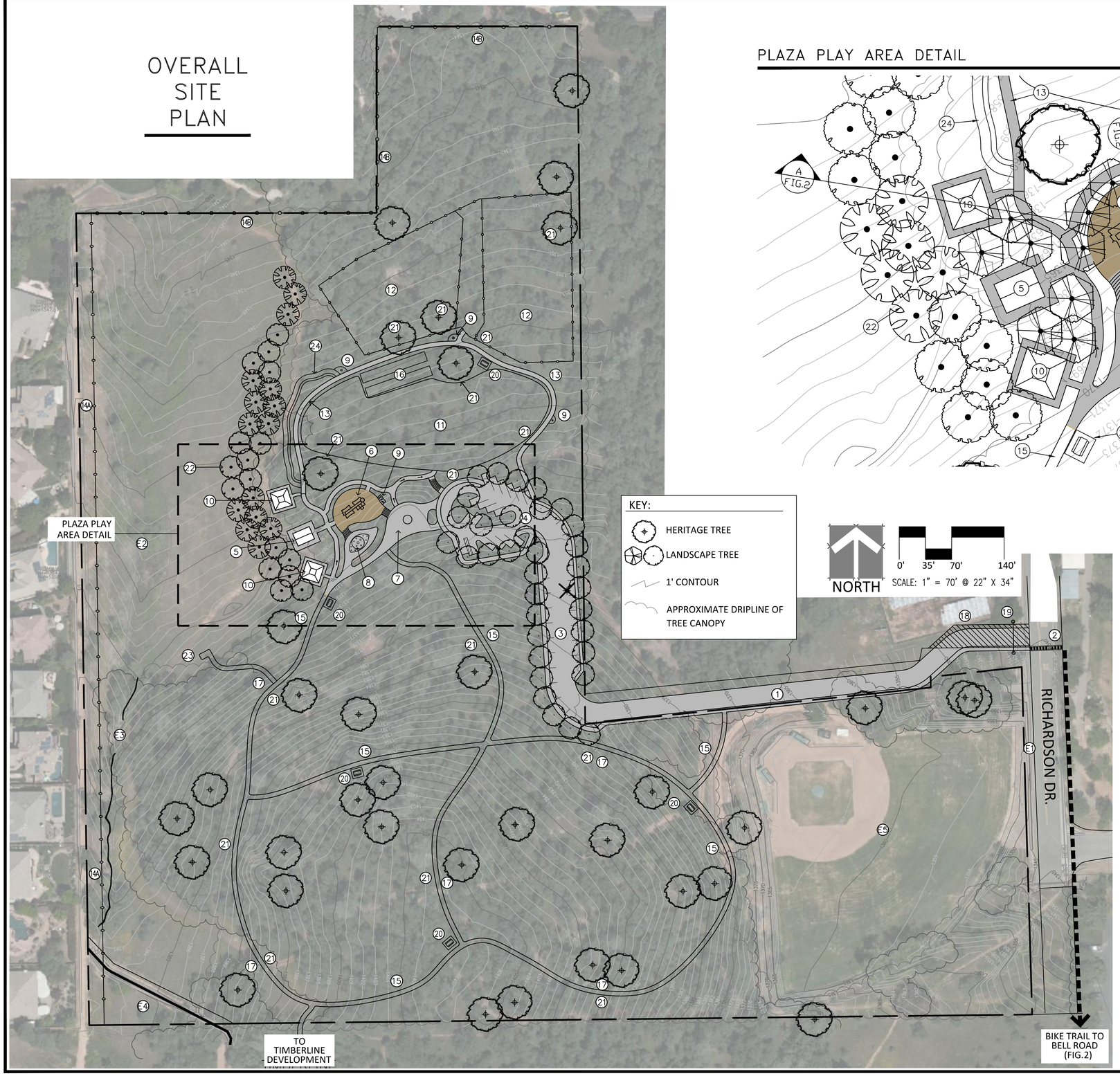
FIGURE 1

Project Location and Study Area

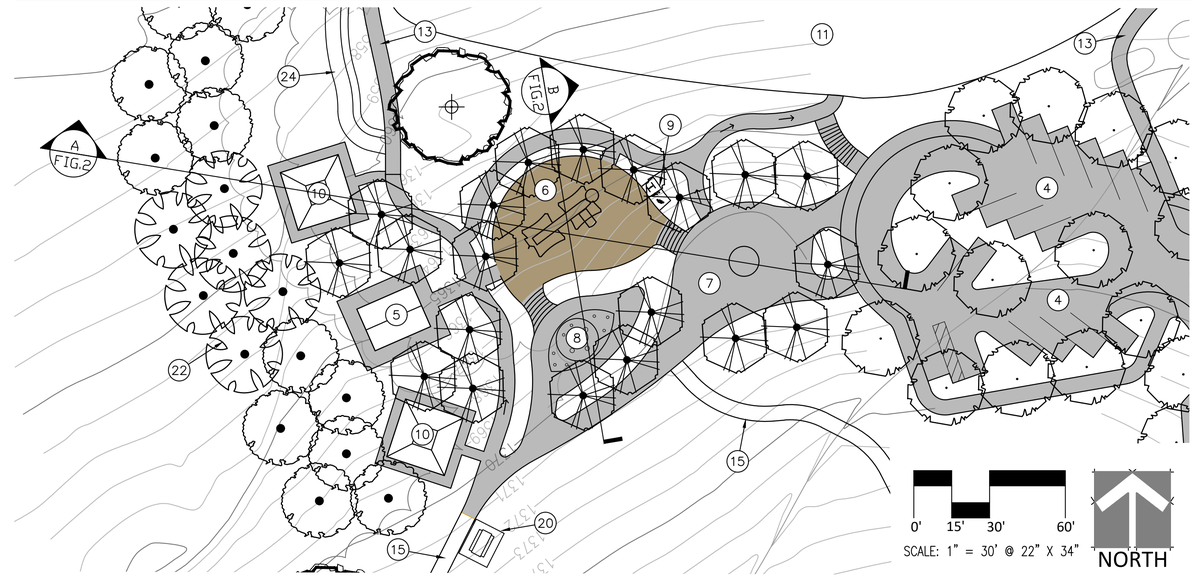
Auburn Recreation District 24-acre Master Plan Project

INTENTIONALLY LEFT BLANK

OVERALL SITE PLAN



PLAZA PLAY AREA DETAIL



PROPOSED AMENITIES

1. ACCESS DRIVE
2. HIGH VISIBILITY CROSSWALK
3. PARALLEL PARKING (22 SPACES)
4. PARKING LOT PERMEABLE PAVING IN PARKING STALLS (18 SPACES) & SECURITY LIGHTING
5. MULTI–USER RESTROOM (2 STALLS PER SIDE) WITH OUTDOOR SHOWER
6. PLAY AREA (TOT/YOUTH)
7. CENTRAL PLAZA WITH LOCKABLE ELECTRIC OUTLETS & SAFETY LIGHTING
8. SPLASH PAD
9. EXERCISE STATIONS
10. SHADE SHELTER (24' X 24')
11. OPEN TURF AREA (0.75 ACRE)
12. DOG PARK WITH BARK MULCH SURFACE, SEPARATE BIG AND SMALL DOG AREAS, HOSE SPIGOT AND DRINKING FOUNTAIN WITH DOG WATER BOWLS (1.24 ACRE)
13. ADA ACCESSIBLE LOOP PATH, PERMEABLE PAVING (830')
14. FENCE: A) WOVEN WIRE, B) POWDER–COATED STEEL
15. COMPACTED EARTH WALKING PATH (2,640')
16. BOCCE COURTS
17. INTERPRETIVE SIGN AND BENCH
18. PROPOSED ACCESS AND UTILITY EASEMENT EXPANSION
19. PIPE GATE
20. PICNIC TABLE (QTY. 5)
21. BENCH (QTY. 13)
22. VISUAL BUFFER PLANTINGS
23. WETLAND OVERLOOK WITH BENCH AND INTERPRETIVE SIGN
24. NATIVE PLANT DISPLAY GARDEN

NOT SHOWN: SECURITY CAMERAS AT SELECT LOCATIONS

EXISTING FEATURES

- E1 RETAINING WALL
- E2 WETLAND
- E3 INTERMITTENT DRAINAGE
- E4 NID DITCH
- E5 BALL FIELD

DUDEK
853 LINCOLN WAY, STE 208
AUBURN, CA 95603

FIGURE 2
24-ACRES SITE-MASTER PLAN
January 14, 2021

FOR AUBURN RECREATION DISTRICT

12978

INTENTIONALLY LEFT BLANK

1.3 Analysis Methodology

1.3.1 Vehicle Miles Traveled (VMT) Analysis for CEQA

The Governor's Office of Planning and Research (OPR) approved the addition of new Section 15064.3, "Determining the Significance of Transportation Impacts" to the State's CEQA Guidelines, compliance with which was required to be implemented statewide on July 1, 2020. The Updated CEQA Guidelines state that "generally, vehicle miles traveled (VMT) is the most appropriate measure of transportation impacts" and define VMT as "the amount and distance of automobile travel attributable to a project." It should be noted that "automobile" refers to on-road passenger vehicles, specifically cars and light trucks. OPR has clarified in the Technical Advisory and recent informational presentations that heavy-duty truck VMT is not required to be included in the estimation of a project's VMT. Other relevant considerations may include the effects of the project on transit and non-motorized travel. Under CEQA, transportation impacts are required to be determined based on VMT, and level of service (LOS) is no longer an impact metric under CEQA.

The new Section 15064.3(b), "Criteria for Analyzing Transportation Impacts," states "If existing models or methods are not available to estimate the vehicle miles traveled for the particular project being considered, a lead agency may analyze the project's vehicle miles traveled qualitatively. Such a qualitative analysis would evaluate factors such as the availability of transit, proximity to other destinations, etc. For many projects, a qualitative analysis may be appropriate."

To aid in this transition, OPR released a Technical Advisory on Evaluating Transportation Impacts in CEQA (December of 2018) (Technical Advisory). The technical Advisory and the guidance provided by the State has also been used in the VMT analysis of the proposed project. The details of applicable VMT screening and analysis has been provided in Chapter 4 of this assessment.

1.3.2 Level of Service for Project Circulation and Access Analysis

For purposes of this analysis, LOS is presented as a metric to analyze traffic operations on the surrounding street network. LOS is commonly used as a quantitative description of intersection operations and is based on the design capacity of the intersection configuration, compared to the volume of traffic using the facility. An LOS and queuing analysis was performed at the main project access intersections in order to assess the operating capacity with the addition of project traffic. Policy 3.A.7 of the Placer County General Plan Transportation and Circulation Element identifies the following level of service standards:

> *The County shall develop and manage its roadways system to maintain the following minimum levels of service (LOS), or as otherwise specified in a community or specific plan:*
>
> *a) LOS "C" on rural roadways, except within one-half mile of state highways where the standard shall be LOS "D".*
>
> *b) LOS "C" on urban/suburban roadways except within one-half mile of state highways where the standards shall be LOS "D".*
>
> *c) An LOS no worse than specific in the Placer County Congestion Management Program (CMP) for the state highway system.*

The *Highway Capacity Manual, 6th Edition* (HCM 6) methodology was used to assess level of service and queuing for intersections and driveways within the study area. The HCM intersection analysis methodology was used to analyze the operation of signalized and unsignalized study intersections. The HCM analysis methodology describes the operation of an intersection using a range of LOS from LOS A (free-flow conditions) to LOS F (severely congested conditions), based on the corresponding control delay experienced per vehicle for unsignalized intersections. The Synchro 10 LOS software was used to determine intersection LOS. Synchro is consistent with the HCM methodology. Table 1 shows the LOS values by delay ranges for unsignalized and signalized intersections under the HCM methodology.

Table 1. Intersection Level of Service Criteria

Level of Service	Unsignalized Intersections Control Delay (in seconds per vehicle)	Signalized Intersections Control Delay (in seconds per vehicle)
A	< 10.0	< 10.0
B	> 10.0 to < 15.0	> 10.0 to < 20.0
C	> 15.0 to < 25.0	> 20.0 to < 35.0
D	> 25.0 to < 35.0	> 35.0 to < 55.0
E	> 35.0 to < 50.0	> 55.0 to < 80.0
F	> 50.0	> 80.0

Source: HCM 6, 2016.

Additionally, the Placer County General Plan EIR provides daily traffic volume thresholds, as shown in Table 2 below. These thresholds are used to evaluate levels of service on county roads. This study analyzes two roadway segments, including Richardson Drive (Park Drive to Dry Creek Road) and Park Drive (Richardson Drive to Quartz Drive). The segment along Richardson Drive is analyzed as an arterial with moderate access control, and Park Drive is analyzed as an arterial with low access control for the purposes of this analysis.

Table 2. Roadway Segment Levels of Service Criteria

Roadway Capacity Class	Maximum Daily Traffic Volume Per Lane - Level of Service				
	A	B	C	D	E
1. Freeway – Level Terrain	6,300	10,620	13,680	16,740	18,000
2. Freeway – Rolling Terrain	5,290	8,920	11,650	14,070	15,120
3. Freeway – Mountain Terrain	3,400	5,740	7,490	9,040	9,720
4. Arterial – High Access Control	6,000	7,000	8,000	9,000	10,000
5. Arterial – Moderate Access Control	5,400	6,300	7,200	8,100	9,000
6. Arterial – Low Access Control	4,500	5,250	6,000	6,870	7,500
7. Rural 2-lane Highway – Level Terrain	1,500	2,950	4,800	7,750	12,500
8. Rural 2-lane Highway – Rolling Terrain	800	2,100	3,800	5,700	10,500
9. Rural 2-lane Highway – Mountain Terrain	400	1,200	2,100	3,400	7,000

Source: County of Placer, 1994.

2 Existing Conditions

This section describes existing conditions within the study area. Characteristics are provided for the existing roadway system, bicycle, pedestrian and transit network.

2.1 Roadway System

Regional access to the proposed project would be via State Route 49 (SR-49). SR-49 provides access from Dry Creek Road to the north and Quartz Drive to the south. The following provides a discussion of the roadway network near the project site.

SR-49 (Golden Chain Highway) is a north-south, four-lane, divided roadway with a two-way left-turn lane (TWLTL). SR-49 is classified as a State Highway – Conventional in the Placer County General Plan Land Use and Circulation Element. The posted speed limit ranges from 55 to 65 miles per hour (MPH) within the study area. On-street parking is generally not permitted along the roadway, and sidewalk and pedestrian facilities are only located along some segments.

Dry Creek Road is an east-west, two lane, divided roadway with a TWLTL between Dry Creek Road and SR-49, and a two-lane, undivided roadway west of Dry Creek Road and east of SR-49. Dry Creek Road is classified as a Rural Arterial in the Land Use and Circulation Element, and the posted speed limit is 35 mph within the study area. On-street parking is generally not permitted along the roadway, and sidewalk and pedestrian facilities are only located along some segments.

Richardson Drive is a north-south, two-lane, undivided roadway, and is classified as an Urban Suburban Major Collector in the Land Use and Circulation Element. Richardson Drive runs adjacent to the western boundary of the project site and serves as the primary road to the proposed site access driveway. On-street parking is permitted along some portions of the roadway, and sidewalk and pedestrian facilities are located along some segments. The posted speed limit is 25 mph within the study area.

Park Drive is an east-west, two-lane, undivided roadway that provides access to the project site via Quartz Avenue and Richardson Drive. Park Drive is not classified in the Land Use and Circulation Element. On-street parking is permitted along most of the roadway, with a parking lot at the westernmost extent of the road, and sidewalk and pedestrian facilities are located along some segments. The posted speed limit is 25 mph within the study area.

Quartz Drive is an east-west, two-lane, undivided roadway that connects SR-49 to Park Drive and is classified as an Urban Suburban Major Collector in the Land Use and Circulation Element. On-street parking is permitted along most of the roadway, and sidewalk and pedestrian facilities are located along both sides of the street. The posted speed limit is 25 mph within the study area.

2.2 Transit, Bicycle, and Pedestrian Facilities

Existing transit facilities are shown on Figure 3. Existing bicycle and pedestrian volumes counts obtained at the study area intersections in October 2020 are provided in Appendix A. Adjustment to these volumes were made to reflect non-pandemic conditions.

2.2.1 Transit Facilities

Placer County Transit provides public transit service throughout Placer County, with bus service near the project site. Placer County Transit Route 30 operates along SR-49, Quartz Drive, Dry Creek Road, and Richardson Drive, with several stops within ½ mile of the proposed project, as shown in Figure 3. Route 30 operates between the Auburn Amtrak Station and Richardson Drive/Chana Park, with hourly weekday service from approximately 5:30 a.m. to 6 p.m., as well as hourly Saturday service from approximately 7:30 a.m. to 5 p.m.

Additionally, the Nevada County Gold Country Stage offers Monday through Friday commute bus service along SR-49, with stops located at the intersections with Quartz Drive and Dry Creek Road for bus Route 5. These stops are not within ½ mile of the proposed project, as shown in Figure 3. Route 5 operates between the Auburn Amtrak Station and the Nevada County Airport Transit Office, with service every two hours during morning, midday, and afternoon commute periods.

2.2.2 Bicycle Facilities

The Placer County Regional Bikeway Plan 2018 Update (Placer County 2018) defines the following bicycle facility classifications:

Class I Bikeway (Bike Path) *– Provides a completely separated facility designed for the exclusive use of bicycles and pedestrians with minimal vehicle crossflows.*

Class II Bikeway (Bike Lane) *- Provides a designated right of way for the exclusive or semi-exclusive use of bicycles.*

Class III Bikeway (Bike Route) *– Provides a right-of-way designated by signs or permanent markings and are shared with pedestrians and motorists*

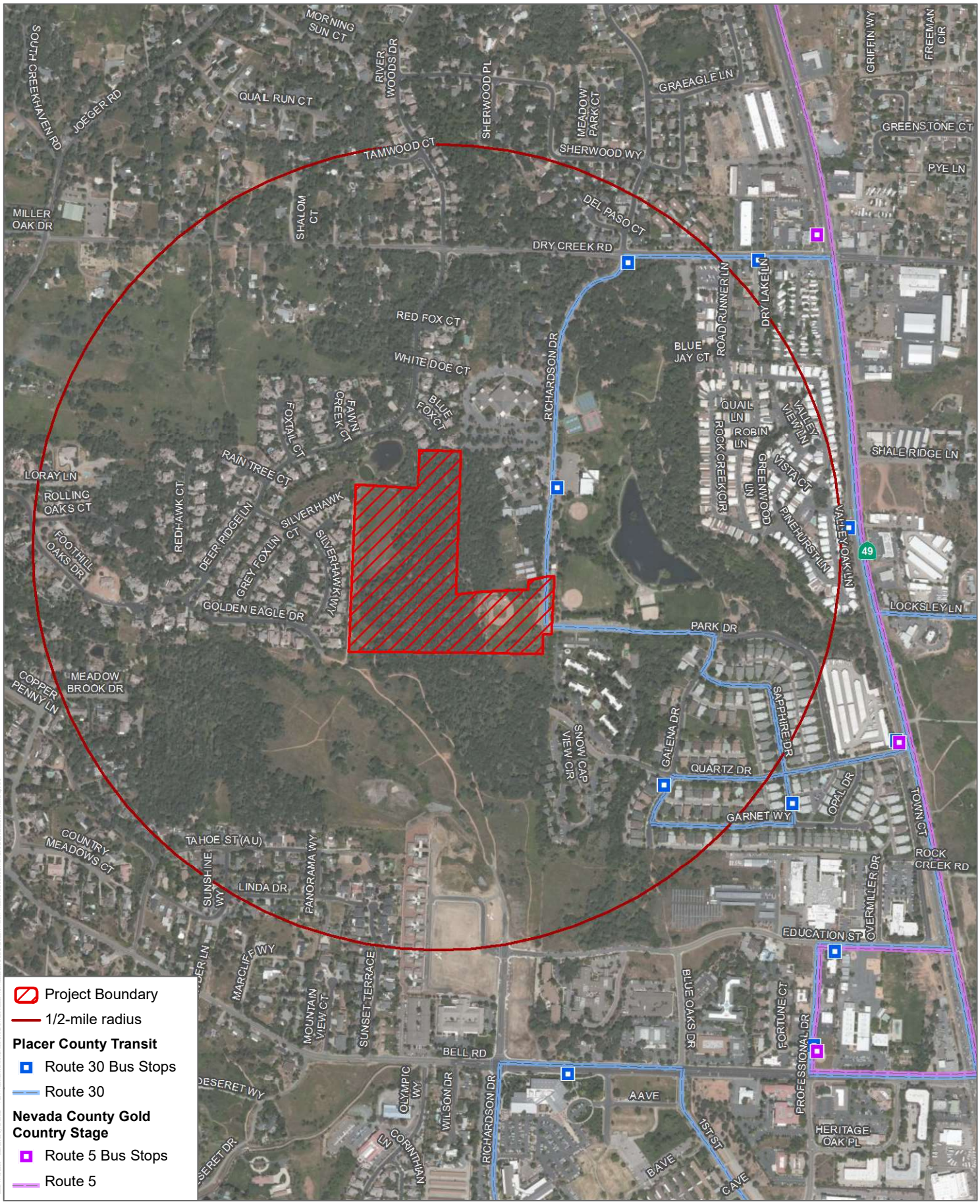
Class IV Bikeway (Separated Bikeway) *– Provides a physical separation from vehicular traffic. This separation may include grade separation, flexible posts, planters or other inflexible physical barriers, or on-street parking.*

There are no existing bicycle facilities within the study area, with exception of a bike route north of Dry Creek Road on Richardson Drive and south of Bell Road on Richardson Drive. The Placer County Regional Bikeway Plan 2018 Update identifies proposed bike lanes on Dry Creek Road, Richardson Drive, Park Drive, Quartz Drive, and SR-49 south of Dry Creek Road, as shown in Figure 4.

2.2.3 Pedestrian Facilities

The proposed project and its immediate vicinity serve many active transportation users. Some segments of Richardson Drive are equipped with sidewalk and pedestrian facilities; however, there are no sidewalks along the western side of Richardson Drive adjacent to the project site. The Richardson Drive/Dry Creek Road intersection does not have any pedestrian crossing facilities, and the SR-49/Quartz Drive intersection has pedestrian crosswalks along the eastbound and northbound approaches.

INTENTIONALLY LEFT BLANK



Bing 2020, Placer County 2020, Nevada County 2020

DUDEK

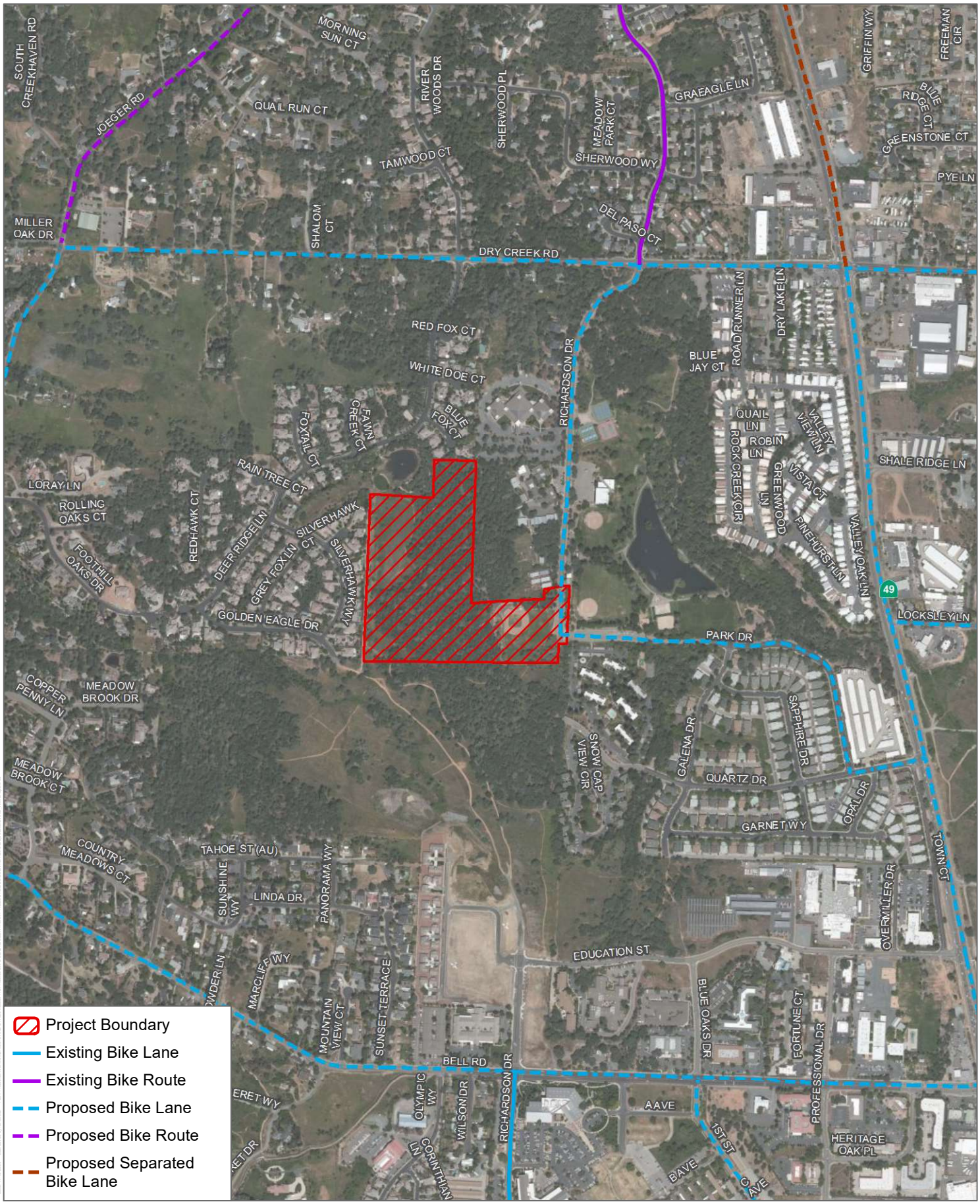
0 420 840 Feet

Figure 3

Existing Transit Facilities

Auburn Recreation District 24-acre Master Plan Project

INTENTIONALLY LEFT BLANK



Bing 2020, Placer County 2018

DUDEK

0 420 840 Feet

Figure 4

Existing and Proposed BicycleFacilities

Auburn Recreation District 24-acre Master Plan Project

INTENTIONALLY LEFT BLANK

3 Project Trip Generation

This section documents the trip generation, distribution, and assignment of project traffic used in the LOS and queuing analyses of the study area.

3.1 Trip Generation

Trip generation for the proposed project is based on weekend (Saturday) daily and midday peak hour trips obtained from the Institute of Transportation Engineers (ITE) *Trip Generation Handbook, 9th Edition* (2012). There are no appropriate park trip generation rates in the current ITE 10th Edition Handbook. Per trip rates for a County Park land use (ITE Code 412), the proposed project would generate approximately 54 daily trips, zero a.m. peak hour trips, and two (2) p.m. peak hour trips during a typical weekday. However, during a typical weekend, the proposed project would generate 296 daily trips and 54 midday peak hour trips (31 inbound and 23 outbound), as shown in Table 3. As such, weekend trip generation estimates are used in this analysis to provide the most conservative and appropriate analysis for the proposed project.

Table 3. Project Trip Generation

Vehicle Type	ITE Code	Size/Unit	Weekend Daily Trips	Weekend Midday Peak Hour		
				In	*Out*	*Total*
Trip Rates						
County Park	412	per acre	12.14	1.26	0.95	2.21
Trip Generation						
24-Acre Site Master Plan Refinement	412	24.4 acres	296	31	23	54

Source: Institute of Transportation Engineers, Trip Generation, 9th Edition, 2012

3.2 Trip Distribution and Assignment

Project trip distribution percentages were based on logical travel paths to commute corridors in the study area and using engineering judgement. Approximately, 40% of the project traffic would travel north along Richardson Drive, and 60% would travel south along Park Drive and Quartz Drive to SR-49. The project trip distribution is shown in Figure 5.

Project trips were assigned to the study area intersections and driveways by applying the project trip generation estimates to the trip distribution percentages at each location. The project trip assignment is shown in Figure 6.

SOURCE: Bing 2020

DUDEK

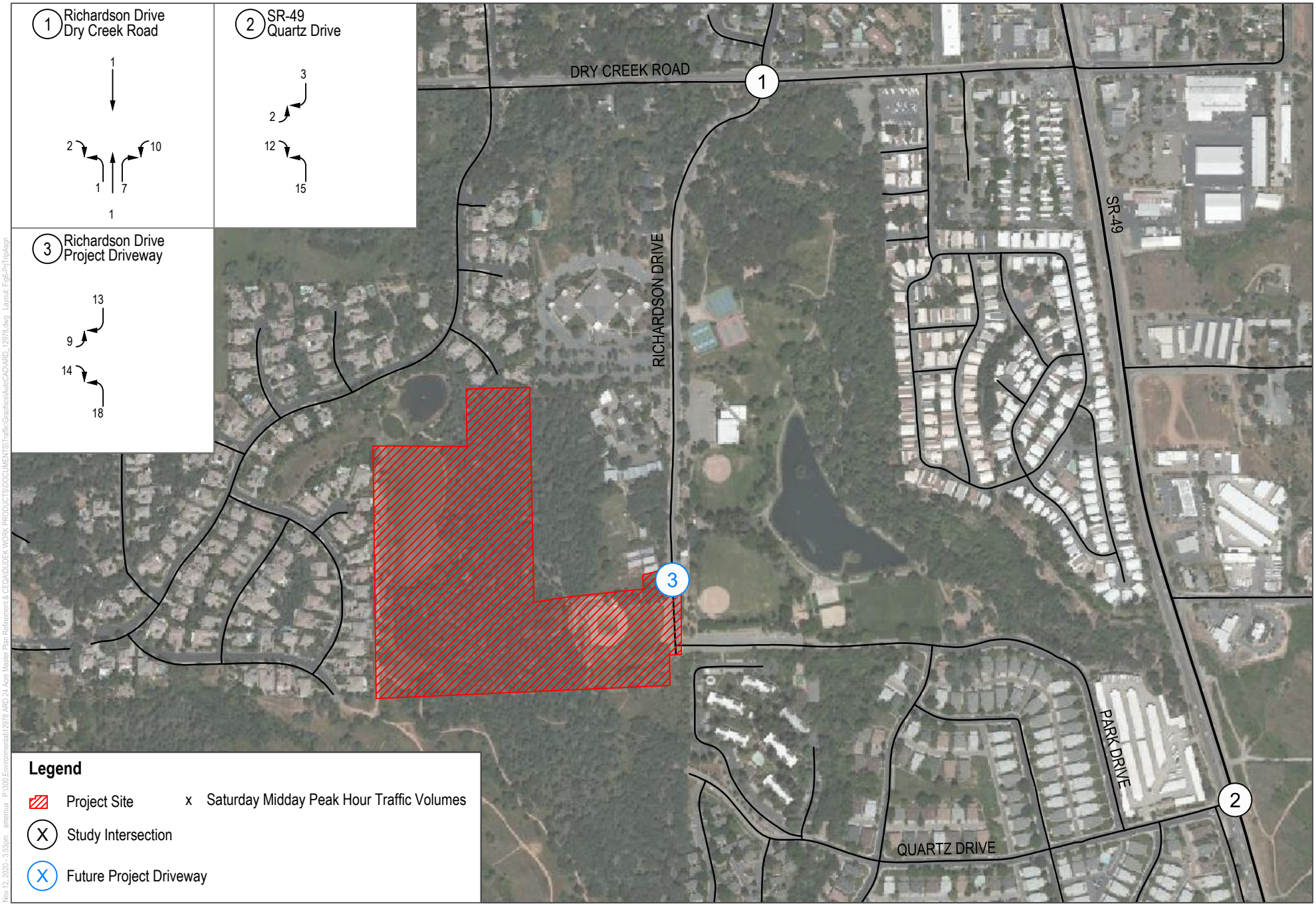
NOT TO SCALE

FIGURE 5

Trip Distribution

Auburn Recreation District 24-acre Master Plan Project

INTENTIONALLY LEFT BLANK



SOURCE: Bing 2020

DUDEK

NOT TO SCALE

FIGURE 6

Project Trip Assignment (Saturday Midday Peak)

Auburn Recreation District 24-acre Master Plan Project

INTENTIONALLY LEFT BLANK

4 VMT Analysis

The section provides a Vehicles Miles Traveled (VMT) screening analysis for the project using available State and County guidance.

4.1 Vehicle Miles Traveled Screening

The Placer County Planning Service Division and Department of Public Works released a memo to the Placer County Planning Commission dated May 11, 2020, providing an informational update on Placer County's SB 743 Implementation Plan (County of Placer 2020). The County has not approved this implementation plan, nor has a planned VMT estimation tool been adopted; however, the County provided initial guidance for VMT metrics, methodology, thresholds, and screening criteria. This initial guidance has been included in the following discussion.

4.1.1 Methodology for VMT Estimation of Recreational Facilities

OPR's 2018 Technical Advisory does not provide specific guidance to analyze recreational facilities. However, OPR held a series of virtual "office hours" to discuss implementation of the Technical Advisory, as well as additional questions posed by attendees (OPR 2020). In response to questions regarding park and recreational facilities, OPR recommended comparing the total VMT with and without implementation of the proposed project, and determining whether or not the project would draw visitors from further away or reduce the distance visitors would travel by providing closer amenities.

This methodology is similar to the OPR guidance for analyzing the effects of retail projects. Generally, OPR recommends that lead agencies should analyze the effects of a retail project by assessing the change in total VMT because retail projects typically re-route travel from other retail destinations. A retail project might lead to increases or decreases in VMT, depending on previously existing retail travel patterns. Similarly, development of recreational facilities might lead to increases or decrease in VMT, depending on previously existing recreational travel patterns. As such, OPR's guidance for analysis of retail projects is used as the basis for this analysis.

4.1.2 Recommended Threshold for Recreational Facility Projects

Per Technical Advisory, because new retail development typically redistributes shopping trips rather than creating new trips, estimating the total change in VMT (i.e., the difference in total VMT in the area affected with and without the project) is the best way to analyze a retail project's transportation impacts. Generally, however, retail development including stores larger than 50,000 square feet might be considered regional serving, so lead agencies should undertake an analysis to determine whether the project might increase or decrease VMT. As this project is not a retail development, the 50,000 square feet threshold is not used in this analysis. Other factors, including the recreational amenities offered by the proposed project, are considered to determine whether the proposed project would be considered "local" or "regional" serving.

The recommended VMT impact threshold for the proposed project per OPR is: "…a *net increase in total VMT may indicate a significant transportation impact…*"

4.1.3 Screening Criteria for Land use Projects

The OPR Technical Advisory suggests that agencies may screen out VMT impacts using project size, maps, transit availability, and provision of affordable housing. Additionally, preliminary screening criteria relevant to the proposed project and provided by the County's initial guidance is included below.

- **OPR Screening Threshold for Small Projects** (110 daily trips or less): Since the project generates more than 110 trips per day, it cannot be assumed to cause a less-than-significant transportation impact under this criterion.
- **OPR Map Based Screening for Residential and Office Projects:** Currently, the City does not have VMT maps that can be utilized to identify areas with low VMT for projects and the project does not propose residential and/or office use.
- **OPR Presumption of Less Than Significant Impact for Affordable Residential Development:** The project does not propose affordable residential units and is not a residential development.
- **OPR Presumption of Less Than Significant Impact for Local Serving Retail:** For development projects, if the project leads to a net increase in provision of locally-serving retail, transportation impacts from the retail portion of the development should be presumed to be less than significant. Generally, local-serving retail less than 50,000 square feet can be assumed to cause a less-than-significant transportation impact. The proposed project is not considered a retail project; therefore, it cannot be screened out using this criterion.
- **OPR Presumption of Less Than Significant Impact Near Transit Stations:** Proposed CEQA Guideline Section 15064.3, subdivision (b)(1), states that lead agencies generally should presume that certain projects (including residential, retail, and office projects, as well as projects that are a mix of these uses) proposed within ½ mile of an existing major transit stop[1] or an existing stop along a high quality transit corridor[2] will have a less-than-significant impact on VMT. This presumption would not apply, if the project:
    - Has a Floor Area Ratio (FAR) of less than 0.75
    - Includes more parking for use by residents, customers, or employees of the project than required by the jurisdiction (if the jurisdiction requires the project to supply parking)
    - Is inconsistent with the applicable Sustainable Communities Strategy (as determined by the lead agency, with input from the Metropolitan Planning Organization)
    - Replaces affordable residential units with a smaller number of moderate- or high-income residential units

  Placer County Transit bus route 30 operates along Richardson Drive, Quartz Drive, Park Drive, Dry Creek Road, and SR-49 in the vicinity of the proposed project. A bus stop is also provided adjacent to the project site on Richardson Drive, and as shown in Figure 3, route 30 has several bus stops within ½ mile of the project site. However, the peak service frequency is greater than 15 minutes. Nevada County Gold Country Stage bus route 5 also operates within the vicinity of the proposed project, primarily along SR-49; however, no stops are within ½ mile of the project site and peak service frequency is also greater than 15 minutes.

[1] Pub. Resources Code, § 21064.3 ("'Major transit stop' means a site containing an existing rail transit station, a ferry terminal served by either a bus or rail transit service, or the intersection of two or more major bus routes with a frequency of service interval of 15 minutes or less during the morning and afternoon peak commute periods.")

[2] Pub. Resources Code, § 21155 ("For purposes of this section, a high-quality transit corridor means a corridor with fixed route bus service with service intervals no longer than 15 minutes during peak commute hours.").

Therefore, the project site is not located within one-half mile of high-quality transit corridor (i.e. a corridor with fixed route bus service with service intervals no longer than 15 minutes during peak commute hours) and cannot be screened using the proximity to transit availability criteria.

- **Placer County Preliminary Approach Screening Threshold for Locally Serving Recreational Amenities (e.g. parks, libraries, bike trails, etc.):** Placer County's initial guidance indicates that locally serving recreational amenities, including parks, can be screened out of further VMT analysis. As the proposed amenities, including a dog park, playground area, walking paths, and bocce courts, the proposed project would generally cater to local communities. Additionally, although the site has not been formally developed, paths already exist on the site are currently in use by the local population.

The above mentioned VMT screening criteria for locally serving recreational amenities, apply to the project, therefore, a detailed VMT analysis would not be required. A qualitative discussion of the project's location and site analysis to support the conclusion of less than significant VMT impact is provided below.

4.2 Location and Site Analysis

The proposed project is located within the unincorporated area of central Placer County, northwest of the City of Auburn. Unincorporated areas of Placer County contain a variety of land uses, with commercial, industrial, agriculture, and residential uses spread throughout the County; however, the area around the project site is predominately comprised of residential and agricultural land uses.

Recreational park facilities, including those equipped with playgrounds, fields, and trails, are spread throughout the County. ARD provides recreational park facilities within the City of Auburn and surrounding unincorporated areas of Placer County. The project site is located within an agriculture zone, which allows for recreational uses. As such, the project is consistent with uses allowed per the County's General Plan.

The project site is currently undeveloped land that would be partially developed playground areas, bocce ball courts, a dog park, trails, and other recreational amenities. The project is bordered to the north and south by open space and residential uses, to the west and southeast by residential uses, to the northeast by the Maidu Virtual Charter Academy, and to the east by the ARD Regional Park.

A recreational park development such as the proposed project would primarily depend on visitors who reside adjacent to or near the site (preferably within 5 to 15-minute drive or within a 2 to 3-mile radius). The project location and type would primarily attract residents within the housing communities surrounding the project, as noted above. As shown in Table 4 below, the proposed project would provide seven primary amenities, including a playground, picnic areas and benches, a ball field, bocce ball courts, splash pad/park, dog park, and trails/walking paths. Other ARD park facilities are also tabulated in Table 4 to provide a comparison of similar facilities with the proposed project. Additionally, Figure 7 identifies the proposed project, as well as ARD park facilities throughout the region. As shown in the figure, two ARD parks (Regional Park and Atwood) are located closest to the proposed project, and as shown in Table 4, neither of these parks have a dog park, bocce ball courts, or a splash pad/park. Therefore, residents within the nearby communities would generally have to travel to further destinations to access these types of facilities. With exception to Atwood and the Regional Park, all other ARD park facilities are greater than 3 miles from the project site; therefore, the proposed project would create a closer alternative for the nearby residential communities.

Further, as mentioned in the Technical Advisory, because new retail development typically redistributes shopping trips rather than create new trips – and similarly new park facilities would generally redistribute trips rather than

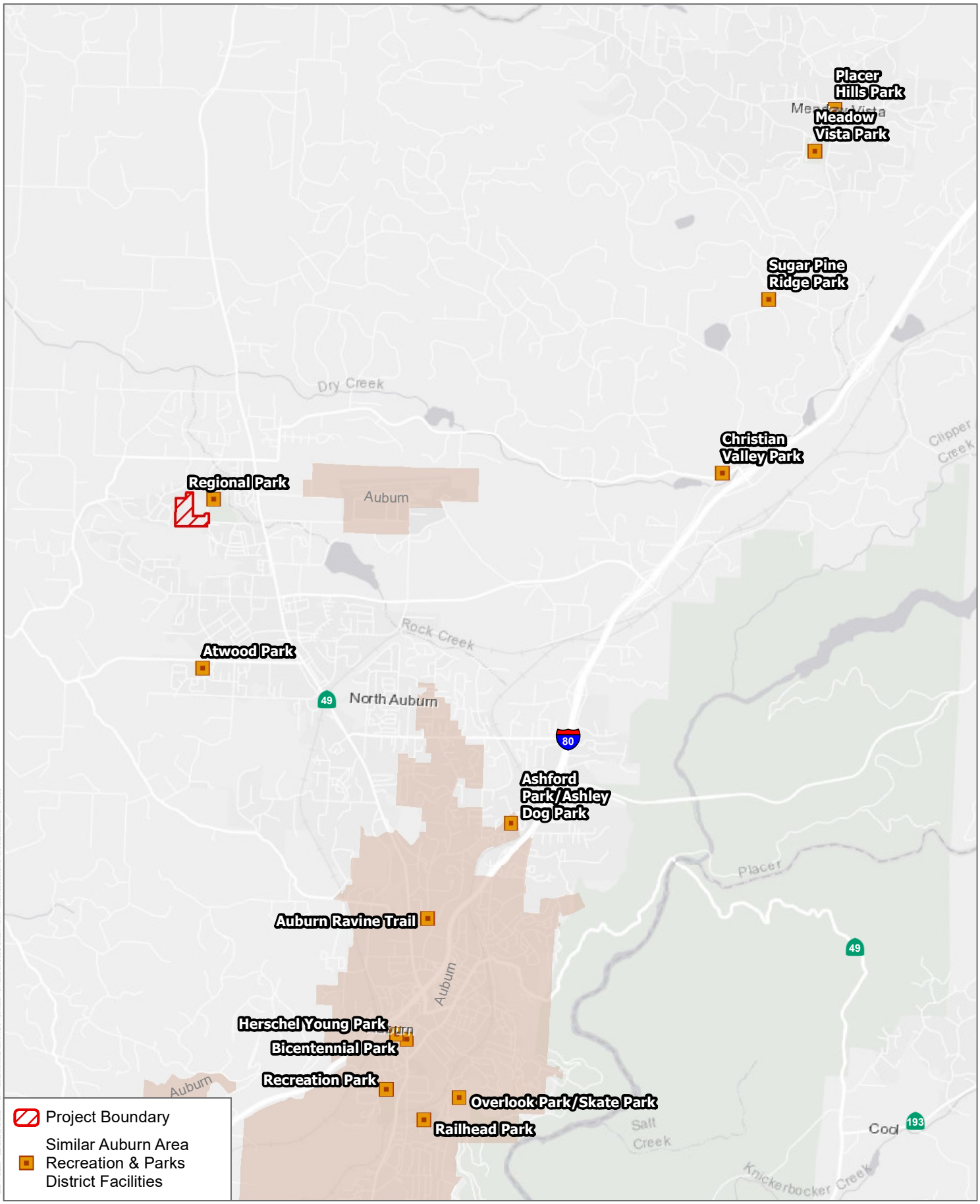
create new ones – it can be inferred that the trips that are currently destined to existing parks within the City of Auburn or to the northeast, as shown in Figure 7, would be re-routed to the proposed 24-acre site. Therefore, the net new trips generated by the proposed project would not cause a significant increase in VMT, and project impacts to VMT would be less than significant.

Table 4. Location and Facility Summary of Auburn Area and Recreation Park District Facilities

Park Name	Park Amenities							Distance from Project Site (miles)
	Playground	Picnic Area/ Benches	Ball Fields	Bocce Ball Courts	Splash Pad/Park	Dog Park	Trails/ Walking Paths	
Proposed ARD 24-Acre Site Master Plan Refinement	*x*	*x*	*x*	*x*	*x*	*x*	*x*	*N/A*
Recreation Park	x	x	x	x	x			5.2
Regional Park	x	x	x					0.1
Ashford Park/Ashley Dog Park	x	x				x		4.1
Meadow Vista Park	x	x	x					8.3
Atwood Park	x	x					x	2.1
Railhead Park	x	x						5.5
Christian Valley Park	x		x					4.7
Placer Hills Park		x						8.2
Bicentennial Park		x					x	4.6
Sugar Pine Ridge Park			x					6.4
Overlook Park/Skate Park							x	5.3
Herschel Young Park		x						4.6
Auburn Ravine Trail							x	3.7

Source: ARD 2020

INTENTIONALLY LEFT BLANK



Bing 2020, ARD 2020

DUDEK

0 2,500 5,000 Feet

Figure 7

Location Analysis Map

Auburn Recreation District 24-acre Master Plan Project

INTENTIONALLY LEFT BLANK

INTENTIONALLY LEFT BLANK

5 Project Access Analysis

The following section analyzes the operations of the project driveway and two main intersections (Richardson Drive/Dry Creek Road and SR-49/Quartz Drive) providing access to the project site based on levels of service, 95th percentile (design) queuing, and sight distance. Figure 7 illustrates the intersection controls and geometrics in the study area.

Existing Baseline Volumes

Saturday midday peak hour traffic counts at the intersections of Richardson Drive/Dry Creek Road and SR-49/Quartz Drive were collected October 2020, as well as weekday peak hour traffic counts at the intersections of SR-49/Dry Creek Road and SR-4/Quartz Drive. Historical (pre-pandemic) weekday peak hour counts were available from 2018 at the SR-49/Dry Creek Road and SR-4/Quartz Drive intersections. These 2018 weekday counts were compared to the 2020 (pandemic) weekday counts to obtain percentage differences at both SR-49 intersections. These percentages were then applied to the Saturday midday peak hour traffic counts at Richardson Drive/Dry Creek Road and SR-49/Quartz Drive and adjusted to 2020 using a growth factor of 1.14% per year per the Regional Transportation Plan (RTP) 2036 based on population growth in the unincorporated area of Placer County between 2012 and 2020. Figure 8 illustrates the Existing Peak Hour Traffic Volumes at the study area intersections.

Existing plus Project

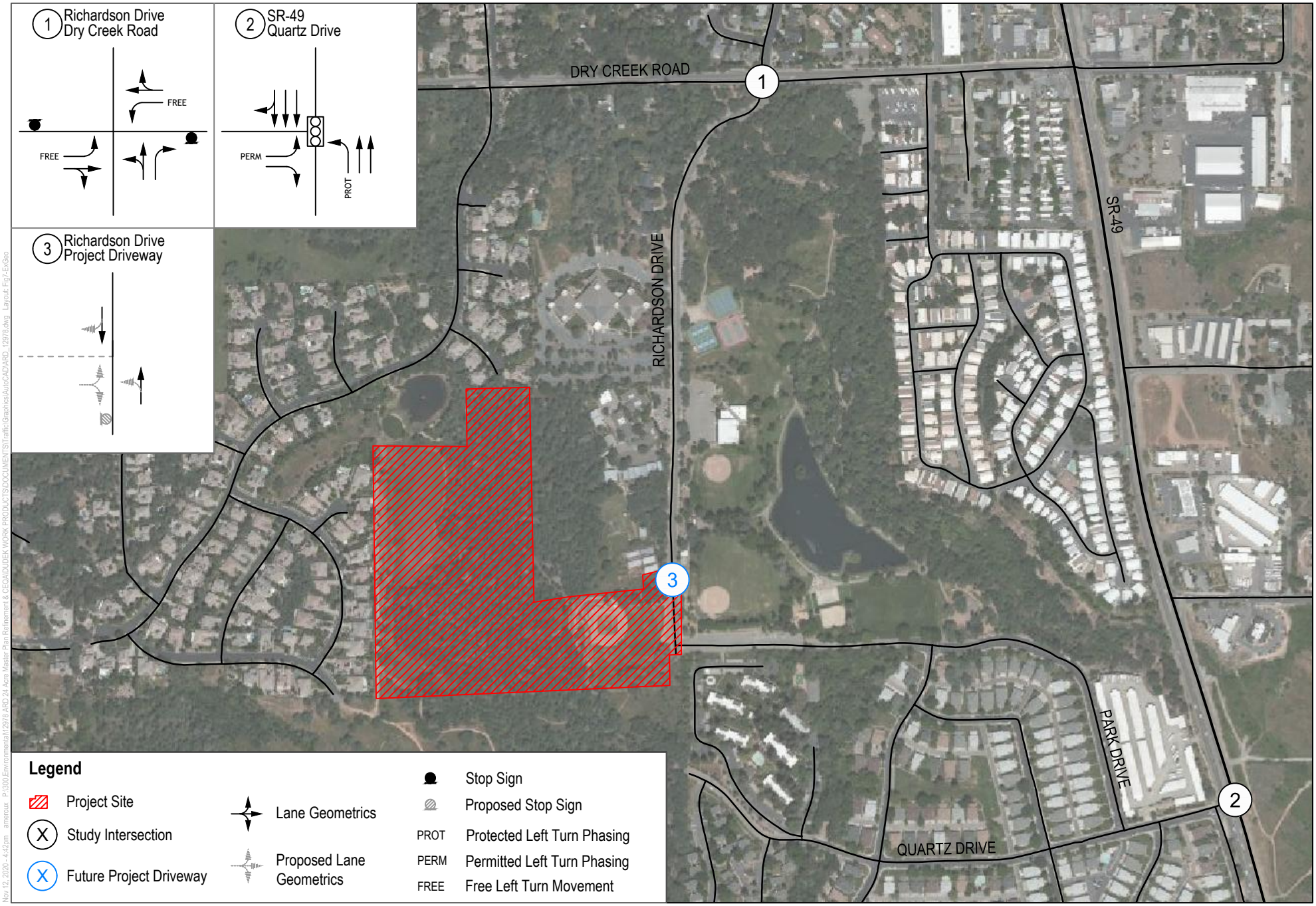
The project trip assignment as described in Section 3 Project Trip Generation was added to the Existing baseline volumes (as described above) to create the Existing plus Project scenario. Figure 9 illustrates the Existing plus Project Traffic Volumes that were analyzed in the LOS and queuing analysis of the study area intersections.

5.1 Level of Service Analysis

5.1.1 Intersection Level of Service Analysis

An intersection LOS analysis was prepared for the Existing and Existing plus Project condition using HCM 6th Edition methodology via the Synchro LOS software in Section 1.3 Analysis Methodology. The LOS at the project access driveway, as well as the Richardson Drive/Dry Creek Road and SR-49/Quartz Drive intersections is provided below. Table 5 show the results of the Existing plus Project LOS analysis. LOS worksheets are provided in Appendix B.

INTENTIONALLY LEFT BLANK



SOURCE: Bing 2020

DUDEK

NOT TO SCALE

FIGURE 8

Existing Intersection Traffic Controls and Geometrics

Auburn Recreation District 24-acre Master Plan Project

INTENTIONALLY LEFT BLANK

SOURCE: Bing 2020

DUDEK

NOT TO SCALE

FIGURE 9

Existing Saturday Midday Peak Hour Traffic Volumes

Auburn Recreation District 24-acre Master Plan Project

INTENTIONALLY LEFT BLANK

SOURCE: Bing 2020

DUDEK

NOT TO SCALE

FIGURE 10

Existing plus Project Saturday Midday Peak Hour Traffic Volumes

Auburn Recreation District 24-acre Master Plan Project

INTENTIONALLY LEFT BLANK

5.1.2 Roadway Segment Level of Service Analysis

A roadway segment LOS analysis was prepared for the Existing and Existing plus Project condition using the volume to capacity ratios, based on capacities established in the Placer County General Plan EIR (County of Placer 1994). As shown in Table 6, the study roadway segments are currently and forecast to operate with satisfactory LOS, at LOS A, during both peak hours under the Existing plus Project scenario.

Table 6. Existing plus Project Roadway Segment Level of Service

Segment	LOS "C" Capacity	Existing Saturday ADT			Existing plus Project Saturday ADT		
		ADT	*V/C*[1]	*LOS*[2]	*ADT*	*V/C*[1]	*LOS*[2]
Richardson Drive, Park Drive to Dry Creek Road	14,400	1,524	0.11	A	1,643	0.12	A
Park Drive, Richardson Drive to Quartz Drive	12,000	1,322	0.11	A	1,499	0.12	A

Notes:
1 Volume to Capacity ratio
2 Level of Service (LOS)

5.2 Queuing Analysis

A queuing analysis was prepared for the project driveway and study intersections to assess the adequacy of any off-site storage lanes into the project site. Additionally, the number of vehicles at the project's driveways were noted to determine if there would be adequate driveway throat length or space on-site for vehicles to queue without effecting the internal circulation on the project site. Queuing was analyzed utilizing the SimTraffic software, which calculates the 95th percentile (design) queue. All queuing analysis data and SimTraffic queuing worksheets are further provided below and in Appendix B.

As shown in Table 7 below, none of the calculated 95th percentile (design) queues exceed storage capacities within the existing left-turn pockets along Dry Creek Road to Richardson Drive, with exception of the eastbound and northbound left-turn lanes at the SR-49/Quartz Drive intersection. Additionally, as shown in Figure 2 and noted in Table 7 below, there is adequate storage capacity within the project site such that vehicles can queue on-site as needed.

Table 7. Existing plus Project Queuing Summary

Intersection/ Driveway	Movement	Vehicle Storage Length[1]	Existing[2]	Exceeds Vehicle Storage Length?	Existing plus Project[2]	Exceeds Vehicle Storage Length?	Improvement Warranted?
			Saturday Midday Peak		*Saturday Midday Peak*		
Richardson Drive/Dry Creek Road	EBTR[3]	>1,000	0	No	0	No	No
	WBL	100	20	No	21	No	No
	NBLT[3]	>1,000	31	No	35	No	No
	NBR[4]	65	41	No	42	No	No

Table 7. Existing plus Project Queuing Summary

Intersection/ Driveway	Movement	Vehicle Storage Length[1]	Existing[2]	Exceeds Vehicle Storage Length?	Existing plus Project[2]	Exceeds Vehicle Storage Length?	Improvement Warranted?
			Saturday Midday Peak		*Saturday Midday Peak*		
SR-49/Quartz Drive	EBL	55	62	**Yes**	66	**Yes**	No[7]
	EBR[5]	250	111	No	128	No	No
	NBL	150	250	**Yes**	245	**Yes**	No[8]
	SBTR[3]	>1,000	154	No	177	No	No
Richardson Drive/Project Dwy	EBLR	865	Does Not Exist		44	No	No
	NBLT[6]	200	Does Not Exist		12	No	No

Notes: EBTR = eastbound through-right; EBLR = eastbound left-right; EBL = eastbound left; EBR = eastbound right; WBL = westbound left; NBL = northbound left; NBLT = northbound left-through; NBR = northbound right; SBTR = southbound through-right

1 Measured in feet.
2 Based on 95th percentile (design) queue length in SimTraffic 10.
3 Greater than 1,000 feet to nearest major intersection or driveway.
4 Length measured as approximate storage length based on roadway width.
5 Length measured from intersection stop bar to Opal Drive.
6 Length measured from intersection with Park Drive to project driveway.
7 Queue does not increase greater than one car length, nor would the queue extend into the nearest intersection with Opal Drive.
8 Queue decreases between the Existing and Existing plus Project conditions, and the TWLTL would provide additional queuing to the striped left-turn storage pocket.
XX Queue exceeds storage length

As shown in the table, no improvements would be warranted at the eastbound left or northbound left turn lanes at the SR-49/Quartz Drive intersection. Although queues at the eastbound left-turn lane would exceed the striped storage length, queues would only increase by 4 feet with the addition of project traffic, and the combined 95th percentile queues for the eastbound turning movement (173 feet under Existing conditions and 194 feet under Existing plus Project conditions) would not extend into the nearest intersection at Opal Drive. Additionally, although queues at the northbound left-turn lane would exceed the striped storage length, queues would decrease with the addition of project traffic, and the TWLTL along SR-49 would provide sufficient storage capacity.

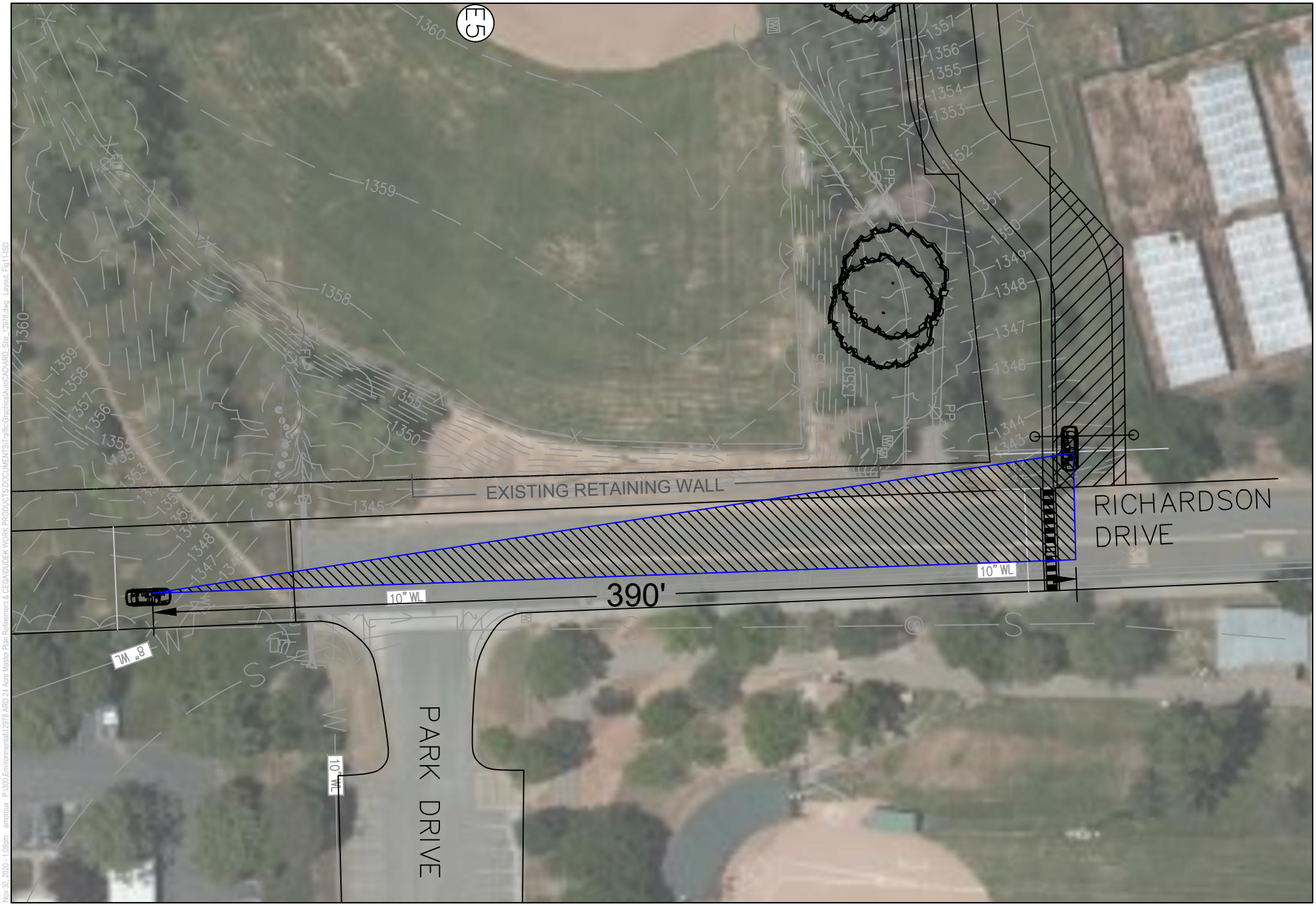
5.3 Sight Distance Analysis

Per the American Association of State Highway Transportation Officials (AASHTO), *"…sight distance is the length of the roadway ahead that is visible to the driver…"* and *"…available sight distance on a roadway should be sufficiently long to enable a vehicle traveling at or near the design speed to stop before reaching a stationary object in its path"* (AASHTO 2018). Prior to issuance of a building permit, the applicant would be required to meet all standards and guidelines required by the County.

A sight distance analysis was performed at the project driveway along Richardson Drive, based on a design speed limit of 35 MPH[3], and is illustrated in Figure 11. As shown in the figure, adequate site distance would be available for vehicles performing an eastbound left turning movement from the project driveway onto Richardson Drive. The existing retaining wall along the western side of Richardson Drive, south of the project driveway, would not extend into the sight triangle shown in Figure 11.

[3] Although the current posted speed limit along Richardson Drive is 25 MPH, the proposed design speed will be 35 MPH upon the extension of Richardson Drive to the south, per the Timberline at Auburn Vesting Phased Tentative Map (County of Placer 2011).

INTENTIONALLY LEFT BLANK



SOURCE: AASHTO 2018

DUDEK

NOT TO SCALE

FIGURE 11

Sight Distance Analysis

Auburn Recreation District 24-acre Master Plan Project

INTENTIONALLY LEFT BLANK

6 Summary & Findings

Based on the transportation analysis of the proposed project, the following findings are made:

- The project proposes to partially develop a 24.4 acre site with recreational park facilities, located west of the intersection of Park Drive with Richardson Drive Placer County.

- Per trip rates for a County Park land use (ITE Code 412), the proposed project would generate approximately 54 daily trips, zero a.m. peak hour trips, and 2 p.m. peak hour trips during a typical weekday. During a typical weekend, the proposed project would generate 296 daily trips and 54 midday peak hour trips (31 inbound and 23 outbound). Due to the higher trip generation during a typical weekend, a Saturday daily and midday peak hour analysis were used in this analysis.

- A Saturday midday peak hour intersection LOS analysis conducted at the two study intersections and project driveway indicates LOS C or better intersection operations. Additionally, a Saturday daily roadway segment LOS analysis of the two roads adjacent to the project site also indicate LOS C or better roadway operations with the addition of project traffic.

- A queuing analysis conducted at the two study intersections and project driveway show that the addition of project traffic would not result in queuing impacts, and improvements would not be necessary. Although queues at the eastbound left-turn lane of the SR-49/Quartz Drive intersection would exceed the striped storage length, queues would only increase by 4 feet with the addition of project traffic, and the combined 95th percentile queues for the eastbound turning movement would not extend into the nearest intersection. Additionally, although queues at the northbound left-turn lane would exceed the striped storage length, queues would decrease with the addition of project traffic, and the TWLTL along SR-49 would provide sufficient storage capacity.

- A site distance analysis was conducted to determine whether a clear line of site would be provided for vehicle egress from the project driveway onto Richardson Drive. The existing retaining wall along the western side of Richardson Drive, south of the project driveway, would not extend into the sight triangle shown in Figure 10. Adequate site distance would be available for vehicles performing an eastbound left turning movement from the project driveway onto Richardson Drive.

- The 24-Acre Master Plan Refinement would be screened out from preparing a detailed VMT analysis based on its land use (locally serving recreational facility) per the County's initial guidance. Additionally, based on the Location and Site Analysis, it can be inferred that the net new trips generated by the proposed project would not be significant and not cause a significant increase in VMT. The project impacts to VMT would be less than significant.

INTENTIONALLY LEFT BLANK

7 References

ITE (Institute of Transportation Engineers). 2012. *Trip Generation Manual*. 9th ed.

OPR (California Governor's Office of Planning and Research). 2018. Technical Advisory on Evaluating Transportation Impacts in CEQA. December 2018. Accessed March 2020. http://opr.ca.gov/docs/20190122-743_Technical_Advisory.pdf.

OPR. 2020. 743 Office Hours – Other Land Uses. June 2020. Accessed November 2020. https://www.youtube.com/watch?v=4lOKx0IKLRw&list=PL0Mk6UeoMD0PgpRPmg0yu8N0Y5lXtpMpl&index=2

County of Placer. 1994. Countywide General Plan Final Environmental Impact Report. Chapter 4 – Transportation and Circulation. Accessed November 2020. https://www.placer.ca.gov/DocumentCenter/View/8594/4---Transportation-PDF

County of Placer. 2011. Timberline at Auburn Vesting Phased Tentative Map. Revised June 7, 2011.

County of Placer. 2018. Placer County Regional Bikeway Plan. Final June 2018. Accessed November 2020. http://pctpa.net/library/BikewayPlanning/PlacerCounty_RegionalBikewayPlan_FINAL_20180629.pdf

County of Placer. 2020. Senate Bill (SB) 743 Implementation Plan – Information Item All Supervisorial Districts. May 11, 2020. Accessed November 2020. https://www.placer.ca.gov/DocumentCenter/View/44623/SR-F-PC-VMT-InfoItem-052820-ALL-PDF

TRB (Transportation Research Board). 2016. *Highway Capacity Manual.* (6th Edition).

INTENTIONALLY LEFT BLANK

APPENDIX A

Traffic Counts

NDS Historical Counts from 5/23/2018 (Weekday)

Int. ID	N/S Street Name	E/W Street Name	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR		
2	SR-49	Quartz Drive	99	1073	0	0	1682	22	56	0	186	0	0	0		
3	SR-49	Dry Creek Road	120	765	73	51	1410	42	74	41	198	211	53	56		

NDS Covid Counts from 10/29/2020 (Weekday)

Int. ID	N/S Street Name	E/W Street Name	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR		
2	SR-49	Quartz Drive	86	1051	0	0	1418	13	33	0	163	0	0	0	*2764*	
3	SR-49	Dry Creek Road	125	808	42	33	1175	36	70	33	184	159	60	66	*2791*	

2018-2020 Adjusted with Placer County Growth Rate (Weekday)

Int. ID	N/S Street Name	E/W Street Name	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR		
2	SR-49	Quartz Drive	108	1175	0	0	1842	24	61	0	204	0	0	0	*3414*	19.04%
3	SR-49	Dry Creek Road	131	838	80	56	1544	46	81	45	217	231	58	61	*3388*	17.61%

Unincorporated Placer County Growth (form 2036 RTP)

2012	97792
2020	107072
	0.011397
	1.14% <- Ambient Annual Growth Rate

Average AM/PM
16.96%
14.78%

NDS Historical Counts from 5/23/2018 (Weekday)

Int. ID	N/S Street Name	E/W Street Name	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR		
2	SR-49	Quartz Drive	234	2015	0	0	1386	41	16	0	152	0	0	0		
3	SR-49	Dry Creek Road	253	1555	169	63	1069	38	112	42	158	123	61	144		

NDS Covid Counts from 10/29/2020 (Weekday)

Int. ID	N/S Street Name	E/W Street Name	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR		
2	SR-49	Quartz Drive	206	1785	0	0	1387	35	25	0	144	0	0	0	*3582*	
3	SR-49	Dry Creek Road	232	1509	148	61	1060	42	100	54	128	139	55	123	*3651*	

2018-2020 Adjusted with Placer County Growth Rate (Weekday)

Int. ID	N/S Street Name	E/W Street Name	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR		
2	SR-49	Quartz Drive	256	2206	0	0	1518	45	18	0	166	0	0	0	*4209*	14.89%
3	SR-49	Dry Creek Road	277	1703	185	69	1170	42	123	46	173	135	67	158	*4146*	11.95%

Unincorporated Placer County Growth (form 2036 RTP)

2012	97792
2020	107072
	0.011397
	1.14% <- Ambient Annual Growth Rate

NDS Covid Counts from 10/24/2020 (Saturday)

Int. ID	Segment	ADT	COVID 2020 TO ADJUSTED 2020
1	Richardson Drive, Park Drive to Dry Creek Road	1,328	1,524
2	Park Drive, Richardson Drive to Quartz Drive	1,130	1,322

Average AM/PM	
14.78%	**<-for intersection #1**
16.96%	**<-for intersection #2**

APPENDIX B

Synchro LOS and Queuing Worksheets

Intersection	
Int Delay, s/veh	3.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	2	90	8	51	98	41	9	2	46	28	3	1
Future Vol, veh/h	2	90	8	51	98	41	9	2	46	28	3	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	1	1	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	65	-	-	100	-	-	-	-	65	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	84	84	84	84	84	84	84	84	84	84	84	84
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	107	10	61	117	49	11	2	55	33	4	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	166	0	0	117	0	0	382	404	113	410	385	142
Stage 1	-	-	-	-	-	-	116	116	-	264	264	-
Stage 2	-	-	-	-	-	-	266	288	-	146	121	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1412	-	-	1471	-	-	576	536	940	552	549	906
Stage 1	-	-	-	-	-	-	889	800	-	741	690	-
Stage 2	-	-	-	-	-	-	739	674	-	857	796	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1412	-	-	1471	-	-	554	513	939	501	526	906
Mov Cap-2 Maneuver	-	-	-	-	-	-	554	513	-	501	526	-
Stage 1	-	-	-	-	-	-	888	799	-	740	662	-
Stage 2	-	-	-	-	-	-	704	646	-	803	795	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	2	9.6	12.6
HCM LOS			A	B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	546	939	1412	-	-	1471	-	-	510
HCM Lane V/C Ratio	0.024	0.058	0.002	-	-	0.041	-	-	0.075
HCM Control Delay (s)	11.8	9.1	7.6	-	-	7.6	-	-	12.6
HCM Lane LOS	B	A	A	-	-	A	-	-	B
HCM 95th %tile Q(veh)	0.1	0.2	0	-	-	0.1	-	-	0.2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	26	159	145	1540	1605	27
Future Volume (veh/h)	26	159	145	1540	1605	27
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	27	167	153	1621	1689	28
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	220	196	239	2821	2839	47
Arrive On Green	0.12	0.12	0.79	0.79	0.79	0.79
Sat Flow, veh/h	1781	1585	284	3647	3669	59
Grp Volume(v), veh/h	27	167	153	1621	838	879
Grp Sat Flow(s),veh/h/ln	1781	1585	284	1777	1777	1858
Q Serve(g_s), s	1.5	11.3	49.9	18.8	20.0	20.2
Cycle Q Clear(g_c), s	1.5	11.3	70.1	18.8	20.0	20.2
Prop In Lane	1.00	1.00	1.00			0.03
Lane Grp Cap(c), veh/h	220	196	239	2821	1411	1475
V/C Ratio(X)	0.12	0.85	0.64	0.57	0.59	0.60
Avail Cap(c_a), veh/h	294	262	256	3032	1516	1586
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	42.5	46.8	18.1	4.3	4.4	4.4
Incr Delay (d2), s/veh	0.2	18.1	4.8	0.2	0.6	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	5.4	2.9	3.4	3.8	3.9
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	42.8	64.9	22.9	4.5	4.9	4.9
LnGrp LOS	D	E	C	A	A	A
Approach Vol, veh/h	194			1774	1717	
Approach Delay, s/veh	61.9			6.1	4.9	
Approach LOS	E			A	A	

Timer - Assigned Phs		2		4		6
Phs Duration (G+Y+Rc), s		91.0		18.0		91.0
Change Period (Y+Rc), s		4.5		4.5		4.5
Max Green Setting (Gmax), s		93.0		18.0		93.0
Max Q Clear Time (g_c+I1), s		72.1		13.3		22.2
Green Ext Time (p_c), s		14.5		0.2		17.7

Intersection Summary	
HCM 6th Ctrl Delay	8.5
HCM 6th LOS	A

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	0	0	57	62	0
Future Vol, veh/h	0	0	0	57	62	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	0	62	67	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	129	67	67	0	-	0
Stage 1	67	-	-	-	-	-
Stage 2	62	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	865	997	1535	-	-	-
Stage 1	956	-	-	-	-	-
Stage 2	961	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	865	997	1535	-	-	-
Mov Cap-2 Maneuver	865	-	-	-	-	-
Stage 1	956	-	-	-	-	-
Stage 2	961	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	0	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1535	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	0	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	-

Intersection: 1: Richardson Drive & Dry Creek Road

Movement	WB	WB	NB	NB	SB
Directions Served	L	TR	LT	R	LTR
Maximum Queue (ft)	31	5	33	41	64
Average Queue (ft)	4	0	9	22	23
95th Queue (ft)	20	3	31	41	52
Link Distance (ft)		330	383		133
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)	100			65	
Storage Blk Time (%)			0	0	
Queuing Penalty (veh)			0	0	

Intersection: 2: SR-49 & Quartz Drive

Movement	EB	EB	NB	NB	NB	SB	SB
Directions Served	L	R	L	T	T	T	TR
Maximum Queue (ft)	79	136	205	447	435	293	226
Average Queue (ft)	24	61	187	348	298	112	67
95th Queue (ft)	62	111	250	553	557	209	154
Link Distance (ft)		400		402	402	349	349
Upstream Blk Time (%)				58	7	0	
Queuing Penalty (veh)				0	0	0	
Storage Bay Dist (ft)	55		150				
Storage Blk Time (%)	7	17	79	2			
Queuing Penalty (veh)	10	5	606	3			

Intersection: 3: Richardson Drive & Project Driveway

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Network Summary

Network wide Queuing Penalty: 623

Intersection	
Int Delay, s/veh	3.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	2	90	10	60	98	41	11	3	53	28	4	1
Future Vol, veh/h	2	90	10	60	98	41	11	3	53	28	4	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	1	1	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	65	-	-	100	-	-	-	-	65	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	84	84	84	84	84	84	84	84	84	84	84	84
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	107	12	71	117	49	13	4	63	33	5	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	166	0	0	119	0	0	404	425	114	436	407	142
Stage 1	-	-	-	-	-	-	117	117	-	284	284	-
Stage 2	-	-	-	-	-	-	287	308	-	152	123	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1412	-	-	1469	-	-	557	521	939	531	533	906
Stage 1	-	-	-	-	-	-	888	799	-	723	676	-
Stage 2	-	-	-	-	-	-	720	660	-	850	794	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1412	-	-	1469	-	-	531	495	938	474	507	906
Mov Cap-2 Maneuver	-	-	-	-	-	-	531	495	-	474	507	-
Stage 1	-	-	-	-	-	-	887	798	-	722	644	-
Stage 2	-	-	-	-	-	-	679	628	-	787	793	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	2.3	9.7	13.1
HCM LOS			A	B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	523	938	1412	-	-	1469	-	-	485
HCM Lane V/C Ratio	0.032	0.067	0.002	-	-	0.049	-	-	0.081
HCM Control Delay (s)	12.1	9.1	7.6	-	-	7.6	-	-	13.1
HCM Lane LOS	B	A	A	-	-	A	-	-	B
HCM 95th %tile Q(veh)	0.1	0.2	0	-	-	0.2	-	-	0.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	28	171	160	1540	1605	29
Future Volume (veh/h)	28	171	160	1540	1605	29
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	29	180	168	1621	1689	31
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	232	206	233	2819	2830	52
Arrive On Green	0.13	0.13	0.79	0.79	0.79	0.79
Sat Flow, veh/h	1781	1585	283	3647	3662	65
Grp Volume(v), veh/h	29	180	168	1621	839	881
Grp Sat Flow(s),veh/h/ln	1781	1585	283	1777	1777	1857
Q Serve(g_s), s	1.7	13.0	67.3	20.3	21.7	21.8
Cycle Q Clear(g_c), s	1.7	13.0	89.2	20.3	21.7	21.8
Prop In Lane	1.00	1.00	1.00			0.04
Lane Grp Cap(c), veh/h	232	206	233	2819	1409	1473
V/C Ratio(X)	0.13	0.87	0.72	0.58	0.60	0.60
Avail Cap(c_a), veh/h	274	244	234	2824	1412	1476
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	45.0	50.0	22.3	4.6	4.7	4.8
Incr Delay (d2), s/veh	0.2	24.8	10.3	0.3	0.7	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	6.6	4.3	4.2	4.6	4.8
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	45.3	74.8	32.6	4.9	5.4	5.4
LnGrp LOS	D	E	C	A	A	A
Approach Vol, veh/h	209			1789	1720	
Approach Delay, s/veh	70.7			7.5	5.4	
Approach LOS	E			A	A	

Timer - Assigned Phs		2		4		6
Phs Duration (G+Y+Rc), s		97.3		19.7		97.3
Change Period (Y+Rc), s		4.5		4.5		4.5
Max Green Setting (Gmax), s		93.0		18.0		93.0
Max Q Clear Time (g_c+I1), s		91.2		15.0		23.8
Green Ext Time (p_c), s		1.6		0.2		17.8

Intersection Summary	
HCM 6th Ctrl Delay	10.1
HCM 6th LOS	B

Intersection	
Int Delay, s/veh	2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	9	14	18	57	62	13
Future Vol, veh/h	9	14	18	57	62	13
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	10	15	20	62	67	14

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	176	74	81	0	-	0
Stage 1	74	-	-	-	-	-
Stage 2	102	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	814	988	1517	-	-	-
Stage 1	949	-	-	-	-	-
Stage 2	922	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	803	988	1517	-	-	-
Mov Cap-2 Maneuver	803	-	-	-	-	-
Stage 1	936	-	-	-	-	-
Stage 2	922	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.1	1.8	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1517	-	906	-	-
HCM Lane V/C Ratio	0.013	-	0.028	-	-
HCM Control Delay (s)	7.4	0	9.1	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Intersection: 1: Richardson Drive & Dry Creek Road

Movement	EB	WB	WB	NB	NB	SB
Directions Served	L	L	TR	LT	R	LTR
Maximum Queue (ft)	12	27	4	34	52	58
Average Queue (ft)	1	5	0	11	23	23
95th Queue (ft)	8	21	3	35	42	50
Link Distance (ft)			330	383		133
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)	65	100			65	
Storage Blk Time (%)				0	0	
Queuing Penalty (veh)				0	0	

Intersection: 2: SR-49 & Quartz Drive

Movement	EB	EB	NB	NB	NB	SB	SB
Directions Served	L	R	L	T	T	T	TR
Maximum Queue (ft)	86	152	205	447	428	280	221
Average Queue (ft)	26	72	164	266	208	120	78
95th Queue (ft)	66	128	245	522	475	223	177
Link Distance (ft)		400		402	402	349	349
Upstream Blk Time (%)				29	3	0	
Queuing Penalty (veh)				0	0	0	
Storage Bay Dist (ft)	55		150				
Storage Blk Time (%)	6	22	53	2			
Queuing Penalty (veh)	10	6	408	3			

Intersection: 3: Richardson Drive & Project Driveway

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (ft)	40	24
Average Queue (ft)	19	1
95th Queue (ft)	44	12
Link Distance (ft)	266	232
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Network Summary

Network wide Queuing Penalty: 426