

**Proposed Initial Study and
Mitigated Negative Declaration**

For the

**Lake Solano Habitat Restoration and
Public Access Improvement Project**

Prepared by:
Solano Resource Conservation District
Lead Agency

March 3, 2023



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Acronyms and Abbreviations

ADA	Americans with Disabilities Act
ATV	All-Terrain Vehicle
BMPs	Best Management Practices
CCR	California Code of Regulations
CDFG	California Department of Fish and Game
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CNDDDB	California Natural Diversity Database
CNPS	California Native Plant Society
CO	Carbon Monoxide
CO ₂	Carbon Dioxide
CPRC	California Public Resource Code
CRPR	California Rare Plant Rank
CVRWQCB	Central Valley Regional Water Quality Control Board
DG	Decomposed Granite
EIR	Environmental Impact Report
ESA	Endangered Species Act
GHG	Greenhouse Gas
HP	Horsepower
LNU Complex Fire	Sonoma–Lake–Napa Unit Fire
MLD	Most Likely Descendant
NAHC	Native American Heritage Commission
NEPA	National Environmental Policy Act
NO _x	Nitrogen Oxides
NPPA	Native Plant Protection Act
NRCS	Natural Resources Conservation Service
NWIC	Northwest Information Center
PCA	Pest Control Advisor
PM ₁₀	Particulate Matter less than 10 micrometers in diameter
PM _{2.5}	Particulate Matter less than 2.5 micrometers in diameter
QAC	Qualified Applicator Certificate
Solano RCD	Solano Resource Conservation District
Reclamation	Bureau of Reclamation
ROG	Reactive Organic Gases
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
UTV	Utility Terrain Vehicle
VELB	Valley Elderberry Longhorn Beetle
YSAQMD	Yolo-Solano Air Quality Management District

Mitigated Negative Declaration

Lake Solano Habitat Restoration and Public Access Improvement Project

Lead Agency

Solano Resource Conservation District
1170 North Lincoln Street, #110
Dixon, CA 95620

Availability of Documents

The Initial Study and Proposed Mitigated Negative Declaration is available for review for 30 days from March 3, 2023. Questions or comments should be submitted no later than 5 p.m. on April 2, 2023 to:

Katherine Holmes, Deputy Executive Director
Solano Resource Conservation District
1170 North Lincoln Street, #110
Dixon, CA 95620
katherine.holmes@solanorcd.org
707-678-1655 ext. 107

The document is available for review at the following locations:

- Solano RCD office at 1170 North Lincoln St. #110, Dixon, CA 95620. Please call 707-678-1655 x107 to schedule an appointment during regular business hours (Monday-Friday 8:00 am-5:00 pm)
- Online at <https://www.solanorcd.org/resources/public-notice-ceqa.html>

Project Location

The Project will occur at Lake Solano Park (Park) which is located on the south bank of Putah Creek in Solano County approximately 4.5 miles southwest of the town of Winters. The Park is owned by the Bureau of Reclamation and operated by Solano County Parks under a Managing Partner Agreement, with a current term ending in 2046.

Most of the proposed Project work will be on 19 acres in the upland areas of the Park above the upper day use parking lot. Limited Project work (consisting solely of interpretive and way finding signage) will also occur in the riparian corridor of Putah Creek in the Park's day use area. Project work is centered at a latitude of 38.490327° and a longitude of -122.027885°.

See **Figure 1** for Project location and **Figure 2** for proposed work areas.

Project Description

The purpose of the Project is to restore wildlife and native plant habitat, improve public access and recreational opportunities, and provide visitors with interpretive and educational materials. The Project proposes to plant up to 2,265 native trees, shrubs and subshrubs, up to 20,000 native forb plugs, and up to 300 pounds of native grass and wildflower seed on 19 acres in the upland terraces located above the upper day use parking lot. Within this restored area, a half-acre native plant demonstration garden will be installed, including 670 feet of Americans with Disabilities Act (ADA) accessible trail with two

decomposed granite (DG) pads, and 10-15 plant identification signs. A simple shade structure with a gravel pad will be installed at the highest elevation of the Park and will provide an overlook point for Park visitors and elementary school students on field trips. Park signage will be improved with the installation of 10-15 small wayfinding signs, 10-15 interpretive panels, and two kiosks (see **Figure 2**). See the Initial Study for a more detailed Project description.

A majority of proposed Project activities (habitat restoration, demonstration garden, ADA trail with DG pads, shade structure with gravel pad, most of the signage) will occur on 19 acres in the upper, upland terraces within the Park in a mixed oak-foothill pine vegetation community that was severely impacted by the LNU Fire.

A small portion of proposed Project activities (one kiosk, six interpretive signs and five wayfinding signs, totaling less than 30 square feet of permanently installed signage) is located on the lower terrace within the riparian corridor along Putah Creek. This area is within the active day use area of Lake Solano Park, which is currently maintained for recreational use with irrigated grass, picnic tables, horseshoe pits, and existing Park signage. A number of standard maintenance activities already occur within this portion of the park, including regular irrigation repair, frequent mowing, and occasional sign maintenance.

Project partners include Solano Resource Conservation District, Solano County Parks, Bureau of Reclamation, Yocha Dehe Wintun Nation, and Putah Creek Council.

Findings

The Initial Study has been prepared to determine if the Project could have a significant effect on the environment. Based on the Initial Study, it has been determined that the proposed Project would not have any significant effects on the environment after implementation of mitigation measures. The mitigation measures identified in the Initial Study and a Mitigation Monitoring and Reporting Plan will be adopted to ensure compliance with the required mitigation measures. This conclusion is supported by the following findings:

- The proposed Project would result in **no impacts** to aesthetics, agricultural resources, geology and soils, land use and planning, mineral resources, noise, population and housing, public services, recreation, transportation and traffic, and utilities and service systems.
- The proposed Project would result in **less-than-significant impacts** to air quality, greenhouse gas emissions, hazards and hazardous materials, and hydrology and water quality.
- With **implementation of mitigation measures**, the proposed Project would have **less-than-significant impacts** on biological resources and cultural resources.

Mitigation Measures

Project partners will implement the following mitigation measures to avoid or minimize potential environmental impacts. Implementation of these mitigation measures would reduce the potential environmental impacts of the proposed Project to a less-than-significant level.

Mitigation Measures for Biological Resources

BIO 1. Pre-construction and Construction Surveys. A qualified biologist shall conduct wildlife surveys 24-48 hours prior to: 1) Use of mechanical equipment that disturbs the ground (augering for signs and tree planting, minor excavation associated with construction of the ADA trail, DG pads, shade structure and gravel pad or 2) Mowing activities for weed control in the habitat restoration areas. Surveys will be

repeated if construction stops for a period of more than 7 days. During implementation of activities that disturb the ground, a qualified biologist shall visit the job site daily to ensure that best management practices and mitigation measures are being followed. Specific mitigation measures for nesting birds are listed below.

BIO 2. Nesting Bird Surveys and Avoidance. During the nesting season (February 1-August 31), a qualified biologist shall conduct surveys for nesting birds during the appropriate survey periods prior to Project commencement and also 24-48 hours prior to: 1) Use of mechanical equipment that disturbs the ground (augering for signs and tree/shrub/subshrub planting or excavation associated with construction of the ADA trail, DG pads, shade structure or gravel pad) or 2) Mowing activities for weed control in the habitat restoration areas. Surveys will be repeated whenever 7 or more days elapse without work at the site. If nests are located, impacts shall be minimized by establishing appropriate non-disturbance buffer zones in consultation with CDFW/USFWS. The qualified biologist shall monitor nests to ensure that nesting birds are not disturbed and that nests are not jeopardized. If Project activities are observed to disturb nesting behaviors, work causing the disturbance shall be suspended until nesting season is complete.

BIO 3. Protection of Listed Species. If a fully protected or listed animal species is encountered while performing work, all work shall be suspended until the fully protected or listed animal species has left the work area. The appropriate agencies shall be notified of all confirmed observations of any fully protected or listed species in or adjacent to any work area for the Project. The qualified biologist will report any take of listed species to the appropriate agencies (USFWS/CDFW) immediately by telephone and by electronic mail or written letter within one (1) working day of the incident.

BIO 4. Native Plant Survey and Avoidance. A team of Solano RCD biologists conducted four comprehensive surveys of the Project site during the appropriate blooming period in 2022, searching for special status plant species with the potential to occur on or adjacent to the Project area. All flowering plants present at the Project site during the surveys were identified to a taxonomic level sufficient to determine potential special status species designation (with the exception of two *Arctostaphylos* seedlings discussed further in the Discussion section of 3.6 Biological Resources). No special status plant species were located during these surveys. Prior to the commencement of Project activities, a second targeted set of plant surveys searching for potential special status plant species shall be performed by qualified biologists during the appropriate blooming period. If special-status plants are found during the second set of surveys, species-specific conservation measures, including Project redesign and/or buffer establishment, will be implemented to avoid or minimize impacts to special status plants.

BIO 5. Elderberry Survey and Avoidance. A qualified biologist shall conduct surveys for elderberries prior to commencement of Project activities. All identified elderberries shall be flagged, and measures developed by USFWS (2017) to avoid and minimize impacts to Valley elderberry longhorn beetle (VELB) will be implemented, including: elderberry branches will not be pruned or trimmed, ground disturbing activities will be avoided within 20 feet of elderberry shrubs, and herbicides & mechanical weed control will not be used within the dripline of the elderberry shrubs.

BIO 6. Worker Environmental Awareness Training. A Worker Environmental Awareness Training Program shall be conducted by a qualified biologist for all workers, including sub-contractors, prior to: 1) Commencement of habitat restoration activities, 2) Construction of the ADA trail, DG pads, shade structure and gravel pad, or 3) Installation of wayfinding and interpretive signs. The program shall

consist of a presentation made by a qualified biologist that includes information about the distribution and habitat needs of any special status species that may be present, legal protections for those species, and Project-specific procedures and protective measures in the event that a species is observed. Worker training will also include environmental best management practices (BMPs) and emergency spill response protocols.

BIO 7. Equipment Operation Speeds. Construction crews shall operate equipment used within the footprint of the Project site at 5mph hour or less.

Mitigation Measures for Cultural Resources

CUL 1. Worker Cultural Sensitivity Training. A Cultural Sensitivity Training shall be conducted for all workers by the Yoche Dehe Wintun Nation cultural resources team prior to the commencement of habitat restoration activities, construction of the ADA trail, DG pads, shade structure and gravel pad, or installation of wayfinding and interpretive signs. The training shall include information about how to recognize cultural resources, legal protections for those resources, and appropriate steps to take if cultural resources are discovered during implementation of restoration activities.

CUL 2. Human Remains Discovered. All human remains and potential human remains and their accompanying cultural items must be treated with respect and dignity at all times. In the event that suspected human remains are discovered during proposed project activity on Federal land, the discovery will be addressed under the Native American Graves Protection and Repatriation Act (NAGPRA) (25 USC 3001) and implementing regulations 43 CFR Part 10. All activities in the immediate area will cease, and appropriate precautions will be taken to protect the remains and any associated cultural items from further disturbance. The Bureau of Reclamation will follow the procedures outlined in 43 CFR § 10.4 Inadvertent Discoveries. The Bureau of Reclamation California-Great Basin Environmental Officer Regional Archaeologist will be immediately notified by telephone and will take responsibility for the discovery by contacting the appropriate law enforcement and Reclamation officials. Within three (3) working days of confirmation of the discovery [see 43 CFR Part 10.4(d)(1)(iii)], the Regional Archaeologist will notify by telephone or in person, with written confirmation, the Indian tribes likely to be affiliated with the discovered human remains (e.g., lineal descendant, culturally affiliated Indian tribe, Indian tribe with other cultural relationship, and Indian tribe that aboriginally occupied area). Treatment and handling of the remains will be determined through consultation between Reclamation and consulting tribes. Reclamation will notify Lake Solano when work may proceed at the discovery location.

If human remains are encountered on State or privately-owned land, State Health and Safety Code Section 7050.5 dictates that no further disturbance shall occur until the County Coroner has made a determination of origin and disposition pursuant to PRC 5097.98. The County Coroner must be notified of the find immediately. If the remains are determined to be historic, the Coroner will notify the Native American Heritage Commission (NAHC), which will determine and notify a Most-Likely Descendant (MLD). With the permission of the landowner or his/her authorized representative, the MLD may inspect the site of the discovery. The MLD shall complete the inspection within 48 hours of notification by the NAHC. The MLD may recommend scientific removal and nondestructive analysis of human remains and items associated with Native American burials.

CUL 3. Archaeological/Paleontological Resources Discovered. If subsurface deposits believed to be cultural or human in origin are discovered during restoration activities, then all work must halt within a 50-foot radius of the discovery, and provisions will be made for a qualified archaeologist and Yoche Dehe Tribal monitor to immediately evaluate the find.

The qualified professional archaeologist shall meet the Secretary of the Interior's Professional Qualification Standards for prehistoric and historic archaeologist, shall be retained to evaluate the significance of the find, and shall have the authority to modify the no-work radius as appropriate, using professional judgment. Reclamation will follow the procedures outlined in 43 CFR § 10.4 Inadvertent Discoveries. The following notifications shall apply, depending on the nature of the find:

- If the professional archaeologist determines that the find does not represent a cultural resource, then work may resume immediately and no agency notifications are required.
- If the professional archaeologist determines that the find does represent a cultural resource from any time period or cultural affiliation, then he or she shall immediately notify the US Bureau of Reclamation. The agency shall consult on a finding of eligibility and implement appropriate treatment measures, if the find is determined to be eligible for inclusion in the NRHP. Work cannot resume within the no-work radius until the lead agencies, through consultation as appropriate, determine that the site either: 1) is not eligible for the NRHP; or 2) that the treatment measures have been completed to their satisfaction.

Work may continue on other parts of the Project while the find is being addressed. If the find is determined to be a paleontological resource, time will be allotted to allow for implementation of avoidance measures or appropriate mitigation measure as determined by Reclamation in consultation with the Yoche Dehe Tribal monitor.

Determination

In accordance with section 21082.1 of the California Environmental Quality Act, Solano Resource Conservation District has independently reviewed and analyzed the Initial Study and proposed Mitigated Negative Declaration for the proposed Project. Solano Resource Conservation District has determined that adoption of a Mitigated Negative Declaration is appropriate and that the preparation of an Environmental Impact Report (EIR) will not be required. Solano Resource Conservation District will adopt a Mitigation Monitoring and Reporting Plan to ensure compliance with the required mitigation measures for the proposed Project. With implementation of these mitigation measures, the proposed Project would have no significant effect on the environment.

Kurt Balasek
Board President
Solano Resource Conservation District

Date

Initial Study, Including Mitigation Measures

1 Introduction

1.1 Background

This document is an Initial Study that provides an analysis of the Lake Solano Habitat Restoration and Public Access Improvement Project. This document has been prepared in accordance with California Environmental Quality Act (CEQA), Public Resources Code §2100 et seq., and the State CEQA Guidelines, Title 14 California Code of Regulations (CCR) Section 15000 et seq.

The purpose of this Initial Study is to: (1) determine whether Project implementation would result in potential significant or significant effects to the environment, and (2) incorporate mitigation measures into the Project design, as necessary, to eliminate the Project's potential significant effects or reduce them to a less-than-significant level.

1.2 Lead Agency

As specified in CEQA Guidelines Section 15367, the lead agency for CEQA compliance is the public agency that has the principal responsibilities for carrying out or approving the Project. Solano RCD has principal responsibility for carrying out the proposed Project and is therefore the CEQA lead agency for this Initial Study.

1.3 Supporting Environmental Studies

Studies conducted for the Project include: 1) Biological assessment and species review for potential impacts to special status species, and 2) Results of multiple plant surveys that occurred at the Project site from February 2022 to June, 2022. These reports are available upon request during normal operating hours at Solano RCD, 1170 North Lincoln Street #110, Dixon, CA 95620 or by contacting Katherine Holmes at katherine.holmes@solanorcd.org or 707-678-1655 ext. 107.

2 Project Description

2.1 Project Location

The Project will occur at Lake Solano Park (Park) which is located on the south bank of Putah Creek in Solano County approximately 4.5 miles southwest of the town of Winters. The Park is owned by the Bureau of Reclamation and operated by Solano County Parks under a Managing Partner Agreement, with a current term ending in 2046. Most of the proposed Project work will be on 19 acres in the upland areas of the Park above the upper day use parking lot. Limited Project work (consisting solely of interpretive and way finding signage) will also occur in the riparian corridor of Putah Creek in the Park's day use area. Project work is centered at a latitude of 38.490327° and a longitude of -122.027885°.

See **Figure 1** for Project location and **Figure 2** for proposed work areas.

2.2 Project Description

The purpose of the Project is to restore wildlife and native plant habitat, improve public access and recreational opportunities, and provide visitors with interpretive and educational materials. The Project proposes to plant up to 2,265 native trees, shrubs and subshrubs, up to 20,000 native forb plugs, and up to 300 pounds of native grass and wildflower seed on 19 acres in the upland terraces located above the

upper day use parking lot. Within this restored area, a half-acre native plant demonstration garden will be installed, including 670 feet of American with Disabilities Act (ADA) accessible trail with two decomposed granite (DG) pads, and 10-15 plant identification signs. Through a partnership with the Yocha Dehe Wintun Nation, the demonstration garden will highlight plant species culturally significant to local California Native American tribes. A simple shade structure and a gravel pad will be installed at the highest elevation of the Park and will provide an overlook point for Park visitors and elementary school students on field trips. Park signage will be improved with the installation of 10-15 small wayfinding signs, 10-15 interpretive panels, and two kiosks (see **Figure 2**).

A majority of proposed Project activities (habitat restoration, demonstration garden, ADA trail, DG pads, gravel pad, shade structure, most of the signage) will occur on 19 acres in the upper, upland terraces within the Park in a mixed oak-foothill pine vegetation community that was severely impacted by the LNU Complex fire.

A small portion of proposed Project activities (one kiosk, six interpretive signs and five wayfinding signs, totaling less than 30 square feet of permanently installed signage) is located on the lower terrace within the riparian corridor along Putah Creek. This area is within the active day use area of Lake Solano Park, which is currently maintained for recreational use with irrigated grass, picnic tables, horseshoe pits, and existing Park signage. A number of standard maintenance activities already occur within this portion of the park, including regular irrigation repair, frequent mowing, and occasional sign maintenance.

Project partners include Solano Resource Conservation District, Solano County Parks, Bureau of Reclamation, Yocha Dehe Wintun Nation and Putah Creek Council.

2.2.1 Existing Conditions

The entire 19-acre upland area proposed for this Project was farmed as a commercial orchard through the 1960s, with almost all native trees and shrubs removed from the Project area (see **Figures 3, 4 and 5**). The property has been operated as recreational park since 1973, and, as of 2020, many native trees and shrubs had recruited into the site (see **Figure 6**). Unfortunately, the entire upland area of the Park was burned by the LNU Complex fire in August 2020 (see **Figure 7**). This fire ravaged the rural and wildland areas of Napa, Solano, Yolo, and Sonoma Counties causing millions of dollars of damage and destroying thousands of acres of natural, agricultural and residential lands, including the 19-acre area proposed for this Project. Most of the native trees in the Project area were entirely top killed by the wildfire and have not resprouted more than a year and a half later.

Trailhead and demonstration garden: The 1.5 acre area slated for the trailhead entry kiosk, demonstration garden, and ADA trail was partially spared from the LNU fire and 5 mature native oak trees - valley and interior live oak (*Quercus lobata* and *Q. wislizeni*) - still exist at the site. A few walnut trees, remnant from the previous walnut orchard, also survived, although all were top killed. The understory is dominated by non-native annual grasses, with few native grasses or forbs. In recent decades, Park maintenance activities have occurred on this parcel, including debris/burn piles and equipment storage.

Habitat restoration area: The LNU fire had a devastating impact on the upper 17.5 acre area planned for habitat restoration as part of this Project. Although some of the upland shrubs are recovering from the fire - mainly toyon (*Hesperomeles arbutifolia*) – hundreds of native trees do not appear to have survived. About a dozen small almond trees remain (remnants of the commercial orchard), and the canopies of about a dozen blue and interior live oaks (*Quercus douglassii*; *Q. wislizeni*) still support live branches with

leaves. The understory in this area is dominated by non-native annual grasses and a substantial population of yellow star thistle (*Centaurea solstitialis*). A number of native wildflowers and forbs occur in patches within this matrix of non-natives. Underground pressurized 2" PVC pipelines currently exist in the central area of this upland area and can be tapped for the irrigation of future restoration plantings.

Interpretive panels and wayfinding signs: Currently there are very few interpretive signs or materials along the waterline or in the upland areas of the Park, and wayfinding signage is spotty and does not identify upland hiking opportunities.

2.2.2 Year 1 – Site Preparation; Kiosk/Trail/Shade Structure Installation; 1st Year Tree/Shrub/Subshrub Planting; Native Grass Seeding

Installation and establishment activities are scheduled over a four-year period. See **Table 1** for a schedule of installation and establishment activities.

Weed control: Within the native grass seeding area, the demonstration garden area, and along future the tree, shrub and subshrub planting lines, non-native invasive plants will be controlled in spring of Year 1 with several different practices, as needed:

- Mowing with a rotary mower mounted on a 50 HP tractor (large open areas)
- Mowing with hand-held weed whackers (small areas or along planting lines)
- Herbicide application with a small boom sprayer mounted on an ATV (grass seeding area)
- Herbicide application with backpack sprayers (small areas or along planting lines)

Two rounds of weed control are usually needed, one in late winter/early spring to control early-season invasives (annual grasses) and another in late spring to control late-season invasives (thistles and mustards). The purpose is to reduce populations of non-native invasive plants that would compete with young native plants.

Weed control efforts will be informed by the comprehensive plant survey completed in 2022 at the Project site. In areas where dense patches of native forbs and wildflowers exist (none of which were identified as rare or special status), weed control techniques will be modified to minimize impacts to the natives. In addition, whenever feasible, Tubex tubes will be placed around naturally recruiting seedlings of native woody plants to identify their locations and protect them from weed control activities.

Plant propagation Seeds and cuttings will be collected from local ecotypes of native trees, shrubs, subshrubs, and forbs throughout the spring, summer, and fall of Year 1 and grown into container stock at native plant nurseries that employ phytophthora sanitation measures. Restoration design will emphasize a diverse plant community, and seeds will be collected from a wide variety of local native plants. Species identified as particularly important to Monarch butterflies and other special status species will be targeted in this effort. See **Table 2** for a preliminary list of plant species proposed for installation at the Project site.

ADA trail and decomposed granite pads installation: A fully accessible ADA trail will be installed in the demonstration garden area in late summer/fall of Year 1. The surface of the trail will be installed at approximately two inches above grade, and, with the addition of mulch in the planting areas, will be at grade upon garden completion. The trail will be 670 feet long and five feet wide with an underlying two-inch layer of gravel and a five-inch concrete cap. The zone of disturbance for the trail is expected to be five inches deep and six feet wide. The total surface area of disturbance for the ADA trail will be up to 4,020 square feet.

As part of the ADA trail, two decomposed granite pads will also be installed to provide additional space for a bench at the smaller pad and several picnic tables for use by Park visitors and students on field trips at the larger pad. The smaller pad will occur at the entrance area and will be approximately 10'x30' (300 square feet), and the larger pad will occur in the middle of the demonstration garden and will be approximately 30'x40' (1,200 square feet). The zone of disturbance for the DG pads is expected to be 4 inches deep and up to one foot outside the footprint of the DG pads, making the total area of disturbance for the DG pads about 1,728 square feet.

Typical equipment that will be used to install the ADA trail and DG pads include a small tractor, skid steer and/or mini excavator for excavation and DG/gravel distribution, a small riding vibrating roller for compacting DG/gravel, and a concrete pump truck (which will remain on the day use parking lot). A total of approximately 52 cubic yards of concrete, 40 cubic yards of gravel and 19 cubic yards of decomposed granite will be used to install the ADA trail and DG pads.

All materials for the ADA trail and DG pads will be staged and stored on the existing asphalt parking lot adjacent to the Project site.

Shade structure and gravel pad installation: A 12 feet by 20 feet shade structure, consisting of a cantilevered roof and three to four supporting poles, will be installed in the upland area in late summer of Year 1. Holes for the supporting poles will be augered (approximately 12 inches wide by 5 feet deep) and a 22 foot by 30 feet (660 square foot) x 5 inch deep gravel pad will be installed entirely above grade under the shade structure. The zone of disturbance for the shade structure and gravel pad is expected to be up to one foot outside the footprint of the gravel pad for a total of 768 square feet.

Typical equipment that will be used for the shade structure and gravel pad installation include a small tractor or skid steer for hole augering and gravel distribution, a riding vibrating roller for compacting gravel, and a truck-pulled concrete mixer for cementing the poles. A total of 10 cubic yards of gravel and will be used to install the shade structure and gravel pad.

All materials for the shade structure and gravel pad will be staged and stored on the existing asphalt parking lot adjacent to the Project site.

Auger planting holes: In fall of Year 1, a skid steer with a front-mounted 12 inch bit auger will be used to dig tree, shrub and subshrub holes in areas along future planting lines wherever compaction is specifically determined to be an issue for root system development. Planting holes are expected to be 1 foot wide by 3 feet deep. Auger rotation direction will be reversed as the bit exits each hole to refill it with loosened soil. Follow up with a hoe crew will ensure that the holes are entirely refilled.

Install kiosks and wayfinding signage: In fall of Year 1, a skid steer with a front-mounted 8 inch bit auger will be used to drill holes for 10-15 small wayfinding signs and two kiosks. Wayfinding sign holes are expected to be 8 inches wide by 2 feet deep and kiosk holes are expected to be 8 inches wide by 2.5 feet deep. Signs and kiosks will be installed immediately after holes are augered using hand tools and small amounts of concrete.

Installation of irrigation stations and driplines: In fall of Year 1, above-ground, three-quarter inch polyethylene driplines will be installed on approximately 12 acres of the Project area (the area not selected for native grass seeding) using hand-operated spoolers and ATVs. Irrigation valves and timers will be installed and connected to the existing underground PVC lines. The layout will consist of driplines

running parallel to the main trails in the upland area of the Park, spaced 30-40 feet apart, with occasional pod areas that will require additional short lengths of dripline to allow for “shrub pod” areas with higher planting densities. Six-inch long irrigation staples will be used at 10-foot intervals along the driplines to ensure that they remain in place. Drip emitters will be installed along the driplines at each tree, shrub, and subshrub location.

Native grass drill seeding: Native grasses will be planted on up to 7 acres in the upland area and up to 1 acre in the demonstration garden area in late fall to early winter of Year 1. Native grasses will be seeded at a rate of 25 pounds to the acre and will be accomplished using a no-till drill seeder pulled by a 50 HP tractor. The no-till drill seeder will disturb only the top inch of soil while planting grass seed.

Native grass seeding efforts will be informed by the comprehensive plant survey completed in 2022 at the Project site. In areas where dense patches of native forbs and wildflowers exist (none of which were identified as rare or special status), grass seeding efforts may be reduced to minimize competition with the native forbs and wildflowers.

See **Table 2** for a preliminary list of plant species proposed for installation at the Project site.

Native plant installation: In late fall and early winter, hand tools (shovels and trowels) will be used to plant up to 300 trees, shrubs, and subshrubs in the demonstration garden area and up to 1,265 trees, shrubs and subshrubs on 12 acres of the Project area (the area not scheduled for native grass seeding).

2.2.3 Year 2 – Plant Establishment; 2nd Year Tree/Shrub/Subshrub Planting; Forb Planting
Weed control: Weed control activities similar to those described in Year 1 will continue to be conducted in Year 2, as needed.

Plant identification sign installation: In early spring of Year 2, hand tools (post-hole diggers) will be used to create 10-15 small holes within the demonstration garden and small plant identification signs will be installed. Garden sign holes are expected to be 6 inches wide by 12 inches deep.

Plant propagation: Plant propagation efforts similar to those described in Year 1 will continue in Year 2.

Irrigation operation: The drip irrigation system will be run on a weekly basis between April and September of Year 2 so that each tree, shrub, and subshrub is irrigated with 5-10 gallons of water/week.

Plant monitoring: During early fall of Year 2, all trees, shrubs and subshrubs planted in Year 1 will be monitored for health, and those that have died will be flagged for replanting.

Installation of irrigation stations and driplines: In early fall of Year 2, irrigation driplines will be installed in the 7-8 acres seeded with native grasses in Year 1 using practices described in Year 1. Dripline will also be installed at 10 “pollinator pods” located along main trails where dense installations of forb plugs are planned.

Native plant installation: In late fall and early winter, hand tools (shovels and trowels) will be used to plant up to 700 trees, shrubs, and subshrubs in the 7-8 acre grass seeding areas. In the 10 pollinator pods, hand tools (dibble sticks) will be used to plant up to 20,000 forb plugs. In addition, any tree, shrub or subshrub planted in Year 1 that has died will be replanted.

2.2.4 Year 3 – Plant Establishment; Wildflower Seeding; Interpretive Signs

Weed control: Weed control activities similar to those described in Year 1 will continue to be conducted in Year 3, as needed.

Irrigation operation: The drip irrigation system will be run on a weekly basis between April and September of Year 3 so that each tree, shrub and subshrub is irrigated with 5-10 gallons of water/week.

Plant monitoring: During early fall of Year 3, all trees, shrubs and subshrubs planted in Years 1 and 2 will be monitored for health, and those that have died will be flagged for replanting.

Install interpretive signage: In fall of Year 3, a bobcat with a front-mounted 8-inch bit auger will be used to drill holes for 10-15 interpretive signs. Signs will be installed immediately after holes are augered using hand tools and small amounts of concrete. Interpretive sign holes are expected to be 8 inches wide by 2.5 feet deep.

Broadcast wildflowers: In fall of Year 3, wildflower seed will be broadcast seeded on up to 17.5 acres in the upper planting area using both ATV-mounted electric broadcast seeders and hand-operated seed slingers. Wildflower seeding efforts will be informed by the comprehensive plant survey completed in 2022 at the Project site.

Wildflower species selection and seed procurement will be conducted in a manner that minimizes the potential for genetic swamping of local ecotypes of native forbs and wildflowers (none of which were identified as rare or special status). See **Table 2** for a preliminary list of plant species proposed for installation at the Project site.

Native plant installation: Any tree shrub or subshrub planted in Years 1 and 2 that has died will be replanted.

2.2.5 Year 4 – Plant Establishment

Weed control: Weed control activities similar to those described in Year 1 will continue to be conducted in Year 4, as needed.

Plant irrigation: Irrigation activities similar to those described for Year 3 will be repeated in year 4, although the frequency of irrigation will be reduced to bi-weekly rather than weekly.

Plant monitoring: During fall of Year 4, all planted trees, shrubs and subshrubs will be monitored for health.

Figure 1: Project location at Lake Solano Park (outlined in red in southwest corner of map)



Figure 2: Proposed work areas for Lake Solano Habitat Restoration and Public Access Improvement



Figure 3: Aerial Photo from 1937

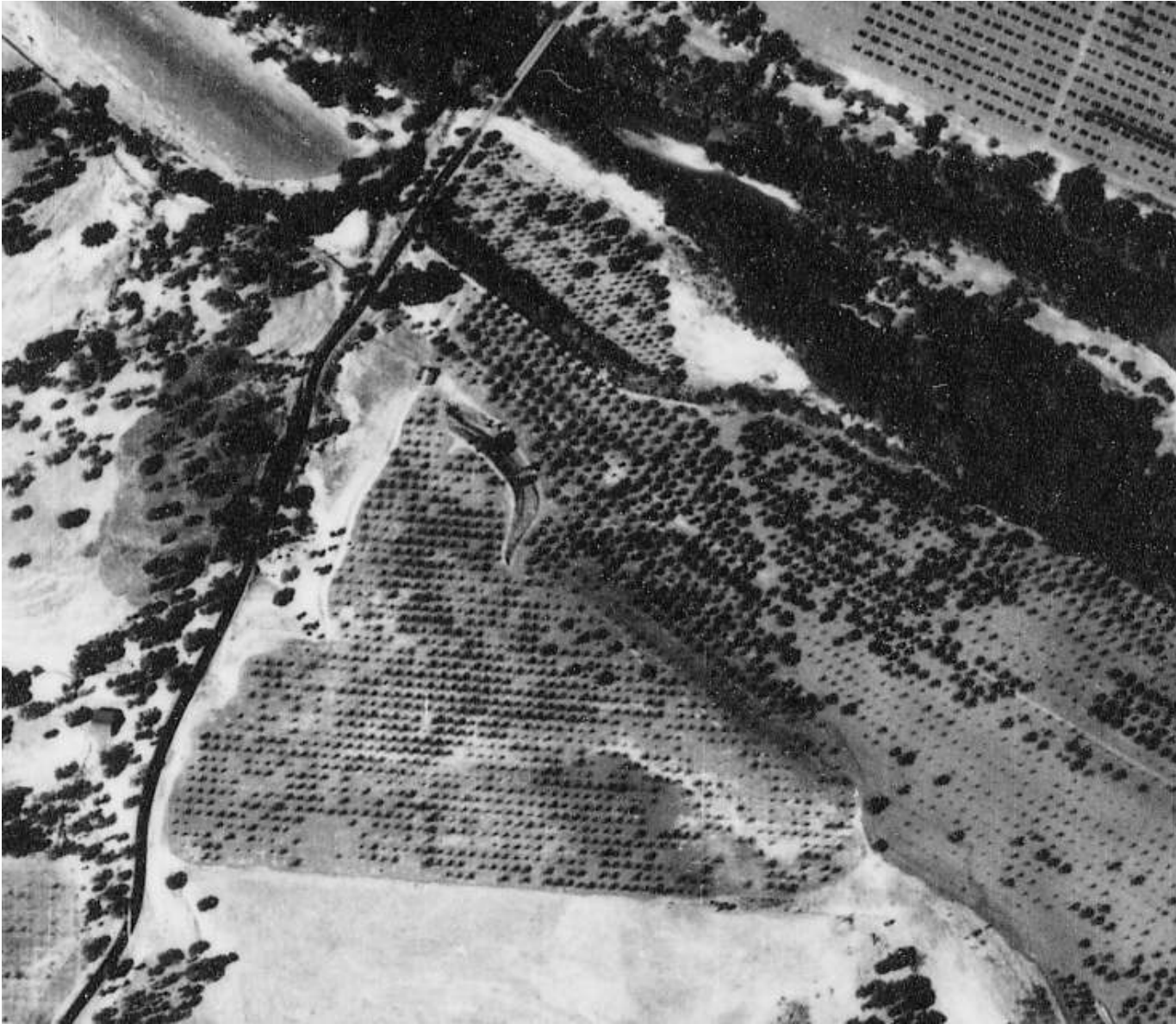


Figure 4: Aerial Photo from 1957



Figure 5: Aerial Photo from 1970



Figure 6: Aerial Photo from April 2020

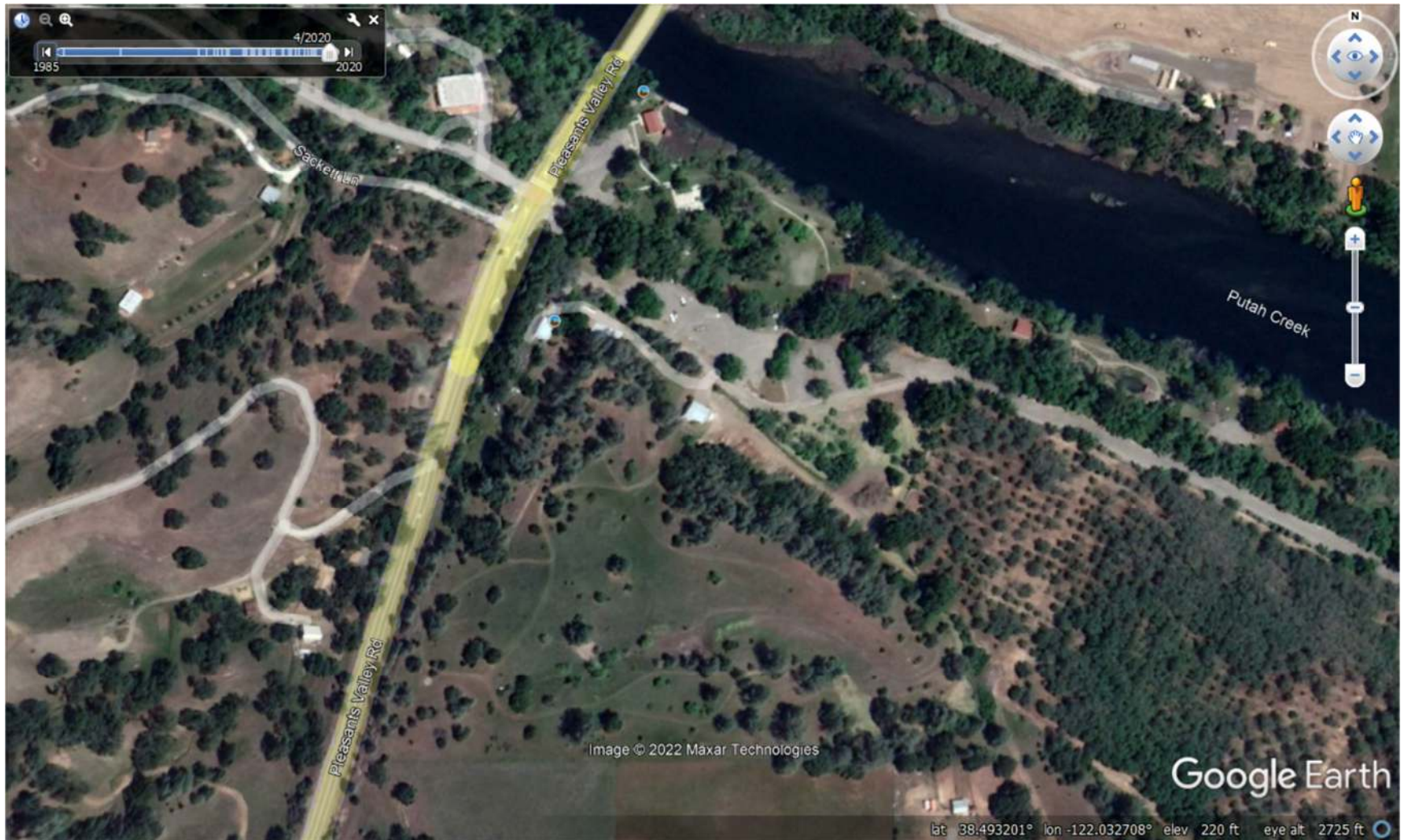


Figure 7: Aerial Photo from October 2020

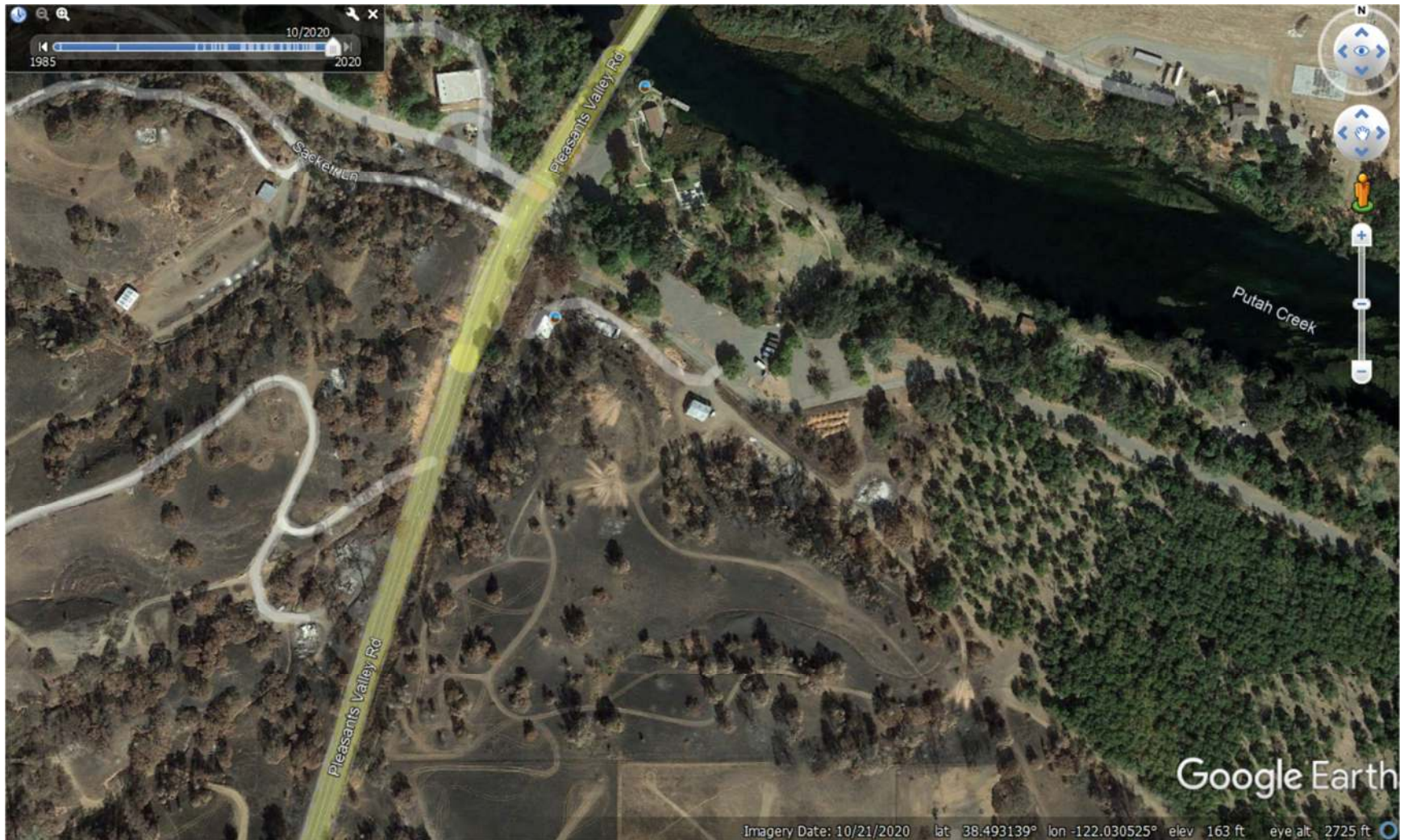


Table 1: Calendar of Site Preparation, Installation and Establishment Activities

Year/Task	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	(Jan)
Year 1													
Weed control, herbicide application and mowing/weedwacking													
Native tree, shub, forb seed collection and propagation													
Install ADA trail and DG pads													
Install shade structure and gravel pad													
Auger planting holes													
Install kiosks and wayfinding signage													
Install drip irrigation for demo garden, tree/shrub lines (12 acres)													
Drill seed native grasses													
Plant and mulch demo garden (300 plants)													
Plant and mulch trees/shrubs outside grass seeding area (1,265 plants)													
Year 2													
Weed control, herbicide application and mowing/weedwacking													
Install plant identification signs in demonstration garden													
Native tree, shub, forb seed collection and propagation													
Operate drip irrigation weekly													
Plant mortality monitoring													
Install drip irrigation for tree/shrub lines and in forb pods (7 acres)													
Plant and mulch trees/shrubs inside grass seeding area (700 plants)													
Plant forb pods (20,000 plugs)													
Year 3													
Weed control, herbicide application and mowing/weedwacking													
Operate drip irrigation weekly													
Plant mortality monitoring													
Install interpretive signage													
Broadcast wildflower seed													
Replant any trees or shrubs that have died													
Year 4													
Weed control, if needed													
Operate drip irrigation bi-weekly													
Plant mortality monitoring													

Table 2: Preliminary List of Native Plant Species Proposed for Planting

Scientific Name	Common Name	Lifeform	Duration
<i>Aesculus californica</i>	Buckeye	Tree	Perennial
<i>Juglans hindsii</i>	Black walnut	Tree	Perennial
<i>Pinus sabiniana</i>	Foothill pine	Tree	Perennial
<i>Quercus douglasiana</i>	Blue oak	Tree	Perennial
<i>Quercus lobata</i>	Valley oak	Tree	Perennial
<i>Quercus wislizeni</i>	Interior live oak	Tree	Perennial
<i>Arctostaphylos</i> species	Manzanita species	Shrub	Perennial
<i>Baccharis pilularis</i>	Coyote bush	Shrub	Perennial
<i>Ceanothus cuneatus</i>	Buckbrush	Shrub	Perennial
<i>Cercis occidentalis</i>	Western redbud	Shrub	Perennial
<i>Cercocarpus betuloides</i>	Mountain mahogany	Shrub	Perennial
<i>Eriodictyon californicum</i>	Yerba santa	Shrub	Perennial
<i>Eriogonum fasciculatum</i>	CA Buckwheat	Shrub	Perennial
<i>Frangula californica</i>	Coffeeberry	Shrub	Perennial
<i>Heteromeles arbutifolia</i>	Toyon	Shrub	Perennial
<i>Rhamnus ilicifolia</i>	Redberry	Shrub	Perennial
<i>Rhus aromatica</i>	Sourberry	Shrub	Perennial
<i>Rosa californica</i>	CA rose	Shrub	Perennial
<i>Sambucus nigra</i>	Elderberry	Shrub	Perennial
<i>Symphoricarpos albus</i>	Snowberry	Shrub	Perennial
<i>Acmispon glaber</i>	Deerweed	Subshrub	Perennial
<i>Castilleja foliolosa</i>	Texas paintbrush	Subshrub	Perennial
<i>Epilobium canum</i>	California fuschia	Subshrub	Perennial
<i>Eriogonum nudum</i>	Nude buckwheat	Subshrub	Perennial
<i>Grindelia camporum</i>	Great valley gumplant	Subshrub	Perennial
<i>Salvia spathacea</i>	Hummingbird sage	Subshrub	Perennial
<i>Solanum xanti</i>	Nightshade	Subshrub	Perennial
<i>Symphyotrichum chilense</i>	CA aster	Subshrub	Perennial
<i>Aristolochia californica</i>	California pipevine	Vine	Perennial
<i>Clematis lasiantha</i>	Pipestem	Vine	Perennial
<i>Marah fabacea</i>	Manroot	Vine	Perennial
<i>Vitis californica</i>	CA grape	Vine	Perennial
<i>Elymus glaucus</i>	Blue wildrye	Grass	Perennial
<i>Hordeum brachyantherum</i> ssp. <i>Californicum</i>	California barley	Grass	Perennial
<i>Melica californica</i>	California melic	Grass	Perennial
<i>Poa secunda</i> ssp. <i>Secunda</i>	One sided blue grass	Grass	Perennial
<i>Stipa cernua</i>	Nodding needle grass	Grass	Perennial
<i>Stipa pulchra</i>	Purple needle grass	Grass	Perennial
<i>Achillea millefolium</i>	Yarrow	Forb	Perennial
<i>Agoseris grandiflora</i>	California dandelion	Forb	Perennial
<i>Asclepias fascicularis</i>	Narrowleaf milkweed	Forb	Perennial

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Scientific Name	Common Name	Lifeform	Duration
<i>Brodiaea elegans</i>	Harvest brodiaea	Forb	Perennial
<i>Chlorogalum pomeridianum</i>	Soap plant	Forb	Perennial
<i>Dipterostemon capitatus</i>	Blue dicks	Forb	Perennial
<i>Eriophyllum lanatum</i>	Woolly sunflower	Forb	Perennial
<i>Eschscholzia californica</i>	California poppy	Forb	Perennial
<i>Lathyrus vestitus</i>	Common pacific pea	Forb	Perennial
<i>Lomatium utriculatum</i>	Hog fennel	Forb	Perennial
<i>Lupinus formosus</i>	Summer lupine	Forb	Perennial
<i>Monardella villosa</i>	Coyote mint	Forb	Perennial
<i>Penstemon heterophyllus</i>	Foothill penstemon	Forb	Perennial
<i>Perideridia kelloggii</i>	Yampah	Forb	Perennial
<i>Phacelia imbricata</i>	Imbricate phacelia	Forb	Perennial
<i>Sanicula species</i>	Sanicle	Forb	Perennial
<i>Scrophularia californica</i>	California beeplant	Forb	Perennial
<i>Sisyrinchium bellum</i>	Blue-eyed grass	Forb	Perennial
<i>Solidago californica</i>	California goldenrod	Forb	Perennial
<i>Triteleia laxa</i>	Ithuriel's spear	Forb	Perennial
<i>Wyethia helenioides</i>	Whitehead wyethia	Forb	Perennial
<i>Amsinckia intermedia</i>	Common fiddleneck	Forb	Annual
<i>Calandrinia menziesii</i>	Redmaids	Forb	Annual
<i>Castilleja attenuata</i>	Narrowleaf owl's clover	Forb	Annual
<i>Castilleja exserta</i>	Owl's clover	Forb	Annual
<i>Clarkia species</i>	Clarkia species	Forb	Annual
<i>Claytonia perfoliata</i>	Miner's lettuce	Forb	Annual
<i>Collinsia heterophylla</i>	Purple Chinese houses	Forb	Annual
<i>Gilia species</i>	Gilia species	Forb	Annual
<i>Hemizonia congesta</i>	Hayfield tarweed	Forb	Annual
<i>Lupinus bicolor</i>	Miniature lupine	Forb	Annual
<i>Lupinus succulentis</i>	Arroyo lupine	Forb	Annual
<i>Madia elegans</i>	Common madia	Forb	Annual
<i>Madia gracilis</i>	Slender madia	Forb	Annual
<i>Plantago erecta</i>	Dotseed plantain	Forb	Annual
<i>Ranunculus occidentalis</i>	Western buttercup	Forb	Annual
<i>Trichostema lanatum</i>	Vinegarweed	Forb	Annual
<i>Trifolium bifidum</i>	Notch leaf Clover	Forb	Annual
<i>Trifolium ciliolatum</i>	Foothill Clover	Forb	Annual
<i>Trifolium fucatum</i>	Bull Clover	Forb	Annual
<i>Trifolium wildenovii</i>	Tomcat clover	Forb	Annual

Best Management Practices

The following best management practices will be utilized to protect sensitive and special status species during site preparation, installation, and establishment activities.

Wildlife surveys

- Surveys for nesting birds and other wildlife will be completed prior to any ground disturbance, mowing activities, or installation of ADA trail, DG, shade structure and gravel pad, with particular attention focused during nesting season (February 1 – August 31).

Plant surveys

- Prior to the commencement of Project activities, a targeted set of plant surveys searching for potential special status plant species shall be performed during the appropriate blooming period.

Wildfire prevention

- To help prevent wildfire, fire extinguishers will be carried on all ATVs and tractors, and fire extinguishers plus a 5-gallon backpack fire pump will be carried on all mowers. National Weather Service Advisories will be monitored and mowing and other activities that could ignite a wildfire will be curtailed on designated red flag warning days.

Equipment operational speeds

- All equipment used within the footprint of the Project will be operated at 5 miles per hour or less
- Vehicle use within the site will be limited whenever possible

Herbicide application

- Herbicide applications will be supervised by an applicator that holds a current California Qualified Applicator Certificate (QAC)
- The least toxic, but still effective, herbicides and adjuvants will be selected whenever possible
- A pest control advisor (PCA) will prepare a written recommendation for the use of herbicides on the Project, including application rates
- Herbicides will be applied in accordance with manufactures' labels as well as State and Federal laws
- Herbicide applications will be conducted in a way that minimizes herbicide drift, including:
 - Dye will be added to all herbicide mixes to facilitate visual observation of application
 - Foliar applications will occur only when winds are less than 10 miles per hour

Impacts to naturally occurring native plants

- Weed control, native grass seeding, and wildflower seeding, will be informed by previous plant surveys completed at the Project site; in areas where dense patches of native forbs and wildflowers exist (but none of which are identified as rare or special status), Project activities will be modified to minimize impacts to the natives.
- Whenever possible, naturally recruiting seedlings of native woody plants will be protected with Tubex tubes.

ADA trail, DG pads, shade structure and gravel pad construction

- Construction of the ADA trail, DG pads, shade structure and gravel pad will occur only after appropriate wildlife and plant surveys have been completed and will be restricted to late summer and fall before the rainy season begins
- Construction work will be prohibited on any day with a 40% chance of rain in the forecast

- If a rain event of over one-quarter inch does occur within the construction work window, construction work will be prohibited for 24 hours after the rain event
- Contractors selected for construction of the ADA trail, DG pads, shade structure and gravel pad shall be required to prepare a Water Pollution Control Plan that includes erosion control prevention practices and to make provisions for a portable concrete cleanout detention basin when concrete trucks are on project location.

Worker Training Program

- All staff, subcontractors, and hired crews will be trained about the distribution and habitat needs of any special status species that may be present, legal protections for those species, and Project-specific procedures and protective measures in the event that a species is observed.
- All staff, subcontractors and hired crews will be trained about legal protection for cultural resources and appropriate steps to take if cultural resources are discovered during Project implementation
- All staff, subcontractors, and hired crews will be trained on protocols for hazardous materials (fuel and herbicides) that minimize the potential for soil and water contamination, including:
 - Transportation and on-site handling procedures
 - Storage requirements
 - Spill cleanup procedures and location of spill containment and cleanup kit
 - Notification requirements in the event of a spill
- All staff, subcontractors, and hired crews will be trained on all best management practices and mitigation measures for the proposed Project

2.3 Proposed Equipment

The use of following equipment is proposed for installing the project:

- Skid steer, tractor, and/or mini excavator for construction of the ADA trail, DG pads, shade structure and gravel pad
- Riding vibrating roller for compacting DG and gravel
- Transfer trucks carrying gravel and DG (which will remain on the day use parking lot)
- Concrete mix truck (which will remain on the day use parking lot)
- Concrete pump truck (which will remain on the day use parking lot)
- Skid steer with 6" and 12" auger bits for augering holes for the shade structure, kiosk, interpretive panels, and tree/shrub/subshrub planting holes
- 50 HP tractor with a rotary mower (5 feet wide) for controlling invasive grasses and clearing planting lines
- ATV with mounted tank/small boom/spray gun for herbicide applications
- 50 HP tractor with no-till drill seeder for seeding native grasses
- UTV with small trailer for spooling out drip irrigation line
- Pickup trucks and lightweight trailers for transporting planting materials and irrigation supplies as well as for site visits.

2.4 Required Permits

Potential permits and agreements from state and federal agencies with jurisdiction over the Project activities and locations, along with Solano RCD's initial analysis of whether or not these permits will be required for this Project, are listed below.

Regulatory Agency	Permit or Agreement	Initial Assessment of Requirement
California Department of Fish and Wildlife	California Fish and Wildlife Code section 1602, Streambed Alteration Agreement.	<p>Likely NOT necessary. Although a small portion of the Project is located on the lower terrace within the riparian corridor along Putah Creek, Project work on this lower terrace consists solely of sign installation (one kiosk, six interpretive signs and five wayfinding signs, see Figure 2). Once installed, these signs will occupy an area of less than 30 square feet. Furthermore, these signs will be installed within the active day use area of Lake Solano Park, which is currently maintained for recreational use with irrigated grass, picnic tables, horseshoe pits, and existing Park signage. A number of standard maintenance activities already occur within this portion of the park, including regular irrigation repair, frequent mowing, and occasional sign maintenance.</p> <p>Impacts from the limited Project components proposed for occurrence on the lower terrace are insignificant within the background of existing day use activities and general maintenance.</p>
California Department of Fish and Wildlife	CESA Incidental Take Permit	Likely NOT necessary. With the implementation of the Project's Best Management Practices and the proposed Mitigation Measures for Biological Resources, take of any species listed under CESA or NPPA is determined to be very unlikely.
U.S. Fish and Wildlife Service	Letter of Concurrence/Biological Opinion for terrestrial species that are protected under the Endangered Species Act	Required because of the potential for Federally listed species to occur at the site. The Bureau of Reclamation is taking the lead on USFWS consultation.
Solano County Public Works and Engineering	Minor Grading Permit and Review	Required by Solano County for projects under one acre with less than 5,000 square feet of impervious surface and less than 1,000 cubic yards of earth movement

3 Resources and Environmental Analysis

3.1 Environmental Factors Potentially Affected

Although the environmental factors checked below could create a “Potentially Significant Impact,” mitigation measures reduce those impacts to less than significant, as indicated by the checklist on the following pages.

<input type="checkbox"/>	Aesthetics	<input type="checkbox"/>	Agriculture and Forestry Resources	<input type="checkbox"/>	Air Quality
<input checked="" type="checkbox"/>	Biological Resources	<input checked="" type="checkbox"/>	Cultural Resources	<input type="checkbox"/>	Geology and Soils
<input type="checkbox"/>	Greenhouse Gas Emissions	<input type="checkbox"/>	Hazards and Hazardous Materials	<input type="checkbox"/>	Hydrology and Water Quality
<input type="checkbox"/>	Land Use and Planning	<input type="checkbox"/>	Mineral Resources	<input type="checkbox"/>	Noise
<input type="checkbox"/>	Population and Housing	<input type="checkbox"/>	Public Services	<input type="checkbox"/>	Recreation
<input type="checkbox"/>	Transportation and Traffic	<input type="checkbox"/>	Utilities and Service Systems	<input type="checkbox"/>	Mandatory Findings of Significance

3.2 Determination

On the basis of this initial evaluation:

<input type="checkbox"/>	I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
<input checked="" type="checkbox"/>	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.
<input type="checkbox"/>	I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
<input type="checkbox"/>	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.
<input type="checkbox"/>	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 EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required

Kurt Balasek
Board President
Solano Resource Conservation District

Date

3.3 Aesthetics

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
Would the project:				
a) Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) In nonurbanized areas, substantially degrade the existing visual character or quality of the site and its surroundings?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Environmental Setting

Visual resources consist of the natural and manmade features that give a particular environment its aesthetic qualities. The primary areas of concern generally are associated with changes to prominent topographic features, changes in the character of an area with high visual sensitivity, removal of vegetation, or blockage of public views of a visually sensitive landscape. The proposed Project site is a public open-space park operated by Solano County Parks on property owned by Bureau of Reclamation. Most of the adjacent area is rural residential and/or agricultural. The scenic character of the Project area is defined mostly by the hills of the Blue Ridge/Vaca Mountains to the west and the riparian corridor of Putah Creek to the south. There are no officially State-designated scenic highways in the County; however, Route 128 which borders the Park to the north is noted by Caltrans as eligible for a State Scenic Highway designation (Caltrans 2022), and Pleasants Valley Road which borders the Park to the west is designated a scenic roadway in the Solano County General Plan (Solano County 2008).

Discussion

a) Have a substantial adverse effect on a scenic vista?

No Impact. The Project will restore native plants and improve public access to an area severely impacted by the LNU fire and will there improve the scenic vista.

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

No Impact. The proposed Project is not located within a currently designated state scenic highway and is minimally visible from Route 128 (which is eligible for scenic highway designation) or Pleasant Valley Road's (which is a designated scenic roadway). Where the site is visible from these roads, the proposed Project will improve scenic resources by increasing the number of native trees, shrubs, subshrubs, and wildflowers present at the site and by improving the quality and appearance of interpretive and wayfinding signage.

c) Substantially degrade the existing visual character or quality of the site and its surroundings?

No Impact. The Project is specifically designed to improve the visual character and quality of the site and its surroundings.

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

No Impact. The proposed Project will not use outdoor lighting or cause the construction of new buildings or facilities that would create a new source of light reflection or glare which would adversely affect day or nighttime views.

3.4 Agriculture and Forest Resources

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
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 Dept. 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 the 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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))?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Result in the loss of forest land or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Environmental Setting

The proposed Project site occurs in a public open-space park operated by Solano County Parks on property owned by Bureau of Reclamation. Most of the adjacent area is rural residential and/or agricultural (dryland pasture or walnut orchard). No agricultural activities occur at the proposed site and Project activities will not conflict with any existing zoning.

Discussion

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?

No impact. The Project site is already public open space park and therefore Project activities will not convert prime farmland to a non-agricultural use.

b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?

No Impact. The proposed Project site is already zoned as a public open space park will not result in a conflict with zoning for agricultural use. The Project area is not under 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))?

No Impact. The Project area is not zoned for forest or timberland production and the proposed Project will therefore not conflict with forest or timberland zoning.

d) Result in the loss of forest land or conversion of forest land to non-forest use?

No Impact. The proposed Project will result in an increase in mixed oak – foothill pine woodlands and will not result in the loss 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?

No impact. The Project will not involve other changes in the existing environment that could result in the conversion of farmland to non-agricultural use or the conversion of forest land to non-forest use.

3.5 Air Quality

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
Where available, the significance criteria established by the applicable air quality management 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Create objectionable odors affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Environmental Setting

The Project area is within Solano County, which is under the jurisdiction of Yolo-Solano Air Quality Management District (YSAQMD) (YSAQMD 2009). Because YSAQMD was designated as “non-attainment” for both federal and state ozone standard and state PM10 Standard, ozone precursors and particulate matters (PM10 and PM2.5) are pollutants of greatest concern at YSAQMD.

Discussion

The proposed Project uses several pieces of equipment that create emissions:

- Small skid steer or mini excavator for construction of the ADA trail, DG pads, shade structure and gravel pad
- Small riding vibrating roller for compacting DG/gravel
- Transfer trucks carrying gravel and DG (which will remain on the day use parking lot)
- Concrete mix truck (which will remain on the day use parking lot)
- Concrete pump truck (which will remain on the day use parking lot)

- Small skid steer with 6" and 12" auger bits for augering holes for the shade structure, kiosk, interpretive panels, and tree/shrub/subshrub planting holes
- 50 HP tractor with a rotary mower (5 feet wide) for controlling invasive grasses and clearing planting lines
- ATV with mounted tank/small boom/spray gun for herbicide applications
- 50 HP tractor with no-till drill seeder for seeding native grasses
- UTV with small trailer for spooling out drip irrigation line
- Pickup trucks and lightweight trailers for transporting planting materials and irrigation supplies as well as for site visits.

The YSAQMD encourages the use of the CalEEMod emissions model to calculate the amount of pollutant emissions generated by a land use project. However, the CalEEMod model is designed to be applicable to larger construction projects, and is not designed to calculate emissions for projects using smaller construction equipment such as those listed above. We were therefore not able to use the CalEEMod model to estimate emissions from this Project.

Emissions from this Project would consist of combustion emissions of criteria air pollutants – such as reactive organic gasses (ROG), nitrogen oxides (NOx), carbon monoxide (CO), carbon dioxide (CO₂), PM₁₀, and PM_{2.5} – primarily from worker commute trips and operation of equipment for restoration activities as well as ADA trail, DG pads and gravel pad installation. However, the relatively infrequent use of that equipment over the course of the Project will not have a significant impact on local or regional air quality. While worker vehicles and equipment will create minor amounts of air pollutants of concern, this Project will establish up to 2,265 native trees, shrubs and subshrubs in the Project area. These plantings are expected to improve air quality and reduce pollutants over time (see Section VII Greenhouse Gases) for a net air quality benefit to the region.

a) Conflict with or obstruct implementation of the applicable air quality plan?

Less than Significant Impact. Project activities will be carried out using equipment such as mowers, ATV/UTVs, tractors, and dump trucks. Operation of this equipment and trips for worker commute would generate air pollutant emissions such as particulate matters (PM₁₀ and PM_{2.5}), ROG, NOx and CO. The Project will not generate emissions after the Project is completed. Because the emissions will be temporary and minor, the Project will not exceed the threshold values set by YSAQMD, nor would it conflict with or obstruct implementation of YSAQMD's air quality plans.

b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?

Less than Significant Impact. As discussed above, the Project will generate minor air pollutant emissions. The emissions include criteria air pollutants such as ROG, NOx, CO, PM₁₀, and PM_{2.5} from fugitive dusts and combustion emissions. Emissions are not predicted to exceed the threshold values set by YSAQMD; therefore, the Project's contribution to an existing or Projected air quality violation would not be considered substantial.

c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?

Less than Significant Impact. The pollutant emissions from the habitat restoration and trail installation materials and equipment used for the Project will be less than significant.

d) Expose sensitive receptors to substantial pollutant concentrations?

No Impact. No sensitive receptors are identified within close proximity to the Project area. This Project does not propose uses or activities that would result in exposure of sensitive receptors to significant pollutant concentrations.

e) Create objectionable odors affecting a substantial number of people?

No Impact. No potential sources of objectionable odors have been identified in association with the Project, and there will not be a substantial number of people in the Project area. As such, no impact from odors is anticipated.

3.6 Biological Resources

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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 US Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Environmental Setting

The Project will occur in Lake Solano Park, an open space park operated by Solano County Parks and owned by the Bureau of Reclamation. The Park is located in the foothills of the Inner Coast Range west of Mount Vaca and the Blue Ridge/Vaca Mountains. The Park's northern boundary lies along the banks of Lake Solano, a portion of Putah Creek that is impounded by the Putah Diversion Dam, while the Park's southern boundary occurs in the mixed oak-foothill pine plant community on upland terraces at elevations of up to 75 meters.

A majority of proposed Project activities (habitat restoration, demonstration garden, ADA trail, DG pads, shade structure, gravel pad, most of the signage) will occur on 19 acres in the upland terraces within the mixed oak-foothill pine vegetation community.

A small portion of proposed Project activities (one kiosk, six interpretive signs and 5 wayfinding signs totaling less than 30 square feet of permanently installed signage) is located on the lower terrace within the riparian corridor along Putah Creek. This area is within the active day use area of Lake Solano Park, which is currently maintained for recreational use with irrigated grass, picnic tables, horseshoe pits, and existing Park signage. A number of standard maintenance activities already occur within this portion of the park, including regular irrigation repair, frequent mowing, and occasional sign maintenance.

Impacts from the limited Project components proposed for occurrence on the lower terrace are insignificant within the background of existing day use activities and general Park maintenance.

3.6.1 Methods

Solano RCD staff used the following information to gather information regarding biological resources in the Project area:

- California Natural Diversity Database (CNBDD) records for all special status species within an eight-mile radius of Project site (CDFW 2022a)
- USFWS Critical Habitat Data for: California red-legged frog, Vernal pool fairy shrimp, Valley elderberry longhorn beetle (USFWS 2022a)
- USFWS Species Search for species' range maps (USFWS 2022b)
- USFWS California Red-legged Frog (*Rana draytonii*) 5-Year Review: Summary and Evaluation (USFWS 2022c)
- CDFW Wildlife Habitat Relationship Data for California red-legged frog, Foothill yellow-legged frog, Western pond turtle, Western red bat, Hoary bat, Yuma myotis, American peregrine falcon, Swainson's hawk, Burrowing owl, Tricolored blackbird, and Yellow breasted chat (CFDW 2022b)
- CDFW McCune Creek-Putah Creek May 2021 wildlife survey data, unpublished, contact Lindsey Rich, Senior Environmental Scientist Specialist, California Department of Fish and Wildlife, lindsey.rich@wildlife.ca.gov (CDFW 2021)
- The California Native Plant Society's (CNPS) Inventory of Rare and Endangered Plants (CNPS 2022)
- Calflora, Observation Search (Calflora 2022)
- The Jepson Manual, Vascular Plants of California (2nd edition) species descriptions (Baldwin et al. 2012)
- Four comprehensive plant surveys conducted by a team of Solano RCD biologists at the Project site during the appropriate blooming period in 2022

Special-status Species Definition

For the purposes of this analysis, "special-status species" is a collective term that refers to plants and animals that are legally protected under the federal Endangered Species Act (ESA), the California Endangered Species Act (CESA), or other regulations, as well as species that are considered sufficiently rare by the scientific community to qualify for such listing. Special-status plants and animals fall into the following categories:

- Species listed or proposed for listing as threatened or endangered under ESA (50 CFR [Code of Federal Regulations] 17.12 [listed plants], 50 CFR 17.11 [listed animals], and in various notices in the Federal Register [FR][proposed species]);
- Species that are candidates for possible future listing as threatened or endangered under ESA (USFWS 2015);
- Species listed or proposed for listing by the State of California as threatened or endangered under CESA (14 CCR 670.5);

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- Species that meet the definitions of “rare” or “endangered” under CEQA (State CEQA Guidelines, Section 15380);
- Plants listed as rare under the California Native Plant Protection Act (NPPA, California Fish and Game Code, Section 1900 *et seq.*);
- Plants considered by CNPS to be “rare, threatened, or endangered in California and elsewhere (CNPS List 1B)” (CNPS 2022);
- Plants listed by CNPS as California Rare Plant Rank (CRPR) 1, 2, or 3 (CNPS 2022);
- Animal species of special concern to the CDFW (Williams 1986, CDFG 1994, and CDFG 2008); and
- Animals fully protected in California (California Fish and Game Code, Sections 3511, 4700, and 5050).

The information sources listed above were used to develop lists of special status species that occur in the general region of the Project site. These plant and wildlife species are listed in Tables 3 and 4. Species from the lists were evaluated for their likelihood to occur at the Project site by taking into consideration whether they are known to occur within a three, five or eight mile radius of the Project site (using CNDDDB data), whether they are known to occur in one of the four USGS 7.5-minute quadrangles surrounding the Project site – Monticello Dam, Mt Vaca, Winters, and Allendale (using CNPS CRPR data), whether suitable habitat for the species is present at the Project site, and, in the case of plants, if they were found during the comprehensive plant surveys conducted at the Project site in 2022.

Table 3. Special Status Plant Species with the Potential to Occur in the General Region

Scientific Name Common Name	ESA (Federal) Status	CESA (State) Status	Heritage Rank (Global/State)	CNPS CRPR rank	Other Rankings	Habitat Description from The Jepson Manual	Potential to Occur at Project Site (None, Low, Mod, High) + explanation	Potential for Impacts (None, Low, Mod, High) + explanation
<i>Arctostaphylos manzanita</i> ssp. <i>laevigata</i> Contra Costa manzanita	None	None	G5T2/S2	1B.2	None	Occurs in chaparral, rocky outcrops at elevations between 240-1100 meters. Bioregional Distribution: s NcoRI (Vaca Mtns), e SnFrB (Mount Diablo). Flowering Time: Feb-May	Low – Project site does not contain chaparral or rocky outcrops and elevation tops out at 75 meters. Comprehensive plant surveys in 2022 found two <i>Arctostaphylos</i> seedlings (<10 cm tall) within the Project footprint, however they were not identifiable to species because of their immaturity.	Low – Invasive weeds will be controlled with mowing and herbicides at the project site and these activities could impact special status plants. Although it is unlikely that the two <i>Arctostaphylos</i> individuals found during the 2022 surveys are <i>A. manzanita</i> ssp. <i>laevigata</i> , prior to the commencement of restoration activities, these two seedlings will be protected with Tubex tubes.
<i>Delphinium recurvatum</i> Recurved larkspur	None	None	G2?/S2?	1B.2	BLM: S	Occurs on poorly drained, fine, alkaline soils in grasslands, <i>Atriplex</i> scrub at elevations between 30-600 meters. Bioregional Distribution: ScV (extirpated), SnJV, s ScoRI (Caliente Range), w Dmoj. Flowering Time: Mar-Jun	Low – Project site does not contain alkaline soils or <i>Atriplex</i> scrub communities. Comprehensive plant surveys in 2022 did not identify species within Project site.	Low – Invasive weeds will be controlled with mowing and herbicides at the project site and these activities could impact special status plants. Best management practices will be implemented to minimize off-target impacts. Preconstruction surveys for special-status plants will be conducted, and mitigation measures will be implemented to avoid impacts if any are found growing at the Project site.
<i>Downingia pusilla</i> Dwarf downingia	None	None	GU/S2	2B.2	None	Occurs in vernal pools, roadside ditches; at elevations < 150 meters Bioregional Distribution: s NcoRO, NcoRI, ScV, n&c SnJV, n SnFrB. Flowering Time: Mar-May	None – Vernal pools and ditches do not occur at site. Comprehensive plant surveys in 2022 did not identify species within Project site.	Low – Invasive weeds will be controlled with mowing and herbicides at the project site and these activities could impact special status plants. Best management practices will be implemented to minimize off-target impacts. Preconstruction surveys for special-status plants will be conducted, and mitigation measures will be implemented to avoid impacts if any are found growing at the Project site.
<i>Hesperolinon breweri</i> Brewer's western flax	None	None	G2/S2	1B.2	None	Occurs in chaparral or grasslands, occasionally on serpentine at elevations between 30-700 meters. Bioregional Distribution: s NcoRI (Napa, Solano cos.), nw SnJV, ne SnFrB (Mount Diablo, Contra Costa Co.). Flowering Time: May-Jun	Mod – Project site contains grasslands, but comprehensive plant surveys in 2022 did not identify species within Project site.	Low – Invasive weeds will be controlled with mowing and herbicides at the project site and these activities could impact special status plants. Best management practices will be implemented to minimize off-target impacts. Preconstruction surveys for special-status plants will be conducted, and mitigation measures will be implemented to avoid impacts if any are found growing at the Project site.
<i>Hesperolinon sharsmithiae</i> Sharsmith's western flax	None	None	G2Q/S2	1B.2	BLM: S	Occurs in serpentine, chaparral at elevations between 60-1000 meters. Bioregional Distribution: s NcoRI. Flowering Time: May-Jul	Low – Project site does not contain serpentine soils or chaparral plant communities. Comprehensive plant surveys in 2022 did not identify species within Project site.	Low – Invasive weeds will be controlled with mowing and herbicides at the project site and these activities could impact special status plants. Best management practices will be implemented to minimize off-target impacts. Preconstruction surveys for special-status plants will be conducted, and mitigation measures will be implemented to avoid impacts if any are found growing at the Project site.

Table 3. Special Status Plant Species with the Potential to Occur in the General Region

Scientific Name Common Name	ESA (Federal) Status	CESA (State) Status	Heritage Rank (Global/State)	CNPS CRPR rank	Other Rankings	Habitat Description from The Jepson Manual	Potential to Occur at Project Site (None, Low, Mod, High) + explanation	Potential for Impacts (None, Low, Mod, High) + explanation
<i>Layia septentrionalis</i> Colusa layia	None	None	G2/S2	1B.1	BLM: S	Occurs on serpentine or sandy soils at elevations between 100-900 meters. Bioregional Distribution: c&s NcoRI, ScV (Sutter Buttes)	Low – Project site does not contain serpentine or sandy soils. Comprehensive plant surveys in 2022 did not identify species within Project site.	Low – Invasive weeds will be controlled with mowing and herbicides at the project site and these activities could impact special status plants. Best management practices will be implemented to minimize off-target impacts. Preconstruction surveys for special-status plants will be conducted, and mitigation measures will be implemented to avoid impacts if any are found growing at the Project site.
<i>Leptosiphon jepsonii</i> Jepson's leptosiphon	None	None	G2G3/S2S3	1B.2	None	Occurs on open or partially shaded grassy slopes at elevations < 500 meters. Bioregional Distribution: s NcoR. Flowering Time: Apr-May	Mod – Project site contains grassy slopes, but comprehensive plant surveys in 2022 did not identify species within Project site.	Low – Invasive weeds will be controlled with mowing and herbicides at the project site and these activities could impact special status plants. Best management practices will be implemented to minimize off-target impacts. Preconstruction surveys for special-status plants will be conducted, and mitigation measures will be implemented to avoid impacts if any are found growing at the Project site.
<i>Lomatium repostum</i> Napa lomatium	None	None	G2G3/S2S3	1B.2	None	Occurs in pine/oak woodland, chaparral, generally on serpentine soils at elevations of 100-800 meters. Bioregional Distribution: s NcoR. Flowering Time: Apr-May	Low – Although project site contains pine/oak woodlands there are no serpentine soils on site and comprehensive plant surveys in 2022 did not identify species within Project site.	Low – Invasive weeds will be controlled with mowing and herbicides at the project site and these activities could impact special status plants. Best management practices will be implemented to minimize off-target impacts. Preconstruction surveys for special-status plants will be conducted, and mitigation measures will be implemented to avoid impacts if any are found growing at the Project site.
<i>Malacothamnus helleri</i> Heller's bush mallow	None	None	G2Q/S2	3.3	None	Occurs in open chaparral to pine woodland at elevations 600-1300 meters. Bioregional Distribution: NcoRI, SNF, n SNH, GV, CW (exc ScoRO), SnGb. Flowering Time: May-Jul	Low – Project site contains pine woodlands but occurs at elevations <75m. Comprehensive plant surveys in 2022 did not identify species within Project site.	Low – Invasive weeds will be controlled with mowing and herbicides at the project site and these activities could impact special status plants. Best management practices will be implemented to minimize off-target impacts. Preconstruction surveys for special-status plants will be conducted, and mitigation measures will be implemented to avoid impacts if any are found growing at the Project site.
<i>Navarretia leucocephala</i> ssp. <i>Bakerii</i> Baker's navarretia	None	None	G4T2/S2	1B.1	None	Occurs in vernal pools at elevations < 1700 meters. Bioregional Distribution: KR, NcoR, CaRH, w ScV, n SnFrB. Flowering Time: Apr-Jul	None – Vernal pools do not occur at site. Comprehensive plant surveys in 2022 did not identify species within Project site.	Low – Invasive weeds will be controlled with mowing and herbicides at the project site and these activities could impact special status plants. Best management practices will be implemented to minimize off-target impacts. Preconstruction surveys for special-status plants will be conducted, and mitigation measures will be implemented to avoid impacts if any are found growing at the Project site.

Table 3. Special Status Plant Species with the Potential to Occur in the General Region

Scientific Name Common Name	ESA (Federal) Status	CESA (State) Status	Heritage Rank (Global/State)	CNPS CRPR rank	Other Rankings	Habitat Description from The Jepson Manual	Potential to Occur at Project Site (None, Low, Mod, High) + explanation	Potential for Impacts (None, Low, Mod, High) + explanation
<i>Plagiobothrys hystriculus</i> Bearded popcorn flower	None	None	G2/S2	1B.1	None	Occurs in wet grassland, vernal pool margins at elevations < 50 meters. Bioregional Distribution: sw ScV. Flowering Time: Mar- May	Low – Project site does not contain wet grasslands or vernal pool margins and comprehensive plant surveys in 2022 did not identify species within Project site.	Low – Invasive weeds will be controlled with mowing and herbicides at the project site and these activities could impact special status plants. Best management practices will be implemented to minimize off-target impacts. Preconstruction surveys for special-status plants will be conducted, and mitigation measures will be implemented to avoid impacts if any are found growing at the Project site.
<i>Sidalcea keckii</i> Keck’s checkerbloom	Endanger- ed	None	G2/S2	1B.1	None	Occurs on grassy slopes at elevations between 75-650 meters. Bioregional Distribution: s NcoRI (Colusa, Napa, Solano, Yolo cos.), c&s SNF (Fresno, Merced, Tulare cos.). Flowering Time: Apr-May	Mod – Project site contains grasslands, but comprehensive plant surveys in 2022 did not identify species within Project site.	Low – Invasive weeds will be controlled with mowing and herbicides at the project site and these activities could impact special status plants. Best management practices will be implemented to minimize off-target impacts. Preconstruction surveys for special-status plants will be conducted, and mitigation measures will be implemented to avoid impacts if any are found growing at the Project site.
<div><div>Abbreviations Heritage Rank G = Ranking of species within its entire global range S = Ranking within the State of California boundaries T = Subspecies has separate ranking than entire species 1 = Critically imperiled; at very high risk of extinction 2 = Imperiled; at high risk of extinction 3 = Vulnerable; at moderate risk of extinction 4 = Apparently secure; at fairly low risk of extinction 5 = Secure; at very low risk of extinction</div><div>CNPS/CRPR Rank CNPS=California Native Plant Society CRPR = California Rare Plant Ranks 1B.1 = Seriously rare/endangered in California and rare/endangered elsewhere 1B.2 = Moderately rare/endangered in California and rare/endangered elsewhere 2B.1 = Seriously rare/endangered in California but common elsewhere 2B.2 = Moderately rare/endangered in California but common elsewhere 3.3 = Lack necessary information to assign rarity rank; not very rare/endangered in California</div><div>Other Rankings BLM = US Bureau of Land Management S = Sensitive</div></div>								

Table 4. Special Status Wildlife Species with the Potential to Occur in the General Region

Scientific Name Common Name	ESA (Federal) Status	CESA (State) Status	Heritage Rank (Global /State)	Critical Habitat	Other Rank- ings	Habitat (Description)	Potential to Occur at Project Site (None, Low, Mod, High)	Potential for Impacts (None, Low, Mod, High)
INVERTEBRATES								
<i>Bombus caliginosus</i> Obscure bumble bee	None	None	G2G3/S1S2	No		Occurs along the Pacific Coast from southern CA, thru CA, OR, Wash, to southern British Columbia, + occasionally east side of CA's Central Valley. Inhabits open grassy coastal prairies and Coast Range meadows, shrubland & grassland. Nesting occurs underground & above ground in abandoned bird nests. Food plants include Ceanothus, Cirsium, Clarkia, Keckiella, Lathyrus, Lotus, Lupinus, Rhododendron, Rubus, Trifolium, and Vaccinium.	Low – Prefers fog belt in more southern, drier portion of its range (CA and OR), nearest documented occurrence is towards the coast; suitable floral resources occur at site.	Low – Insecticides will not be used as part of the project. Ground disturbance due to trail installation and native grass seeding will impact only a small portion of the project site and will occur mostly in areas either currently used for debris piles and equipment storage or where dense invasive grasses exclude bare ground/flowering forbs. Disturbance due to habitat restoration activities will be temporary and of short duration. Project will restore native plant species that provide diverse floral resources ultimately resulting in long-term benefits to any pollinator species occurring at the site. Project will be phased in and will leave large portions of the site undisturbed, providing refugia for individuals to avoid disturbance.
<i>Bombus occidentalis</i> Western bumble bee	None	Currently a candidate for listing	G2G3/S1	No		Historically broadly distributed in western North America. Generalist foragers not dependent on one flower type; pollinators of wild flowering plants and crops. Require habitats with rich supplies of floral resources with continuous blooming from spring to autumn because bees obtain all their nutrition from pollen and nectar. Isolated habitats may not be enough to support, need landscape connectivity. Nest primarily underground typically in abandoned rodent nests 6 to 18 inches below the surface. Occasionally in grass clumps above ground; nesting sites can be limited by lack of rodent or of undisturbed grassland.	Mod – Suitable floral resources exist at project site.	Low – Insecticides will not be used as part of the project. Ground disturbance due to trail installation and native grass seeding will impact only a small portion of the project site and will occur mostly in areas either currently used for debris piles and equipment storage or where dense invasive grasses exclude bare ground/flowering forbs. Disturbance due to habitat restoration activities will be temporary and of short duration. Project will restore native plant species that provide diverse floral resources ultimately resulting in long-term benefits to any pollinator species occurring at the site. Project will be phased in and will leave large portions of the site undisturbed, providing refugia for individuals to avoid disturbance.
<i>Branchinecta lynchi</i> Vernal pool fairy shrimp	Threat- ened	None	G3/S3	Yes		Occur in vernal pools and sandstone rock outcrop pools.	None – Vernal pools and sandstone rock outcrops do not occur at the project site. Man-made farm pond present at the project site has not held water since 2010 when it was maintained and periodically filled with irrigation water by County staff.	None – Insecticides will not be used as part of the project. Project activities will not occur within the footprint of the old farm pond.

Table 4. Special Status Wildlife Species with the Potential to Occur in the General Region

Scientific Name Common Name	ESA (Federal) Status	CESA (State) Status	Heritage Rank (Global /State)	Critical Habitat	Other Rank- ings	Habitat (Description)	Potential to Occur at Project Site (None, Low, Mod, High)	Potential for Impacts (None, Low, Mod, High)
INVERTEBRATES								
<i>Desmocerus californicus dimorphus</i> Valley elderberry longhorn beetle	Threat- ened	None	G3T2T3/S3	Yes		Elderberry shrubs are the obligate larval host plants for valley elderberry longhorn beetle (VELB). Adults lay eggs on elderberry leaves and stems and larvae bore into stem and feed on pith. Adult emergence and egg laying occurs March to July. Adults typically remain within 25-50 meters of their natal elderberry shrub, but are known to range up to 800 meters. Although presumed range extends throughout Central Valley wherever elderberry plants occur, primary habitat is associated with dense clumps of elderberry shrubs.	Mod —Potential elderberry habitat is present within the 19 acres in the upland terraces of the project site and three elderberry bushes were planted as part of a small revegetation effort around the former farm pond in the early 2000s.	Low —Preconstruction surveys for elderberry shrubs will be conducted, and mitigation measures will be implemented to avoid damaging any elderberries growing at the project site.
<i>Gonidea angulata</i> Western ridged mussel	None	None	G3/S1S2	No		This species inhabits freshwater creeks and rivers of all sizes and can be found on substrates varying from firm mud to coarse particles; is rarely found in lakes or reservoirs.	None – Species is restricted to permanent aquatic habitat, which does not occur within the 19 acres in the upland terraces of the project site.	None – In-stream work will not be conducted. Habitat restoration and trail installation activities will occur in upland habitats 60+ meters from the Putah Creek waterline. Erosion control best management practices will be used to minimize sediment and nutrient runoff. Impacts from the limited Project components proposed on the lower terrace (signage) are insignificant within the background of existing day use activities and general Park maintenance.
<i>Linderiella occidentalis</i> California linderiella	None	None	G2G3/S2S3	No	IUCN: NT	One of the most widely distributed California fairly shrimp, occurring throughout most of the length of the Central Valley. Found in a variety of natural and seasonally ponded habitat types including vernal pools, swales, ephemeral drainages, stock ponds, reservoirs, ditches. Occupies wetland habitats varying in size from small (2 sq m) to very large (300,000+ sq m). Often found in seasonal pools in unplowed grasslands with old alluvial soils underlain by hardpan or in sandstone depressions.	Low – Ponded water does not occur within the 19 acres in the upland terraces of the project site. Man-made farm pond present at the project site has not held water since 2010 when it was maintained and periodically filled with irrigation water by County staff.	None – Insecticides will not be used as part of the project; project activities will not occur within the footprint of the old farm pond. Impacts from the limited Project components proposed on the lower terrace (signage) are insignificant within the background of existing day use activities and general Park maintenance.

Table 4. Special Status Wildlife Species with the Potential to Occur in the General Region

Scientific Name Common Name	ESA (Federal) Status	CESA (State) Status	Heritage Rank (Global /State)	Critical Habitat	Other Rank- ings	Habitat (Description)	Potential to Occur at Project Site (None, Low, Mod, High)	Potential for Impacts (None, Low, Mod, High)
AMPHIBIANS								
<i>Rana boylei</i> Foothill yellow legged frog	None	Endan- gered	G3/S3	No	CDFW: SSC	Requires aquatic habitat for breeding (season spring/summer). Believed to typically remain close to permanent water; however, utilizes more diverse range of habitats & disperse more during the nonbreeding season. Likely that frogs are more mobile than commonly believed (CDFW 2018). Movement data on foothill yellow-legged frogs limited to a few studies ranging from: frogs rarely move beyond 39ft from channel to frogs found using upland habitats up to 1,086 ft from water (CDFW 2018 & 2019).	Low – Range spans the project site. There is no standing water to provide breeding habitat within the 19 acres in the upland terraces of the project site. Project activities in these upland areas are 60+ meters away from the Putah Creek waterline and are separated from the waterline by a large, paved parking lot. Frogs could possibly disperse through these upland areas in search of suitable habitat during non-breeding season (fall and winter).	Low – Ground disturbance due to trail installation and native grass seeding in upland habitats will impact only a small portion of the project site. Disturbance due to habitat restoration activities in upland habitats will be temporary and of short duration. Project will be phased in and will leave large portions of the site undisturbed, providing refugia for individuals to avoid disturbance. Preconstruction wildlife surveys will occur prior to any ground disturbance or mowing and mitigation measures will be implemented if species is identified within the project site. Impacts from the limited Project components proposed on the lower terrace (signage) are insignificant within the background of existing day use activities and general Park maintenance.
<i>Rana draytonii</i> CA red legged frog	Threat- ened	None	G2G3/S2S3	Yes	CDFW: SSC	Uses a variety of aquatic, riparian, and upland habitats. Requires aquatic habitat for breeding (season spring/summer). Overland dispersal through upland mostly occurs during wet weather & at night. Documented to move up to 1 – 2 miles over various upland topography. Dispersal distances are dependent on habitat availability and environmental conditions. Upland habitats used for foraging for terrestrial prey and shelter. Suitable upland habitat includes terrestrial areas within 100m of aquatic habitat that contain cover features such as dense vegetation, wood or rock debris, burrows, or anthropogenic debris (USFWS 2022c).	Low – Based on recently updated USFWS guidance (USFWS 2022c), the project site is outside of the species' range; however, CDFW's CWHR map (CDFW 2022b) shows the species' range overlapping the project site. There is no standing water to provide breeding habitat within the 19 acres in the upland terraces of the project site. Project activities in these upland areas are 60+ meters away from the Putah Creek waterline and are separated from the waterline by a large, paved parking lot. Frogs could possibly disperse through these upland areas.	Low – Ground disturbance due to trail installation and native grass seeding in upland habitats will impact only a small portion of the project site. Disturbance due to habitat restoration activities in upland habitats will be temporary and of short duration. Project will be phased in and will leave large portions of the site undisturbed, providing refugia for individuals to avoid disturbance. Preconstruction wildlife surveys will occur prior to any ground disturbance or mowing and mitigation measures will be implemented if species is identified within the project site. Impacts from the limited Project components proposed on the lower terrace (signage) are insignificant within the background of existing day use activities and general Park maintenance.

Table 4. Special Status Wildlife Species with the Potential to Occur in the General Region

Scientific Name Common Name	ESA (Federal) Status	CESA (State) Status	Heritage Rank (Global /State)	Critical Habitat	Other Rank- ings	Habitat (Description)	Potential to Occur at Project Site (None, Low, Mod, High)	Potential for Impacts (None, Low, Mod, High)
REPTILES								
<i>Emys marmorata</i> Western pond turtle	None	None	G3G4/S3	No	CDFW: SSC	Occupies a variety of permanent and intermittent aquatic habitats through the state, including rivers, streams, lakes, marshes, vernal pools, and human-constructed environments such as ponds associated with wastewater, livestock, logging operations. Nests in grassy uplands and overwinter under mud, dirt, or leaf litter. During the spring or early summer, females move overland for up to 100 m (325 ft) to find suitable sites for egg-laying. Nest sites are generally characterized by sparse ground cover, solar exposure, and close proximity to aquatic habitat. Other long distance movements may be in response to drying of local bodies of water or other factors.	Mod - Western pond turtles are relatively common in Putah Creek; however there is no standing water within the 19 acres in the upland terraces of the project site and project activities in these upland areas are 60+ meters away from the Putah Creek waterline and are separated from the waterline by a large, paved parking lot. It is possible that females could disperse into the upland areas searching for nesting sites.	Low — In-stream work will not be conducted. Habitat restoration and trail installation will occur in upland habitats 60+ meters from the Putah Creek waterline. Erosion control BMPs will be used to minimize sediment/nutrient runoff. Ground disturbance will impact only a small portion of the Project site and will occur mostly in areas where dense invasive grasses create less suitable nesting opportunities. Disturbance will be temporary and of short duration. Preconstruction wildlife surveys will occur prior to any ground disturbance or mowing and mitigation measures will be implemented if species is identified within the project site. Impacts from the limited Project components proposed on the lower terrace (signage) are insignificant within the background of existing day use activities and general Park maintenance.
MAMMALS								
<i>Lasiurus blossevillei</i> Western red bat	None	None	G4/S3	No	CDFW: SSC IUCN: LC WBWG: H	Roosting habitat includes forests and woodlands. Forages over a wide variety of habitats including grasslands and open woodlands. Past occurrence records show a close association between red bats and riparian corridors. Feeds on a variety of insects. Roosts primarily in trees, less often in shrubs. Roost sites are often in edge habitats adjacent to streams or fields. Prefers roost sites protected from above and open below with open areas for foraging. Family groups roost together including nursery colonies with many females and their young. Likely that this species would benefit from the restoration of riparian habitat.	Mod - Range spans the project site; nearby riparian corridor and open grassland habitats could provide suitable foraging habitat. However, project site currently has limited numbers of potential roosting trees because of lack of foliage due to LNU fire impacts.	Low - Live trees will not be removed as part of Project. Insecticides will not be used as part of the Project. Project activities will not reduce foraging opportunities. Disturbance due to trail installation and habitat restoration activities will be temporary and of short duration.

Table 4. Special Status Wildlife Species with the Potential to Occur in the General Region

Scientific Name Common Name	ESA (Federal) Status	CESA (State) Status	Heritage Rank (Global /State)	Critical Habitat	Other Rank- ings	Habitat (Description)	Potential to Occur at Project Site (None, Low, Mod, High)	Potential for Impacts (None, Low, Mod, High)
MAMMALS								
<i>Lasiurus cinereus</i> Hoary bat	None	None	G3G4/S4	No	IUCN: LC WBWG: M	Hoary bat is the most widespread bat in North America. This solitary bat winters along the coast and in S. California and breeds inland. Habitats suitable for bearing young include all woodlands and forests with medium to large sized trees and dense foliage. Generally roosts in dense foliage of medium and large trees. Preferred roosting sites are hidden from above with few branches below and have a ground cover of low reflectivity. Prefers open habitats or habitat mosaic, with access to trees for cover and open area or habitat edges for feeding. Feed primarily on moths.	Mod - Range spans the project site; nearby riparian corridor and open grassland habitats could provide suitable foraging habitat. However, project site currently has limited numbers of potential roosting trees because of lack of foliage due to LNU fire impacts.	Low - Live trees will not be removed as part of Project. Insecticides will not be used as part of the Project. Project activities will not reduce foraging opportunities. Disturbance due to trail installation and habitat restoration activities will be temporary and of short duration.
<i>Myotis yumanensis</i> Yuma myotis	None	None	G5/S4	No	BLM: S IUCN: LC WBWG: LM	Yuma myotis is common and widespread in California and is found in a wide variety of habitats. Optimal habitats are open forests and woodlands with nearby open water over which to feed. Feeds on small flying insects. Roosts in buildings, mines, caves, crevices, abandoned swallow nests and under bridges. Maternity colonies of several thousand females and young found in buildings, caves, mines and under bridges. Distribution closely tied to bodies of water. Particularly active foragers during aquatic insect emergent events.	Mod - Range spans the project site; nearby Lake Solano and open grassland habitats could provide suitable foraging habitat. However, project site does not contain potential roosting sites such as mines, caves, or bridges.	Low - Insecticides will not be used as part of the project. Project activities will not reduce foraging opportunities. Disturbance due to trail installation and habitat restoration activities will be temporary and of short duration.
BIRDS								
<i>Falco peregrinus anatum</i> American peregrine falcon	Delisted	Delisted	G4T4/S3S4	No	USFWS: BCC CDFW: FP	Occurs in a wide variety of habitats. Show a preference for breeding sites in proximity to water with nearby vertical structure such as cliffs, ledges, steep banks, canyons, mounds. Prey = 99% birds, also mammals, amphibians, fish, insects. Forage in open habitat. Nest is a scrape on ledge, prefer 50 - 200 ft. Sometimes use abandoned nests or hollow cavities in tall trees. Will nest on human-made structures. In CA, pairs remain in general vicinity of their breeding site year-round.	Mod - Range spans the project site and open grassland habitats could provide suitable foraging habitat. However, project site does not contain optimal nesting habitat, with no cliffs or ledges, and only 7 trees of preferred height, none of which have cavities or abandoned nests present.	Low - Insecticides will not be used as part of the project. Project activities will not reduce foraging opportunities. Disturbance due to trail installation and habitat restoration activities will be temporary and of short duration and will mostly occur in the fall and winter. Preconstruction wildlife and nest surveys will occur prior to any ground disturbance or mowing and mitigation measures will be implemented if species is identified within the project site.

Table 4. Special Status Wildlife Species with the Potential to Occur in the General Region

Scientific Name Common Name	ESA (Federal) Status	CESA (State) Status	Heritage Rank (Global /State)	Critical Habitat	Other Rank- ings	Habitat (Description)	Potential to Occur at Project Site (None, Low, Mod, High)	Potential for Impacts (None, Low, Mod, High)
BIRDS								
<i>Buteo swainsoni</i> Swainson's hawk	None	Threat- ened	G5/S3	No	USFWS: BCC	Nests on edges of riparian forests or lone trees in agricultural fields or along roadsides when adjacent to suitable foraging habitats such as grasslands or agricultural fields, particularly alfalfa. Forages in open grasslands and prairies, in Central Valley increasingly depend on agriculture lands (crops/pasture). Utilize trees 40+ to ~80 ft in height. Home range 10+ to 16 sq miles. Wintering habitat in CA less critical; very few hawks over winter in CA. Winter range (early Nov – mid March) = Mexico, Cent America, S. America as far as Argentina.	Mod - Range spans the project site and nearby riparian corridor and open grassland habitats could provide suitable foraging habitat. However, project site does not contain optimal nesting habitat, with only 8 trees of preferred height present.	Low - Insecticides will not be used as part of the project. Project activities will not reduce foraging opportunities. Disturbance due to trail installation and habitat restoration activities will be temporary and of short duration and will mostly occur in the fall and winter. Preconstruction wildlife and nest surveys will occur prior to any ground disturbance or mowing and mitigation measures will be implemented if species is identified within the project site.
<i>Athene cunicularia</i> Burrowing owl	None	None	G4/S3	No	BLM: S USFWS: BCC CDFW: SSC IUCN: LC	Primarily found in grasslands where ground squirrel populations create burrows suitable for roosting and nesting. May also occupy burrows created by other small mammals or may excavate their own burrows in soft earthen banks. Prefers relatively short vegetation with only sparse shrubs and taller vegetation. Diverse diet includes insects, small rodents, birds, amphibians and reptiles. During breeding season, owls forage near nests, but have been recorded up to 2.7 km away.	Low - Although grassland habitat exists at project site, few ground squirrels or large burrows have been observed.	Low - Insecticides will not be used as part of the project. Project activities will not reduce foraging opportunities. Disturbance due to trail installation and habitat restoration activities will be temporary and of short duration and will mostly occur in the fall and winter. Ground disturbance due to trail installation and native grass seeding will impact a small portion of the project site and will occur mostly in areas with tall, dense invasive grasses that do not provide optimal habitat. Preconstruction wildlife and nest surveys will occur prior to any ground disturbance or mowing and mitigation measures will be implemented if species is identified within the project site.

Table 4. Special Status Wildlife Species with the Potential to Occur in the General Region

Scientific Name Common Name	ESA (Federal) Status	CESA (State) Status	Heritage Rank (Global /State)	Critical Habitat	Other Rank- ings	Habitat (Description)	Potential to Occur at Project Site (None, Low, Mod, High)	Potential for Impacts (None, Low, Mod, High)
BIRDS								
<i>Agelaius tricolor</i> Tricolored blackbird	None	Threat- ened	G1G2/S1S2	No	USFWS: BCC BLM: S CDFW: SSC IUCN: EN NABCL: RWL	Permanent residents of California, extensive migratory movements within its range, congregates in the Central Valley during breeding season. Colonial breeding and nesting often occur in dense vegetation near freshwater marshes or agricultural fields. Nest heights range from ground level to about 1.5 meters above water and up to 3m in riparian trees. Basic requirements for nesting sites are open accessible water, protected nesting substrate and suitable foraging space providing adequate insect prey within a few kilometers of the nesting colony. Foraging habitat includes rice, alfalfa, irrigated pasture, grasslands and dairies. Vegetation below 15 cm tall provides ideal foraging conditions. Prey includes beetles, grasshoppers, and spiders.	Low - Range spans the project site. Open grassland habitats could provide suitable foraging habitat and the riparian edge of Lake Solano could provide suitable nesting habitat; however, there is no standing water within the 19 acres in the upland terraces of the project site. Project activities in these upland areas are 60+ m from potential nesting habitat at water's edge.	None - Insecticides will not be used as part of the project. Project activities will not reduce foraging opportunities. Disturbance due to trail installation and habitat restoration activities will be temporary and of short duration and will mostly occur in the fall and winter. Preconstruction wildlife and nest surveys will occur prior to any ground disturbance or mowing and mitigation measures will be implemented if species is identified within the project site. Impacts from the limited Project components proposed on the lower terrace (signage) are insignificant within the background of existing day use activities and general Park maintenance.
<i>Icteria virens</i> Yellow breasted chat	None	None	G5/S3	No	CDFW: SSC IUCN: LC	A summer resident and migrant (April-September) in coastal California and Sierra Nevada foothills. Found in valley foothill riparian habitats up to 4,800 foot elevation. Frequents dense, brushy thickets and tangles near water and thick understory in riparian woodland. Gleans insects, spiders, berries and other fruits from the foliage of shrubs and low trees. Nesting habitat usually restricted to the narrow border of streams and rivers, usually nests 2-8 feet above the ground in dense shrubs. Requires taller trees for song perches. Benefits from habitat restoration activities that promote a dense shrub layer.	Low - Project site does not contain optimal riparian habitat nor dense brush near water.	None - Insecticides will not be used as part of the project. Project activities will not reduce foraging opportunities. Disturbance due to trail installation and habitat restoration activities will be temporary and of short duration and will mostly occur in the fall and winter. Preconstruction wildlife and nest surveys will occur prior to any ground disturbance or mowing and mitigation measures will be implemented if species is identified within the project site. Project will result in an increase in dense brushy upland habitat.
Abbreviations Heritage Rank G = Ranking of species within its entire global range S = Ranking within the State of California boundaries T = Subspecies has separate ranking than entire species 1 = Critically imperiled; at very high risk of extinction 2 = Imperiled; at high risk of extinction 3 = Vulnerable; at moderate risk of extinction 4 = Apparently secure; at fairly low risk of extinction 5 = Secure; at very low risk of extinction Other Rankings BLM = US Bureau of Land Management S = Sensitive USFWS = US Fish and Wildlife Service BCC = Birds of Conservation Concern CDFW = CA Dept. of Fish and Wildlife SSC = Species of Special Concern FP = Fully Protected NABCI = North American Bird Conservation Initiative RWL = Red Watch List IUCN = International Union for Conservation of Nature EN = Endangered NT = Near Threatened LC = Least Concern WBWG = Western Bat Working Group H= High Priority M = Medium Priority LM = Low-Medium Priority								

Discussion

Plants Based upon a review of CNDDDB and CNPS records of special status species found in the four USGS 7.5-minute quadrangles surrounding the Project site or within 8 miles of the project site, 12 special-status plant species were considered in this analysis. Of these 12 species, three have a moderate potential to occur in the Project area (Table 3), but most are unlikely to occur at the site because they have specific edaphic or other habitat requirements that are not present within the Project site, such as serpentine soils, alkaline sinks, or the presence of vernal pools.

A team of Solano RCD biologists conducted four comprehensive surveys and several additional targeted surveys of the Project site during the appropriate blooming period in 2022, searching for potential special status plant species with the potential to occur on or adjacent to the Project area. Except for two *Arctostaphylos* seedlings (discussed further below), all flowering plants present at the Project site during the surveys were identified to a taxonomic level sufficient to determine potential special status species designation. No special status plant species were identified during these surveys.

The two *Arctostaphylos* seedlings found during the 2022 surveys were quite small (<10 cm tall) and not identifiable to species because of their immaturity. Populations of *Arctostaphylos manzanita* ssp. *laevigata*, a CNPS CRPR special status species with a 1B.1 rank, do occur within 10 miles of the project site. It is unlikely, however, that the two unidentified immature *Arctostaphylos* individuals are *A. manzanita* ssp. *laevigata*. This species occurs in chaparral and rocky outcrops at elevations of 240-1100 meters and the Project site has neither chaparral nor rocky outcrops and occurs at an elevation of 75 meters or less. **As a further precaution, the two *Arctostaphylos* seedlings identified in 2022 will be protected with Tubex tubes prior to the commencement of restoration activities.**

All Project activities, particularly weed control, native grass seeding, and wildflower seeding, will be informed by the comprehensive plant survey completed in 2022 at the Project site. In areas where dense patches of native forbs and wildflowers exist (none of which were identified as rare or special status), Project activities will be modified to minimize impacts to the natives. Whenever possible, naturally recruiting seedlings of native woody plants will be protected with Tubex tubes. Prior to the commencement of Project activities, a second targeted set of plant surveys searching for potential special status plant species shall be performed by qualified biologists during the appropriate blooming period. If any special status species plant is found, avoidance and protection measures have been incorporated into the Project's mitigation measures and best management practices.

Fish Based on a review of existing information, no special-status fish species were identified that potentially occur in waterways in the general region of the Project. Furthermore, Project activities occur in terrestrial areas of the Park, mostly on upland terraces, and will not cause impacts to riverine aquatic organisms.

Wildlife Based on a review of existing information, 17 special-status wildlife species (invertebrates, amphibians, reptiles, mammals, and birds) were considered for this analysis. Of these 17 total species, six non-avian wildlife species have a moderate potential to occur in the Project area (Table 3). These are western bumble bee, valley elderberry longhorn beetle, western pond turtle, Western red bat, hoary bat, and Yuma myotis.

Western bumble bees were once widespread across central California but have undergone tremendous declines in the past two decades, and are currently a candidate for State listing. Western bumble bees

depend on blooming plants that provide adequate nectar and pollen throughout the spring, summer, and fall. The Project site was historically planted as an orchard. Native vegetative cover has gradually been returning to the Project site since it became park land in 1973. The entire upland area of the Park was burned by the LNU Complex fire in August 2020. The 1.5 acre portion of the Project site slated for the demonstration garden, ADA trail and entry kiosk does not currently offer suitable habitat for western bumble bees, as it is used for Park maintenance activities including debris/burn piles and equipment storage and the limited understory vegetation in this area is dominated by non-native annual grasses, with few native grasses or forbs. However, in the upper 17.5 acre area planned for habitat restoration, patches of appropriate flowering plants have recruited and returned to the site post-fire, potentially providing limited areas of habitat for this species. The potential to negatively impact western bumble bee is low because the Project will not use insecticides, and ground disturbance will be limited to a small portion of the site and phased in over two years (leaving refugia, both in time and space, between zones of disturbance). The duration of disturbance resulting from drill seeding and mowing activities is expected to total approximately two weeks over the course of the Project. As the result of Project activities, native flowering plant cover will be significantly increased at the site thereby improving potential habitat; and only invasive weeds and non-native grassland vegetation will be targeted for removal.

Valley elderberry longhorn beetles (VELB) are dependent upon elderberry shrubs (*Sambucus* spp.), which are the sole host plant for VELB larvae. Populations of VELB are associated with healthy riparian vegetation that supports dense clumps of elderberry shrubs. A majority of proposed Project activities (habitat restoration, demonstration garden, ADA trail, DG pads, shade structure, gravel pad, most of the signage) will occur on 19 acres in the upland terraces of the Park, and the three elderberry shrubs (*Sambucus nigra*) occurring within this upland area were planted by Park staff near the former farm pond. All three shrubs are not growing vigorously, probably because they have been planted in upland habitats outside of their natural range and there is no longer supplemental irrigation provided to the farm pond. Although the potential for these isolated, unhealthy elderberry shrubs to provide suitable habitat for VELB populations is low, species-specific avoidance measures developed by USFWS (USFWS 2017) have been incorporated as mitigation measures for the Project.

Western pond turtle is relatively common in local streams and sloughs and is moderately likely to in the general Project area. The likelihood of Project impacts to western pond turtle is low, however, because the majority of Project activities (habitat restoration, demonstration garden, ADA trail, DG pads, shade structure, gravel pad, most of the signage) will occur on 19 acres in the upland terraces of the Park 60+ meters from the Putah Creek waterline and there will be no in-stream or water-line work. Erosion control best management practices will be used to minimize sediment and nutrient runoff. Ground disturbance will impact only a small portion of the Project site and will occur mostly in areas where dense invasive grasses create less suitable nesting opportunities. Disturbance due to habitat restoration activities, construction of the ADA trail, DG pad, shade structure and gravel pad, and installation of signage will be temporary and of short duration. Preconstruction wildlife surveys will occur prior to any ground disturbance or mowing, and mitigation measures will be implemented if the species is identified within the Project site. Impacts from the limited Project components proposed for occurrence on the lower terrace are insignificant within the background of existing day use activities and general Park maintenance.

Western red bats and Hoary bats are widespread, and the site could provide suitable foraging habitat for both species; however, due to the impacts of the LNU fire, the number of trees that could be used as roost sites is limited because of a lack of living trees supporting foliage. Project activities will not reduce

foraging opportunities at the site: insecticides will not be used, and disturbance due to habitat restoration activities, construction of the ADA trail, DG pad, shade structure and gravel pad, and installation of signage will be temporary and of short duration. As a result, the likelihood of impacts to western red or hoary bats is low.

Yuma myotis are widespread, and the site could provide suitable foraging habitat; however the Project site does not contain potential roosting sites such as mines, caves, or bridges. Project activities will not reduce foraging opportunities at the site: insecticides will not be used, and disturbance due to habitat restoration activities, construction of ADA trail, DG pad, shade structure and gravel pad, and installation of signage will be temporary and of short duration. As a result, the likelihood of impacts is low.

Bird species Two special-status bird species, Swainson's hawk and American peregrine falcon, have a moderate potential to occur in the general Project area. The range of both species spans the Project site, and the open grassland habitats in and near Lake Solano Park could provide suitable foraging opportunities. However, the Project site does not provide optimal nesting habitat for either species - there are no cliffs or ledges, nor trees with cavities or abandoned nests that would provide the preferred nesting habitat for American peregrine falcon, and only eight live trees of a height preferred by Swainson's Hawk for nesting (40+ feet tall) occur within the Project site. Many additional avian species could use the Project site, including other raptor species, songbirds, and wintering migrants. The likelihood of Project impacts to either the special-status bird species or other avian species at the site is low.

The Project has been designed so the majority of construction work will occur outside the avian nesting season. Disturbance due to habitat restoration activities, construction of the ADA trail, DG pad, shade structure and gravel pad, and installation of signage will be temporary and of short duration and will mostly occur in the fall and winter. Project activities will not reduce foraging opportunities. Insecticides will not be used as part of the Project. A qualified biologist shall conduct surveys for nesting birds during the appropriate survey periods prior to Project commencement and also 24-48 hours prior to: 1) Use of mechanical equipment that disturbs the ground (augering for signs and tree/shrub/subshrub planting or excavation associated with construction of the ADA trail, DG pads, shade structure or gravel pad) or 2) Mowing activities for weed control in the habitat restoration areas. Surveys will be repeated whenever 7 or more days elapse without work at the site. If nests are found, mitigation measures will be implemented and non-disturbance buffer zones will be established in consultation with CDFW/USFWS.

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 CDFW or USFWS?

Less Than Significant with Mitigation. Much of this Project is focused on the restoration of native plants to the site, improving habitat quality for wildlife species that depend upon mixed oak-foothill pine woodland habitat. The best management practices incorporated into the Project description, along with the mitigation measures described at the end of this section, will bring potential impacts to candidate, sensitive or special status species to less than significant.

b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies or regulations or by the CDFW or USFWS?

Less Than Significant Impact. The impacts caused by the small portion of the proposed Project activities planned for the lower terrace within the riparian corridor (installation of one kiosk, six interpretive signs and five wayfinding signs) are insignificant within the background of existing day use activities and

general Park maintenance. The majority of this Project will occur in mixed oak-foothill pine habitat and no sensitive natural communities have been identified in the Project area on the California Natural Diversity Database (CDFW 2022a) or by vegetation surveys conducted at the site.

The site falls within the Vaca Mountain/Pleasants Valley/English Hills Area designated as an important conservation area for the Inner Coast Range Natural Community by the Solano Multispecies Habitat Conservation Plan (Solano County Water Agency 2012). Disturbance due to habitat restoration, construction of the ADA trail, DG pad, shade structure and gravel pad, and installation of signage will be temporary and of short duration. The Project will restore and enhance the mixed oak-foothill pine woodland that is native to this site and improve the wildlife habitat present in the Park. The restoration activities carried out in this Project are considered by CDFW and USFWS to be mitigation for impacts to native plant habitat. This Project will provide a net benefit through the removal of non-native plants and the restoration of the native mixed oak-foothill pine plant community. The best management practices incorporated into the Project description, along with the mitigation measures described at the end of this section, Project will reduce any adverse effects on the mixed oak-foothill pine plant community to less than significant.

c) Have a substantial adverse effect on federally protected wetlands as defined by section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

No Impact. The majority of the project activities will occur on upland terraces in the mixed oak-foothill pine community and do not contain any protected wetlands as defined by section 404 of the Clean Water Act. These activities will not impact federal protected wetlands through removal, filling or hydrological interruption. Erosion control best management practices will be used to minimize any potential sediment and nutrient runoff from activities in these upland areas that could impact Putah Creek. The impacts caused by the small portion of proposed Project activities planned for the lower terrace within the riparian corridor (installation of one kiosk, six interpretive signs and five wayfinding signs) are insignificant within the background of existing day use activities and general Park maintenance.

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?

Less than Significant Impact. This Project will restore native plants to the Project site, improving long-term wildlife movement, wildlife corridors and wildlife nursery sites for species that depend upon the mixed oak-foothill plant community and habitats. Disturbance due to habitat restoration, construction of the ADA trail, DG pad, shade structure and gravel pad, and installation of signage will be temporary and of short duration. The best management practices incorporated into the Project description, along with the mitigation measures described at the end of this section, including scheduling installation activities to occur during times of the year when wildlife is less likely to occur in the Project area, will reduce short term impacts to wildlife movement to less than significant.

e) Conflict with any local policies or ordinances protecting biological resources, such as tree preservation policy or ordinance?

No Impact. The Project activities will not conflict with any local policies or ordinances protecting biological resources.

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?

No Impact. The proposed Project would not conflict with the provisions of any adopted Habitat Conservation Plan, Natural Communities Conservation Plan, other approved local, regional, or state habitat conservation plan or any other local policies or ordinances that protect biological resources. The Project would support elements found in the Solano Multispecies Habitat Conservation Plan (Solano County Water Agency 2012) as the Project enhances mixed oak-foothill pine woodland habitat within the Inner Coast Range Natural Community that the Plan identifies as important for target species Swainson's hawk and yellow-breasted chat. The Solano Multispecies Habitat Conservation Plan was developed with participation by surrounding local municipalities and agencies, including the cities of Dixon, Vacaville, Solano County Water Agency and Solano County.

3.6.2 Mitigation Measures for Biological Resources

The following mitigation measures will be applied to Project activities to avoid or minimize potential environmental impacts to biological resources. Implementation of these mitigation measures will reduce the potential environmental impacts of the proposed Project to a less-than-significant level. The biological impacts caused by the Project are minor and temporary while the resulting benefits are substantial, long-lasting, and will improve a range of ecological functions at the site.

BIO 1. Pre-construction and Construction Surveys. A qualified biologist shall conduct wildlife surveys 24-48 hours prior to: 1) Use of mechanical equipment that disturbs the ground (augering for signs and tree planting, minor excavation associated with construction of the ADA trail, DG pads, shade structure and gravel pad or 2) Mowing activities for weed control in the habitat restoration areas. Surveys will be repeated if construction stops for a period of more than 7 days. During implementation of activities that disturb the ground, a qualified biologist shall visit the job site daily to ensure that best management practices and mitigation measures are being followed. Specific mitigation measures for nesting birds are listed below.

BIO 2. Nesting Bird Surveys and Avoidance. During the nesting season (February 1-August 31), a qualified biologist shall conduct surveys for nesting birds during the appropriate survey periods prior to Project commencement and also 24-48 hours prior to: 1) Use of mechanical equipment that disturbs the ground (augering for signs and tree/shrub/subshrub planting or excavation associated with construction of the ADA trail, DG pads, shade structure or gravel pad) or 2) Mowing activities for weed control in the habitat restoration areas. Surveys will be repeated whenever 7 or more days elapse without work at the site. If nests are located, impacts shall be minimized by establishing appropriate non-disturbance buffer zones in consultation with CDFW/USFWS. The qualified biologist shall monitor nests to ensure that nesting birds are not disturbed and that nests are not jeopardized. If Project activities are observed to disturb nesting behaviors, work causing the disturbance shall be suspended until nesting season is complete.

BIO 3. Protection of Listed Species. If a fully protected or listed animal species is encountered while performing work, all work shall be suspended until the fully protected or listed animal species has left the work area. The appropriate agencies shall be notified of all confirmed observations of any fully protected or listed species in or adjacent to any work area for the Project. The qualified biologist will report any take of listed species to the appropriate agencies (USFWS/CDFW) immediately by telephone and by electronic mail or written letter within one (1) working day of the incident.

BIO 4. Native Plant Survey and Avoidance. A team of Solano RCD biologists conducted four comprehensive surveys of the Project site during the appropriate blooming period in 2022, searching for special status plant species with the potential to occur on or adjacent to the Project area. All flowering plants present at the Project site during the surveys were identified to a taxonomic level sufficient to determine potential special status species designation (with the exception of two *Arctostaphylos* seedlings discussed further in the Discussion section of 3.6 Biological Resources). No special status plant species were located during these surveys. Prior to the commencement of Project activities, a second targeted set of plant surveys searching for potential special status plant species shall be performed by qualified biologists during the appropriate blooming period. If special-status plants are found during the second set of surveys, species-specific conservation measures, including Project redesign and/or buffer establishment, will be implemented to avoid or minimize impacts to special status plants.

BIO 5. Elderberry Survey and Avoidance. A qualified biologist shall conduct surveys for elderberries prior to commencement of Project activities. All identified elderberries shall be flagged, and measures developed by USFWS (2017) to avoid and minimize impacts to Valley elderberry longhorn beetle (VELB) will be implemented, including: elderberry branches will not be pruned or trimmed, ground disturbing activities will be avoided within 20 feet of elderberry shrubs, and herbicides & mechanical weed control will not be used within the dripline of the elderberry shrubs.

BIO 6. Worker Environmental Awareness Training. A Worker Environmental Awareness Training Program shall be conducted by a qualified biologist for all workers, including sub-contractors, prior to: 1) Commencement of habitat restoration activities, 2) Construction of the ADA trail, DG pads, shade structure and gravel pad, or 3) Installation of wayfinding and interpretive signs. The program shall consist of a presentation made by a qualified biologist that includes information about the distribution and habitat needs of any special status species that may be present, legal protections for those species, and Project-specific procedures and protective measures in the event that a species is observed. Worker training will also include environmental best management practices (BMPs) and emergency spill response protocols.

BIO 7. Equipment Operation Speeds. Construction crews shall operate equipment used within the footprint of the Project site at 5mph hour or less.

3.7 Cultural Resources

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Disturb any human remains, including those interred outside of formal cemeteries?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Environmental Setting

The term “cultural resources” as used in this document refers to all “built environment” resources (structures, bridges, levees, etc.), culturally important resources (sacred places and locations associated with traditional activities), and archaeological resources (both indigenous and historic, on land and

submerged), regardless of significance. Cultural resource is a general term that encompasses CEQA's definition of historical resources (CPRC §21084.1) and unique archaeological resources (CPRC §21083.2). CEQA requires that alternative plans or mitigation measures must be considered if a Project would result in significant effects on important cultural resources. Only significant cultural resources, however, need to be addressed (CEQA Guidelines 15064.5 [a][3]). Therefore, prior to the development of mitigation measures, the significance of cultural resources with the potential to be impacted by the Project must be determined.

In 2015, the California legislature added a new requirement regarding tribal cultural resources in Assembly Bill 52. This law requires lead agencies to notify and consult early in the CEQA process with any California Native American tribe that requests consultation and to consider measures to mitigate any substantial adverse impacts to tribal cultural resources.

This Project has been developed as a partnership between Solano Resource Conservation District, Solano County Parks, Bureau of Reclamation, Yocha Dehe Wintun Nation and Putah Creek Council. The Bureau of Reclamation took the lead on completing a cultural resources study for the Project as well as the lead on tribal consultation associated with National Environmental Policy Act (NEPA) compliance. Solano Resource Conservation District took the lead on completing tribal consultation associated with CEQA compliance.

Discussion

Previous records reviews by the Bureau of Reclamation Lake Solano Park is located on Bureau of Reclamation land. As such, authorization for all cultural resource surveys come from the Interior Region 10, California-Great Basin Cultural Resources Branch (CGB-153). In 2005, a records search of the Northwest Information Center (NWIC) of the California Historical Resources Information System at Rohnert Park was conducted by Michael Brandman Associates in conjunction with a Project that resulted in the construction of the headquarters building/visitor center in the western section of the Park.

Current tribal consultation, survey and records review by the Bureau of Reclamation As the lead Federal agency in the Project partnership, the Bureau of Reclamation is responsible for consultation with Native American groups with a possible interest in the Project. Yocha Dehe Wintun Nation is a partner in the current Project. Additionally, Reclamation has identified the Cachil Dehe of Wintun Indians, Middletown Rancheria of Pomo Indians, Pinoleville Pomo Nation, Guidiville Indian Rancheria, and the Kletsel Dehe Band of Wintun Indians as tribes and the Mishewal-Wappo Tribe of Alexander Valley as a Native American group that may have an interest in the Project. The Bureau of Reclamation will continue to work with the Yocha Dehe Wintun Nation and other tribes to address any concerns that may arise regarding the proposed undertaking.

A cultural resources field survey was conducted on November 18, 2021, by Bureau of Reclamation personnel Kirk Schmitz (Archaeologist) and Susan Bierer (Architectural Historian/ Archaeologist) with Socorro Maldonado, Cultural Monitor from the Yocha Dehe Wintun Nation, also in attendance. The Project area was intensively surveyed with transects running east-west at intervals no more than 10 meters. The upper terraces were surveyed first, then the lower terrace. Animal burrows and exposed cuts were inspected for potential subterranean resources. Conditions were ideal for survey, with clear skies and full sun on the majority of the APE. Ground visibility was excellent with sparse grass coverage

and no underbrush, most of the larger vegetation having burned off in the recent fire. No cultural resources were identified in the course of the pedestrian survey.

Based on the efforts described above, the Bureau of Reclamation has determined that the undertaking would result in a no historic properties affected determination. Reclamation initiated consultation with SHPO by letter dated September 30, 2022, notifying her office of the determination of no historic properties affected for the proposed undertaking pursuant to 36 CFR § 800.4 (d)(1). SHPO responded by letter dated October 30, 2022, expressing no objection with that determination. Any changes in project activities or inadvertent discoveries during implementation may require additional National Historic Preservation Act Section 106 compliance.

Current tribal consultation by the Solano Resource Conservation District

Solano Resource Conservation District requested a Sacred Lands File check with the Native American Heritage Commission (NAHC), which was completed on January 20, 2022 and found to be negative. Solano RCD sent notification of the proposed Project to the five California Native American Tribal Representatives registered with NAHC on January 31, 2022 via United States Postal Service certified letter. In addition, electronic notifications were sent to four of the five Tribal Representatives who also provided NAHC with e-mail addresses. Only the Yocha Dehe Wintun Nation Director of Cultural Resources responded to these notifications. The Yocha Dehe Wintun Nation traditionally occupied lands in Yolo, Solano, Lake, Colusa and Napa Counties and the Project site lies within its aboriginal territories. On April 6, 2022, an online meeting was conducted with several Yocha Dehe Wintun Nation representatives, including Bill Laverne, Director of Cultural Resources; Sarah Morgan, Natural Resources Manager; and Eric Hernandez and Socorro Maldonado, Tribal Supervisors. Also present were Bureau of Reclamation Archologist, Kirk Schmitz; and Solano RCD Deputy Director, Katherine Holmes. Subsequently, the Yocha Dehe Wintun Nation Tribe provided Project partners with a list of mitigation measures, the salient features of which have been incorporated herein.

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

Less than Significant With Mitigation. The Project is comprised of habitat restoration activities, construction of the ADA trail, DG pads, shade structure and gravel pad, and installation of interpretive/wayfinding signage, all of which will cause minor disturbance of the soil in the Project area. These disturbances could have the potential to impact unknown historical resources. Mitigation measures listed below will be incorporated to prevent any significant impact.

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

Less than Significant With Mitigation. The Project is comprised of habitat restoration activities, construction of the ADA trail, DG pad, shade structure and gravel pad, and installation of signage, all of which will cause minor disturbance of the soil in the Project area. These disturbances could have the potential to impact unknown archaeological resources. Mitigation measures listed below will be incorporated to prevent any significant impact.

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

Less than Significant With Mitigation. The Project area does not contain any unique geologic features nor does the Project area support any known geologic characteristics that have the potential to support unique geologic features. The Project will not modify any geologic features. Minor soil disturbance will

be associated with Project activities and could have the potential to impact unknown paleontological resources. Mitigation measures listed below will be incorporated to prevent any significant impact.

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

Less than Significant With Mitigation. Although indigenous human remains are often found outside of formal cemeteries, they are usually found in association with villages and residential bases. Since none of these are known to be located within the Project area, it is unlikely human remains will be disturbed by the minor soil disturbance that will be associated with Project activities. Mitigation measures listed below will be incorporated to prevent any significant impact.

3.7.1 Mitigation Measures for Cultural Resources

The following mitigation measures will be implemented to avoid or minimize potential impacts to cultural resources. Implementation of these mitigation measures will reduce the potential impacts of the proposed Project to a less-than-significant level.

Mitigation Measures for Cultural Resources

CUL 1. Worker Cultural Sensitivity Training. A Cultural Sensitivity Training shall be conducted for all workers by the Yoche Dehe Wintun Nation cultural resources team prior to the commencement of habitat restoration activities, construction of the ADA trail, DG pads, shade structure and gravel pad, or installation of wayfinding and interpretive signs. The training shall include information about how to recognize cultural resources, legal protections for those resources, and appropriate steps to take if cultural resources are discovered during implementation of restoration activities.

CUL 2. Human Remains Discovered. All human remains and potential human remains and their accompanying cultural items must be treated with respect and dignity at all times. In the event that suspected human remains are discovered during proposed project activity on Federal land, the discovery will be addressed under the Native American Graves Protection and Repatriation Act (NAGPRA) (25 USC 3001) and implementing regulations 43 CFR Part 10. All activities in the immediate area will cease, and appropriate precautions will be taken to protect the remains and any associated cultural items from further disturbance. The Bureau of Reclamation will follow the procedures outlined in 43 CFR § 10.4 Inadvertent Discoveries. The Bureau of Reclamation California-Great Basin Environmental Officer Regional Archaeologist will be immediately notified by telephone and will take responsibility for the discovery by contacting the appropriate law enforcement and Reclamation officials. Within three (3) working days of confirmation of the discovery [see 43 CFR Part 10.4(d)(1)(iii)], the Regional Archaeologist will notify by telephone or in person, with written confirmation, the Indian tribes likely to be affiliated with the discovered human remains (e.g., lineal descendant, culturally affiliated Indian tribe, Indian tribe with other cultural relationship, and Indian tribe that aboriginally occupied area). Treatment and handling of the remains will be determined through consultation between Reclamation and consulting tribes. Reclamation will notify Lake Solano when work may proceed at the discovery location.

If human remains are encountered on State or privately-owned land, State Health and Safety Code Section 7050.5 dictates that no further disturbance shall occur until the County Coroner has made a determination of origin and disposition pursuant to PRC 5097.98. The County Coroner must be notified of the find immediately. If the remains are determined to be historic, the Coroner will notify the Native American Heritage Commission (NAHC), which will determine and notify a Most-Likely Descendant

(MLD). With the permission of the landowner or his/her authorized representative, the MLD may inspect the site of the discovery. The MLD shall complete the inspection within 48 hours of notification by the NAHC. The MLD may recommend scientific removal and nondestructive analysis of human remains and items associated with Native American burials.

CUL 3. Archaeological/Paleontological Resources Discovered. If subsurface deposits believed to be cultural or human in origin are discovered during restoration activities, then all work must halt within a 50-foot radius of the discovery, and provisions will be made for a qualified archaeologist and Yoche Dehe Tribal monitor to immediately evaluate the find.

The qualified professional archaeologist shall meet the Secretary of the Interior's Professional Qualification Standards for prehistoric and historic archaeologist, shall be retained to evaluate the significance of the find, and shall have the authority to modify the no-work radius as appropriate, using professional judgment. Reclamation will follow the procedures outlined in 43 CFR § 10.4 Inadvertent Discoveries. The following notifications shall apply, depending on the nature of the find:

- If the professional archaeologist determines that the find does not represent a cultural resource, then work may resume immediately and no agency notifications are required.
- If the professional archaeologist determines that the find does represent a cultural resource from any time period or cultural affiliation, then he or she shall immediately notify the US Bureau of Reclamation. The agency shall consult on a finding of eligibility and implement appropriate treatment measures, if the find is determined to be eligible for inclusion in the NRHP. Work cannot resume within the no-work radius until the lead agencies, through consultation as appropriate, determine that the site either: 1) is not eligible for the NRHP; or 2) that the treatment measures have been completed to their satisfaction.

Work may continue on other parts of the Project while the find is being addressed. If the find is determined to be a paleontological resource, time will be allotted to allow for implementation of avoidance measures or appropriate mitigation measure as determined by Reclamation in consultation with the Yoche Dehe Tribal monitor.

3.8 Geology and Soils

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
Would the project:				
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
ii) Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iii) Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iv) Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Environmental Setting

Lake Solano is located in the Putah Creek drainage, downstream from Lake Berryessa as water from the Coast Ranges makes its way down into the Sacramento Valley. The Sacramento Valley is framed by the Coast Ranges on the west and the Sierra Nevada Range to the east. The floor of the valley is composed largely of weathered sediments washed down from the surrounding mountain ranges. The Putah Creek watershed begins north of Lake Berryessa in the Vaca Mountains, which form the southeastern tip of the Coast Ranges and separate the Suisun Valley from the Sacramento Valley. The eastern slope of the Vaca Mountains is composed of rock of the Great Valley Group, a geologic stratum whose constituents include volcanic and sedimentary rocks laid down during the Late Jurassic and through the Cretaceous before being uplifted by the Great Valley Fault Thrust System (Moores et al. 2020). The exposed elements of this formation at the western edge of the Sacramento Valley are folded into steep, banded beds of shales and sandstones. Lake Solano Park is sited on the boundary between the Great Valley Group and the Quaternary alluvium that comprises the floor of the Sacramento Valley. The Natural Resources Conservation Service (NRCS) maps soil types as Corning gravelly loam and Dibble-Los Osos loam on the upland areas of the Project site and Yolo loam on the lower terrace adjacent to Lake Solano.

Discussion

a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving i) through iv) above?

No Impact. This Project area does not fall within an Alquist-Priolo Earthquake Fault Zone or Seismic Hazard Mapping Act Zone as shown on the State Geologist's seismic hazard online mapping system at: <https://maps.conservation.ca.gov/cgs/informationwarehouse/regulatorymaps/>

b) Result in substantial soil erosion or the loss of topsoil?

No Impact. Although treatment of invasive weeds may result in bare patches of soil throughout the Project site, these areas will be small in size and temporary in nature since they will be replanted with deeply rooted native trees, shrubs, subshrubs, forbs, and native grasses as part of the habitat restoration efforts. Construction activities associated with the installation of the ADA trail, DG pads, shade structure and gravel pad will also result in exposed soil, but these disturbances will also be small in size and temporary in nature, and best management practices will be used during construction to control soil erosion and 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?

No Impact. The Project area is not located near unstable geologic units. Disturbance associated with Project activities are small in size and temporary in nature and will not result in onsite or offsite landslides, lateral spreading, liquefaction, or collapse.

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

No Impact. Soils at the Project site include Yolo loam, Dibble-Los Osos loam, and Corning gravelly loam, none of which are expansive soils that would create substantial risks to life or property.

e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?

No Impact. The proposed Project will not generate wastewater and does not involve the use of septic tanks or alternative wastewater disposal systems. Therefore, no impacts would result with implementation of the Project.

3.9 Greenhouse Gas Emissions

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
Would the project:				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Environmental Setting

Greenhouse gases (GHGs) are recognized by wide consensus among the scientific community to contribute to global warming/climate change and associated environmental impacts because of their ability to trap heat in the atmosphere and affect climate. The major GHGs that are released from human activity include carbon dioxide, methane, and nitrous oxide (Governor's Office of Planning and Research 2008). The primary sources of GHGs are vehicles (including planes and trains), energy plants, and industrial and agricultural activities (such as dairies and hog farms).

California has demonstrated its intent to address global climate change through research, adaptation, and GHG inventory reductions. In response, the California Legislature enacted the California Global

Warming Solutions Act of 2006 (AB 32, Health and Safety Code Section 38500 et seq.) to implement standards that will reduce GHG emissions to 1990 levels. In the act, the Legislature found that “[g]lobal warming poses a serious threat to the economic well-being, public health, natural resources, and the environment of California.” Senate Bill 97, adopted in 2007, required the Governor’s Office of Planning and Research to develop CEQA guidelines “for the mitigation of greenhouse gas emissions or the effects of greenhouse gas emissions,” and the CA Resources Agency certified and adopted the amendments to the guidelines on December 30, 2009. The Yolo-Solano Air Quality Management District (YSAQMD) has not established guidelines for evaluating GHG emissions from proposed Projects and does not have thresholds for assessing the significance of impacts.

Discussion

Using current standard emissions numbers for fuel (USEPA 2022), concrete (Portland Cement Association 2022) and knowledge of consumptive fuel use by construction equipment, the CO₂ emissions from Project activities were estimated and are shown in Table 5. These activities will release approximately 25 metric tons (55,982.84 lbs) of carbon dioxide to the atmosphere over the course of the Project.

As a result of habitat restoration activities, however, up to 2,265 native trees, shrubs and subshrubs and up to 7-8 acres of perennial native grasses and forbs will be established in the Project area. The US Department of Energy quantified CO₂ uptake by a wide variety of trees, many of which are close relatives of the species to be planted at this site (USDOE 1998). USDA-NRCS and Colorado State University maintain a web-based tool (COMET-Planner) to calculate the carbon benefit of a variety of agricultural and wildlife planting practices, including the establishment of native grasses and forbs (USDA 2022). Using these estimates, and assuming that shrubs and subshrubs take up 10 percent of the CO₂ that trees do, the plantings at this site will take up approximately 750 metric tons (1,654,189 lbs) of carbon dioxide over 20 years, providing a net benefit of 725 metric tons of CO₂ uptake by the Project (Table 6).

Table 5. Estimated Pounds of CO₂ Emissions

VEHICLE EMISSIONS				
Vehicle	Travel (miles)	Mileage (miles/gal)	Lbs CO₂/gal	Emissions (Lbs CO₂)
Solano RCD F150	6840	18	19.36	15,568.67
Solano RCD F250	1440	12	19.36	3,025.00
Contractor F250	2250	12	19.36	3,630.00
Concrete truck	825	5	22.51	3,714.15
Gravel transfer truck	375	8.23	22.51	1,025.67
ATV/UTV	368	15	19.36	69.70
CCC crew	800	15	19.36	438.83
Sub-Total Vehicle CO₂ Emissions (Lbs)				27,472.01
EQUIPMENT EMISSIONS				
Equipment	Run time (hours)	Mileage (gal/hr)	Lbs CO₂/gal	Emissions (Lbs CO₂)
50 HP tractor	64	3.00	22.51	4,321.92
Skid steer/mini excavator	94	1.30	22.51	2,750.72
Small trencher	2	0.25	19.36	9.68
Riding roller	28	0.26	22.51	163.87
Weed whackers	96	0.25	19.36	464.64
Sub-Total Equipment CO₂ Emissions (Lbs)				7,710.83
CONCRETE PRODUCTION EMISSIONS				
Material		Cubic yards	Lbs CO₂/yd³	Emissions (Lbs CO₂)
Concrete		52	400	20,800.00
Sub-Total Equipment CO₂ Emissions (Lbs)				20,800.00
Total CO₂ Emissions (Lbs)				55,982.84

Table 6. Estimated Pounds of CO₂ Uptake

Plant		Acres or # planted	Annual uptake	Uptake over 20 yrs (lbs CO₂)
Grass/forb meadow		6 ac	1102 lbs CO ₂ /ac	132,277.20
Trees		456	32.54 lbs C/plant	1,089,126.81
Shrubs and subshrubs		1812	3.25 lbs C/plant	432,784.60
Total lbs CO₂ uptake over 20 years				1,654,188.62

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

Less than Significant Impact. While GHG emissions will be produced from the equipment and vehicles used to install the Project, as well as the production of concrete, there will be no generation of emissions after Project implementation is complete. Emissions of GHGs resulting from the use of equipment and vehicles would be short-term and minor. Furthermore, over a 20-year period, the native trees, shrubs and subshrubs are projected to sequester 750 metric tons of CO₂, a net benefit of 725 metric tons.

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

No Impact. The Project will not generate significant emissions of GHGs and, therefore, will not conflict with any applicable plans, policies, or regulations adopted for the purpose of reducing the emission of GHGs.

3.10 Hazards and Hazardous Materials

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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 for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Environmental Setting

Hazardous materials are defined in Section 66260.20, Title 22 of the California code of Regulations as a substance or combination of substances which, because of its quantity, concentration, or physical, chemical or infectious characteristics may either (1) cause or significantly contribute to an increase in

mortality or an increase in serious, irreversible, or incapacitating reversible, illness, or (2) pose a substantial present or potential hazard to human health or environment when improperly treated, stored, transported, or disposed of or otherwise managed.

Discussion

a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous material?

Less than Significant Impact. Fuel and herbicides will be transported and used on site during restoration activities. Fuel will be transported and used on site during ADA trail, DG pads, shade structure and gravel pad construction. No disposal of materials will occur at Project sites. The best management practices incorporated into the Project description will ensure that there are no significant impacts to the environment through 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?

Less than Significant Impact. The best management practices incorporated into the Project description will ensure that the Project does not create a significant hazard to people or the environment through reasonably foreseeable accidental release of hazardous materials.

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

No Impact. There are no schools within one-quarter mile of the Project area.

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

No Impact. The Project site is not on a list of known hazardous materials sites.

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 for people residing or working in the project area?

No Impact. The Project site is not within an airport land use planning area or within two miles of a public airport.

f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?

No Impact. The Project site is not located within the vicinity of a private airstrip.

g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

No Impact. The Project activities take place on open space park lands and do not necessitate closing or blocking roads or restricting their use. Project activity would not alter emergency response or emergency evacuation routes.

h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?

Less Than Significant Impact. Project activities will take place on open space park lands with no urbanized areas nearby, although there are rural residences and barns on adjacent parcels within 200 feet of the edge of the Project. The best management practices incorporated into the project description will reduce the risk of igniting a wildfire during the use of restoration and construction equipment to a less than significant level.

3.11 Hydrology and Water Quality

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
Would the project:				
a) Violate any water quality standards or waste discharge requirements?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Otherwise substantially degrade water quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
h) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
i) Inundation by seiche, tsunami, or mudflow	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Environmental Setting

The Central Valley Regional Water Quality Control Board (CVRWQCB) has Federal- and State-mandated regulatory jurisdiction for control of water quality in the Project area. The Water Quality Control (Basin) Plan for the Central Valley (CVRWQCB 2019) outlines water quality standards to be protected. Water quality standards establish beneficial uses of water, water quality objectives for surface water and ground water, and the State anti-degradation policy.

The Project will occur in Lake Solano Park, an open space park operated by Solano County Parks and owned by the Bureau of Reclamation. The Park is located in the foothills of the Inner Coast Range west of Mount Vaca and the Blue Ridge/Vaca Mountains. The Park's northern boundary lies along the banks of Lake Solano, a portion of Putah Creek that is impounded by the Putah Diversion Dam, while the Park's southern boundary occurs in the mixed oak-foothill pine plant community on upland terraces at elevations up to 75 meters.

A majority of proposed Project activities (habitat restoration, demonstration garden, ADA trail, DG pads, shade structure, gravel pad, most of the signage) will occur on 19 acres in the upper, upland terraces within the Park in the mixed oak-foothill pine vegetation community.

A small portion of proposed Project activities (one kiosk, six interpretive signs and 5 wayfinding signs totaling less than 30 square feet of permanently installed signage) is located on the lower terrace within the riparian corridor along Putah Creek. This area is within the active day use area of Lake Solano Park, which is currently maintained for recreational use with irrigated grass, picnic tables, horseshoe pits, and existing Park signage. A number of standard maintenance activities already occur within this portion of the park, including regular irrigation repair, frequent mowing, and occasional sign maintenance.

Discussion

A number of best management practices will be utilized to protect water quality during site preparation, installation, and establishment activities. These include conducting herbicide applications in ways that minimize drift and implementing a robust Worker Training Program on proper procedures for handling hazardous materials. Please refer to the Project description in the Initial Study for details.

a) Violate any water quality standards or waste discharge requirements?

Less than Significant with Mitigation. The best management practices incorporated into the Project description will reduce potential impacts to water quality standards to less than significant.

b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level that would not support existing land uses or planned uses for which permits have been granted)?

No Impact. Project activities will not affect groundwater quality, supplies, or recharge. No wells will be drilled, no pumping will occur, and no new facilities will be created that could affect groundwater.

c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?

No Impact. Project activities will not alter the existing drainage pattern of the Project site nor alter the course of waterways in the area.

d) Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?

No Impact. Project activities will not create or contribute to any runoff water.

e) Otherwise substantially degrade water quality?

No Impact. See answer and elaboration to possible impact (a). No additional impacts to water quality are anticipated.

f) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?

No Impact. The Project does not construct houses.

g) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?

No Impact. The Project does not involve the construction of any structures.

h) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?

No Impact. The Project does not involve the creation of any structures, levees, or dams nor will Project activities cause any existing structure, levee or dam to fail.

i) Inundate by seiche, tsunami, or mudflow?

No Impact. The Project area is not subject to inundation by large waves or tsunamis and is not within a landslide or liquefaction zone, as shown on the State Geologist's seismic hazard online mapping system at: <https://maps.conservation.ca.gov/cgs/informationwarehouse/regulatorymaps/>

3.12 Land Use and Planning

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
Would the project:				
a) Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Environmental Setting

The Project area is located in the northern portion of Solano County, which is unincorporated. It is zoned as Park in the Solano County Zoning map, and designated in the Solano County General Plan as Park and Recreation. Land use in the surrounding area is primarily agriculture (walnut orchard and pasture) with some rural residences and open space areas.

Discussion

a) Physically divide an established community?

No Impact. The Project does not propose the introduction of new infrastructure such as major roadways or water supply systems, or utilities to the area and therefore will not disrupt or divide an established community.

b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?

No impact. Project activities will not conflict with any applicable land use plan, policy, or regulation.

c) Conflict with any applicable habitat conservation plan or natural community conservation plan?

No Impact. The proposed Project is within the plan area for the Solano Multispecies Habitat Conservation Plan but the Project activities will not conflict with the plan as the Project restores mixed oak-foothill pine woodland habitat and enhances ecological function in the Project area.

3.13 Mineral Resources

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Environmental Setting

Mineral resources mined or produced within Solano County include mercury, sand, gravel, clay, stone products, calcium, and sulfur. None of these resources are mined or produced in the Project area. There are no active mines or mineral processing facilities and no recorded past mine locations at the Project site. There are no Mineral Resource Zones within the Project vicinity.

Discussion

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?

No impact. The proposed Project will not be extracting large amounts of earthen material and will not have any impacts on regional mineral resources.

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?

No impact. There are no locally important mineral resource recovery sites delineated within the Project boundary.

3.14 Noise

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
Would the project result in:				
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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 expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Environmental Setting

Noise- and vibration-sensitive land uses generally include those uses where exposure would result in adverse effects (e.g., sleep disturbance, annoyance), as well as uses where quiet is an essential element of their intended purpose. Residences are of primary concern because of the potential for increased and prolonged exposure of individuals to both interior and exterior noise levels. Other sensitive land uses include hospitals, convalescent facilities, parks, hotels, churches, libraries, and other uses where low interior noise levels are essential. The Project site occurs in an agricultural and open space area. There are no sensitive receptors in close proximity to the Project sites.

Discussion

a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

No Impact. Noise generated from Project activities are insignificant due to their short duration and low levels in comparison to nearby road noise on Highway 128 and surrounding agricultural operations. Furthermore, there are few residences in the Project area. The proposed Project will not expose people to or generate any noise levels that exceed the allowable limits set by local, State, and Federal noise control regulations.

b) Exposure of persons to or generation of excessive ground-borne vibrations or ground-borne noise levels?

No Impact. Equipment utilized for habitat restoration activities, construction of the ADA trail, DG pads, shade structure and gravel pad, and installation of signage does not have the potential to generate excessive ground-borne vibration or noise levels.

c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?

No Impact. The proposed Project will not result in any permanent increases in ambient noise levels. The Project is short-term in duration.

d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?

No Impact. The proposed Project will increase ambient noise levels in the Project vicinity for a short duration, but noise levels will not be in excess of established standards.

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 expose people residing or working in the area to excessive noise levels?

No Impact. The closest municipal airport occurs in Vacaville, approximately eight miles from the Project site. Project activities will not expose people in the area to excessive noise levels from airports.

f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?

No Impact. There are no private airstrips nearby and Project activities will not expose people in the area to excessive noise levels.

3.15 Population and Housing

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
Would the project:				
a) Induce substantial 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)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Environmental Setting

The Project area is located in the northern portion of Solano County, which is unincorporated. It is an area that is zoned as Park and Recreation, Agriculture, Rural Residential, and Watershed and is sparsely populated, with few residences within the Project vicinity.

Discussion

a) Induce substantial 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)?

No Impact. The proposed Project would not directly or indirectly induce human population growth since the Project involves the installation of native plants, trails and shade structures, and not facilities associated with housing or businesses.

b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?

No Impact. The proposed Project does not have the potential to displace housing.

c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?

No Impact. There are no people residing at the Project site and Project activities will not displace people.

3.16 Public Services

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
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:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Environmental Setting

Public services for the Project area are under the jurisdiction of the Solano County Sheriff's Department, CAL FIRE, Solano County Parks, and the Vacaville Fire Protection District. There are no schools or other public facilities in the vicinity of the Project site. The Project occurs within the public Lake Solano County Park, but the Project will not have any adverse impacts to the Park's facilities nor to public services, response times, or any other performance objectives within the Park. No federal or state regulations are applicable to police or fire protection in the Project area.

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 included above?

No Impact. The proposed Project would not result in the need for new or physically altered government facilities, is not associated with a structure that would require fire protection services and will not impact the officer to population ratio of the Solano County Sheriff's Department or the demand for additional law enforcement facilities.

3.17 Recreation

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Environmental Setting

The Project will occur at Lake Solano Park (Park) which is located on the south bank of Putah Creek in Solano County approximately 4.5 miles southwest of the town of Winters. The Park is owned by the Bureau of Reclamation and operated by Solano County Parks under a Managing Partner Agreement, with a current term ending in 2046.

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?

No Impact. The proposed Project may increase day use visitorship at the existing Lake Solano Park by providing a native plant demonstration garden and improving the day use trail network, but not to an extent that would result in the physical deterioration of the Park's facilities. Lake Solano Park already receives 76,788 visitors a year at the day use and campground, and the proposed Project will encourage those visitors engage in recreational opportunities in the upland areas of the Park as well as the traditional day use area adjacent to the waterway, thereby dispersing visitor usage throughout more of the Park.

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?

No Impact. The proposed Project includes the construction of an ADA trail, two DG pads, one gravel pad, and a shade structure, all of which are recreational facilities. The best management practices and mitigation measures proposed for the Project will prevent Project activities from creating adverse physical effects on the environment.

3.18 Transportation and Traffic

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
Would the project:				
a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Conflict with adopted policies, plans or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Environmental Setting

The western edge of the Project site is bordered by Pleasants Valley Road and Highway 128 lies 600 feet from the northern edge of the Project on the north side of Lake Solano/Putah Creek. Highway 128 is designated a Minor Arterial Road serving local and regional traffic with traffic speeds at or near 55 mph and with an annual average daily traffic volume of 2,600. Agriculture, watershed, recreation, and rural residential are the dominant land use activities near Highway 128.

Discussion

a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?

No Impact. The proposed Project will not conflict with any applicable plans, ordinances, or policy establishment performance of circulation systems.

b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?

No Impact. The proposed Project will not conflict with any congestion management plans.

c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?

No Impact. The proposed Project would not affect air patterns.

d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

No Impact. The Project will not alter traffic patterns, roadway design, create or place curves, slopes or walls which impede adequate sight distance on a road, or cause significant traffic/transportation hazards. Work crews will use habitat restoration and construction equipment, but in unimproved areas and in staging areas. Any temporary movement of equipment will observe state transportation laws and crews will not stop or divert traffic.

e) Result in inadequate emergency access?

No Impact. The proposed Project does not propose changes to access in the surrounding area and will not result in inadequate emergency access.

f) Conflict with adopted policies, plans or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?

No Impact. Project implementation will not result in any construction or new road design features; therefore, will not conflict with policies regarding alternative transportation.

3.19 Utilities and Service Systems

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
Would the project:				
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Comply with federal, state, and local statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Environmental Setting

The Park is owned by the Bureau of Reclamation and operated by Solano County Parks under a Managing Partner Agreement, with a current term ending in 2046. The Park maintains flush toilets (with a septic leach field) within the day use and campground areas, provides drinking water to visitors via an onsite chlorine treated well system, and utilizes water pumped from Putah Creek as per the Managing Partner Agreement with the Bureau of Reclamation for grounds maintenance and landscape irrigation activities. Stormwater from paved surfaces is routed to road drainages.

Discussion

a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?

No Impact. The proposed Project will not create any discharge of wastewater to sanitary sewer or on-site wastewater systems (septic).

b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

No Impact. The proposed Project does not cause the construction of any new facilities that would require any type of water or wastewater treatment.

c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

No Impact. The proposed Project does not include or require new or expanded storm water drainage facilities.

d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?

No Impact. The proposed Project will require additional irrigation activities for the native trees, shrubs, subshrubs, and forbs proposed as part of the habitat restoration activities. Irrigation of these native plants will be conducted with water-efficient drip irrigation which will only be utilized for three summer seasons. As such, the Park's existing water entitlements and resources will be sufficient.

e) 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?

No Impact. The proposed project will not use sewer services or generate wastewater.

f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?

No Impact. Very little solid waste will be generated by the Project and the permitted landfill in Solano County, Recology Hay Road Landfill, has sufficient permitted capacity to accommodate the disposal needs generated by the Project.

g) Comply with federal, state, and local statutes and regulations related to solid waste?

No Impact. Implementation of the Project will generate very little solid waste. Any solid waste generated deposited at a permitted solid waste facility and will comply with Federal, State, and local statutes and regulations related to solid waste.

3.20 Mandatory Findings of Significance

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, 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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion

This Initial Study was prepared to assess the proposed Project's potential effects on the environment and significance of those effects. Based on the Initial Study, it has been determined that the proposed Project would not have any significant environmental effects on human beings and will have less-than-significant cumulative impacts. The potential, short-term adverse environmental effects related to restoration activities would be minimized or avoided through the use of best management and the implementation of mitigation measures that reduce impacts to less than significant.

a) Does the Project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?

Less than Significant with Mitigation. The Project does have the potential to temporarily degrade the quality of the immediate environment during installation due to construction activities, but will not 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, or reduce the number of 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. Best management practices and mitigation measures have been proposed to reduce impacts to less-than-significant levels and are described in full detail in the Project description and after each resource discussion. While the potential impacts are minor and temporary, the resulting benefit of the restoration work is substantial, long-lasting and will improve the quality of the environment and increase wildlife habitat.

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)?

Less than Significant Impact. As discussed in the analysis provided in this Initial Study, the environmental commitments that are incorporated into the Project maintain all potential impacts on

resources at a less-than-significant level. The proposed Project would not result in cumulatively considerable impacts.

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

No Impact. The proposed Project would not result in substantial adverse effects on human beings.

4 Document Preparation

The following people assisted in the preparation of this document:

- Katherine Holmes, Solano Resource Conservation District, Deputy Executive Director
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- Amy King, Solano Resource Conservation District, Watershed Project Manager
- Chris Drake, Solano County Parks, Parks Manager
- Kirk Schmitz, Bureau of Reclamation, Archaeologist
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5 References

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