# DRAFT INITIAL STUDY WITH PROPOSED MITIGATED NEGATIVE DECLARATION

# MONIER CIRCLE STORMWATER DETENTION BASIN PROJECT

**Prepared for:**

City of Rancho Cordova
Public Works Department
2729 Prospect Park Drive
Rancho Cordova, California 95670

**Prepared by:**

WOOD RODGERS
BUILDING RELATIONSHIPS ONE PROJECT AT A TIME

**October 2023**

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# GENERAL INFORMATION ABOUT THIS DOCUMENT

## *What's in this document:*

The City of Rancho Cordova has prepared this Initial Study, which examines the potential environmental impacts of the Monier Circle Stormwater Detention Basin Project (project), in Sacramento County, California. The document explains the proposed project details and the existing environment that could be affected by the project, potential impacts, and proposed avoidance, minimization, and/or mitigation measures.

## *What you should do:*

- Please read the document. Hard copies of the document are available for review at:

  City of Rancho Cordova
  Public Works Department
  2729 Prospect Park Drive
  Rancho Cordova, California 95670

  An electronic copy of the document is also available for review at:

  https://www.cityofranchocordova.org/residents/new-businesses-and-projects/public-works-plans-and-projects.

  AND

  https://www.cityofranchocordova.org/departments/community-development/planning/planning-division-document-library

- Please submit your comments in writing no later than November 18, 2023 to:

  City of Rancho Cordova
  Public Works Department
  ATTN: Margarita Dronov
  2729 Prospect Park Drive
  Rancho Cordova, California 95670

  You may also submit your comments via e-mail to mdronov@cityofranchocordova.org. For emailed comments, please include the project title in the subject line and include the commenter's name and U.S. Postal Service mailing address.

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| | |
|---|---|
| ACE | Area of Conservation Emphasis |
| AMMs | Avoidance and Minimization Measures |
| APE | Area of Potential Effects |
| AQAPs | air quality attainment plans |
| BMPs | Best Management Practices |
| BLM | Bureau of Land Management |
| BSA | Biological Study Area |
| BRR | Biological Resources Report |
| CAA | Clean Air Act |
| CAAP | Climate Action and Adaptation Plan |
| CARB | California Air Resources Board |
| CDC | California Department of Conservation |
| CDFW | California Department of Fish and Wildlife |
| CESA | California Endangered Species Act |
| CEQA | California Environmental Quality Act |
| CFG Code | California Fish and Game Code |
| CHRIS | California Historical Resources Information Center |
| City | City of Rancho Cordova |
| cfs | cubic feet per second |
| CNDDB | California Natural Diversity Database |
| CNPS | California Native Plant Society |
| CO | Carbon Monoxide |
| CRHR | California Register of Historical Resources |
| CRIR | Cultural Resources Inventory Report |
| CWA | Clean Water Act |
| dB | decibels |
| DTSC | California Department of Toxic Substances |
| DWR | California Department of Water Resources |
| EHP | Environmental and Historic Preservation |
| EOP | Emergency Operations Plan |
| FEMA | Federal Emergency Management Agency |
| FESA | Federal Endangered Species Act |
| FIRM | Flood Insurance Rates Maps |
| FMMP | Farmland Mapping and Monitoring Program |
| GHG | Greenhouse Gases |
| IS | Initial Study |
| MBTA | Migratory Bird Treaty Act |
| MND | Mitigated Negative Declaration |
| NAAQS | National Ambient Air Quality Standards |

| | |
|---|---|
| NAHC | Native American Heritage Commission |
| NCIC | North Central Information Center |
| NHPA | National Historic Preservation Act |
| NMFS | National Marine Fisheries Service |
| NO2 | nitrogen dioxide |
| NOx | nitrogen oxides |
| NOAA | National Oceanic and Atmospheric Administration |
| NPDES | National Pollutant Discharge Elimination System |
| NRCS | Natural Resource Conservation Service |
| NRHP | National Register of Historic Places |
| O3 | ozone |
| OHWM | Ordinary High Water Mark |
| OHP | Office of Historic Preservation |
| Pb | lead |
| PGP | Programmatic General Permit |
| PM | particulate matter |
| project | Monier Circle Stormwater Detention Basin Project |
| ROG | reactive organic gases |
| RWQCB | Regional Water Quality Control Board |
| RWQCB Order | RWQCB General Order Water Quality Certification |
| SACOG | Sacramento Area Council of Governments |
| SBSPA | Sunrise Boulevard South Planning Area |
| SCOTUS | Supreme Court of the United States |
| SHTAC | Swainson's Hawk Technical Advisory Committee |
| SIP | State Implementation Plan |
| SMAQMD | Sacramento Metropolitan Air Quality Management District |
| SO2 | sulfur dioxide |
| SSHCP | South Sacramento Habitat Conservation Plan |
| SVAB | Sacramento Valley Air Basin |
| SWPPP | Storm Water Pollution Prevention Plan |
| SWRCB | State Water Resources Control Board |
| TCR | Tribal Cultural Resource |
| TOB | Top of Bank |
| UCMP | University of California Museum of Paleontology |
| UDA | urban development area |
| USACE | United States Army Corps of Engineers |
| USEPA | United States Environmental Protection Agency |
| USFWS | United States Fish and Wildlife Service |
| USGS | United States Geological Survey |
| WoS | Waters of the State |
| WOTUS | Waters of the United States |

# 1.0 Introduction

The proposed project is intended to address flooding problems identified since the 1990s along Sunrise Boulevard between Monier Circle and Mechanical Drive, a high-traffic and industrial area of the City of Rancho Cordova. This roadway floods during the 100-year, 24-hour event, and depth of flooding can reach four to five feet. Much of the flooding is due to a lack of capacity in the existing siphons that convey runoff out of this watershed under the Folsom South Canal, which is a portion of the State Water Project operated by the Unites States Bureau of Reclamation. Increased stormwater detention capacity upstream of the siphons would reduce or prevent persistent roadway flooding.

The City received funding from the Federal Emergency Management Agency (FEMA) Hazard Mitigation Grant Program to fund this project through a two-phase cycle. Phase 1 scope of work includes Environmental and Historic Preservation (EHP) actions, development of the 60-percent project design, specifications, cost estimates and the permitting required to construct the project. Phase 2 will include development of 100-percent plans, specifications, cost estimate, and record drawings after construction. Phase 2 activities may not commence until the City receives written approval from FEMA.

## 1.1 Project Description

The City of Rancho Cordova (City) is proposing to construct the Monier Circle Stormwater Detention Basin Project (project). The project is located on a City-owned parcel on Monier Circle (APN 072-1010-029), Sacramento County, California (Figure 1. Project Vicinity; Figure 2. Project Location). The basin would cover a majority of the parcel and provide approximately 37.2 acre-feet of storage during the 100-year, 24-hour storm event. Proposed improvements include a weir along the drainage channel on the south side of the detention basin. During storm events, runoff in the channel would be diverted over the weir into the detention basin where it would be stored until the water surface elevations recede in the channel. Then, the water in the basin would be pumped to the channel using a small sump pump. Invasive species vegetation along the channel would be removed and replaced with native vegetation where feasible.

Construction would consist of clearing and grubbing the existing above ground features that are within the grading limits. Existing trees along Monier Circle frontage and sewer main within existing utility easement would be protected and remain. An existing 36-inch drainpipe within an existing utility easement would be removed to the limits of the basin excavation. All other underground utilities (sewer, drain, water, electrical and gas) within the grading limits would be removed and disposed. Earthwork excavation would be completed to construct the detention basin and weir spillway. Any excess earthwork material would be off hauled. A pumping station and outfall structure would be constructed adjacent to the existing drainage channel. Upon completion of all earthwork excavations, landscape and irrigation systems would be installed around the detention basin perimeter and a multi-use path would be constructed for pedestrian recreational and maintenance vehicle use (see Figure 3).

## 1.2 Purpose

The purpose of the project is to construct a stormwater detention basin that will alleviate 100-year, 24-hour event flooding along Sunrise Boulevard.

## 1.3 Need

The project is needed to address flooding problems along Sunrise Boulevard, between Monier Circle and Mechanical Drive due to the lack of capacity in the existing stormwater system within the City.

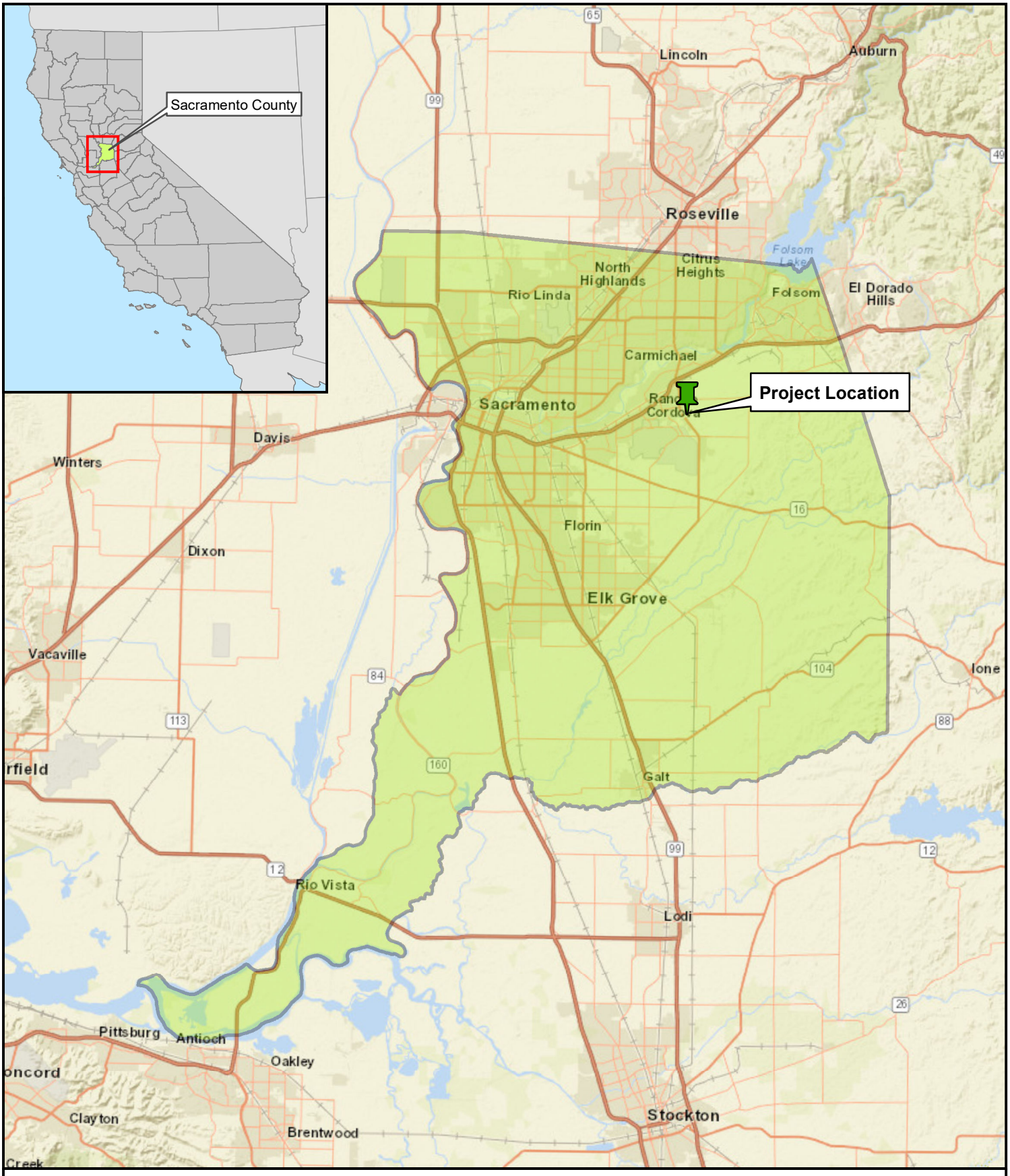


FIGURE 1

**PROJECT VICINITY**

MONIER CIRCLE FLOOD CONTROL BASIN PROJECT

SACRAMENTO COUNTY, CALIFORNIA

MARCH 2023

0 2.5 5 10

Miles

NORTH

WOOD RODGERS

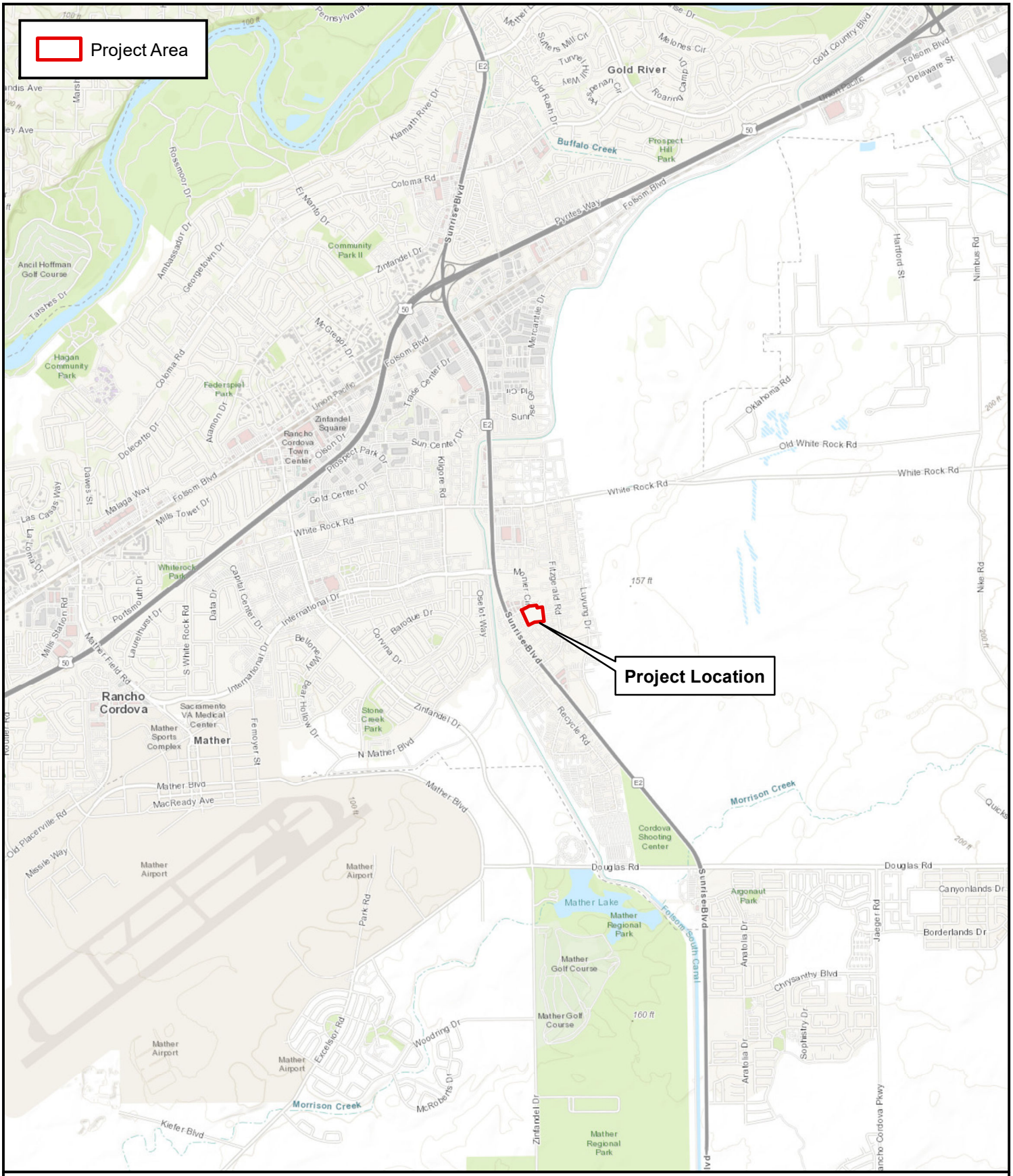


FIGURE 2

**PROJECT LOCATION**

MONIER CIRCLE FLOOD CONTROL BASIN PROJECT

SACRAMENTO COUNTY, CALIFORNIA

MARCH 2023


FIGURE 3

**PROJECT FEATURES**

MONIER CIRCLE STORMWATER DETENTION BASIN PROJECT

SACRAMENTO COUNTY, CALIFORNIA

JUNE 2023

0 50 100 200

Feet

NORTH

WOOD RODGERS

## 1.4 Permits and Approvals Needed

The following permits, licenses, agreements, and certifications are required for project construction:

**Table 1. Permits and Approvals Needed**

| Agency | Permit/Approval | Status |
|---|---|---|
| Regional Water Quality Control Board | Central Valley Water Board South Sacramento Habitat Conservation Programmatic General Permit - Notice of Intent | To be obtained prior to construction |
| Regional Water Quality Control Board | NPDES General Construction Permit | To be obtained prior to construction |
| California Department of Fish and Wildlife | Section 1602 Streambed Alteration Agreement | To be obtained prior to construction |
| South Sacramento Conservation Agency | South Sacramento Habitat Conservation Consistency Determination / Permit | To be obtained prior to construction |

# 2.0 CEQA Initial Study Environmental Checklist Form

1. **PROJECT NAME:** Monier Circle Stormwater Detention Basin Project

2. **LEAD AGENCY / PROJECT APPLICANT**

   City of Rancho Cordova,
   Public Works Department
   2729 Prospect Park Drive
   Rancho Cordova, California 95670

3. **LEAD AGENCY CONTACT PERSON:**

   Margarita Dronov, PE, Associate Civil Engineer, (916) 851-8897, mdronov@cityofranchocordova.org

4. **PROJECT LOCATION:** The project will be located on a City-owned parcel on Monier Circle (APN 072-1010-029) within the City of Rancho Cordova, Sacramento County, California.

5. **GENERAL PLAN LAND USE DESIGNATION:** Sunrise Boulevard South Planning Area (SBSPA)

6. **ZONING:** Heavy Industrial/Manufacturing (M-2)

7. **PROJECT DESCRIPTION:** The City of Rancho Cordova (City) is proposing to construct the Monier Circle Stormwater Detention Basin Project (project). The project is located on a City-owned parcel on Monier Circle (APN 072-1010-029), Sacramento County, California (Figure 1. Project Vicinity; Figure 2. Project Location). The basin would cover a majority of the parcel and provide approximately 37.2 acre-feet of storage during the 100-year, 24-hour storm event. Proposed improvements include a weir along the drainage channel on the south side of the detention basin. During storm events, runoff in the channel would be diverted over the weir into the detention basin where it would be stored until the water surface elevations recede in the channel. Then, the water in the basin would be pumped to the channel using a small sump pump. Invasive species vegetation along the channel would be removed and replaced with native vegetation where feasible.

   Construction would consist of clearing and grubbing the existing above ground features that are within the grading limits. Existing trees along Monier Circle frontage and sewer main within existing utility easement would be protected and remain. An existing 36-inch drainpipe within an existing utility easement would be removed to the limits of the basin excavation. All other underground utilities (sewer, drain, water, electrical and gas) within the grading limits would be removed and disposed. Earthwork excavation would be completed to construct the detention basin and weir spillway. Any excess earthwork material would be off hauled. A pumping station and outfall structure would be constructed adjacent to the existing drainage channel. Upon completion of all earthwork excavations, landscape and irrigation systems would be installed around the detention basin perimeter and a multi-use path would be constructed for pedestrian recreational and maintenance vehicle use.

8. **ENVIRONMENTAL SETTING/SURROUNDING LAND USES:** Land uses surrounding the proposed project area are heavy industrial land uses, including warehouses, construction services, and auto parts dismantler. Dominant land cover and vegetative communities within the BSA consists of

high-density development, disturbed, valley grassland, and stream/creek (Morrison Flood Control Channel).

9. **OTHER REQUIRED AGENCY APPROVALS (e.g., permits, financing approval, or participation agreement.):** South Sacramento Habitat Conservation Plan Consistency, California Department of Fish and Wildlife, and Central Valley Regional Water Quality Control Board.

10. **CALIFORNIA NATIVE AMERICAN TRIBES CONSULTATION:**

a. Have California Native American Tribes traditionally and culturally affiliated with the project area requested consultation pursuant to public resources code section 21080.3.1?

☐ **Yes** ☒ **No**

b. If so, is there a plan for consultation that includes, for example, the determination of significance of impacts to tribal cultural resources, procedures regarding confidentiality, etc.?

☐ **Yes** ☐ **No**

11. **PREVIOUS ENVIONRMENTAL DOCUMENTATION:** None

12. **SUMMARY OF ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:**

The summary of environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" or a "Less-Than-Significant Impact with Mitigation Incorporated" as indicated by the checklist on the following pages.

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

13. **PREPARATION:** This Initial Study for the subject project was prepared by:

10/20/2023

Andrew Dellas, PWS, Senior Biologist / Environmental Planner — Date
Wood Rodgers, Inc.

**14. DETERMINATION: (TO BE COMPLETED BY THE LEAD AGENCY)**

Based on the initial evaluation:

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

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

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

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

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

A copy of the Initial Study documenting reasons to support the Mitigated Negative Declaration is on file at City of Rancho Cordova, Public Works Department, 2729 Prospect Park Drive, Rancho Cordova, California 95670.

10/20/2023

Margarita Dronov, PE
Associate Civil Engineer
City of Rancho Cordova
Public Works Department

Date

## Evaluation of Environmental Impacts

This checklist identifies physical, biological, social, and economic factors that might be affected by the proposed project. Potential impact determinations include Potentially Significant Impact, Less Than Significant with Mitigation, Less Than Significant Impact, and No Impact. In many cases, background investigation performed in connection with a project will indicate that there are no impacts to a particular resource. A No Impact answer reflects this determination. The questions in this checklist are intended to encourage the thoughtful assessment of impacts and do not represent thresholds of significance.

1. A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).

2. All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.

3. Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.

4. "Less than Significant with Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from "Earlier Analyses," as described in (5) below, may be cross-referenced).

5. Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063(c)(3)(D). In this case, a brief discussion should identify the following:

    a. Earlier Analysis Used. Identify and state where they are available for review.

    b. Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.

    c. Mitigation Measures. For effects that are "Less than Significant with Mitigation Measures Incorporated," describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.

6. Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.

7. Supporting Information Sources: A source list should be attached, and other sources used, or individuals contacted should be cited in the discussion.

8. The explanation of each issue should identify:

    a. The significance criteria or threshold, if any, used to evaluate each question; and
    b. The mitigation measure identified, if any, to reduce the impact to less than significant.

9. Tribal consultation, if requested as provided in Public Resources Code Section 21080.3.1, must begin prior to release of a negative declaration, mitigated negative declaration, or environmental impact report for a project. Information provided through tribal consultation may inform the lead agency's assessment as to whether tribal cultural resources are present, and the significance of any potential impacts to such resources. Prior to beginning consultation, lead agencies may request information from the Native American Heritage Commission regarding its Sacred Lands File, per Public Resources Code sections 5097.9 and 5097.94, as well as the California Historical Resources Information System administered by the California Office of Historic Preservation.

## 2.1 AESTHETICS

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

### *DISCUSSION*

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

**No impact.** No designated scenic vistas are located within or near the project site. Therefore, no impact would occur.

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

**No impact.** The project is not within a state scenic highway, and it would not substantially damage scenic resources within a state scenic highway. Therefore, no impact would occur.

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

**No Impact.** The current condition of the parcel is an undeveloped lot with disturbed habitat and scattered volunteer trees. The project would require excavation of the basin, and invasive species vegetation within the parcel and along the stream/creek channel would be removed and replaced with native vegetation, where feasible. A multi-use path would be constructed along the top of the basin for pedestrian recreational and maintenance vehicle use. Existing trees along Monier Circle frontage would be protected in place. Therefore, the project would not substantially degrade the existing visual character or quality of public views; conversely, the project would improve aesthetics of the industrial area for public recreational opportunities. No impact would occur.

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

**Less than Significant Impact.** The project area is surrounded by high-density developed areas that have existing sources of light and glare. Design elements would include minor lighting at the pump station facility and are not anticipated to create a substantial change in light or glare within the project area or vicinity. Therefore, a less than significant impact would occur.

### *FINDINGS*

The project would not adversely affect any designated scenic resources or vista, nor substantially change the current visual environment. The project would have **Less than Significant Impact** relating to aesthetics and no mitigation is required.

## 2.2 AGRICULTURE AND FOREST RESOURCES

| Would the project: | 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. | | | | |
| a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use? | ☐ | ☐ | ☐ | ☒ |
| b) Conflict with existing zoning for agricultural use, or a Williamson Act contract? | ☐ | ☐ | ☐ | ☒ |
| c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))? | ☐ | ☐ | ☐ | ☒ |
| d) Result in the loss of forest land or conversion of forest land to non-forest use? | ☐ | ☐ | ☐ | ☒ |
| e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use? | ☐ | ☐ | ☐ | ☒ |

### *AFFECTED ENVIRONMENT*

The project area is within the Sunrise Boulevard South Planning Area (SBSPA), and the site is zoned Heavy Industrial (M-2). There are no agricultural or forest resources within the project area or within the vicinity of the project area. According to the California Department of Conservation (CDC), Division of Land Resource Protection, Farmland Mapping and Monitoring Program (FMMP), Sacramento County Important Farmland Map, the project area falls within the FMMP category of "Urban and Built-Up Land" (CDC 2020).

### *DISCUSSION*

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

**No Impact.** According to the FMMP Sacramento County Important Farmland Map (CDC 2020), the project would not require the conversion of any protected farmland categories to non-agricultural use. All permanent effects of the project would occur within FMMP "Urban and Built-Up Land" areas. Therefore, the project would not convert any FMMP protected farmland classifications to non-agricultural use, and no impact would occur.

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

**No Impact.** The City-owned parcel is not zoned for agricultural use, and is not under Williamson Act contract. The project would not conflict with the existing zoning category for the parcel (Heavy Industrial); therefore, the proposed project would not conflict with existing zoning for agricultural use or Williamson Act contract, and no impact would occur.

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

**No Impact.** There is no 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)) within the project area. Therefore, the project would not conflict with existing zoning for, or cause rezoning of, forest land, timberland, or timberland zoned Timberland Production, and no impact would occur.

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

**No Impact.** There are no designated forest lands or forest resources located within the project area. Therefore, the project would not result in the loss of forest land or conversion of forest land to non-forest use, and no impact would occur.

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

**No Impact.** The project would not involve changes in the existing environment that, due to their location or nature, could result in the conversation of farmland or forest land to non-agricultural use or non-forest use. Therefore, the project would have no effects to farmland or forest land resources, and no impact would occur.

***FINDINGS***

The project would not directly or indirectly cause the conversion of farmland, forest land, or timberland, and would not conflict with any existing lands zoned for agricultural, forest land, or timberland use. The project would have **No Impact** relating to agricultural and forest resources, and no mitigation is required.

## 2.3 AIR QUALITY

| 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: | Potentially Significant Impact | Less Than Significant with Mitigation | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| a) Conflict with or obstruct implementation of the applicable air quality plan? | ☐ | ☐ | ☐ | ☒ |
| b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non- attainment under an applicable federal or state ambient air quality standard? | ☐ | ☐ | ☒ | ☐ |
| c) Expose sensitive receptors to substantial pollutant concentrations? | ☐ | ☐ | ☒ | ☐ |
| d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people? | ☐ | ☐ | ☒ | ☐ |

### *REGULATORY SETTING*

#### ***Federal Regulations***

The Clean Air Act (CAA) as amended in 1990 is the federal law that governs air quality. Its counterpart in California is the California Clean Air Act of 1988. These laws set standards for the quantity of pollutants that can be found in the air. At the federal level, these standards are called National Ambient Air Quality Standards (NAAQS). At a state level these standards are called California Ambient Air Quality Standards (CAAQS). Standards have been established for six criteria pollutants that have been linked to potential health concerns. These criteria pollutants are: carbon monoxide (CO), nitrogen dioxide ($NO_2$), ozone ($O_3$), particulate matter (PM), lead (Pb), and sulfur dioxide ($SO_2$).

#### ***State Regulations***

Responsibility for achieving California's air quality standards, which are more stringent than federal standards, is placed on the California Air Resources Board (CARB) and local air districts, and these standards are to be achieved through district-level air quality management plans that will be incorporated into the State Implementation Plan (SIP). In California, the United States Environmental Protection Agency (USEPA) has delegated authority to prepare SIPs to the CARB, which, in turn, has delegated that authority to individual air districts.

The CARB has traditionally established state air quality standards while maintaining oversight authority in air quality planning, developing programs for reducing emissions from motor vehicles, developing air emission inventories, collecting air quality and meteorological data, and approving state implementation plans.

The responsibilities of air districts include overseeing stationary source emissions, approving permits, maintaining emissions inventories, maintaining air quality stations, overseeing agricultural burning permits, and reviewing air quality-related sections of the environmental documents required by CEQA.

### *AFFECTED ENVIRONMENT*

The project, located within Sacramento County, is in the Sacramento Valley Air Basin (SVAB) and is subject to the Sacramento Metropolitan Air Quality Management District (SMAQMD) requirements and

regulations. The SMAQMD is the primary agency responsible for planning to meet NAAQS and CAAQS in Sacramento County.

SMAQMD has developed a set of guidelines for use by lead agencies when preparing environmental documents. The guidelines contain thresholds of significance for criteria pollutants and toxic air contaminants (TACs), and also make recommendations for conducting air quality analyses. As the resource agency related to air quality, lead agencies that do not have adopted CEQA thresholds, rely on guidance and established thresholds from the air districts.

The air quality analysis utilizes the thresholds of significance, screening criteria and levels, and impact assessment methodologies presented in the SMAQMD's *Guide to Air Quality Assessment in Sacramento County* (SMAQMD 2021). As provided by the SMAQMD's guidance, if the project meets the screening criteria for an impact category and is consistent with the methodology used to develop the screening criteria, then its air quality impact for that category may be considered less than significant.

***DISCUSSION***

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

**No Impact.** SMAQMD has developed and adopted air quality attainment plans (AQAPs), which present the strategies for achieving attainment status of non-attainment criteria pollutants as listed by SIP, CAAQS, and NAAQS:

Because the project would be consistent with existing land use and zoning for the project site, the project would be consistent with SMAQMD's AQAPs. Furthermore, as discussed for item b) below, the short-term construction and long-term operation of the project would not generate emissions of criteria air pollutants and precursors that would exceed the SMAQMD-established mass emission thresholds, which were developed to determine whether a project's emissions would cumulatively contribute to the nonattainment designations in the SVAB. Therefore, the project would not conflict with or obstruct implementation of SMAQMD AQAPs, and no impact would occur.

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

**Less Than Significant Impact.** Sacramento County is currently designated as nonattainment for the federal and state ambient air quality standards for ozone, the federal PM2.5 standard, and the state PM10 standard. The county is designated as attainment or unclassified for all other federal and state ambient air quality standards. Therefore, the non-attainment pollutants of concern for this impact discussion are ozone, PM10 and PM2.5. The area air quality attainment status of Sacramento County is shown below on **Table 2**.

Ozone is not emitted directly into the air, but is a regional pollutant formed by a photochemical reaction in the atmosphere. Ozone precursors, nitrogen oxides (NOx) and reactive organic gases (ROG), react in the atmosphere in the presence of sunlight to form ozone. Therefore, the SMAQMD does not have a recommended ozone threshold, but has regional thresholds of significance for project-emitted NOx and ROG.

In developing thresholds of significance for air pollutants, SMAQMD considered the emission levels for which a project's individual emissions would be cumulatively considerable. If a project exceeds the identified significance thresholds, its emissions would be cumulatively considerable, resulting in significant adverse air quality impacts to the region's existing air quality conditions (SMAQMD 2021).

**Table 2. NAAQS and CAAQS Attainment Status for Sacramento County**

| Pollutant | Designation/Classification | |
|---|---|---|
| | **Federal Standards** | **State Standards** |
| Ozone – 8-Hour | Nonattainment | Nonattainment |
| $PM_{10}$ | Attainment | Nonattainment |
| $PM_{2.5}$ | Nonattainment | Attainment |
| Carbon Monoxide | Unclassified/Attainment | Attainment |
| Nitrogen Dioxide | Unclassified/Attainment | Attainment |
| Sulfur Dioxide | Unclassified/Attainment | Attainment |
| Sulfates | No Federal Standard | Attainment |
| Lead | Unclassified/Attainment | Attainment |
| Hydrogen Sulfide | No Federal Standard | Unclassified |
| Visibility Reducing Particles | No Federal Standard | Unclassified |
| *Sources: CARB 2022* | | |

***Operational Emissions***

The completed project would have no significant operational emissions. As a permanent feature, the pump station would require electrical supply connected from existing Sacramento Municipal Utility District (SMUD) supply within the parcel. Only in the case of an emergency electrical failure the pump station would be operated with a gas or diesel powered generator. Therefore, operational emission of the completed project would be considered less than significant

***Construction Emissions***

Construction activities associated with the project would result in temporary incremental increases in air pollutants (such as ozone precursors and particulate matter) due to the operation of gas-powered equipment and earth-moving activities. The SMAQMD *Guide to Air Quality Assessment* (SMAQMD 2021) provides screening criteria for determining if a project could potentially result in significant construction-phase impacts from criteria pollutants and precursors. Per the SMAQMD's guidance, projects that are 35 acres or less in size generally will not exceed the SMAQMD's construction NOx threshold of significance. However, the guidelines state that this type of project *cannot* include cut and fill operations, or the import of materials. Therefore, the project cannot use the screening criteria exemption for construction emissions analysis.

Construction criteria pollutant emissions were calculated by using CalEEMod 2020.4.0. Details regarding the source equipment inventory, assumptions, and all data used to calculate construction-related air quality emissions are available in Appendix A. The CalEEMod completed for the project concluded that project construction emissions would be well below SMAQMD thresholds of significance. It also determined that construction phase mitigation measures would not be required (see Table 3 below). Therefore, the impact from construction related emissions would be less than significant.

According to SMAQMD, all projects that involve construction activities, regardless of the significance determination, are required to implement the SMAQMD's "Basic Construction Emission Control Practices," as best management practices (BMPs), where feasible. The BMPs allow the use of the non-zero particulate matter significance thresholds (as shown in Table 3) and are suggested by SMAQMD to be added to the project's Condition of Approval or included in the Mitigation Monitoring and Reporting Program. With the implementation of SMAQMD's Construction Emission BMPs, the project would be considered to have a less than significant impact.

**Table 3. SMAQMD Thresholds and CalEEMod Results**

| Construction Activity | | | |
|---|---|---|---|
| | **NOx** | **PM10** | **PM2.5** |
| *Maximum Daily Emissions (lbs/day)* | *81* | *13* | *5* |
| SMAQMD Threshold | 85 | 80 | 82 |
| **Significant Impact** | **No** | **No** | **No** |

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

**Less Than Significant Impact.** The area surrounding the project site is zoned "Heavy Industrial". The nearest sensitive receptors (single family residences) are located approximately 1,200 feet west of the project area on the opposite side of Sunrise Boulevard and the Folsom South Canal. At this distance, any construction-generated emissions would not cause substantial exposure to sensitive receptors. The proposed project would not generate substantial pollutant concentrations, and, with the implementation SMAQMD BMPs, temporary incremental increases of air pollutants would be minimized and reduced in accordance with SMAQMD rules and regulations. Therefore, the project would not expose sensitive receptors to substantial pollutant concentrations. The project would have a less than significant effect, and no mitigation is required.

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

**Less Than Significant Impact.** Short-term air quality impacts may occur due to the release of particulate emissions (airborne dust and combustion) generated by construction activities; however, the project would not result in other emissions (such as those leading to odors) and, with the implementation of BMPs, temporary incremental increases in air pollutants would be minimized and reduced in accordance with SMAQMD rules and regulations. Therefore, the project would have a less than significant impact, and no mitigation is required.

***BEST MANAGEMENT PRACTICES***

**Implement SMAQMD Best Construction Emissions Control Practices, where feasible:**

- Control of fugitive dust is required by District Rule 403 and enforced by District staff.
- Water all exposed surfaces two times daily. Exposed surfaces include, but are not limited to soil piles, graded areas, unpaved parking areas, staging areas, and access roads.
- Cover or maintain at least two feet of free board space on haul trucks transporting soil, sand, or other loose material on the site. Any haul trucks that would be traveling along freeways or major roadways should be covered.
- Use wet power vacuum street sweepers to remove any visible trackout mud or dirt onto adjacent public roads at least once a day. Use of dry power sweeping is prohibited.
- Limit vehicle speeds on unpaved roads to 15 miles per hour (mph).
- All roadways, driveways, sidewalks, parking lots to be paved should be completed as soon as possible. In addition, building pads should be laid as soon as possible after grading unless seeding or soil binders are used.
- Minimize idling time either by shutting equipment off when not in use or reducing the time of idling to 5 minutes [California Code of Regulations, Title 13, sections 2449(d)(3) and 2485]. Provide clear signage that posts this requirement for workers at the entrances to the site.
- Provide current certificate(s) of compliance for CARB's In-Use Off-Road Diesel-Fueled Fleets Regulation [California Code of Regulations, Title 13, sections 2449 and 2449.1]. For more

information contact CARB at 877-593-6677, doors@arb.ca.gov, or www.arb.ca.gov/doors/compliance_cert1.html.

- Maintain all construction equipment in proper working condition according to manufacturer's specifications. The equipment must be checked by a certified mechanic and determined to be running in proper condition before it is operated.

### *FINDINGS*

The project would not cause operational long-term air quality impacts; however, the project would cause temporary incremental emissions from construction. With the implementation of SMAQMD construction BMPs as mitigation measure AIR-1, the project would comply with all federal, state, and SMAQMD regulations. The project would have **Less Than Significant Impact** relating to air quality.

## 2.4 BIOLOGICAL RESOURCES

| Would the project: | Potentially Significant Impact | Less Than Significant with Mitigation | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| 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 U.S. Fish and Wildlife Service, or NOAA Fisheries? | ☐ | ☒ | ☐ | ☐ |
| 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? | ☐ | ☐ | ☒ | ☐ |
| c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means? | ☐ | ☐ | ☐ | ☒ |
| d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites? | ☐ | ☐ | ☒ | ☐ |
| e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance? | ☐ | ☐ | ☒ | ☐ |
| f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan? | ☐ | ☐ | ☒ | ☐ |

### *AFFECTED ENVIRONMENT*

A Biological Resources Report (BRR) was prepared for the project (Wood Rodgers 2023a, Appendix B) to identify any special-status wildlife or plant species, and any sensitive natural communities (including wetlands) that have the potential to occur on or in the vicinity of the project area, designated as the project biological study area (BSA). The project BSA was defined as the area necessary for all Project activities, plus an additional 100-foot buffer. The project BSA encompasses approximately 12.53 acres.

This section provides the following: 1) discussion on the special-status species and sensitive habitats that have been identified or are potentially occurring in the project BSA; 2) an analysis of the impacts that could occur to biological resources due to implementation of the project; and 3) appropriate mitigation measures to reduce or avoid significant impacts. The analysis of biological resources presented in this section is based on a review of the current project description, literature research, biological field survey, and aquatic resources delineation conducted by a Wood Rodgers qualified biologist.

The project occurs within the City of Rancho Cordova, Sacramento County in the California Dry Steppe Province ecological subregion, Great Valley Section, and ecological subsection 262Ag "Hardpan Terraces" of California (USDA 2007). The region receives an average of 18.52 inches of precipitation annually in the form of rain. The average annual high temperature is 74 degrees Fahrenheit (°F) and average annual low temperature is 48 °F (U.S. Climate Data 2023).

#### ***South Sacramento Habitat Conservation Plan (SSHCP)***

The project occurs with the urban development area (UDA) of the South Sacramento Habitat Conservation Plan (SSHCP). The project is a "Covered Activity" under the SSHCP categorized as *Urban development in the Urban Development Area*, subcategory *Flood Control and Stormwater Management in the UDA.* As

a SSHCP Plan Permittee, the City will conduct SSHCP Consistency Determination for the project and issue a SSHCP Permit for associated land cover impacts. The project does not contain modeled habitat for Covered Species; therefore, no incidental take coverage for Covered Species is anticipated. However, the project would comply with the conditions of the SSHCP in order to comply with the applicable programmatic regulatory requirements set forth in the SSHCP Aquatic Resources Program and incorporated within the City's Municipal Code Chapter 16.94 "Aquatic Resources Protection".

***Physical Conditions***

**Topography**
The BSA is within the *Carmichael* USGS 7 ½ Minute Quadrangle. The project area occurs within a single distinct topographic region of valley floor, and the natural elevation within the project area ranges from approximately 106 to 109 feet above mean sea level. The topography of the valley floor consists of low-elevation fluvial plains formed on nonmarine sedimentary rock with gently rolling terrain located on the Sacramento valley floor.

**Soils**
The Natural Resource Conservation Service (NRCS) Custom Soil Resource Report for the project (NRCS 2023) identifies soils within the BSA solely as:

- Xerorthents, dredge tailings-Urban land complex, 0 to 2 percent slopes

**Hydrological Resources**
The BSA includes one surface water feature: Morrison Flood Control Channel. The portion of Morrison Flood Control Channel within the BSA is an unconsolidated bottom channel with a low flow channel ranging in width approximately two to ten feet in width. From top of bank to top of bank ranges from approximately 22 to 25 feet in width. The channel is ephemeral according to local records and historic aerials. The channel typically carries nuisance sporadic urban runoff during the summer and fall months (if present), and stormwater flows during the winter and spring. According to the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps (FIRM) the entire proposed project site falls within FEMA Zone X, designated as an "Area of Minimal Flood Hazard" (Appendix B. FEMA FIRMette). This portion of Morrison Flood Control Channel is not a regulated stream under jurisdiction of the Central Valley Flood Protection Board, and therefore no encroachment permit would be required.

**Vegetation Communities**
The BSA is dominated by urban cover classes. Land use within the project vicinity is designated by the City's General Plan (2011) as part of the Sunrise Boulevard South Planning Area, and land use zoning designated as "Heavy Industrial" (M-2). Land cover types were delineated and described based on the land cover definitions of the SSHCP for consistency and permitting guidance. Dominant cover classes include high-density development, disturbed, and stream/creek (**Figure 4**).

<u>High-Density Development Land Cover</u>
The high-density development land cover type includes urban and suburban residential neighborhoods, urban centers, industrial areas, airports, and wastewater treatment plants. Most of this high-density development occurs in the SSHCP UDA in the northwestern portion of the Plan Area. Within the BSA, high-density development includes the streets, parking lots, and industrial areas surrounding the project area.


FIGURE 4

**SSHCP LAND COVER TYPES**

MONIER CIRCLE FLOOD CONTROL BASIN PROJECT

SACRAMENTO COUNTY, CALIFORNIA

JUNE 2023

0 50 100 200

Feet

NORTH

WOOD RODGERS

Disturbed Land Cover
The disturbed land cover type is defined as open-space areas that have been subject to previous or ongoing disturbances. Disturbed land cover type is vegetated with diverse weedy flora. These areas are of special concern as they tend to harbor and facilitate the spread of invasive plant species.
Dominant vascular plant species identified in the disturbed land cover class within the project area included:

- common mustard (*Brassica rapa*)
- flax-leaved horseweed (*Erigeron bonariensis*)
- milk thistle (*Silybum marianum*)
- redstem filaree (*Erodium cicutarium*)
- ripgut brome (*Bromus diandrus*)
- stinkwort (*Dittrichia graveolens*)
- white stemmed filaree (*Erodium brachycarpum*)
- willowherb (*Epilobium brachycarpum*)
- winter vetch (*Vicia villosa*)
- yellow star thistle (*Centaurea solstitialis*)

**Aquatic Land Cover Types**

Stream/Creek (Morrison Flood Control Channel)
The stream/creek land cover type includes intermittent and perennial linear water features such as rivers, streams, creeks, drainages, and roadside and irrigation ditches. Within the UDA, this land cover type includes streams identified by the U.S. Army Corps of Engineers (USACE).

***DISCUSSION***

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

**Less Than Significant with Mitigation.** Prior to field work, literature research was conducted through the U.S. Fish and Wildlife Service (USFWS) Information for Planning and Consultation (USFWS 2023) official species list generator, National Oceanic and Atmospheric Administration (NOAA) National Marine Fisheries Service (NMFS) Protected Resources Application (NMFS 2023), the California Department of Fish and Wildlife (CDFW) California Natural Diversity Database (CNDDB; CDFW 2023a), and the California Native Plant Society (CNPS) Electronic Inventory of Rare and Endangered Plants (CNPS 2023). Literature and database searches were completed to identify habitats and special-status species that have the potential to occur in the project vicinity.

Field surveys, habitat assessments, and analyses of special status species occurrences were conducted to determine the potential for species to occur within the BSA. Field surveys were conducted on March 23, 2023, and May 17, 2023. Field surveys included walking meandering transects through the BSA, observing vegetation communities, compiling notes on observed flora and fauna, and assessing the potential for existing habitat to support sensitive plants and wildlife.

The potential for each species to occur within the BSA was determined by analyzing the habitat requirements for each species, comparing them to available habitat within the BSA, and analyzing the regional occurrences of the species. Based on these analyses, it was determined that no special status wildlife species, and one special status plant species would have the potential to occur within the BSA.

The following is a discussion of these special status species, potential effects of the proposed project, and any avoidance, minimization and/or mitigation measures required to reduce impacts to a less than significant level.

**Discussion of Sanford's Arrowhead, Survey Results, and Project Impacts**

Sanford's arrowhead is listed under CNPS as a 1B.2, species of concern, and is a SSHCP Covered Species. Sanford's arrowhead is a perennial rhizomatous herb found in sluggish waterways, swamps, freshwater marshes, ponds, ditches, and margins of slow flowing streams or sloughs up to 2,132 feet elevation. The blooming season for the species occurs from May to October. The species was once common in irrigation ditches in the Sacramento and San Joaquin valleys. Channelization of natural waterways, changes in seasonal agricultural water use, and water conservation have eliminated much of its previous habitat. Sanford's arrowhead spreads by underground rhizomes and is found preferentially in clay soils.

The BSA does contain potentially suitable marginal habitat within the Morrison Flood Control Channel; however, the BSA does not contain SSHCP modeled habitat for the species. The nearest recent (<20 years) CNDDB occurrence of the species is approximately 3.5 miles east within Buffalo Creek. The species was observed within the BSA during biological surveys (May 17, 2023), during the species blooming period. However, the species was observed outside of the proposed project impact area. The species is considered present within the BSA.

The specimen of the species that was observed within the BSA was located within Morrison Flood Control Channel approximately 50 feet outside of the proposed project impact area. However, the species is rhizomatous, and could be washed downstream prior to project construction. With the implementation of mitigation measure **BIO-1** (see *Mitigation Measures* section below), no impacts that would jeopardize the species survival would occur, and if the species is found within the project impact area it would be transplanted to an appropriate location in coordination with regulatory agencies.

**Discussion of White-Tailed Kite, Survey Results, and Project Impacts**

White-tailed kite is a fully protected species under California Fish and Game (CFG) Code Section 3511 and is a Covered Species under the SSHCP. The species has a restricted distribution in the U.S., occurring only in California and western Oregon and along the Texas coast. The species is fairly common in California's Central Valley margins with scattered oaks and river bottomlands. White-tailed kite nest in riparian and oak woodlands and forage in nearby grasslands, pastures, agricultural fields, and wetlands. They use nearby treetops for perching and nesting sites. Voles and mice are common prey species.

The BSA does contain potentially suitable nesting trees; however, the BSA is not within SSHCP modeled nesting or foraging habitat for the species. The disturbed habitat within the BSA is unlikely to provide suitable foraging habitat for the species, and the nearest suitable foraging habitat is over 0.5-miles southwest of the BSA and over 1-mile east of the BSA. No active or historic nests were observed during the biological surveys conducted on March 23, 2023. There are 3 recent occurrences of the species 3 miles northwest of the BSA within the American River corridor. Due to the presence of potentially suitable nesting trees within the BSA and local occurrence data, the species is considered to have a low potential to occur within the BSA.

The project would provide pre-construction raptor and nesting bird surveys consistent with SSHCP Guidelines to ensure no take of white-tailed kite would occur. With the implementation of measure **BIO-2** (see *Mitigation Measures* section below), no direct impacts to individual white-tailed kites or nest sites would occur as a result of the project.

**Discussion of Migratory Birds**

Native birds, protected under the federal Migratory Bird Treaty Act (MBTA) and similar provisions under CFG Code, have the potential to nest within the project area. To avoid and minimize potential impacts to

migratory birds, avoidance and minimization measure **BIO-3** (see *Mitigation Measures* Section below) would be implemented as part of the project. Therefore, no take of migratory birds or raptors protected under the MBTA and CFG Code is anticipated.

With the incorporation of appropriate mitigation measures, the project would not have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species. Project impacts would be considered less than significant with mitigation incorporated.

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

**Less Than Significant Impact.** Potential jurisdictional aquatic resources within the BSA were assessed and potential wetland features were evaluated for presence of wetland indicators: hydrophytic vegetation, hydric soils and wetland hydrology. Surveys of potential jurisdictional aquatic resources were confirmed using aerial imagery and field verification, and followed the guidelines provided in the USACE *Wetland Delineation Manual* (USACE 1987), *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region* (USACE 2008a), and *A Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States* (USACE 2008b). Wetlands that exhibit all three wetland indicators are considered WOTUS if they are hydraulically connected to another WOTUS, subject to Section 404 and Section 401 of the CWA. All surface waters are also considered WoS by the State Water Resources Control Board (SWRCB) under the Porter Cologne Water Quality Control Act. These aquatic resources and any associated riparian habitats are also considered fish and wildlife habitat under jurisdiction of the CDFW pursuant to California FGC Section 1600.

A preliminary jurisdictional delineation was conducted by Wood Rodgers biologists on March 23, 2023, to identify jurisdictional aquatic resources present within the BSA. The observed OHWMs were mapped in the field with a R1 GNSS Receiver and ArcGIS software. Delineation efforts identified one (1) potentially jurisdictional resource: Morrison Flood Control Channel. An Aquatic Resources Delineation Report (ARDR) has been prepared as part of the preliminary jurisdictional analysis (Wood Rodgers 2023b, Appendix B). The ARDR will be submitted as part of the SSHCP Application Package to support aquatic resources impact assessment.

**SSHCP and Regulatory Requirements**

On May 25, 2023, the Supreme Court of the United States (SCOTUS) issued a unanimous ruling limiting the federal government's jurisdiction over wetlands and tributaries which were previously considered waters of the U.S. (WOTUS). In Sackett v. EPA, the Court expressly endorsed the test articulated in the Rapanos plurality opinion and outright rejected Justice Kennedy's "significant nexus" test. Therefore, the Sackett v. EPA decision limits the definition of WOTUS to relatively permanent bodies of navigable waters, and to assert jurisdiction over an adjacent wetland or tributary under the CWA, a party must establish "first, that the adjacent [body of water constitutes] . . . 'water[s] of the United States' (i.e., "only those relatively permanent, standing or continuously flowing bodies of water 'forming geographic[al] features' connected to traditional interstate navigable waters); and second, that the wetland or tributary has a continuous surface connection with that water, making it difficult to determine where the 'water' ends and the 'wetland' begins." (SCOTUS 2023). On May 26, 2023, the U.S. Environmental Protection Agency (U.S. EPA) and USACE issued a formal state indicating that "In light of this decision, the agencies will interpret the phrase "waters of the United States" consistent with the Supreme Court's decision in Sackett. The agencies continue to review the decision to determine next steps".

Though the Morrison Flood Control Channel feature meets the surface connectivity parameter (continuous surface connection) to Morrison Creek, a confirmed WOTUS, it does not meet the definition of "only those relatively permanent, standing or continuously flowing bodies of water 'forming geographic[al] features.' Therefore, the stream channel identified within the BSA would not meet the definition of a WOTUS under the CWA. Subsequently, Section 404 and Section 401 permitting requirements would not be required. However, the Morrison Flood Control Channel aquatic feature would meet the definition of a water of the state of California (WoS) and would be required to follow the RWQCB General Order Water Quality Certification (RWQCB Order; RWQCB 2019) issued for the SSHCP, as well as Section 1602 of the CFG Code for Streambed Alteration.

As a SSHCP Plan Permittee, the City will conduct a SSHCP Consistency Determination for the project and issue a SSHCP Permit for associated land cover impacts. The project does not contain modeled habitat for Covered Species; therefore, no incidental take coverage for Covered Species is anticipated. However, the project would comply with the conditions of the SSHCP in order to comply with the applicable programmatic regulatory requirements set forth in the SSHCP Aquatic Resources Program and incorporated within the City's Municipal Code Chapter 16.94 "Aquatic Resources Protection". The project has been designed to minimize temporary and permanent impacts to jurisdictional resources and SSHCP Aquatic Land Cover to the maximum extent practicable.

The following SSHCP avoidance and minimization measures (AMMs) would be incorporated as conditions of approval, prior to issuance of grading and improvement plans, and before any groundbreaking activity associated with the project commences:

- **Implement SSHCP General AMMs Condition 1. Avoid and Minimize Urban Development Impacts to Watershed Hydrology and Water Quality**

  The City and/or contractor shall implement all project applicable AMMs as described in SSHCP Chapter 5. Condition 1, Avoid and Minimize Urban Development Impacts to Watershed Hydrology and Water Quality.

- **Implement SSHCP AMMs Condition 3. Construction Best Management Practices**

  The City and/or contractor shall implement all project applicable AMMs as described in SSHCP Chapter 5. Condition 3, Construction BMPs.

- **Implement SSHCP AMMs Condition 7. Avoid and Minimize Impacts to Streams and Creeks**

  The City and/or contractor shall implement all project applicable AMMs as described in SSHCP Chapter 5. Condition 7, Avoid and Minimize Impacts to Streams and Creeks.

In addition to the SSHCP AMMs, the following conditions of approval would be incorporated into the project:

- **Secure Aquatic Resource Impact Permit**

  The City shall secure an aquatic resources impact permit in accordance with the City of Rancho Cordova Municipal Code Chapter 16.94 "Aquatic Resources Protection". The City and/or contractor shall adhere to all conditions outlined in the Aquatic Resource Impact Permit.

- **Obtain and Implement RWQCB Order Authorization**

  The City shall ensure that the State Water Quality Order authorization is obtained. The construction contractor shall adhere to all conditions outlined in the issued Water Quality Order.

- **Obtain and Implement CDFW 1602 Streambed Alteration Agreement**

  The City shall ensure that a CDFW 1602 Streambed Alteration Agreement has been obtained. The construction contractor shall adhere to all conditions outlined in the Streambed Alteration Agreement.

- **Provide SSHCP Land Cover Fee for Impacts to SSHCP Aquatic Land Cover**

  The City shall ensure that SSHCP Land Cover Fees are issued through the SSHCP In-Lieu Fee Program or by other methods agreeable to the RWQCB, CDFW, and SSHCP Permit.

**Sensitive Natural Communities Survey Results**

Stream Channel (Morrison Flood Control Channel)
As a result of the preliminary jurisdictional delineation, approximately 0.09 acres (720 linear feet) of stream channel was identified within the BSA. The stream channel is a stormwater facility carrying stormwater flows through the City in east to west orientation through the BSA. The stream channel is listed by the City as a portion of Morrison Creek. The stream channel leaves the BSA to the west, is culverted under Sunrise Boulevard, then under the Folsom South Canal continuing west for approximately 1.4 miles. The channel is then culverted under the Mather Airfield and continues further west for approximately 2 miles where it confluences with the nature Morrison Creek channel. During the March 23, 2023, jurisdictional delineation the stream channel was dry, only one day after heavy rains. Therefore, due to the nature of the stormwater channel only carrying stormwater flows during the winter season and drying quickly, the feature is considered ephemeral.

The channel was delineated using OHWM primary indicators and completion of the USACE *Arid West Ephemeral and Intermittent Streams OHWM Datasheet*. Following the Cowardin Classification System (Cowardin et al. 1979), the stream channel was defined as R4SBAx (Riverine (R), Intermittent (4), Streambed (SB), Temporarily Flood (A), Excavated (x). In addition, the Central Valley Regional Water Quality Control Board (RWQCB) and CDFW evaluate impacts to the bed, bank, and channel of a waterbody; therefore, the areas within the BSA up to the "top of bank" (TOB) were also delineated (see **Table 4** for acreage details and preliminary jurisdictional analysis).

Wetlands
No wetlands were delineated within the study area. The RWQCB and CDFW evaluate impacts to the bed, bank, and channel of a waterbody; therefore, the areas within the BSA up to the TOB were also delineated. However, these areas are above the OHWM and would not be considered aquatic resources as they do not meet the parameters of a defined wetland. These areas are considered uplands and are discussed further below.

Uplands
Areas that did not meet wetland parameters (hydrophytic vegetation, hydric soils and/or wetland hydrology) or did not exhibit primary OHWM indicators were classified as non-wetland, upland, habitat and mapped as such. Dominant vegetation included facultative-upland (FAC-UPL) hydrophytic vegetation species with dry, light colored silt loam soils. Hydric soils, a dominance of hydrophytic vegetation, and/or wetland hydrology were not present. Therefore, the areas were not classified as wetland features.

**Table 4. Jurisdictional Resources Survey Results**

| Waters of the U.S., State and CDFW Jurisdiction (acres) | | | |
|---|---|---|---|
| **Aquatic Resource** | **Waters of the U.S.** | **Waters of the State** | **CDFW Jurisdiction** |
| Morrison Flood Control Channel | -- | 0.09 | 0.09 |
| Jurisdictional Uplands | -- | 0.29 | 0.29 |
| **Total** | **--** | **0.38** | **0.38** |

**Project Impacts to Sensitive Natural Communities**

The project would result in both permanent and temporary effects to jurisdictional aquatic resources. Approximately <0.01 acres of stream channel will have permanent effects due to construction of the weir structure. Approximately 0.05 acres of stream channel will have temporary effects due to construction access requirements.

Additionally, approximately 0.07 acres of permanent effects and 0.09 acres of temporary effects to jurisdictional uplands between the OHWM and TOB would occur. Permanent and temporary impacts to jurisdictional resources resulting from the proposed project are shown in **Table 5** and **Figure 6** below.

**Table 5. Project Effects to Jurisdictional Resources**

| Waters of the State and CDFW Waters (acres) | | | | |
|---|---|---|---|---|
| **Jurisdictional Resources** | **Permanent Impacts WoS** | **Temporary Impacts WoS** | **Permanent Impacts CDFW** | **Temporary Impacts CDFW** |
| Morrison Flood Control Channel | <0.01 | 0.05 | <0.01 | 0.05 |
| Jurisdictional Uplands | 0.07 | 0.09 | 0.07 | 0.09 |
| **Total** | **0.07** | **0.14** | **0.07** | **0.14** |

**Avoidance, Minimization and/or Mitigation for Sensitive Natural Communities**

All applicable AMMs specified in the SSHCP and requirements of the issued regulatory permits will be incorporated into the design to minimize construction impacts to jurisdictional resources and sensitive natural communities within the project impact area.

With the incorporation of permitting and regulatory guidelines, the project would not have a substantial adverse effect on any riparian habitat or other sensitive natural communities identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service, and project impacts would be considered less than significant.

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

**No Impact.** The BSA does not include any state of federally protected wetlands as determined by the aquatic resource delineation report prepared by Wood Rodgers. Surveys of potential jurisdictional aquatic resources were confirmed using aerial imagery and field verification, and they followed regulatory guidelines provided by the USACE and California State Water Board. Therefore, no impact would occur.

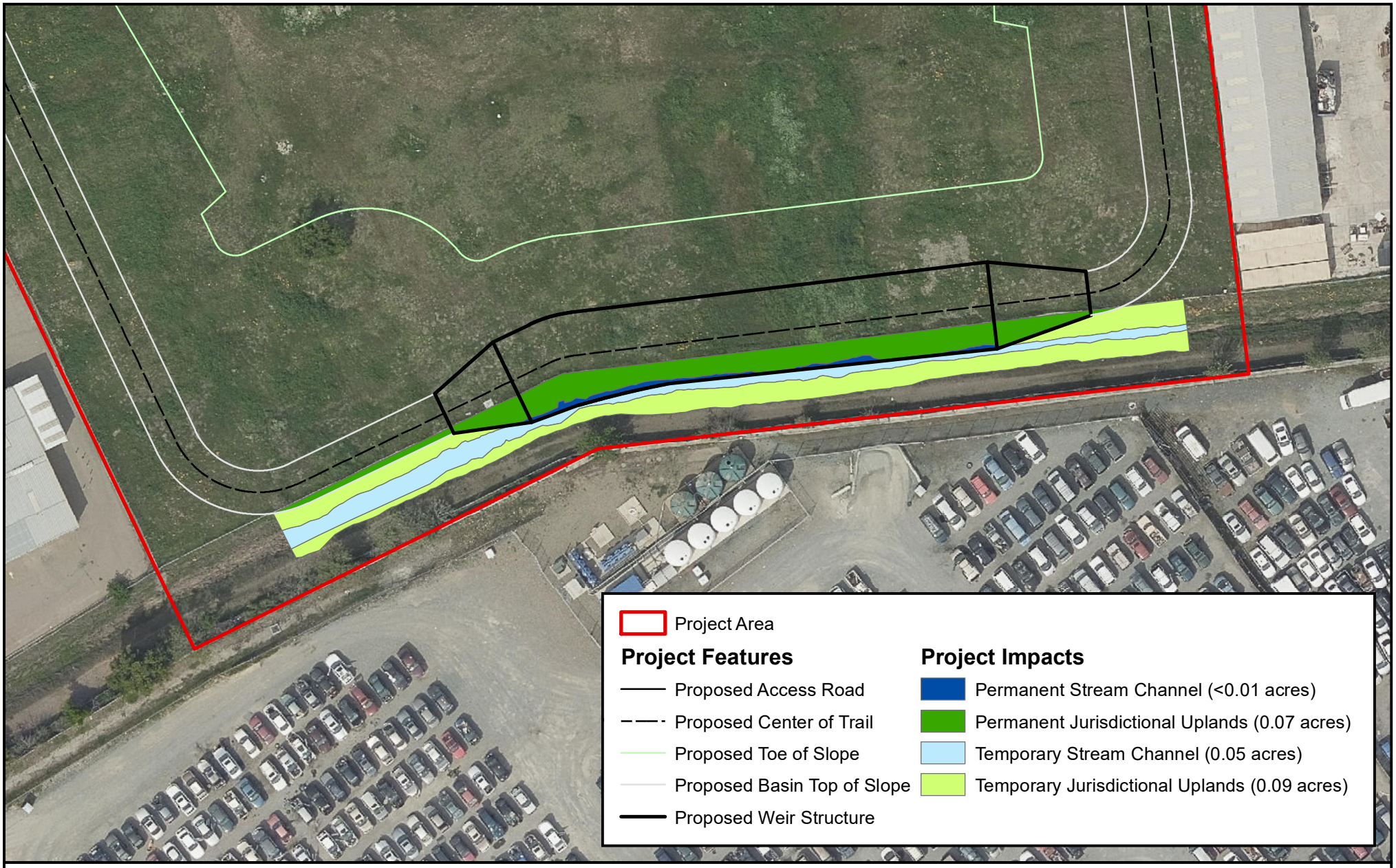


FIGURE 5

**PROJECT IMPACTS TO JURISDICTIONAL RESOURCES**

MONIER CIRCLE STORMWATER DETENTIONL BASIN PROJECT

SACRAMENTO COUNTY, CALIFORNIA

JULY 2023

0 25 50 100

Feet

NORTH

WOOD RODGERS

Therefore, based on the results of the aquatic resource delineation report, there are no state or federally protected wetland resources within the BSA, and the project would have no substantial adverse effect on state or federally-protected wetlands through direct removal, filling, hydrological interruption, or other means. No impact would occur.

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

**Less Than-Significant Impact.** According to the CDFW Biogeographic Information and Observation System (BIOS), the project area lies within a "Terrestrial Connectivity, Area of Conservation Emphasis (ACE) Level 1 hexagon, indicating a "Limited Connectivity Opportunity" (CDFW 2023b). The Terrestrial Connectivity dataset summarizes information on terrestrial connectivity by ACE hexagon including the presence of mapped corridors or linkages and the juxtaposition to large, contiguous, natural areas. This dataset was developed to support conservation planning efforts by allowing user to spatially evaluate the relative contribution of an area to terrestrial connectivity based on the results of statewide, regional, and other connectivity analyses.

The Level 1 hexagon indicates a limited availability of essential connectivity elements for terrestrial species to move through the project area. Further, the project does not include any permanent impoundments or barriers to native wildlife migration within the project area. Rather, any disruption to the limited connectivity area would be temporary in nature during construction activities, then return to normal conditions post construction. Therefore, the project would not interfere substantially with the movement of any native resident, migratory fish, or wildlife species, and project effects would be considered less than significant.

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

**Less than Significant Impact.** The project would require the removal of small diameter trees within the center of the City-owned parcel. Chapter 19.04 of the City's Municipal Code establishes public tree permit requirements for any public tree whose trunk is located in a street, planting easement, public premises, public sidewalk, median, traffic islands, or any other right-of-way owned or controlled by the City. In accordance with the City Municipal Code, the removal of trees and shrubs, on all public premises, planting easements, or streets are under the supervision and control of the public works director. Therefore, during the project approval process any trees removed within the City parcel shall be at the discretion of the Public Works Director, who may or may not require a public tree permit. Therefore, the project would not conflict with any local policies or ordinances protecting biological resources. Project impacts would be considered less than significant, and no mitigation is required.

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

**Less than Significant Impact.** The project occurs with the UDA of the SSHCP. The project is a "Covered Activity" under the SSHCP categorized as *Urban development in the Urban Development Area*, subcategory *Flood Control and Stormwater Management in the UDA.* As a SSHCP Plan Permittee, the City will conduct SSHCP Consistency Determination and issue a SSHCP Permit for associated land cover impacts. The project does not contain modeled habitat for Covered Species; therefore, no incidental take coverage for Covered Species is anticipated. The project would comply with the conditions of the SSHCP

and therefore would not conflict with the provisions of the SSHCP. Project impacts would be considered less than significant, and no mitigation measures are required.

***MITIGATION MEASURES***

**BIO-1: Implement Pre-Construction Focused Rare Plant Survey**

Prior to construction, a rare plant survey shall be conducted within the proposed project footprint, plus a 100-foot buffer within suitable habitat to confirm the presence and number of individuals of Sanford's arrowhead. The rare plant survey shall be conducted within the appropriate blooming period prior to construction.

To avoid direct impacts, a qualified biologist shall prepare a salvage and/or transplant plan for any identified specimens. The transplant plan shall describe the transplanting process and identify a suitable location for the species to be transplanted. The plan shall be reviewed and approved by the appropriate wildlife agencies and implemented prior to the start of construction.

**BIO-2: Implement Covered Raptor Species SSHCP Measures**

RAPTOR-2 (Raptor Pre-Construction Survey)
Pre-construction surveys will be required to determine if active nests are present with a project footprint or within 0.25 mile of a project footprint if existing or potential nest sites are found during initial surveys and construction activities will occur during the raptor breeding season. An approved biologist will conduct pre-construction surveys within 30 days and 3 days of ground disturbing activities within the proposed project footprint and within 0.25 mile of the proposed project footprint to determine presence of nesting covered raptor species. Preconstruction surveys will be conducted during the raptor breeding season. If a nest is present, then RAPTOR-3 and RAPTOR-4 will be implemented. The approved biologist will inform the Land Use Authority Permittee and Implementing Entity of species locations, and they in turn will notify the Wildlife Agencies.

RAPTOR-3 (Raptor Nest/Roost Buffer)
If active nests are found within the project footprint or within 0.25 mile of any project-related Covered Activity, the Third-Party project Proponent will establish a 0.25-mile temporary nest disturbance buffer around the active nest until the young have fledged.

RAPTOR-4 (Raptor Nest/Roost Buffer Monitoring)
If project-related Covered Activities within the temporary nest disturbance buffer are determined to be necessary during the nesting season, then an approved biologist experienced with raptor behavior will be retained by the Third-Party project Proponent to monitor the nest throughout the nesting season and to determine when the young have fledged. The approved biologist will be on site daily while construction-related activities are taking place within the disturbance buffer. Work within the temporary nest disturbance buffer can occur with the written permission of the Implementing Entity and Wildlife Agencies. If nesting raptors begin to exhibit agitated behavior, such as defensive flights at intruders, getting up from a brooding position, or flying off the nest, the approved biologist/monitor will have the authority to shut down construction activities. If agitated behavior is exhibited, the biologist, Third-Party project Proponent, Implementing Entity, and Wildlife Agencies will meet to determine the best course of action to avoid nest abandonment or take of individuals. The approved biologist will also train construction personnel on the required avoidance procedures, buffer zones, and protocols in the event that a covered raptor species flies into an active construction zone (i.e., outside the buffer zone).

**BIO-3: Provide Pre-Construction Migratory Bird Survey**

If construction activities, including vegetation removal and ground disturbance, cannot be avoided during the migratory bird nesting season (February 1 – August 31), a pre-construction nesting bird survey must be conducted by a qualified biologist within 3 days prior to vegetation removal.

If an active nest is observed, a protective buffer will be fenced off, and no work will be allowed within the buffer until the nest is no longer active (e.g., all nestlings have successfully fledged). The buffer width will be determined by a qualified biologist, in coordination with the city and the appropriate wildlife agencies and based on species biology and site conditions.

***FINDINGS***

Considering the information obtained for literature search, biological surveys, and analysis of potential impacts from project design, and in conjunction with the implementation of project-specific avoidance, minimization and compensatory mitigation measures, project effects relating to biological impacts would be considered **Less Than Significant with Mitigation.**

## 2.5 CULTURAL RESOURCES

| Would the project: | Potentially Significant Impact | Less Than Significant with Mitigation | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5? | ☐ | ☐ | ☐ | ☒ |
| b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5? | ☐ | ☒ | ☐ | ☐ |
| c) Disturb any human remains, including those interred outside of dedicated cemeteries? | ☐ | ☐ | ☒ | ☐ |

A Cultural Resources Inventory Report (CRIR) was prepared for the project by PAR Environmental Services (PAR 2023). The study assessed the potential for surficial and/or buried archaeological and historical resources in the proposed improvement area through the completion of the following:

- Records and literature search at the North Central Information Center (NCIC) of the California Historical Resources Information Center (CHRIS);
- Further literature review of publications, files, and maps for ethnographic, historic-era, and prehistoric resources and background information;
- Communication with the Native American Heritage Commission (NAHC) to request a review of the Sacred Lands File and contact information for the appropriate tribal communities;
- Contact with the appropriate local Native American Tribes; and
- Pedestrian archaeological survey of the project area.

Study results were used as a technical basis for evaluating potential impacts to historic and cultural resources under CEQA.

***DISCUSSION***

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

**No Impact.** CEQA Guidelines Section 15064.5(b) establishes the criteria for assessing a significant environmental impact on historic resources. That section states, "[a] project with an effect that may cause a substantial adverse change in the significance of an historical resource is a project that may have a significant effect on the environment." The CEQA Guidelines define substantial adverse change in the significance of an historical resource as a "physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of an historical resource would be materially impaired" (Section 15064.5(b)(1)). The significance of an historic architectural resource is considered to be "materially impaired" when a project demolishes or materially alters the physical characteristics that justify the inclusion of the resource in the California Register of Historic Resources (CRHR), or that justify the inclusion of the resource in a local register, or that justify its eligibility for inclusion in the CRHR as determined by the lead agency for the purposes of CEQA (Section 15064.5(b)(2)).

The CRIR identified two resources within the project's area of potential effects (APE). According to the NCIC record search, the APE is within the defined boundaries of the American River Placer Mining District, which was defined in 1992 as a conceptualized area identified through historical documents. The District encompasses the region mined using water taken from the South Fork of the American River by the Natoma Company, and by the extent of the Natoma Company dredge fields. It is over 15 miles long

and includes nearly 13,000 acres of land. Additionally, during the pedestrian survey, one concrete pad from the 1950s was recorded as MC-1.

P-34-00335 - American River Placer Mining District

Historical USGS maps depicting the project area indicate that it was dredged by 1950. The 1950 topographic quadrangle shows dredge tailings across the entire project APE. These tailings are still depicted on the 1983 topo quad map. By the 1990s, Monier Circle is in place and the tailings are no longer included in this area. The entire parcel contains deposits of river rock, remnants of the dredging activities that took place in the 20th century. The rocks are dispersed and no longer retain the typical herringbone pattern found in dredge deposits. They do not have integrity because they have been graded, leveled and scattered across the parcel and do not contribute to the American River Placer Mining District.

The APE has been disced, bulldozed, graded with heavy equipment, and is greatly disturbed. The river cobbles and rocks discarded by the dredge machines cover the entire APE, but the typical dredge tailing patterns of linear rows (evident on early aerial photos) are not intact. As such, the dredge tailings found in the APE no longer retain their defining characteristic patterns and do not have integrity of design, workmanship, feeling or association. The location remains intact, but the setting has been significantly compromised.

There are many acres of dredge fields associated with the Natoma Company within the American River Placer Mining District that retain a high degree of integrity and contribute to the overall feel of a mining landscape. These fields are apparent on Aerojet land. The dredge tailings found within the APE have been leveled, pushed, and scattered across the landscape and no longer retain the patterning found in intact dredge fields and do not contribute to the American River Placer Mining District.

MC-1

MC-1 consists of a small concrete slab located along the south fence line adjacent to the bank of the channel. This slab is intact and has rebar protruding, suggesting the slab was a support for equipment or something weighty. The area around the intact slab contained pieces of concrete rubble, a small intact footing, and a flattened pad covered with gravel. Reviews of historic USGS maps, aerial photographs, and county assessment records do not indicate a building or structure at this location; instead the maps and photographs into the 1980s depict a dredge field only. While the concrete slab and footings appear 50 years old, an exact date is unknown and there is no known context.

The age, context, function, and use of this site cannot be determined through archival sources or research. Therefore, it does not appear important in local history and is not associated with a known person or company. It does not meet Criterion A or B. The construction method and design are commonplace and found frequently in equipment supports or industry. This slab does not represent a unique type and is not the work on a master engineer. Therefore, it does not meet Criterion C. The archaeological information was gathered at the inventory level and captured in a DPR 523 form. This site does not have the potential to contribute to ongoing historical archaeology studies and it does not meet Criterion D.

While the site retains integrity of location, its setting has been altered by grading and leveling of the dredge fields. The integrity of design and workmanship has been compromised by the grading as well, as evidenced in the concrete rubble and remnants that surround the intact small slab. Materials integrity is intact, as the concrete and rebar are preserved. There is no integrity of feeling and association. Given the lack of significance under any criteria and the compromised integrity, this site is recommended as not eligible for inclusion in the NRHP. It is not considered an historical resource for the purposes of CEQA.

The site and remnant disturbed dredge tailings do not qualify for inclusion in the National Register of Historic Place or the California Register of Historical Resources and are not considered historic properties

under Section 106 or historical resources under CEQA. Therefore, the project would not cause a substantial adverse change in the significance of a historical resource as defined in CEQA Guidelines Section 15064.5. No impact would occur.

*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 CRIR conducted for the project found no previously recorded cultural resources located within the project APE. The results of the record search and field survey were negative for the presence of archaeological resources in the project site. The NAHC responded on May 4, 2023, stating that the search of the sacred lands file was positive for resources in the project APE, and recommended that tribes be contacted. To facilitate consultation efforts, the NAHC provided a list of seven Native American tribes and 11 contacts that might have information or concerns regarding sacred sites and/or cultural resources in the APE. Native American Tribes that had previously requested that the City of Rancho Cordova notify them of proposed projects were contacted via email on July 12, 2023. No requests for consultation have been received under Assembly Bill 52 and there is no further data to indicate any archaeological resources would be located on-site.

To avoid or minimize impacts to previously unidentified archaeological resources that may be determined significant per CEQA, measure **CR-1** would be implemented. Implementation of measure CR-1 would reduce the potential impact to previously undiscovered archaeological or cultural resources to a less-than-significant level by requiring procedures to be taken in the event of inadvertent discovery of resources consistent with appropriate laws and requirements. Therefore, the project would have a less than significant impact with mitigation incorporated.

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

**Less Than Significant Impact.** No evidence for prehistoric or early historic interments has been found in the project area based on archival research, consultation efforts with Native American Tribes, and the pedestrian surface survey. This does not preclude the possibility of the existence ‘of buried human remains. California law recognizes the need to protect historic-era and Native American human burials, skeletal remains, and items associated with Native American interments from vandalism and inadvertent destruction.

Damage to or destruction of human remains during project construction or other project-related activities would be considered a significant impact. However, in accordance with the California Health and Safety Code Sections 7050.5 and 7052, Public Resources Code Section 5097.98, and CEQA Section 15064.5, if human remains are uncovered during ground-disturbing activities, all such activities in the vicinity of the find would be halted immediately and the City’s designated representative would be notified. The City’s representative would immediately notify the Sacramento County Coroner and a qualified professional archaeologist. The County Coroner is required to examine all discoveries of human remains within 48 hours of receiving notice of a discovery on private or State lands (Health and Safety Code Section 7050.5[b]). If the Coroner determines that the remains are those of a Native American, he or she must contact the NAHC by phone within 24 hours of making that determination (Health and Safety Code Section 7050[c]).

The City’s responsibilities for acting upon notification of a discovery of Native American Human remains are identified in detail in the California Public Resources Code Section 5097.9. The City or its appointed representative and the professional archaeologist would contact the Most Likely Descendent (MLD), as determined by the NAHC, regarding the remains. The MLD, in cooperation with the City, would determine the ultimate disposition of the remains. Since the proposed project would be in compliance with the existing

regulations of the California Health and Safety Code, the Public Resources Code, and CEQA, impacts to human remains would be less than significant and no mitigation is required.

### *MITIGATION MEASURES*

**CR-1:** If an inadvertent discovery of cultural materials (e.g., unusual amounts of shell, animal bone, bottle glass, ceramics, structure/building remains) is made during project-related construction activities, ground disturbances in the area of the find will be halted, and a qualified professional archaeologist will be notified regarding the discovery. The archaeologist will determine whether the resource is potentially significant per the CRHR and develop appropriate mitigation, such as avoidance or data recovery. If the find is determined to be an important cultural resource, the City will make available contingency funding and a time allotment sufficient to allow recovery of an archaeological sample or to implement avoidance measures. Construction work can continue on other parts of the project while archaeological mitigation takes place.

### *FINDINGS*

The project would have a **Less Than Significant Impact with Mitigation** relating to cultural resources.

## 2.6 ENERGY

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

### *DISCUSSION*

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

**Less than Significant Impact.** Project construction-related energy demand includes energy and fuel used by construction equipment, construction worker vehicles, and construction vendor/hauling vehicles. The construction equipment, use of electricity, and fuel for the project would be typical for grading, landscaping, and project improvements. The project would comply with standard construction BMPs, such as CARB emission standards for construction equipment, and provisions of the California Code of Regulations Title 13 Section 2485, which prohibit diesel fueled commercial motor vehicles and off-road diesel vehicles from idling for more than five minutes and would minimize unnecessary fuel consumption. Therefore, the project would not result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources during project construction of the project and impacts would be considered less than significant related to construction-related energy demand.

Energy-consuming equipment anticipated to be used during operation of the project includes mechanical and electrical equipment associated with the new pumping station and minor lighting infrastructure. In addition, motor vehicle trips associated with maintenance employees would utilize energy in the form of petroleum products and electricity. It is noted that the project's operational trips are a necessary component of the project and, therefore, would not constitute wasteful, inefficient, or unnecessary consumption of energy resources. The increase in energy demand resulting from the project would not be expected to require or result in the construction of new sources of energy supplies or additional energy infrastructure capacity, and the project would not conflict with applicable energy policies or standards. Therefore, operation of the project would not use large amounts of energy or use it in a wasteful manner. The operational impact would be less than significant.

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

**No Impact.** The project would not conflict with or obstruct any state or local plans for renewable energy or energy efficiency. Therefore, no impact would occur.

### *FINDINGS*

The project would have a **Less than Significant Impact** relating to energy or energy resources.

## 2.7 GEOLOGY AND SOILS

| Would the project: | Potentially Significant Impact | Less Than Significant with Mitigation | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving: | | | | |
| i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42? | ☐ | ☐ | ☐ | ☒ |
| ii) Strong seismic ground shaking? | ☐ | ☐ | ☐ | ☒ |
| iii) Seismic-related ground failure, including liquefaction? | ☐ | ☐ | ☐ | ☒ |
| iv) Landslides? | ☐ | ☐ | ☐ | ☒ |
| b) Result in substantial soil erosion or the loss of topsoil? | ☐ | ☐ | ☒ | ☐ |
| c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse? | ☐ | ☐ | ☐ | ☒ |
| d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property? | ☐ | ☐ | ☐ | ☒ |
| e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water? | ☐ | ☐ | ☐ | ☒ |
| f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature? | ☐ | ☒ | ☐ | ☐ |

### *AFFECTED ENVIRONMENT*

The project is located in the Sacramento Valley portion of the Great Valley Geomorphic Province, which is characterized by a thick sequence of sedimentary rock units overlain by alluvial sediments derived primarily from erosion of the Sierra Nevada Mountains to the east. Overlying the bedrock units in the mid-basin areas of the Sacramento Valley are Late Pleistocene Age and Holocene Age alluvial deposits. Natural soils within the project area consist exclusively of Xerorthents, dredge tailings-Urban land complex, 0 to 2 percent slopes.

### *DISCUSSION*

*a) Would the project expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:*

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

*ii) Strong seismic ground shaking?*

*iii) Seismic-related ground failure, including liquefaction?*

*iv) Landslides?*

**No Impact.** According to the CDC Fault Activity Map of California (CDC 2015), there are no known active faults within the project area or directly adjacent to the project area. Additionally, the project site is on generally flat land in a developed area. There are minor slopes relating to the Morrison Flood Control Channel, but no major slopes or hills are present that could result in landslides on or off-site. Project construction and operation would not substantially change the existing conditions in such a way that it would result in new risks for exposing people or structures to potential, substantial adverse effects (including risk of loss, injury, or death involving rupture of a known fault; strong seismic ground shaking; seismic-related ground failure; or landslides). Therefore, no impact would occur.

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

**Less Than Significant Impact.** The project would have a disturbed soil area greater than one acre; thus, requiring the project to prepare a Storm Water Pollution Prevention Plan (SWPPP) under the National Pollutant Discharge Elimination System (NPDES) General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities (Construction General Permit) to address storm water runoff, including minimizing soil erosion. The permit will address clearing, grading, grubbing, and disturbances to the ground such as stockpiling or excavation. The SWPPP includes BMPs to prevent construction pollutants from entering stormwater runoff. With implementation of SWPPP construction BMPs and compliance with the Construction General Permit requirements, impacts associated with erosion and loss of topsoil would be considered less than significant, and no mitigation is required.

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

**No Impact.** The project area is not located on a geologic unit or soil that is known for unstable conditions. During construction, soils may become unstable during de-grading activities; however, the area of ground disturbance and construction activities necessary for the construction of the project would not occur on unstable soils, and would not result or potentially result in on- or off-site landslides, lateral spreading, subsidence, liquefaction, or collapse. Therefore, no impact would occur.

*d) Would the project 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.** Natural soils within the Project area consist exclusively of Xerorthents, dredge tailings-Urban land complex, 0 to 2 percent slopes. These soil types are not known as expansive soils, as defined in Table 18-1-B of the Uniform Building Code, and construction within these soil types would not create substantial risks to life or property. Therefore, no impact would occur.

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

**No Impact.** The project would not install nor require the installation of septic tanks or alternative wastewater disposal systems where soil infiltration would be required. Therefore, no impact would occur.

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

**Less than Significant with Mitigation.** A search of the California Museum of Paleontology online database (UCMP 2023), which includes institutional records and published references, indicates the project area sites within the Modesto Formation, known for late Pleistocene granitic alluvium. Though no fossil remains have been found within 1-mile of the project site, with any project that requires ground disturbance there may be a possibility of discovery of unknown paleontological resources. To avoid and minimize any potential effects to unknown paleontological resources, measure **GEO-1** would be implemented as part of the project. With the incorporation of **GEO-1**, the project would have a less than significant impact with mitigation related to paleontological resources.

### *MITIGATION MEASURES*

**GEO-1** In the event that potential paleontological resources are discovered during ground-disturbing activities, work shall stop in that area and within 50 feet of the find until a qualified paleontologist can assess the significance of the find and, if necessary, develop appropriate treatment measures. Based on the scientific value or uniqueness of the find, the paleontologist may record the find and allow work to continue or recommend salvage and recovery of the material if it is determined that the find cannot be avoided. The paleontologist shall make recommendations for any necessary treatment that is consistent with currently accepted scientific practices. Any fossils collected from the area shall then be deposited in an accredited and permeant scientific institution where they will be properly curated and preserved.

### *FINDINGS*

The project would have a **Less Than Significant Impact with Mitigation** relating to geology and soils.

## 2.8 GREENHOUSE GAS EMISSIONS

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

The greenhouse gas analysis utilizes the screening criteria, thresholds of significance, and impact assessment methodologies presented in the SMAQMD's Guide to Air Quality Assessment in Sacramento County (SMAQMD 2021). As provided by the SMAQMD's guidance, if a project meets the screening criteria for an impact category, and is consistent with the methodology used to develop the screening criteria, then its greenhouse gas impact for that category may be considered less than significant.

### *DISCUSSION*

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

**Less Than Significant Impact.** The project would not generate GHG emissions through operation of the completed project. Short-term GHG emissions would occur during construction through the use of gas-powered construction vehicles. GHG emissions generated from temporary construction activities would not exceed the SMAQMD CEQA thresholds of significance for criteria pollutants.

However, SMAQMD recommends the use of a construction threshold of 1,100 metric tons (MT) CO2e per year to determine whether construction would result in the generation of GHG emissions sufficient to result in a significant impact on the environment (SMAQMD 2021). Construction greenhouse gas emissions were calculated by using CalEEMod 2020.4.0. Details regarding the source equipment inventory, assumptions, and all data used to calculate construction-related greenhouse gas emissions are available in Appendix A, Emissions Modeling Output. According to the CalEEMod results, the project would produce 656.77 $MTCO_2e$ for the full project construction and would not result in emissions of pollutants exceeding the SMAQMD's threshold of significance for construction-generated greenhouse gases. Therefore, the impact from construction-related emissions would be less than significant.

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

**No Impact.** The City's Climate Action and Adaptation Plan (CAAP) is currently under development and is not an adopted GHG reduction strategy. The project would generate short-term GHG emissions during construction. As indicated under section (a) above, the short-term construction GHG emissions would not exceed SMAQMD's significance thresholds which are based on Senate Bill 32 GHG reduction targets. The project is not a transportation project and would not increase vehicle miles traveled. Therefore, the project would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing GHG emissions. No impact would occur, and no mitigation would be required.

### *FINDINGS*

The project would have a **Less Than Significant Impact** relating to GHG emissions.

## 2.9 HAZARDS AND HAZARDOUS MATERIALS

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

### *AFFECTED ENVIRONMENT*

The project area is zoned "Heavy Industrial". No sensitive receptors are within approximately 0.25-mile. A review of the California Department of Toxic Substances (DTSC) EnviroStor database (DTSC 2023) and the SWRCB GeoTracker database (SWRCB 2023) found no known cleanup sites within 0.75-mile of the project area. The nearest cleanup site returned from the database search is a "Case Closed" Leaking Underground Storage Tank Cleanup Site, approximately 1,250 feet northeast of the project area

### *DISCUSSION*

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

**Less Than Significant Impact.** The project would involve the use of heavy equipment for the grading, filling, and hauling of materials. Such equipment may require the use of common materials that have hazardous properties, e.g., petroleum-based fuels. These materials would be used in accordance with all applicable laws and regulations and, if used properly, would not pose a significant hazard to the public or the environment. Additionally, compliance with the Construction General Permit and the SWPPP would require the use of standard conservation measures and BMPs to avoid or minimize the potential for accidental release of hazardous materials from spills or fuel leaks during project construction. With the incorporation of construction BMPs and compliance with the Construction General Permit, the project would have a less than significant impact, and no mitigation is required.

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

**Less Than Significant Impact.** The project would involve ground disturbance and excavation within the project area. With any project conducting ground disturbance, there is a potential for unknown contaminates or accident conditions involving the release of hazardous materials into the environment, as well as upset or accident related to machinery. A review of the SWRCB GeoTracker database and the DTSC EnviroStor database found no known hazardous materials sites or hazardous materials cleanup sites within 0.75-mile of the project area. Therefore, it is unlikely for the project to have the potential of unknown contaminants or accidents due to excavation.

In addition, the use, storage, and transport of hazardous materials is required to be in compliance with local, state, and federal regulations during both project construction and operation. The project would be required to comply with federal, state and local regulations regarding the handling, transportation, disposal, and clean-up of hazardous materials. With required adherence to applicable regulatory requirements, the impacts related to reasonably foreseeable and accident conditions involving the release of hazardous materials would be less than significant.

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

**No Impact.** There are no schools located within one-quarter mile of the project site. Therefore, no impact would occur.

*d) Would the project 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.** A review of the SWRCB GeoTracker and DTSC EnviroStor databases found no known hazardous materials sites or hazardous materials cleanup sites within 0.75-mile of the project area. Therefore, the project would not create a significant hazard to the public or the environment by being located on a known hazardous waste site, and no impact would occur.

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

**No Impact.** The project is located within Review Area 1 of the Mather Airport Land Use Compatibility Plan (SACOG 2022). However, the project site is located approximately one mile from the airport boundary and over 1.5-miles from the where airport work activities would occur. The project would construct a stormwater detention basin and would not result in a safety hazard or excessive noise for people residing near or working in the project area. Therefore, no impact would occur.

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

**No Impact.** Rancho Cordova participates in the Standardized Emergency Management System and the National Incident Management System and complies with the State of California Emergency Services Act. The Safety Element of the Rancho Cordova General Plan includes goals, policies, and actions to minimize the potential risk of death, injuries, property damage, and economic hardship and social displacement

resulting from fires, floods, earthquakes, landslides, and other hazards. The Safety Element also addresses safety and hazards related to airport land use, groundwater contamination, traffic and pedestrian accidents at interfaces with rail lines, the potential release of hazardous materials into the community, and general issues related to police and fire protection services.

The Sacramento Emergency Operations Plan (EOP) addresses planned methods for managing information, resources, and priorities during a multi-jurisdiction response to extraordinary emergency situations associated with natural and human caused disasters. The EOP encompasses the boundaries of Sacramento County and includes the City of Rancho Cordova. The Sacramento County Local Hazard Mitigation Plan was updated in 2021 and addresses long-term risk to people and their property from hazards.

The project would not change existing circulation patterns along local roadways or generate substantial new traffic. The project would not affect local roadways that could be used as emergency response routes. The project would not physically interfere with emergency response or evacuation elements associated with local and regional plans. Therefore, no impact would result.

*g) Would the project 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?*

**No Impact.** The project would not occur within a designated wildland area, or where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands. Therefore, the project would not expose people or structures to a significant risk of loss, injury, or death involving wildland fires. No impact would occur.

### *FINDINGS*

The project would have a **Less Than Significant Impact** relating to hazards and hazardous materials.

## 2.10 HYDROLOGY AND WATER QUALITY

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

### *AFFECTED ENVIRONMENT*

**Hydrology**

The project area occurs within a single distinct topographic region of valley floor. The topography of the valley floor consists of low-elevation fluvial plains formed on nonmarine sedimentary rock with gently rolling terrain located on the Sacramento Valley floor. The project site is at an elevation of approximately 115 to 119 feet above mean sea level within the Valley-America hydrologic unit, Sherman Lake-Sacramento River watershed, Lake Greenhaven-Sacramento River subwatershed (HUC 180201630701).

The project area includes one surface water feature: Morrison Flood Control Channel. The portion of the Morrison Flood Control Channel within the project area is an unconsolidated bottom channel with a low flow channel ranging in width approximately two to ten feet in width. Width from top of bank to top of bank ranges from approximately 22 to 25 feet. The channel is ephemeral according to local records and historic aerials. The channel typically carries nuisance sporadic urban runoff during the summer and fall months (if present), and stormwater flows during the winter and spring.

**Groundwater**

During preliminary geotechnical explorations, groundwater was discovered at the Monier detention basin site at a depth of 10 feet. This finding was surprising as it is more than 100 feet higher than published sources of historic groundwater elevations in the area. While this may introduce additional challenges to the flood control design, it is anticipated that this is a disconnected, perched aquifer that will be dewatered over time allowing the detention basin to remain dry with capacity available for flood control.

**Flooding**
According to the FEMA FIRM, the entire proposed project site falls within FEMA Zone X, designated as an "Area of Minimal Flood Hazard." This portion of the Morrison Flood Control Channel is not a regulated stream under jurisdiction of the Central Valley Flood Protection Board, and therefore no encroachment permit would be required.

### *DISCUSSION*

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

**Less Than Significant Impact.** The project would have a disturbed soil area greater than one acre; thus, requiring the project to prepare a SWPPP under the NPDES Construction General Permit to address storm water runoff, including minimizing soil erosion. The permit will address clearing, grading, grubbing, and disturbances to the ground such as stockpiling or excavation. The SWPPP includes BMPs to prevent construction pollutants from entering stormwater runoff. With implementation of SWPPP construction BMPs and compliance with the Construction General Permit requirements, project construction is not anticipated to violate any water quality standards.

Following construction, the project would include operation and maintenance of the detention basin. Operation of the completed project would include a pump station to drain a majority of volume in the detention basin. The pump station has been designed with a six (6) cubic feet per second (cfs) pump, which was selected as it is capable of completely draining the full storage capacity of the detention basin within 72 hours. The downstream channel and downstream drainage structures have adequate capacity to convey the proposed six (6) cfs pumped flow. The project site is located within the Central Valley RWQCB jurisdiction. The Water Quality Control Plan for the Sacramento River Basin and the San Joaquin River Basin (Basin Plan) addresses surface and groundwater quality within the Central Valley RWQCB. Any discharges from the detention basin would be required to be consistent with applicable regulatory requirements including the state mandated Region-wide Municipal Stormwater Permit (MS4). Further, the City's Stormwater Quality Program provides guidelines for development and post-construction stormwater quality measures. The project would be designed consistent with these quality control measures and MS4 permit guidelines.

With adherence to applicable regulatory requirements, the operational impacts related to water quality standards or waste discharge requirements for the project would not substantially degrade surface or ground water quality. Therefore, the project would be considered to have a less than significant impact, and no mitigation is required.

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

**No Impact.** Relative to groundwater, the project site is located within the South American Subbasin, which was designated as a high priority groundwater basin by the California Department of Water Resources (DWR). The project would not directly or indirectly result in the construction of uses that would utilize groundwater supplies. The project design will include a minor increase in impervious surface but would not be anticipated to alter the area in such a way that would interfere with groundwater recharge. Additionally, the project would not be constructed immediately above a pre-existing well, nor would areas known to contain wells be disturbed by construction of the proposed project. No groundwater supplies would be needed to support the project, nor would construction or operation of the project interfere with

groundwater recharge in a manner that would impact groundwater resources. Therefore, no impact would occur.

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

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

*(ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;*

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

*(iv) impede or redirect flood flows?*

**(i) Less Than Significant Impact.** The project would construct a detention basin, weir, and pump station to divert flows from the Morrison Flood Control Channel during large storm events, to eliminate flooding along Sunrise Boulevard. The drainage pattern at the project site would remain essentially the same as currently exists; conversely, when flood flows are high enough to crest the weir and enter the detention basin, this would relieve the current downstream flooding conditions. The project would require adherence to the requirements set forth in the General Construction Permit, which would include a construction SWPPP that includes BMPs to prevent erosion and siltation. Operation and maintenance activities would also require adherence to the requirements set forth in the Region-wide MS4 Permit and the City's Stormwater Quality Program guidelines. As a result, the impacts relative to erosion or siltation would be considered less than significant, and no mitigation is required.

**(ii,) Less Than Significant Impact.** The project site is not within a FEMA Special Flood Hazard Area and not located within a 100-year flood hazard zone. The project would construct a detention basin, weir, and pump station along with recreational features for public access and use. Minor impervious surfaces less than one acre would be included as part of the project for the multi-use path, the pump station, and outfall. The amount of new impervious surfaces within the project area would be considered nominal and would not contribute to flooding on- or off-site. Further, the construction of the detention basin would itself eliminate downstream flooding at Sunrise Boulevard and provide a benefit to the Morrison Flood Control Channel flood conditions. The project would not substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site. Project impacts relative to additional surface runoff would be considered less than significant, and no mitigation is required.

**(iii) Less Than Significant Impact.** A Hydraulic Analysis Technical Memorandum (Wood Rodgers 2023c) was prepared for the project to determine adequacy of the project design and understanding the current and post-construction conditions. According to the memorandum, the required basin storage volume to eliminate flooding at Sunrise Boulevard necessitated excavation below the elevation of the Morrison Flood Control Channel and construction of a pump station to drain a majority of volume in detention basin. The pump station has been designed with a 6 cfs pump, which was selected as it is capable of completely draining the full storage capacity of the detention basin within 72 hours. The downstream channel and downstream drainage structures have adequate capacity to convey the proposed 6 cfs pumped flow. Due to the fact the proposed weir is shallow relative to the Morrison Flood Control Channel, a separate gravity outfall was not considered beneficial. For emergency purposes, a secondary 6 cfs duty backup pump will be included in the design should the primary pump fail. The pump control system will be established to alternate which pump is considered primary and which pump is considered backup. Therefore, the project would not create or contribute to runoff water which would exceed the capacity of the Morrison Flood

Control Channel, and would not provide additional sources of polluted runoff. Project impacts relative to additional runoff would be considered less than significant, and no mitigation is required.

**(iv) Less Than Significant Impact.** The project site is not within a FEMA Special Flood Hazard Area and not located within a 100-year flood hazard zone. However, City and the County of Sacramento have been aware of the flooding risks at Sunrise Boulevard dating back to the late 1990s. The purpose of the project is to construct a stormwater detention basin that will alleviate the 100-year, 24-hour event flooding along Sunrise Boulevard. Therefore, the project would divert flood flows during high flow events into the detention basin. The diversion of flood flows would provide a benefit to the current stormwater facility and would alleviate the flooding of Sunrise Boulevard during high flow events. Therefore, though the project would divert flows, the project would provide a value for the City's stormwater infrastructure and prevent future flooding in the project vicinity. Impact would be considered less than significant, and no mitigation is required.

*d) Would the project, in flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?*

**No Impact.** The project site is not within a FEMA Special Flood Hazard Area, is not located within a 100-year flood hazard zone, tsunami zone or seiche zone, and would not risk the release of pollutants due to project inundation. No impact would occur.

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

**No Impact.** As described within discussion a) above, the project would conform to and comply with all local and state laws and regulations regarding water quality, and municipal stormwater guidelines. Therefore, the project would not conflict with or obstruct the Central Valley RWQCB Water Quality Control Plan for the Sacramento River Basin and the San Joaquin River Basin or the DWR Sustainable Groundwater Management Act. No impact would occur.

***FINDINGS***

The project will have a **Less Than Significant Impact** relating to hydrology and water quality.

## 2.11 LAND USE AND PLANNING

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

### *DISCUSSION*

*a) Would the project physically divide an established community?*

**No Impact.** The project would construct a stormwater detention basin that will alleviate 100-year, 24-hour event flooding along Sunrise Boulevard. The project would not physically divide an established community. No impact would occur.

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

**No Impact.** The project would not involve a change of land use on the City-owned parcel and would be consistent with the City's General Plan. Therefore, the project would not cause a significant environmental impact due to conflict with any applicable land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect. No impact would occur.

### *FINDINGS*

The project would not physically divide an established community or conflict with any land plan, policy or regulation. Therefore, the project would have **No Impact** relating to land use and planning.

## 2.12 MINERAL RESOURCES

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

### *DISCUSSION*

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

**No Impact.** According to the Sacramento County 2030 General Plan (2011), the project area is within a Mineral Resource Zone (MRZ)-2 or "Areas where adequate information indicates that significant mineral deposits are present, or where it is judged that a high likelihood for their presence exists". However, the site is currently developed, urbanized and has the current land use zoning designation of "Heavy Industrial/Manufacturing". Additionally, the site is within the Sunrise Boulevard South Planning Area, which does not include mining as an allowable use. The project would not result in the loss of availability of known mineral resources within the project area. No impact would occur.

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

**No Impact.** The project area is not located within an identified locally-important mineral resource recovery site delineated within the Sacramento County 2030 General Plan, or City General Plan, specific plan or other land use plan. Therefore, the project would not result in the loss of availability of a known mineral resource recovery site, and no impact would occur.

### *FINDINGS*

The project would have **No Impact** relating to mineral resources.

## 2.13 NOISE

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

### *AFFECTED ENVIRONMENT*

Noise-sensitive land uses generally include those uses where exposure to noise would result in adverse effects, as well as uses where quiet is an essential element of their intended purpose. The project area is located in a Heavy Industrial/Manufacturing zone and is approximately 0.75-mile from the nearest "noise-sensitive" receptor (single-family residences).

### *DISCUSSION*

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

**Less Than Significant Impact.** According to the City's General Plan, during construction and demolition associated with projects within the Plan Area, noise from construction activities would add to the noise environment in the immediate project vicinity. Activities involved in construction would generate maximum noise levels typically ranging from 85 to 90 decibels (dB) at a distance of 50 feet.

During construction, noise from equipment would cause short-term localized increases in ambient noise levels. The actual noise levels at any particular location would depend on a variety of factors, including the type of construction equipment or activity involved, the distance to the source of the noise, the obstacles to noise that exist between the receptor and the source, the time of day, and similar factors. Construction of the proposed project would result in a temporary, periodic increase in ambient noise levels. However, this increase would be temporary, intermittent, and limited to the daytime hours specified by the City's Noise Ordinance (Municipal Code 6.68.090). The project is not anticipated to have any operational noise effects. Therefore, the project would not be considered to generate a substantial temporary or permanent increase in ambient noise levels in relation to noise-sensitive receptors. The project would have a less than significant impact, and no mitigation is required.

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

**Less Than Significant Impact.** The City does not specify a construction vibration limit. According to the FTA *Transit Noise and Vibration Impact Assessment* (FTA 2006) vibration source levels for construction equipment (such as a large bulldozer) at 25 feet from the sensitive receptor result in vibrations of 87

vibration decibels. The construction of the project may generate perceptible vibration when heavy equipment or impact tools (e.g., jackhammers, hoe rams) are used. Construction activities include clearing and grubbing, grading, paving, tank installation, trenching/piping, and rail installation phases. Pile driving is not anticipated for the proposed project. Vibration levels would vary depending on soil conditions, construction methods, and equipment used. Vibration levels are highest close to the source, and then attenuate with increasing distance. The nearest sensitive receptors (single-family residences) are approximately 0.75-mile from the project area, and any temporary construction vibratory effects would not be noticeable or perceivable at this distance. Construction groundborne vibration would be temporary and intermittent and localized within the heavy industrial area, and would not generate or expose persons to excessive groundborne vibrations or groundborne noise levels. Therefore, the project would have a less than significant impact, and no mitigation is required.

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

**No Impact.** The project is located within Review Area 1 of the Mather Airport Land Use Compatibility Plan (SACOG 2022). However, the project site is located approximately one mile from the airport boundary and over 1.5-miles from where airport work activities would occur. Therefore, the project would not expose people residing or working in these areas to excessive noise levels. No impact would occur.

***FINDINGS***

The project would have a **Less Than Significant Impact** relating to Noise.

## 2.14 POPULATION AND HOUSING

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

### *REGULATORY SETTING*

CEQA also requires the analysis of a project's potential to induce growth. CEQA guidelines, Section 15126.2(d), require that environmental documents *"…discuss the ways in which the project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment…"*

### *DISCUSSION*

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

**No Impact.** The project would construct a stormwater detention basin that will alleviate 100-year, 24-hour event flooding along Sunrise Boulevard. The project would not induce population growth, directly or indirectly. No impact would occur.

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

**No Impact.** The project would construct a stormwater detention basin that will alleviate 100-year, 24-hour event flooding along Sunrise Boulevard. Construction of the project would occur within a City-owned parcel and would not require permanent right-of-way acquisition. The project would not displace any existing housing or necessitate the construction of replacement housing elsewhere. No impact would occur.

### *FINDINGS*

The project would have **No Impact** relating to population or housing.

## 2.15 PUBLIC SERVICES

| Would the project: | 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: | | | | |
| Fire protection? | ☐ | ☐ | ☐ | ☒ |
| Police protection? | ☐ | ☐ | ☐ | ☒ |
| Schools? | ☐ | ☐ | ☐ | ☒ |
| Parks? | ☐ | ☐ | ☐ | ☒ |
| Other public facilities? | ☐ | ☐ | ☐ | ☒ |

### *DISCUSSION*

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

**No Impact.** The project would construct a stormwater detention basin that will alleviate 100-year, 24-hour event flooding along Sunrise Boulevard. The project would not directly or indirectly induce population growth nor create substantial new demand for services. Therefore, the project would have no impact on the service ratios, response times, or other performance objectives of fire protection services, police service levels, schools or parks. The project would not result in substantial adverse physical impacts with the provision of new or physically altered government. No impact would occur.

### *FINDINGS*

The project would have **No Impact** relating to public services.

## 2.16 RECREATION

| Would the project: | 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? | ☐ | ☐ | ☐ | ☒ |
| 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? | ☐ | ☐ | ☒ | ☐ |

### *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 project would construct a stormwater detention basin that will alleviate 100-year, 24-hour event flooding along Sunrise Boulevard. The project would not directly or indirectly induce substantial population growth nor create substantial new demand for existing neighborhood or regional parks. The construction and/or operation of the completed project would not increase the use of existing parks or other recreational facilities due to the location and nature of the project, and no impact would occur.

*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?*

**Less than Significant Impact.** A multi-use trail has been incorporated into the design of the project to allow the public walking access to observe wildlife that may use the detention basin. The recreational features would not require expansion of the City-owned parcel and would not cause adverse physical effects on the environment. Therefore, the project would have a less than significant impact, and no mitigation is required.

### *FINDINGS*

The project would have a **Less than Significant Impact** relating to recreation.

## 2.17 TRANSPORTATION/TRAFFIC

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

### *DISCUSSION*

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

**No Impact.** The project would construct a stormwater detention basin that would be consistent with the land use within the project area. The project is not a transportation project and would not alter the roadway or include transit or roadway elements that would conflict with the City's General Plan Circulation Element, or other applicable plans, ordinances, or policies that address the circulation system. The project would include a multi-use path surrounding the new detention basin, that has been designed to local and state guidelines regarding bicycle and pedestrian facilities. No road closures are anticipated to occur and access to and along Monier Circle would be maintained throughout construction. If necessary, traffic control measures would be implemented to maintain and control traffic throughout construction zones. Therefore, the project would not conflict with a program, plan, ordinance, or policy addressing the circulation system, and no impact would occur.

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

**No Impact.** The project is not a transportation project that would increase or alter vehicle miles traveled within the circulation system and would not conflict with CEQA Guidelines section 15064.3. No impact would occur.

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

**No Impact.** The purpose of the project is to construct a stormwater detention basin that will alleviate 100-year, 24-hour event flooding along Sunrise Boulevard. The project would not involve transportation features and would not increase hazards due to a geometric design feature. No impact would occur.

*d) Would the project result in inadequate emergency access?*

**No Impact.** The purpose of the project is to construct a stormwater detention basin that will alleviate 100-year, 24-hour event flooding along Sunrise Boulevard. Construction of the project would occur entirely within the City-owned parcel, and construction access via Monier Circle is not anticipated to cause any disruption to emergency access within the Cordova Industrial Park. No impact would occur.

### *FINDINGS*

The project would have **No Impact** relating to transportation/traffic.

## 2.18 TRIBAL CULTURAL RESOURCES

| Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is: | Potentially Significant Impact | Less Than Significant with Mitigation | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or | ☐ | ☐ | ☐ | ☒ |
| b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe. | ☐ | ☐ | ☐ | ☒ |

### *DISCUSSION*

If a lead agency determines that a project may cause a substantial adverse change to a TCR, the lead agency must consider measures to mitigate that impact. Consultation concludes when either: 1) the parties agree to measures to mitigate or avoid a significant effect, if a significant effect exists, on a TCR; or 2) a party, acting in good faith, and after reasonable effort, concludes that mutual agreement cannot be reached (PRC § 21080.3.2). Under existing law, environmental documents must not include information about the locations of an archaeological site or sacred lands or any other information that is exempt from public disclosure pursuant to the Public Records act.

*a) Would the project cause a substantial adverse change in the significance of a tribal cultural resource, listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k)*

**No Impact.** A Cultural Resources Inventory Report was prepared for the project by PAR Environmental Services (PAR 2023). The study assessed the potential for surficial and/or buried archaeological and historical resources in the proposed improvement area through the completion of the following:

- Records and literature search at the North Central Information Center (NCIC) of the California Historical Resources Information Center (CHRIS);
- Further literature review of publications, files, and maps for ethnographic, historic-era, and prehistoric resources and background information;
- Communication with the Native American Heritage Commission (NAHC) to request a review of the Sacred Lands File and contact information for the appropriate tribal communities;
- Contact with the appropriate local Native American Tribes; and
- Pedestrian archaeological survey of the project area.

The NAHC responded on May 4, 2023, stating that the search of the sacred lands file was positive for resources in the APE and recommended that tribes be contacted. To facilitate consultation efforts, the NAHC provided a list of seven Native American tribes and 11 contacts that might have information or concerns regarding sacred sites and/or cultural resources in the APE. Native American Tribes that had previously requested that the City of Rancho Cordova notify them of proposed projects were contacted via email on July 12, 2023. No requests for consultation have been received under Assembly Bill 52 and there is no further data to indicate any TCRs would be located on-site. Implementation of measures CR-1 and CR-2 would require procedures to be taken in the event of inadvertent discovery of resources with

appropriate laws and requirements. The proposed project would not cause an adverse change in the significance of a known listed or eligible tribal cultural resource. No impact would occur.

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

**No Impact.** As described above, on behalf of the City, PAR Environmental Services, Inc. provided formal notification to tribal representatives who represent groups with traditional and cultural ties to the APE. To date, no requests for consultation have been received, and no information regarding potential tribal cultural resources in the APE have been received. The proposed project would not cause an adverse change in the significance of a known listed or eligible tribal cultural resource. No impact would occur.

***FINDINGS***

The project would have **No Impact** relating to tribal cultural resources.

## 2.19 UTILITIES AND SERVICE SYSTEMS

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

### *DISCUSSION*

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

**Less Than Significant Impact.** The purpose of the project is to construct a stormwater detention basin that will alleviate 100-year, 24-hour event flooding along Sunrise Boulevard. Construction would consist of clearing and grubbing the existing above ground features that are within the grading limits, and excavation of the basin. The project would not include construction or new or expanded wastewater treatment.

Water

The project would temporarily utilize water for dust suppression and other activities during construction. Construction-related water demands would be short-term and minimal in volume. Upon completion of all earthwork excavations, landscape and irrigation systems would be installed around the detention basin perimeter. Irrigation systems would be connected via Sacramento County Water Agency water lines currently existing within the parcel. The irrigation systems would be used temporarily to establish landscaping within the project area but would be disconnected or eliminated post-establishment. The project would have a less than significant impact related to the use or expansion of water infrastructure.

Storm Water

The project would construct a detention basin, weir, and pump station to divert flows from the Morrison Flood Control Channel during large storm events, to eliminate flooding along Sunrise Boulevard. The drainage pattern at the project site would remain essentially the same as currently exists; conversely, when flood flows are high enough to crest the weir and enter the detention basin, this would relieve the current downstream flooding conditions. The proposed pump station has been designed with a 6 cfs pump, which was selected as it is capable of completely draining the detention basin when full within 72 hours. The downstream channel and downstream drainage structures have adequate capacity to convey the proposed 6 cfs pumped flow. Therefore, no additional off-site storm water improvements would be required due to implementation of the project. Operation and maintenance activities would require adherence to the

requirements set forth in the Region-wide MS4 Permit and the City's Stormwater Quality Program guidelines. The project would have a less than significant impact related to expanded storm water infrastructure.

Other Utilities

Earthwork excavation would be completed to construct detention basin and weir spillway. An existing City sewer main within an existing utility easement would be protected and remain. Additionally, an existing 36-inch drainpipe would remain and outfall into the basin. A portion of the drainpipe within the basin excavation area shall be removed and disposed. All other underground utilities (sewer, drain, water, electrical and gas) within the grading limits would be removed and disposed. Electrical supply for the pump station would be connected from existing Sacramento Municipal Utility District supply within the parcel.

Project construction would require the removal of vegetation and impacts to sensitive natural communities. Project effects to biological resources are discussed in Section 2.4. With the incorporation measures BIO-1 through BIO-10, potentially significant impacts would be mitigated to a less than significant level.

Similarly, ground disturbance associated with construction activities could contact unknown cultural resources within the project area. Project effects to cultural and historic resources are discussed in Section 2.5 and Section 2.18. With the incorporation of measures CUL-1 through CUL-2, potentially significant impacts related to inadvertent discovery during construction would be mitigated to a less-than-significant level.

Therefore, the project would not cause significant environmental effects related to relocation, expansion, or removal of water, storm water, or other utility infrastructure. The project would have a less-than-significant impact.

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

**Less than Significant Impact.** As described in discussion a) above, the project would require minimal water to serve the proposed project. The impact on available water supplies during normal, dry, and multiple dry years would be less than significant.

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

**No Impact.** The project would not include the construction of any wastewater-generating uses. The project would not induce the growth of the regional or local population. Therefore, the project would not impact projected demand or capacity for wastewater treatment. No impact would occur.

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

**Less Than Significant Impact.** Construction activities are anticipated to generate typical amounts of solid waste; however, this amount would not be in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals. Therefore, the project would have a less than significant impact.

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

**No Impact.** The construction contractor would be required to dispose of all solid waste at an appropriate waste disposal facility or landfill, and in compliance with all federal, state, and local statutes and regulations regarding solid waste, and no impact would occur.

***FINDINGS***

The project would have a **Less Than Significant Impact** to utilities and service systems.

## 2.20 WILDFIRE

| If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project: | Potentially Significant Impact | Less Than Significant with Mitigation | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| a) Substantially impair an adopted emergency response plan or emergency evacuation plan? | ☐ | ☐ | ☐ | ☒ |
| b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire? | ☐ | ☐ | ☐ | ☒ |
| c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment? | ☐ | ☐ | ☐ | ☒ |
| d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes? | ☐ | ☐ | ☐ | ☒ |

### *DISCUSSION*

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

**No Impact.** The City of Rancho Cordova does not have an adopted emergency evacuation plan or emergency response plan. The Sacramento County Evacuation Functional Annex (SacOES 2021) indicates primary evacuation routes in Sacramento County consist of the major interstates, highways, and prime arterials, such as Sunrise Boulevard. The construction and operation of the project would not change existing circulation patterns along Sunrise Boulevard or generate substantial new traffic along the evacuation route. Project construction or operation would substantially impair an adopted emergency response plan or emergency evacuation plan. No impact would result.

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

**No Impact.** The purpose of the project is to construct a stormwater detention basin that will alleviate 100-year, 24-hour event flooding along Sunrise Boulevard. According to the Sacramento County CAL FIRE, Fire Hazard Severity Zone Map (CAL FIRE 2008), the project area is within a Local-Responsibility Area (LRA) that is not within a High or Very High Fire Severity Zone. Therefore, the project is not anticipated to exacerbate wildfire risks due to slope, prevailing winds, or other factors. No impact would occur.

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

**No Impact**. As described in discussion b) above, the project would not be located in a High or Very High Severity Zone according to CAL FIRE. Project construction would not include the installation or maintenance of associated infrastructure that would exacerbate fire risk. No impact would occur.

*d) Would the project expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?*

**No Impact.** As described in discussion b) above, the project would not be located in a High or Very High Severity Zone according to CAL FIRE. Project construction and operation would not expose people or structures to significant risks, as a result of runoff, post-fire instability or drainage changes. No impact would occur.

***FINDINGS***

The project would have **No Impact** relating to wildfire.

## 2.21 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? | ☐ | ☒ | ☐ | ☐ |
| b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)? | ☐ | ☐ | ☒ | ☐ |
| c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly? | ☐ | ☐ | ☒ | ☐ |

### *DISCUSSION*

*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?*

**Less Than Significant with Mitigation.** Based upon the review and analysis of potential adverse effects to the environment provided in this Initial Study (including the project-specific mitigation measures) the proposed project would not substantially degrade the overall quality of the environment within the project area. Respectively, the analysis provided in Section 2.4 Biological Resources, Section 2.5 Cultural Resources, and Section 2.7 Geology and Soils, determined potentially significant impacts must be mitigated to a less-than-significant level with incorporation of project-specific mitigation measures.

With the incorporation of mitigation measures BIO-1 through BIO-3 for potential impacts to biological resources, CUL-1, and GEO-1, the potential for project-related activities to degrade the quality of the environment, including wildlife species or their habitat, plant or animal communities, or important examples of California history or prehistory would be reduced to less than significant levels. Therefore, the project impacts would be considered less-than-significant with mitigation.

*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.** Implementation of the project, in conjunction with other approved or pending projects within the City, would not have adverse environmental impacts at a significant level or result in cumulatively considered impacts to the environment. Project-specific, potentially significant impacts would be mitigated to a less than significant level and would not result in cumulatively considerable impacts. Therefore, the project would have a less than significant impact.

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

**Less Than Significant Impact.** Based upon the review and analysis of potential adverse effects on human beings, either directly or indirectly, provided in this Initial Study, the project would not have environmental effects which will cause substantial adverse effects on human beings. Respectively, the analysis provided in Section 2.3 Air Quality, determined air quality effects would be considered less than significant and the incorporation of SMAQMD Construction BMPs would provide additional reduction in project-related emission. Therefore, the project would have a less than significant impact related to adverse effects on human beings.

### *FINDINGS*

The project will not have a significant impact relating to degradation of the quality of the environment, nor have impacts that are individually limited, but cumulatively considerable; nor have environmental effects which would cause substantial adverse effects, either directly or indirectly, on human beings. Therefore, there are no potentially significant determinations for mandatory findings of significance.

# 3.0 Comments and Coordination

This chapter summarizes the City's efforts to identify, address and resolve project-related issues through early and continuing coordination.

## 3.1 CONSULTATION AND COORDINATION WITH PUBLIC AGENCIES

Consultation and/or coordination with the following agencies was, or will be initiated for the project:

- U.S. Army Corps of Engineers
- Central Valley – Regional Water Quality Control Board
- California Department of Fish and Wildlife

## 3.2 PUBLIC PARTICIPATION

CEQA Guidelines section 15105(b) The public review period for a proposed negative declaration or mitigated negative declaration shall be not less than 20 days. When a proposed negative declaration or mitigated negative declaration is submitted to the State Clearinghouse for review by state agencies, the public review period shall not be less than 30 days, unless a shorter period, not less than 20 days, is approved by the State Clearinghouse.

The public comment period for the project will occur from October 20, 2023, to November 18, 2023. All written comments received by the City will be incorporated into the Final IS/MND and added as an appendix. Any additions or corrections to the IS/MND subsequent to public comments will be addressed within the final document.

# 4.0 Distribution List

A Notice of Availability was prepared and posted with the Sacramento County Clerk-Recorder Office, the Grapevine Independent newspaper, and distributed to all individuals and/or agencies who have requested notice. Additionally, the Draft IS was distributed to the following agencies and interested parties (unless IS hardcopies specified).

City of Rancho Cordova
Public Works Department
2729 Prospect Park Drive
Rancho Cordova, California 95670
(IS hardcopies)

**State Government**

Governor's Office of Planning and Research – California State Clearinghouse
CEQA Submit Online Database

**Local Agencies**

Sacramento County Clerk-Recorder
600 8th Street
Sacramento, CA 95814

# 5.0 List of Preparers

**Wood Rodgers, Inc.**

Andrew Dellas, MS, PWS, Senior Biologist / Environmental Planner
Tim Chamberlain, Senior Environmental Planner
Jonathan Kors, PE, Principal Engineer
Carlos Conteras, PE, Senior Engineer
Cody Milligan, PE, CFM, Project Engineer

**PAR Environmental Services, Inc.**

Ellie Maniery, MA, RPA, Project Manager, Senior Archaeologist

**City of Rancho Cordova**

Margarita Dronov, PE, Associate Civil Engineer
Kristine Courdy, PE, Senior Civil Engineer
Dalia Fadl, PE, Principal Engineer
Darcy Goulart, Planning Manager

# 6.0 References

CAL FIRE 2008. Sacramento County – Very High Fire Hazard Severity Zones in LRA. Fire and Resource Assessment Program. California Department of Forestry and Fire Prevention.

CARB 2022. California Air Resources Board. Air Quality and Science Division. "Maps of State and Federal Area Designations." Available at: https://ww2.arb.ca.gov/resources/documents/maps-state-and-federal-area-designations

CDC 2020. California Department of Conservation. Farmland Mapping & Monitoring Program. Sacramento County Important Farmland 2020. Available at: https://www.conservation.ca.gov/dlrp/fmmp

CDC 2015. Department of Conservation. 2015 Fault Activity Map of California. Available at: https://maps.conservation.ca.gov/cgs/fam/

CDFW. 2023a. California Natural Diversity Database. Rarefind 4. Available at: http://www.dfg.ca.gov/biogeodata/cnddb/mapsanddata.asp

CDFW. 2023b. Biogeographic Information and Observation System. "Terrestrial Habitat Connectivity." Habitat Connectivity Viewer. Available at: https://wildlife.ca.gov/Data/Analysis/Connectivity

CNPS 2023. Inventory of Rare and Endangered Plants. California Native Plant Society, Sacramento, CA. Available at: http://www.rareplants.cnps.org

DTSC 2023. Department of Toxic Substances Control. EnviroStor. Available at: https://dtsc.ca.gov/your-envirostor/

FEMA 2023. FEMA Flood Map Service Center. Available at: https://msc.fema.gov/portal/home

FTA 2006. Federal Transit Administration, Transit Noise Impact and Vibration Assessment, May 2006. Available at: https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/FTA_Noise_and_Vibration_Manual.pdf

NRCS 2023. Custom Soil Resource Report for the Monier Circle Stormwater Detention Basin Project. Natural Resources Conservation Service. 27 February 2023.

PAR 2023. PAR Environmental Services. Cultural Resources Inventory Report. Monier Circle Stormwater Detention Basin Project.

RWQCB 2019. Waste Discharge Requirements Order R5-2019-0023 and Clean Water Act Section 401 Water Quality Certification for USACE SSHCP Programmatic General Permit Sacramento County.

SacOES 2021. Sacramento County Evacuation Functional Annex. Available at: https://sacoes.saccounty.gov/EmergencyManagement/Pages/Planning.aspx

SACOG 2022. Mather Airport Land Use Compatibility Plan Update. Sacramento Area County of Governments. ESA Associates. August 2022.

SCOTUS 2023. Supreme Court of the United States. Sackett et ux. V. Environmental Protection Agency et al. Available at: https://www.supremecourt.gov/opinions/22pdf/21-454_4g15.pdf

SMAQMD 2021. Guide to Air Quality Assessment in Sacramento County. Chapter 6, Greenhouse Gas Emissions. Available at: https://www.airquality.org/LandUseTransportation/Documents/Ch6GHG2-26-2021.pdf

SWRCB 2023. State Water Resources Control Board. GeoTracker. Available at: https://geotracker.waterboards.ca.gov/

SWRCB 2019. 401 Water Quality Certification and Wetlands Program. "State Wetland Definition and Procedures for Discharge of Dredged or Fill Materials to Waters of the State." Available at: https://www.waterboards.ca.gov/water_issues/programs/cwa401/

USDA 2007. Description of ecological subsections: section of the conterminous United States. U.S. Forest Service. U.S. Department of Agriculture.

USDA 1993. Soil Survey of Sacramento County, California. Soil Conservation Service. United States Department of Agriculture. Washington, D.C.

UCMP 2023. University of California Museum of Paleontology Vertebrate Specimen Search for Sacramento County. Berkeley, CA. Available at: http://ucmpdb.berkeley.edu.

USACE 2019. South Sacramento HCP Programmatic General Permit 17. "Minimal Impact Covered Activities under the South Sacramento Habitat Conservation Plan. U.S. Army Corps of Engineers, Sacramento District. Effective: July 25, 2019. Expires: July 25, 2024.

USACE, 2008a. Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0) Available at: http://www.usace.army.mil/Portals/2/docs/civilworks/regulatory/reg_supp/trel08-28.pdf

USACE. 2008b. A Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States: A Delineation Manual. Available at: http://www.spk.usace.army.mil/Portals/12/documents/regulatory/pdf/Ordinary_High_Watermark_Manual_Aug_2008.pdf

USACE 1987. Corps of Engineers Wetland Delineation Manual. Wetlands Research Program Technical Report Y-87-1 (on-line edition). Available at: https://www.usace.army.mil/Missions/Civil-Works/Regulatory-Program-and-Permits/reg_supp/

USFWS 2023. Official Species List: U.S. Department of the Interior – Fish and Wildlife Service: Sacramento Fish and Wildlife Office. Project Code: 2023-0049736

Wood Rodgers 2023a. Biological Resources Report. Monier Circle Stormwater Detention Basin Project.

Wood Rodgers 2023b. Aquatic Resources Delineation Report. Monier Circle Stormwater Detention Basin Project.

Wood Rodgers 2023c. Hydraulic Analysis Technical Memorandum. Monier Circle Stormwater Detention Basin Project.

# Appendix A.
# CalEEMod Summary Report

# Monier Circle Stormwater Detention Basin Project Summary Report

## Table of Contents

# 1. Basic Project Information

## 1.1. Basic Project Information

| Data Field | Value |
|---|---|
| Project Name | Monier Circle Stormwater Detention Basin Project |
| Construction Start Date | 6/4/2024 |
| Lead Agency | City of Rancho Cordova |
| Land Use Scale | Project/site |
| Analysis Level for Defaults | County |
| Windspeed (m/s) | 2.70 |
| Precipitation (days) | 37.8 |
| Location | 38.58075705886341, -121.26141042524964 |
| County | Sacramento |
| City | Rancho Cordova |
| Air District | Sacramento Metropolitan AQMD |
| Air Basin | Sacramento Valley |
| TAZ | 778 |
| EDFZ | 13 |
| Electric Utility | Sacramento Municipal Utility District |
| Gas Utility | Pacific Gas & Electric |
| App Version | 2022.1.1.19 |

## 1.2. Land Use Types

| Land Use Subtype | Size | Unit | Lot Acreage | Building Area (sq ft) | Landscape Area (sq ft) | Special Landscape Area (sq ft) | Population | Description |
|---|---|---|---|---|---|---|---|---|
| User Defined Industrial | 1.00 | User Defined Unit | 5.70 | 0.00 | 50,000 | — | — | — |

### 1.3. User-Selected Emission Reduction Measures by Emissions Sector

| Sector | # | Measure Title |
|---|---|---|
| Construction | C-10-B | Water Active Demolition Sites |

## 2. Emissions Summary

### 2.1. Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Un/Mit. | TOG | ROG | NOx | CO | SO2 | PM10T | PM2.5T | CO2T | CO2e |
|---|---|---|---|---|---|---|---|---|---|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — |
| Unmit. | 6.60 | 3.72 | 81.4 | 43.3 | 0.43 | 12.9 | 5.02 | 36,900 | 38,684 |
| Mit. | 6.60 | 3.72 | 81.4 | 43.3 | 0.43 | 12.9 | 5.02 | 36,900 | 38,684 |
| % Reduced | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — |
| Unmit. | — | — | — | — | — | — | — | 0.00 | 0.00 |
| Mit. | — | — | — | — | — | — | — | 0.00 | 0.00 |
| % Reduced | — | — | — | — | — | — | — | — | — |
| Average Daily (Max) | — | — | — | — | — | — | — | — | — |
| Unmit. | 0.76 | 0.39 | 9.25 | 5.13 | 0.04 | 1.30 | 0.53 | 3,794 | 3,967 |
| Mit. | 0.76 | 0.39 | 9.25 | 5.13 | 0.04 | 1.30 | 0.53 | 3,794 | 3,967 |
| % Reduced | — | — | — | — | — | — | — | — | — |
| Annual (Max) | — | — | — | — | — | — | — | — | — |
| Unmit. | 0.14 | 0.07 | 1.69 | 0.94 | 0.01 | 0.24 | 0.10 | 628 | 657 |
| Mit. | 0.14 | 0.07 | 1.69 | 0.94 | 0.01 | 0.24 | 0.10 | 628 | 657 |
| % Reduced | — | — | — | — | — | — | — | — | — |

# 6. Climate Risk Detailed Report

## 6.2. Initial Climate Risk Scores

| Climate Hazard | Exposure Score | Sensitivity Score | Adaptive Capacity Score | Vulnerability Score |
|---|---|---|---|---|
| Temperature and Extreme Heat | 2 | 1 | 2 | 2 |
| Extreme Precipitation | 2 | 1 | 4 | 1 |
| Sea Level Rise | N/A | N/A | N/A | N/A |
| Wildfire | 1 | 1 | 2 | 1 |
| Flooding | 5 | 2 | 3 | 3 |
| Drought | 1 | 1 | 1 | 2 |
| Snowpack Reduction | N/A | N/A | N/A | N/A |
| Air Quality Degradation | 5 | 1 | 1 | 4 |

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

## 6.3. Adjusted Climate Risk Scores

| Climate Hazard | Exposure Score | Sensitivity Score | Adaptive Capacity Score | Vulnerability Score |
|---|---|---|---|---|
| Temperature and Extreme Heat | 2 | 1 | 2 | 2 |
| Extreme Precipitation | 2 | 1 | 4 | 1 |
| Sea Level Rise | N/A | N/A | N/A | N/A |
| Wildfire | 1 | 1 | 2 | 1 |
| Flooding | 5 | 2 | 3 | 3 |
| Drought | 1 | 1 | 1 | 2 |
| Snowpack Reduction | N/A | N/A | N/A | N/A |
| Air Quality Degradation | 5 | 1 | 1 | 4 |

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

# 7. Health and Equity Details

## 7.3. Overall Health & Equity Scores

| Metric | Result for Project Census Tract |
|---|---|
| CalEnviroScreen 4.0 Score for Project Location (a) | 50.0 |
| Healthy Places Index Score for Project Location (b) | 81.0 |
| Project Located in a Designated Disadvantaged Community (Senate Bill 535) | No |
| Project Located in a Low-Income Community (Assembly Bill 1550) | No |
| Project Located in a Community Air Protection Program Community (Assembly Bill 617) | No |

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

## 7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

# Appendix B.
# Biological Technical Reports

# Monier Circle Stormwater Detention Basin Project

# Biological Resources Report

**Prepared for:**

City of Rancho Cordova
Public Works Department
2729 Prospect Park Drive
Rancho Cordova, California 95670

**Prepared by:**

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**August 2023**

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# Executive Summary

The City of Rancho Cordova is proposing to construct the Monier Circle Stormwater Detention Basin Project (project). The project is located on a City-owned parcel on Monier Circle (APN 072-1010-029), Sacramento County, California. The basin would cover a majority of the parcel and provide approximately 37.2 acre-feet of storage during the 100-year, 24-hour storm event.

This Biological Resources Report is a review and evaluation of the potential impacts to threatened, endangered, proposed listed or special status species and protected habitat resources as a result of the proposed Project. Field surveys were conducted within the Biological Study Area (BSA), which was defined as the proposed Project impact area and includes all areas necessary to accommodate the design and facilitate construction.

Literature research, habitat assessments, and biological surveys determined that no special status plant or wildlife species would have the potential to occur within the BSA. Species potential was based on the known distribution of species occurrences, species habitat requirements, and the current conditions within the BSA.

The project is a "Covered Activity" under the South Sacramento Habitat Conservation Plan (SSHCP), categorized as *Urban development in the Urban Development Area* (UDA), subcategory *Flood Control and Stormwater Management in the UDA.* As a SSHCP Plan Permittee, the City will conduct SSHCP Consistency Determination for the project, and issue a SSHCP Permit for associated land cover impacts. The project does not contain modeled habitat for Covered Species; therefore, no incidental take coverage for Covered Species is anticipated. However, the project would comply with the conditions of the SSHCP in order to comply with the applicable programmatic regulatory requirements set forth in the SSHCP Aquatic Resources Program and incorporated within the City's Municipal Code Chapter 16.94 "Aquatic Resources Protection".

A preliminary jurisdictional delineation of aquatic resources within the BSA was conducted as part of the project analysis. Delineation efforts identified one aquatic resource, the Morrison Flood Control Channel (Morrison Channel). Approximately <0.01 acres of permanent effects and approximately 0.05 acres of temporary effects would occur to the Morrison Channel as part of the proposed Project. In addition, approximately 0.07 permanent effects and approximately 0.09 acres of temporary effects would occur to jurisdictional uplands. An Aquatic Resources Delineation Report (ARDR) has been prepared and will be submitted to support applicable regulatory permitting requirements.

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# Table of Contents

## List of Figures



## List of Tables

# List of Abbreviated Terms

| | |
|---|---|
| BMPs | Best Management Practices |
| BRR | Biological Resources Report |
| BSA | Biological Study Area |
| Caltrans | California Department of Transportation |
| Cal-IPC | California Invasive Plant Council |
| CDFW | California Department of Fish and Wildlife |
| CEQA | California Environmental Quality Act |
| CESA | California Endangered Species Act |
| City | City of Rancho Cordova |
| CFR | Code of Federal Regulations |
| CFG Code | California Fish and Game Code |
| CGP | Construction General Permit |
| CNDDB | California Natural Diversity Database |
| CNPS | California Native Plant Society |
| CWA | Clean Water Act |
| EFH | Essential Fish Habitat |
| EHP | Environmental and Historic Preservation |
| EO | Executive Order |
| EPA | Environmental Protection Agency |
| ESA | Environmentally Sensitive Area |
| °F | Degrees Fahrenheit |
| FEMA | Federal Emergency Management Agency |
| FESA | Federal Endangered Species Act |
| ITP | Incidental Take Permit |
| IPaC | Information for Planning and Consultation |
| MBTA | Migratory Bird Treaty Act |
| MS4 | Municipal Separate Storm Sewer Systems |
| NEPA | National Environmental Policy Act |
| NMFS | National Marine Fishers Service |
| NPDES | National Pollution Discharge Elimination System |
| NRCS | Natural Resource Conservation Service |
| OHWM | Ordinary High Water Mark |
| project | Monier Circle Flood Control Basin Project |
| RWQCB | Regional Water Quality Control Board |
| State | State of California |
| SSHCP | South Sacramento Habitat Conservation Plan |
| SWPPP | Storm Water Pollution Prevention Plan |
| SWRCB | State Water Resources Control Board |
| TMDL | Total Maximum Daily Loads |
| U.S. | United States |

# List of Abbreviated Terms

| | |
|---|---|
| USACE | United States Army Corps of Engineers |
| USFWS | United States Fish and Wildlife Service |
| USGS | United States Geological Survey |
| WOTUS | Waters of the United States |
| WoS | Waters of the State |

# Chapter 1. Introduction

The proposed project is intended to address flooding problems identified since the 1990s along Sunrise Boulevard between Monier Circle and Mechanical Drive, a high-traffic and industrial area of the City of Rancho Cordova. This roadway floods during the 100-year, 24-hour event, and depth of flooding can reach four to five feet. Much of the flooding is due to a lack of capacity in the existing siphons that convey runoff out of this watershed under the Folsom South Canal, which is a portion of the State Water Project operated by the United States Bureau of Reclamation. Increased stormwater detention capacity upstream of the siphons would reduce or prevent persistent roadway flooding.

The City received funding from the Federal Emergency Management Agency (FEMA) Hazard Mitigation Grant Program to fund this project through a two-phase cycle. Phase 1 scope of work will include Environmental and Historic Preservation (EHP) actions, development of the 60-percent project design, specifications, cost estimates and the permitting required to construct the project. Phase 2 will include development of 100-percent plans, specifications, cost estimate, and record drawings after construction. Phase 2 activities may not commence until the City receives written approval from FEMA.

## 1.1. Project Description

The City of Rancho Cordova (City) is proposing to construct the Monier Circle Stormwater Detention Basin Project (project). The project is located on a City-owned parcel on Monier Circle (APN 072-1010-029), Sacramento County, California (see Figure 1 and Figure 2). The basin would cover a majority of the parcel and provide approximately 37.2 acre-feet of storage during the 100-year, 24-hour storm event. Proposed improvements include a weir along the drainage channel on the south side of the detention basin. During storm events, runoff in the channel would be diverted over the weir into the detention basin where it would be stored until the water surface elevations recede in the channel, then it would be pumped to the channel using a small sump pump (see Figure 3). Invasive species vegetation along the channel would be removed and replaced with native vegetation where feasible.

Construction would consist of clearing and grubbing the existing above ground features that are within the grading limits. Existing trees along Monier Circle frontage and sewer main within existing utility easement would be protected and remain. An existing 36-inch drainpipe within an existing utility easement would be removed to the limits of the basin excavation limits. All other underground utilities (sewer, drain, water, electrical and gas) within the grading limits would be removed and disposed. Earthwork excavation would be completed to construct detention basin and weir spillway. Any excess earthwork material would be off hauled. A pumping station and outfall structure would be constructed adjacent to the existing drainage canal. Upon completion of all earthwork excavations, landscape and irrigation systems would be installed around the detention basin perimeter and an all-weather path would be constructed along the top of detention basin for pedestrian recreational use.

### 1.1.1. Purpose

The purpose of the project is to construct a stormwater detention basin that will alleviate 100-year, 24-hour event flooding along Sunrise Boulevard.

### 1.1.2. Need

The project is needed to address flooding problems along Sunrise Boulevard, between Monier Circle and Mechanical Drive due to the lack of capacity in the existing stormwater system within the City.

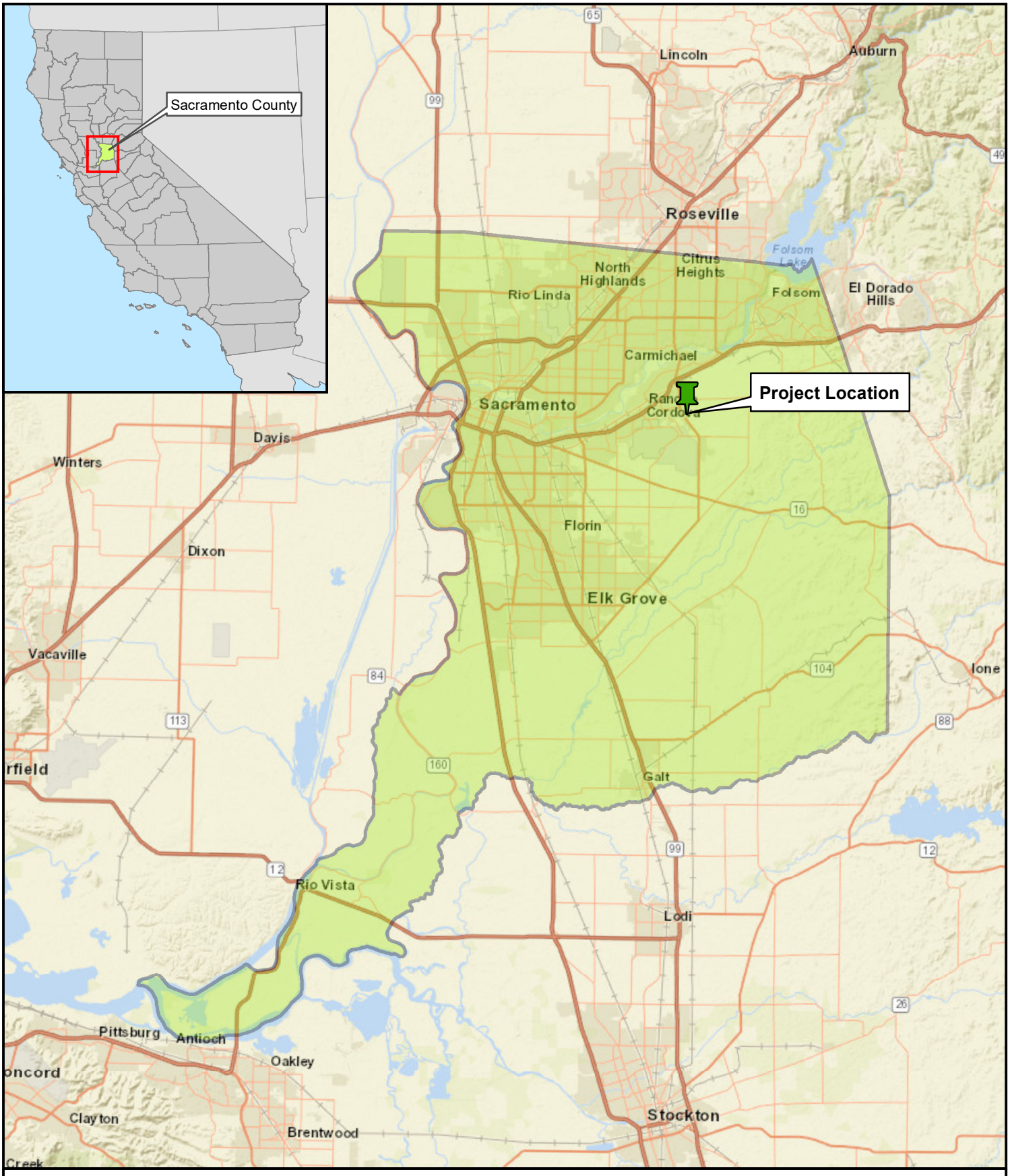


FIGURE 1

**PROJECT VICINITY**

MONIER CIRCLE FLOOD CONTROL BASIN PROJECT

SACRAMENTO COUNTY, CALIFORNIA

MARCH 2023

0 2.5 5 10

Miles

NORTH

WOOD RODGERS

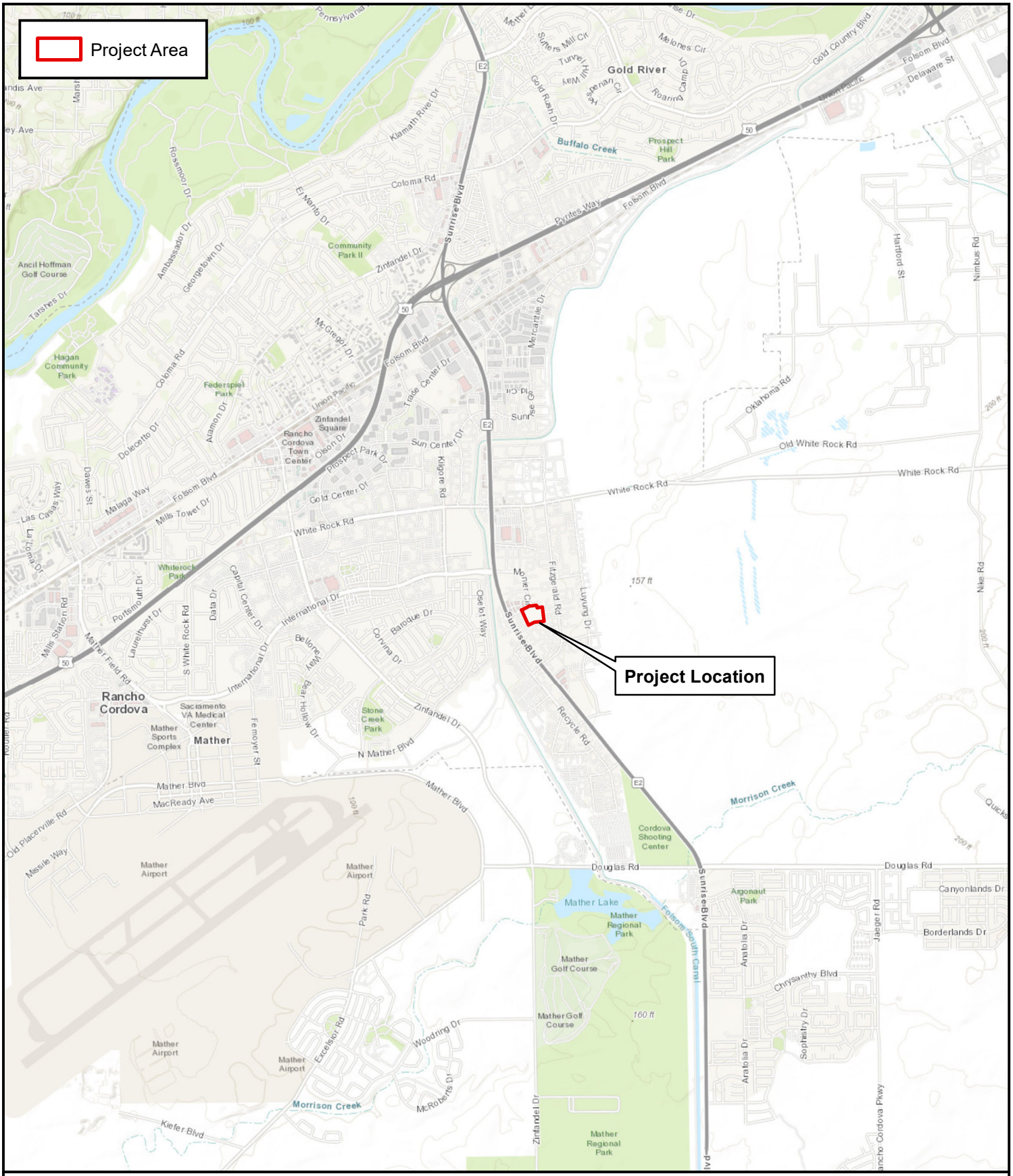


FIGURE 2

**PROJECT LOCATION**

MONIER CIRCLE FLOOD CONTROL BASIN PROJECT

SACRAMENTO COUNTY, CALIFORNIA

MARCH 2023


FIGURE 3

**PROJECT FEATURES**

MONIER CIRCLE STORMWATER DETENTION BASIN PROJECT

SACRAMENTO COUNTY, CALIFORNIA

JUNE 2023

0 50 100 200

Feet

NORTH

WOOD RODGERS

# Chapter 2. Study Methods

Prior to field work, literature research was conducted through the United States Fish and Wildlife Service (USFWS) Information for Planning and Consultation (IPaC) website to generate an official species list, the California Department of Fish and Wildlife (CDFW) *California Natural Diversity Database* (CNDDB), the California Native Plant Society (CNPS) *Electronic Inventory of Rare and* Endangered, and the National Marine Fisheries Service (NMFS) Protected Resources Application, to identify habitats and special-status species having the potential to occur within the BSA (see Appendix A for Database query results). Field surveys were conducted on March 23, 2023, to document existing biological resources, detect potential jurisdictional waters, and search for sensitive and protected species or their habitats.

## 2.1. Regulatory Requirements

This section describes the Federal, State, and local plans, policies, and laws that are relevant to biological resources within the BSA. Applicable Federal permits and approvals that will be required before construction of the proposed project are provided in Chapter 5.

**Federal Regulations**

### 2.1.1. Federal Endangered Species Act

The Federal Endangered Species Act (FESA) of 1973 (16 U.S.C. section 1531 et seq.) provides for the conservation of endangered and threatened species listed pursuant to Section 4 of the Act (16 U.S.C. section 1533) and the ecosystems upon which they depend. These species and resources have been identified by USFWS and NMFS.

### 2.1.2. Clean Water Act

The Clean Water Act (CWA) was enacted as an amendment to the Federal Water Pollutant Control Act of 1972, which outlined the basic structure for regulating discharges of pollutants to Waters of the United States (WOTUS). The CWA serves as the primary Federal law protecting the quality of the nation's surface waters, including lakes, rivers, and coastal wetlands. The CWA empowers the U.S. Environmental Protection Agency (EPA) to set national water quality standards and effluent limitations and includes programs addressing both point-source and non-point-source pollution. Point-source pollution originates or enters surface waters at a single, discrete location, such as an outfall structure or an excavation or construction site. Non-point-source pollution originates over a broader area and includes urban contaminants in storm water runoff and sediment loading from upstream areas. The CWA operates on the principle that all discharges into the nation's waters are unlawful unless they are specifically authorized by a permit; permit review is the CWA's primary regulatory tool.

Section 303(d)
Under the mandate of Section 303(d) of the CWA, the RWQCB is required to formulate a list of surface water bodies that exceed applicable water quality standards. Subsequently, the RWQCB is required to describe the impairment sources and prioritize these water bodies to develop Total Maximum Daily Loads (TMDLs). The current list was updated in 2018 and approved by the U.S. EPA in 2021. The Morrison Channel is not 303(d) listed (Caltrans, 2023).

Section 401
The Regional Water Quality Control Board (RWQCB) has jurisdiction under Section 401 of the CWA and regulates any activity which may result in a discharge to surface waters. Typically, the areas subject to

jurisdiction of the RWQCB coincide with those of U.S. Army Corps of Engineers (USACE) (i.e., waters of the U.S. including any wetlands). The RWQCB also asserts authority over "Waters of the State" under waste discharge requirements pursuant to the Porter-Cologne Water Quality Control Act. The proposed project is located within the Jurisdiction of the Sacramento office of the Central Valley RWQCB.

Section 402

The Central Valley RWQCB is a designated municipal permittee under the EPA's National Pollutant Discharge Elimination System (NPDES), which regulates stormwater flows into natural water bodies. The NPDES regulations require permitted areas to implement specific activities and actions to eliminate or control stormwater pollution (RWQCB 2018).

The U.S. EPA defines a Municipal Separate Storm Sewer System (MS4) as any conveyance or system of conveyances (roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, human-made channels, and storm drains) owned or operated by a state, city, town, county, or other public body having jurisdiction over storm water, that are designed or used for collecting or conveying storm water. As part of the NPDES program, U.S. EPA initiated a program requiring that entities having MS4s apply to their local RWQCBs for storm water discharge permits. For all projects subject to the Construction General Permit (CGP), applicants are required to develop and implement an effective Storm Water Pollution Prevention Plan (SWPPP).

By law, all storm water discharges associated with construction activity, including, but not limited to, clearing, grading, grubbing or excavation, or any other activity that results in a land disturbance of equal to or greater than one acre must comply with the provisions of the CGP. Construction activity that results in soil disturbances of less than one acre is subject to this CGP if there is potential for significant water quality impairment resulting from the activity as determined by the RWQCB. Operators of regulated construction sites are required to develop a Storm Water Pollution Prevention Plan; to implement sediment, erosion, and pollution prevention control measures; and to obtain coverage under the CGP.

The CGP separates projects into Risk Levels 1, 2, or 3. Risk levels are determined during the planning and design phases and are based on potential erosion and transport to receiving waters. Requirements apply according to the Risk Level determined. For example, a Risk Level 3 (highest risk) project would require compulsory storm water runoff pH and turbidity monitoring, and pre- and post-construction aquatic biological assessments during specified seasonal windows.

Section 404

The USACE regulates discharges of dredged or fill material into waters of the U. S. These waters include wetlands and non-wetland bodies of water that meet specific criteria, including a direct or indirect connection to interstate commerce. USACE regulatory jurisdiction pursuant to Section 404 of the CWA is founded on a connection, or nexus, between the water body in question and interstate commerce. This connection may be direct (through a tributary system linking a stream channel with traditional navigable waters used in interstate or foreign commerce) or may be indirect (through a nexus identified in USACE regulations).

Sackett v. Environmental Protection Agency

On May 25, 2023, the Supreme Court of the United States (SCOTUS) issued a unanimous ruling limiting the federal government's jurisdiction over wetland and tributaries (SCOTUS 2023). In Sackett v. EPA, the Court expressly endorsed the test articulated in the Rapanos plurality opinion and outright rejected Justice Kennedy's "significant nexus" test. Therefore, the Sackett v. EPA decision limits the definition of WOTUS to relatively permanent bodies of navigable waters, and to assert jurisdiction over an adjacent wetland or tributary under the CWA, a party must establish "first, that the adjacent [body of water constitutes] . . . 'water[s] of the United States' (i.e., "only those relatively permanent, standing or continuously flowing bodies of water 'forming geographic[al] features' connected to traditional interstate navigable waters); and second, that the wetland or

tributary has a continuous surface connection with that water, making it difficult to determine where the 'water' ends and the 'wetland' begins." (SCOTUS 2023).

### 2.1.3. Executive Order 13186: Migratory Bird Treaty Act

EO 13186 (signed January 10, 2001) directs each Federal agency taking actions that could adversely affect migratory bird populations to work with USFWS to develop a Memorandum of Understanding that will promote the conservation of migratory bird populations. Protocols developed under the Memorandum of Understanding will include the following agency responsibilities:

- avoid and minimize, to the maximum extent practicable, adverse impacts on migratory bird resources when conducting agency actions;
- restore and enhance habitat of migratory birds, as practicable; and
- prevent or abate the pollution or detrimental alteration of the environment for the benefit of migratory birds, as practicable.

The EO is designed to assist Federal agencies in their efforts to comply with the Migratory Bird Treaty Act (MBTA) (50 Code of Federal Regulations [CFR] 10 and 21) and does not constitute any legal authorization to take migratory birds. Take is defined under the MBTA as "the action of or attempt to pursue, hunt, shoot, capture, collect, or kill" (50 CFR 10.12) and includes intentional take (i.e., take that is the purpose of the activity in question) and unintentional take (i.e., take that results from, but is not the purpose of, the activity in question).

## State Regulations

### 2.1.4. California Environmental Quality Act

California Environmental Quality Act (CEQA) is a state law created to inform governmental decision-makers and the public about the potential, significant environmental effects of proposed activities and to work to reduce these negative environmental impacts.

### 2.1.5. California Endangered Species Act

The California Endangered Species Act (CESA) (California Fish and Game [CFG] Code Section 2050 et seq.) requires CDFW to establish a list of endangered and threatened species (Section 2070) and to prohibit the incidental taking of any such listed species except as allowed by the Act (Sections 2080-2089). In addition, CESA prohibits take of candidate species (under consideration for listing).

CESA also requires CDFW to comply with CEQA (Pub. Resources Code Section 21000 et seq.) when evaluating incidental take permit (ITP) applications (California Fish and Game Code [CFG Code] Section 2081(b) and California Code Regulations, Title 14, section 783.0 et seq.), and the potential impacts the project or activity for which the application was submitted may have on the environment. CDFW's CEQA obligations include consultation with other public agencies which have jurisdiction over the project or activity [California Code Regulations, Title 14, Section 783.5(d)(3)]. CDFW cannot issue an ITP if issuance would jeopardize the continued existence of the species [CFG Code Section 2081(c); California Code Regulations, Title 14, Section 783.4(b)].

### 2.1.6. California Fish and Game Code: Section 1602

Under CFG Code Section 1602, public agencies are required to notify CDFW before undertaking any project that will divert, obstruct, or change the natural flow, bed, channel, or bank of any river, stream, or lake.

Preliminary notification and project review generally occurs during the environmental process. When an existing fish or wildlife resource may be substantially adversely affected, CDFW is required to propose reasonable project changes to protect the resources. These modifications are formalized in a Streambed Alteration Agreement that becomes part of the plans, specifications, and bid documents for the project.

### 2.1.7. California Fish and Game Code: Section 3503 and 3503.5

CFG Code Section 3503 prohibits the destruction of bird nests and Section 3503.5 prohibits the killing of raptor species and destruction of raptor nests. Trees and shrubs are present in and adjacent to the study area and could contain nesting sites.

### 2.1.8. California Fish and Game Code: Section 3513

CFG Code Section 3513 prohibits the take or possession of any migratory non-game bird as designated in the MBTA or any part of such migratory non-game bird except as provided by rules and regulations adopted by the Secretary of the Interior under provisions of the MBTA.

### 2.1.9. Porter Cologne Water Quality Control Act

California's Porter-Cologne Act, enacted in 1969, provides the legal basis for water quality regulation within California. This Act requires a "Report of Waste Discharge" for any discharge of waste (liquid, solid, or gaseous) to land or surface waters that may impair beneficial uses for surface and/or groundwater of the State. It predates the CWA and regulates discharges to waters of the State. Waters of the State include more than just WOTUS like groundwater and surface waters not considered WOTUS. Additionally, it prohibits discharges of "waste" as defined and this definition is broader than the CWA definition of "pollutant". Discharges under the Porter-Cologne Act are permitted by Waste Discharge Requirements and may be required even when the discharge is already permitted or exempt under the CWA.

The State Water Resources Control Board (SWRCB) and RWQCBs are responsible for establishing the water quality standards (objectives and beneficial uses) required by the CWA, and regulating discharges to ensure compliance with the water quality standards. Details regarding water quality standards in a project area are contained in the applicable RWQCB Basin Plan. In California, Regional Boards designate beneficial uses for all water body segments in their jurisdictions, and then set criteria necessary to protect these uses. Consequently, the water quality standards developed for particular water segments are based on the designated use and vary depending on such use. In addition, the SWRCB identifies waters failing to meet standards for specific pollutants, which are then state-listed in accordance with CWA Section 303(d). If a state determines that waters are impaired for one or more constituents and the standards cannot be met through point source or non-source point controls (NPDES permits or Waste Discharge Requirements), the CWA requires the establishment of Total Maximum Daily Loads (TMDLs). TMDLs specify allowable pollutant loads from all sources (point, non-point, and natural) for a given watershed.

### 2.1.10. State Water Resources Control Board "Procedures"

The SWRCB adjudicates water rights, sets water pollution control policy, and issues water board orders on matters of statewide application, and oversees water quality functions throughout the state by approving Basin Plans, TMDLs, and NPDES permits. Regional Water Quality Control Boards (RWQCBs) are responsible for protecting beneficial uses of water resources within their regional jurisdiction using planning, permitting, and enforcement authorities to meet this responsibility.

In 2019, the SWRCB adopted a "State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State" (Procedures; SWRCB 2019). The Procedures consist of four major elements:

1) a wetland definition; 2) a framework for determining if a wetland feature is a water of the state; 3) wetland delineation procedures; and 4) procedures for the submittal, review and approval of applications for Water Quality Certifications and Waste Discharge Requirements for dredge or fill activities.

The SWRCB adopted the Procedures to address several important issues. There was a need to strengthen protection of waters of the state that were no longer protected under the CWA due to U.S. Supreme Court decisions, since the SWRCB historically relied on CWA protections in dredged or fill discharge permitting practices. Second, there was inconsistency across the SWRCB in requirements for discharges of dredged or fill material into waters of the state, including wetlands. Third, there was no single accepted definition of wetlands at the state level, and the SWRCB historically had different requirements and levels of analysis regarding issuance of water quality certifications. Finally, regulations have historically not been adequate to prevent losses in the quantity and quality of wetlands in California, where there have been especially profound historical losses of wetlands.

The Office of Administrative Law (OAL) approved the Procedures on August 28, 2019. Pursuant to the Procedures, the effective date is nine months upon OAL approval. Accordingly, the Procedures became effective May 28, 2020 (SWRCB 2023).

***Local Regulations***

### 2.1.11. Sacramento County General Plan

The Sacramento County 2030 General Plan (County of Sacramento 2011, as amended) has a wide variety of policies and goals to implement protections for natural environments, habitats and species. Specifically, the Conservation Element, Section V "Vegetation and Wildlife", Section VI "Aquatic Resources" and Section VII "Terrestrial Resources" demonstrates the goals and implementing objectives for the protection of biological resources within the County.

### 2.1.12. City of Rancho Cordova General Plan

The City's General Plan (City of Rancho Cordova 2006, as amended) serves as a blueprint for the future growth and development of the City. As part of the blueprint, the Natural Resources Element describes the City's Vision Statement for protecting natural resources throughout the City:

> *Rancho Cordova will achieve a balance of natural resources and urban form through the compatible preservation of natural resources within the man-made environment. Natural resources will be protected, conserved, and reflected in the built environment. Creek corridors, preserves, trees, and open space areas will enhance neighborhoods and public spaces. The community's water resources will be conserved and protected from contamination. All new development will be consistent with stormwater regulations and protect against erosion. The community will strive to conserve energy and to recycle construction materials, green waste, and consumer goods.*

The Natural Resources Element identifies the ways in which the City intends to protect, maintain, and enhance its natural resources for the betterment of current residents and future generations. In combination, the Natural Resources Element and the Open Space, Parks and Trails Element represent the conservation element of the General Plan. The Open Space, Parks and Trails Element contains details on the City's Open Space Plan. It also attempts to balance the present needs of resource users with the need for resource conservation for the common good. The goals, policies, and actions established in these General Plan Elements will foster the preservation of City's many valuable natural resources, including wildlife, habitat, water resources, soils, and mineral resources.

### 2.1.13. City of Rancho Cordova Municipal Code

The City's municipal code Chapter 19.12 and Chapter 19.04 provide guidelines for the protection of private and public trees within the City.

Chapter 19.12, establishes permitting and replacement guidelines for impacts to private trees, including activities that trench, grade or fill within the dripline, or damage, kill, or remove any "protected tree" without an approved tree permit.

Chapter 19.04 establishes public tree permit requirements for any public tree whose trunk is located in a street, planting easement, public premises, public sidewalk, median, traffic islands, or any other right-of-way owned or controlled by the City.

### 2.1.14. South Sacramento Habitat Conservation Plan (SSHCP)

The City is a SSHCP Permittee Agency, and the project would be required to conduct coordination with the South Sacramento Conservation Agency to secure project consistency determination with the SSHCP.

The SSHCP encompasses a 317,000-acre area in south Sacramento County and streamlines federal and state permitting for development and infrastructure projects while conserving habitat. An interconnected regional preserve system of over 36,000 acres – roughly 1.2 times the total size of San Francisco - will be created over the next 50 years to protect twenty-eight plant and wildlife species and their natural habitats. The SSHCP is the first in the nation to include CWA permits issued by the USACE, and ESA permits issued by the USFWS. Instead of permitting through several separate state and federal agencies, most actions in the SSHCP area can be permitted through the County Office of Planning and Environmental Review.

The SSHCP Plan Area is located in the southern portion of Sacramento County. It is divided into two components: inside and outside the Urban Development Area (UDA). All proposed urbanization and some preserves will occur inside the UDA. Most preservation will occur outside of the UDA and help to protect agricultural lands as well as habitat.

SSHCP Covered Activities may be carried out by the Permittee Agencies or by Third Party Project Proponents. The Conservation Strategy and process for Covered Activity project authorization is described in the SSHCP and associated permits. In all cases, language in the permit(s) prevail when different than the SSHCP.

## 2.2. Studies Required

Online Databases from USFWS, NMFS, CNDDB, and CNPS were queried for presence of potential threatened, endangered, rare or special status species within the Sacramento East, Carmichael, Citrus Heights, Buffalo Creek, Rio Linda, and Folsom United States Geological Survey (USGS) 7½ minute quadrangles. These searches identified 30 regional species of special concern with potential to occur in the vicinity of the project area. These species are listed in Chapter 3, Table 3 which provides a comprehensive list of these species and presents specific characteristics, habitat requirements, and potential for occurrence for each species. Based upon literature and online database research the following surveys and studies were conducted: a biological reconnaissance survey, a preliminary jurisdictional delineation, and a Crotch bumble bee visual survey.

### 2.2.1. Biological Study Area

Prior to field surveys, the BSA was defined as the proposed project impact area plus a 100-foot buffer (Figure 3. Project Features). The project impact area is defined as all areas that will be temporarily or permanently

impacted by the project, including proposed right of way, construction easements, cut and fill limits, potential staging areas, and access roads.

## 2.2.2. Survey Methods

### 2.2.2.1. Biological Reconnaissance Survey Methods

A biological reconnaissance survey was conducted by walking meandering transects through the BSA, mapping vegetation communities and performing habitat assessments for sensitive species within the BSA. Focused habitat assessments for burrowing owl and crotch bumble bee here conducted during the biological reconnaissance survey. All plant and wildlife observations were recorded and are discussed in Chapter 3.

A habitat assessment for burrowing owl was conducted followed the CDFW-approved *Burrowing Owl Survey Protocol and Mitigation Guidelines* (California Burrowing Owl Consortium 1993), Phase 1 Habitat Assessment protocols, to assess the presence of suitable burrowing owl habitat on the project site and including a 500-foot buffer where potential habitat may exist.

### 2.2.2.2. Jurisdictional Waters Delineation Methods

During the biological reconnaissance survey, a preliminary jurisdictional delineation was conducted to assess and delineate the boundaries of jurisdictional aquatic resources including non-wetland and wetland waters of the U.S. (WOTUS), waters of the state (WoS), and CDFW jurisdictional habitats. Boundaries of potentially jurisdictional aquatic resources were mapped in the field using a Trimble R1 Global Navigation Satellite System (GNSS) Receiver and ArcCollector Software in addition to examination of aerial photography, site photos, and historical hydrology data. Jurisdictional delineations were conducted using the following guidelines and protocols:

- *Corps of Engineers Wetlands Delineation Manual* (USACE 1987)
- *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region* (USACE 2008a)
- *Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States* (USACE 2008b)
- *State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State* (SWRCB 2019)

### 2.2.2.3. Crotch Bumble Bee Visual Survey

A visual survey of the project area was conducted by Wood Rodgers biologist Andrew Dellas, who is familiar with the Crotch bumble bee and associated plant species. The survey consisted of two visits, March 23 and May 17, 2023. The visual surveys were conducted under dry weather conditions with temperatures between 57-74 degrees Fahrenheit (°F) and sustained winds of less than 5 miles per hour (mph) as averaged over a 30- second period. The visual survey began at least 2 hours after sunrise and ended at least 4 hours before sunset. The project area was surveyed by walking meandering transects, spaced 20 feet apart or closer if needed for visual coverage of potential nest sites.

Surveys consisted of looking for potential nest sites (e.g., abandoned mammal burrows, rock piles, old bird nests, etc.), observing potential food source plant species (e.g., *Asclepias, Chaenactis, Lupinus, Medicago, Phacelia and Salvia*), as well as looking for Crotch bumble bees on the ground or in vegetation, and following them to an active nest (if in the project area).

## 2.3. Personnel and Survey Dates

The biological reconnaissance survey and jurisdictional delineations were conducted by Wood Rodgers biologists Andrew Dellas and Eralise Spokely on March 23, 2023.

Crotch bumble bee habitat assessment was conducted by Wood Rodgers biologists Andrew Dellas and Eralise Spokely on March 23 and May 17, 2023.

## 2.4. Limitations That May Influence Results

Biological surveys were conducted in appropriate conditions and time of the year to capture an accurate representation of vegetation communities, blooming periods, and potential wildlife occurrence. No additional limitations are recognized or would influence unreliable findings for the report.

# Chapter 3. Environmental Baseline

The project occurs within the City of Rancho Cordova, Sacramento County in the California Dry Steppe Province ecological subregion, Great Valley Section, and ecological subsection 262Ag "Hardpan Terraces" of California (USDA 2007). The region receives an average of 18.52 inches of precipitation annually in the form of rain. The average annual high temperature is 74 degrees Fahrenheit (°F) and average annual low temperature is 48 °F (U.S. Climate Data 2023).

## 3.1. Description of the Existing Biological and Physical Conditions

The following sections discuss ecological conditions of the region and biological resources present within the BSA.

### 3.1.1. Biological Study Area

The BSA encompasses approximately 12.53 acres. The BSA was defined as the proposed project impact area, defined as all areas that will be temporarily or permanently impacted by the project, and includes the location of the bridges, construction easements, potential staging areas and access roads.

### 3.1.2. Physical Conditions

#### 3.1.2.1. Topography

The BSA is within the *Carmichael* USGS 7 ½ Minute Quadrangle. The project area occurs within a single distinct topographic region of valley floor, and the natural elevation within the project area ranges from approximately 115 to 119 feet above mean sea level. The topography of the valley floor consists of low-elevation fluvial plains formed on nonmarine sedimentary rock with gently rolling terrain located on the Sacramento valley floor.

#### 3.1.2.2. Soils

The Natural Resource Conservation Service (NRCS) Custom Soil Resource Report for the project (NRCS 2023) identifies soils within the BSA solely as:

- Xerorthents, dredge tailings-Urban land complex, 0 to 2 percent slopes

#### 3.1.2.3. Hydrological Resources

The BSA includes one surface water feature: Morrison Channel. The portion of Morrison Channel within the BSA is an unconsolidated bottom channel with a low flow channel ranging in width approximately two to ten feet in width. From top of bank to top of bank ranges from approximately 22 to 25 feet in width. The channel is ephemeral according to local records and historic aerials. The channel typically carries nuisance sporadic urban runoff during the summer and fall months (if present), and stormwater flows during the winter and spring. According to the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps (FIRM) the entire proposed project site falls within FEMA Zone X, designated as an "Area of Minimal Flood Hazard" (Appendix B. FEMA FIRMette). This portion of Morrison Channel is not a regulated stream under jurisdiction of the Central Valley Flood Protection Board, and therefore no encroachment permit would be required.

### 3.1.3. Biological Conditions in the Biological Study Area

The BSA is dominated by urban cover classes. Land use within the project vicinity is designated by the City's General Plan (2011) as part of the Sunrise Boulevard South Planning Area, and land use zoning designated as "Heavy Industrial" (M-2). Land cover types were delineated and described based on the land cover definitions of the SSHCP for consistency and permitting guidance. Dominant cover classes include high-density development, disturbed, and stream/creek (Figure 4. SSHCP Land Cover Types).

#### 3.1.3.1. Vegetation Communities

**Developed and Other Non-Habitat Land Cover Types**

High-Density Development Land Cover
The high-density development land cover type includes urban and suburban residential neighborhoods, urban centers, industrial areas, airports, and wastewater treatment plants. Most of this high-density development occurs in the SSHCP UDA in the northwestern portion of the Plan Area. Within the BSA, high-density development includes the streets, parking lots, and industrial areas surrounding the project area.

Disturbed Land Cover
The disturbed land cover type is defined as open-space areas that have been subject to previous or ongoing disturbances. Disturbed land cover type is vegetated with diverse weedy flora. These areas are of special concern as they tend to harbor and facilitate the spread of invasive plant species.

Dominant vascular plant species identified in the disturbed land cover class within the project area included:

- common mustard (*Brassica rapa*)
- flax-leaved horseweed (*Erigeron bonariensis*)
- milk thistle (*Silybum marianum*)
- redstem filaree (*Erodium cicutarium*)
- ripgut brome (*Bromus diandrus*)
- stinkwort (*Dittrichia graveolens*)
- white stemmed filaree (*Erodium brachycarpum*)
- willowherb (*Epilobium brachycarpum*)
- winter vetch (*Vicia villosa*)
- yellow star thistle (*Centaurea solstitialis*)

**Aquatic Land Cover Types**

Stream/Creek (Morrison Channel)
The Stream/Creek land cover type includes intermittent and perennial linear water features such as rivers, streams, creeks, drainages, and roadside and irrigation ditches. Within the UDA, this land cover type includes streams identified by the USACE.


FIGURE 4

**SSHCP LAND COVER TYPES**

MONIER CIRCLE FLOOD CONTROL BASIN PROJECT

SACRAMENTO COUNTY, CALIFORNIA

JUNE 2023

0 50 100 200

Feet

NORTH

WOOD RODGERS

### 3.1.3.2. Plant Species Observed

Table 1 includes a list of plant species observed within the BSA during field surveys. No special status plant species were observed.

**Table 1: Plant Species Observed within the BSA**

| Common Name | Scientific Name | Native (N)/ Non-native (X) |
|---|---|---|
| **Disturbed Land Cover** | | |
| barley | *Hordeum marinum* | X |
| California poppy | *Eschscholzia californica* | N |
| Callery pear | *Pyrus calleryana* | X |
| cherry tree | *Prunus sp.* | X |
| Chinese hackberry | *Celtis sinensis* | X |
| Chinese Pistache | *Pistacia sp.* | X |
| common mustard* | *Brassica rapa* | X (Invasive)[3] |
| common sow thistle | *Sonchus oleraceus* | X |
| cudweed | *Pseudognaphalium beneolens* | N |
| flax-leaved horseweed* | *Erigeron bonariensis* | X |
| foxtail barley | *Hordeum murinum* | X (Invasive)[2] |
| henbit deadnettle | *Lamium amplexicaule* | X |
| interior live oak | *Quercus wislizeni* | N |
| jointed charlock | *Raphanus raphanistrum* | X |
| Medusa head | *Elymus caput-medusae* | X (Invasive)[1] |
| milk thistle* | *Silybum marianum* | X (Invasive)[3] |
| prickly lettuce | *Lactuca serriola* | X |
| redstem filaree* | *Erodium cicutarium* | X (Invasive)[3] |
| ripgut brome* | *Bromus diandrus* | X (Invasive)[2] |
| stinkwort* | *Dittrichia graveolens* | X (Invasive)[2] |
| sweetgum | *Liguidambar styracifula* | X |
| white stemmed filaree* | *Erodium brachycarpum* | X |
| wild geranium | *Geranium dissectum* | X (Invasive)[3] |
| wild oat | *Avena fatua* | X (Invasive)[2] |
| willowherb* | *Epilobium brachycarpum* | N |
| winter vetch* | *Vicia villosa* | X |
| yellow star thistle* | *Centaurea solstitialis* | X (Invasive)[1] |
| **Stream/Creek** | | |
| common chickweed | *Stellaria media* | X |
| curly dock | *Rumex crispus* | X (Invasive)[3] |
| tall flatsedge | *Cyperus eragrostis* | N |
| Spikerush | *Eleocharis palustris* | N |

* Dominant Species
**CNPS Rare Plant

[1] California Invasive Plant Council (Cal-IPC) High
[2] California Invasive Plant Council (Cal-IPC) Moderate
[3] California Invasive Plant Council (Cal-IPC) Limited

#### 3.1.3.3. Wildlife Species Observed

Table 2 represents wildlife species observed within the BSA through direct observation or sign.

**Table 2: Animal Species Observed within the BSA**

| Common Name | Scientific Name | Native (N) / Non-Native (X) |
|---|---|---|
| ***Birds*** | | |
| California scrub jay | *Aphelocoma californica* | N |
| house finch | *Haemorhous mexicanus* | N |
| house sparrow | *Passer domesticus* | X |
| Northern flicker | *Colaptes auratus* | N |
| mourning dove | *Zenaida macroura* | N |
| **Mammals** | | |
| domestic cat | *Felis catus* | X |

#### 3.1.3.4. Invasive Species

The BSA is located within the Sacramento Valley Floristic Providence and contains many weed species identified as being invasive. Based on the California Council (Cal-IPC ) Inventory Database, the following non-native species observed during biological surveys are listed with an invasive rating of limited to high: common mustard, curly dock, foxtail barley, Medusa head, milk thistle, redstem filaree, ripgut brome, wild geranium, wild oat, yellow star thistle (Cal-IPC 2023).

#### 3.1.3.5. Habitat Connectivity

According to the CDFW Biogeographic Information and Observation System (BIOS), the project area lies within a "Terrestrial Connectivity, Area of Conservation Emphasis (ACE) Level 1 hexagon, indicating a "Limited Connectivity Opportunity" (CDFW 2023b). The Terrestrial Connectivity dataset summarizes information on terrestrial connectivity by ACE hexagon including the presence of mapped corridors or linkages and the juxtaposition to large, contiguous, natural areas. This dataset was developed to support conservation planning efforts by allowing user to spatially evaluate the relative contribution of an area to terrestrial connectivity based on the results of statewide, regional, and other connectivity analyses.

The Level 1 hexagon indicates a limited availability of essential connectivity elements for terrestrial species to move through the project area. Further, the project does not include any permanent impoundments or barriers to native wildlife migration within the project area. Rather, any disruption to the limited connectivity area would be temporary in nature during construction activities, then return to normal conditions post construction. Therefore, no impact to habitat connectivity is anticipated.

## 3.2. Regional Species, Habitats, and Natural Communities of Concern

Plant and animal species are considered to have special status if they have been listed as such by Federal or State agencies or by one or more special interest groups, such as CNPS. Special-status species are protected under FESA, CESA, or CDFW regulations. Prior to the field surveys, queries of the USFWS, NMFS, CNDDB, and CNPS databases were conducted to identify species protected under the FESA, CESA or CDFW regulations with potential of occurrence in the project vicinity. Table 3 contains a comprehensive list of the regional species of special concern as listed by USFWS, NMFS, CNDDB, or CNPS online databases.

After biological surveys were conducted, each species' specific habitat requirements were compared to actual site conditions and the potential for occurrence was then determined. The queries identified 30 species of special-status plant and wildlife species. Based upon the condition of habitats at the site, and the project's location within the City's urban core, only two special status species were determined to have a low potential to occur within the BSA: white-tailed kite (*Elanus leucurus*), and Sanford's arrowhead (*Sagittaria sanfordii*). Table 3 provides a rationale for each species presence determination.

**Table 3: Special Status Species with Potential to Occur in the Project Vicinity**

| Common Name | Species Name | Status | General Habitat Description | Habitat Present | Effects Determination | Potential for Occurrence/Rationale |
|---|---|---|---|---|---|---|
| ***Amphibian Species*** | | | | | | |
| California tiger salamander | *Ambystoma californiense* | FT | Inhabits annual grasslands, oak savanna, mixed woodland edges, and lower elevation coniferous forest. Requires underground refuges, especially ground squirrel burrows, vernal pools, or other seasonal water sources for breeding. Breeding occurs December through February in fish-free ephemeral ponds. | A | No Effect | **Presumed Absent:** The BSA does not provide suitable vernal pool habitat and no CNDDB records of the species are within 30 miles of the BSA. Due to the lack of suitable habitat, and local occurrences, the species is presumed absent from the BSA. |
| Western spadefoot | *Spea hammondii* | SSC | Inhabits open areas with sandy or gravelly soils within mixed woodlands, grasslands, coastal sage scrub, chaparral, sandy washes, lowlands, river floodplains, alluvial fans, playas, alkali flats, foothills, and mountains. Burrows underground from most of the year and is active above ground during rainfall. Requires vernal, shallow, temporary pools formed by heavy winter rains for reproduction. These pools must be free of bullfrogs, fish, and crayfish. Breeds from late winter to March. | A | No Take | **Presumed Absent:** The BSA does not contain suitable grasslands, vernal pools, or temporary shallow water sources. The nearest recent occurrence of the species is 2 miles south of the BSA within suitable vernal pool habitat within Mather Regional Park. The species is presumed absent from the BSA due to the lack of habitat. |
| ***Bird Species*** | | | | | | |
| bank swallow | *Riparia riparia* | ST | A migratory colonial nester inhabiting lowland and riparian habitats west of the desert during spring - fall. Majority of current breeding populations occur along the Sacramento and Feather rivers in the north Central Valley. Requires vertical banks or cliffs with fine textured/sandy soils for nesting (tunnel and burrow excavations). Nests exclusively near streams, rivers, lakes or the ocean, often in large colonies. These colonies are | A | No Take | **Presumed Absent:** The BSA does not contain cliffs or vertical banks the species needs for nesting. There are multiple recent CNDDB occurrences of the species located along the Sacramento River within 5 miles. The species is not known to forage at large distances from the nest sites; therefore, with the lack of suitable nesting cliffs or bank within the BSA, the species is presumed absent from the BSA for nesting and foraging. |

| Common Name | Species Name | Status | General Habitat Description | Habitat Present | Effects Determination | Potential for Occurrence/Rationale |
|---|---|---|---|---|---|---|
| | | | located near large bodies of water so that there is ample room for vertical flying. Breeds May-July. | | | |
| Burrowing owl | *Athene cunicularia* | SSC | Species inhabits arid, open areas with sparse vegetation cover such as deserts, abandoned agricultural areas, grasslands, and disturbed open habitats. Requires friable soils for burrow construction (Below 5,300 feet). | HP | No Take | **Presumed Absent:** The BSA does include potentially suitable arid grassland habitat. The nearest recent CNDDB occurrence of the species is approximately 1 mile southwest of the BSA. A habitat assessment was conducted on March 23, 2023, and determined no suitable burrows or evidence of habitation from burrowing owls, and the parcel would not provide suitable habitat for the species. Therefore, the species is presumed absent from the BSA. Pre-construction nesting bird surveys would ensure no take of burrowing owls would occur. |
| Golden eagle | *Aquila chrysaetos* | FP | Inhabits rolling foothills, mountain areas, sage-juniper flats, and desert communities. Requires open terrain for hunting, often utilizing rolling foothills and mountain terrain, wide arid plateaus deeply cut by streams and canyons, open mountain slopes, and cliffs and rock outcrops, grasslands and early successional stages of forest and shrub habitats. Territory is estimated to average 36 $mi^2$ in southern California and 48 $mi^2$ in northern California. Nests on cliffs of all heights and in large trees in open areas; may reuse previous nest sites. Breeds from late January through August (0-11,500 feet). | A | No Take | **Presumed Absent:** The BSA does not contain suitable open rolling foothills or mountain, or desert habitat. There are no recent occurrences of the species within the urban core area. The species is presumed absent based on the lack of suitable habitat. |

| Common Name | Species Name | Status | General Habitat Description | Habitat Present | Effects Determination | Potential for Occurrence/Rationale |
|---|---|---|---|---|---|---|
| Purple martin | *Progne subis* | SSC | Present in California as a summer migrant, arriving in March and departing by late September. Inhabits valley foothill and montane hardwood/hardwood-conifer, coniferous habitats, and riparian habitats. Associated with closed-cone pine-cypress, pondorosa pine, Douglas-fir, and redwood. Nests in tall, old, isolated trees or snags in open forest or woodland and in proximity to a body of water. Frequently nests within former woodpecker cavities; may nest in human-made structures such as nesting boxes, under bridges and in culverts. Needs abundant aerial insect prey. Breeds April through August. | A | No Take | **Presumed Absent:** The BSA does not contain potentially suitable valley foothill, montane, or riparian habitats for the species. The nearest recent CNDDB occurrence is over 8 miles from the BSA. The species is presumed absent due to the lack of suitable nesting or foraging habitat. |
| Song sparrow ("Modesto Population") | *Melospiza melodia pop. 1* | SCC | An endemic bird found exclusively in the north-central portion of the Central Valley, with highest densities in the Butte Sink and Sacramento-San Joaquin River Delta. The species is usually found in open brushy habitats, along the borders of ponds or streams, abandoned pastures, desert washes, thickets, or woodland edges. In addition, there is a strong affinity for emergent freshwater marshes dominated by tules and cattails, riparian willow thickets, and valley oak forests with a blackberry understory. Nests found in base of shrubs or clumps of grass, requiring low, dense vegetation for cover, usually near water. Breeds from March through August. | HP | No Take | **Presumed Absent:** The BSA does contain not contain potentially suitable brushy habitats along Morrison Channel. There are no recent CNDDB occurrences in the area. The species is presumed absent from the BSA due to the lack of suitable habitat and lack of known occurrences in the region. |

| Common Name | Species Name | Status | General Habitat Description | Habitat Present | Effects Determination | Potential for Occurrence/Rationale |
|---|---|---|---|---|---|---|
| Swainson's hawk | *Buteo swainsoni* | ST | Inhabits grasslands with scattered trees, juniper-sage flats, riparian areas, savannahs, and agricultural or ranch lands with groves or lines of trees. Requires adjacent suitable foraging areas such as grasslands, alfalfa or grain fields that support a stable rodent prey base. Breeds march to late August. | HP | No Take | **Presumed Absent:** The BSA does contain potentially suitable large diameter nesting trees. However, the BSA is not with SSHCP modeled habitat for the species, and the disturbed habitat within the BSA is unlikely to provide suitable foraging habitat for the species. Furthermore, the surrounding area is under heavy industrial land use, as well as major residential development has removed large tracts of historic foraging habitat to the east. The nearest suitable foraging habitat is over 0.5-miles southwest of the BSA and over 1-mile east of the BSA. Though the species is known to nest within urban areas, the surrounding environment would not provide the essential nesting and foraging parameters for the species. There is one recent (2007) CNDDB occurrence of the species located within 1 mile from the BSA along White Rock Road. No historic nests were observed during the biological surveys conducted on March 23, 2023. The species is presumed absent from the BSA due to the lack of suitable nesting/foraging habitat. In addition, measure BIO-9 would require a pre-construction raptor survey to ensure no take of Swainson's hawk. |
| tricolored blackbird | *Agelaius tricolor* | SE, SSC | Prefers freshwater marsh, swamp and wetland communities, but utilize agricultural or upland habitats that can support large colonies often in the Central Valley area. Requires protected | A | No Take | **Presumed Absent:** The BSA does not contain suitable dense cattails or tules to support a nesting colony, and ground foraging areas would be limited within the BSA. All CNDDB occurrences of the |

| Common Name | Species Name | Status | General Habitat Description | Habitat Present | Effects Determination | Potential for Occurrence/Rationale |
|---|---|---|---|---|---|---|
| | | | dense nesting habitat protected from predators, be within 3-5 miles to a suitable foraging area with insect prey and within 0.3 miles of open water. Suitable foraging includes wetland, pastureland, rangeland, at dairy farms, and in some irrigated croplands (silage, alfalfa, etc.). Nests mid-march - early August, but may extend until October/November in the Sacramento Valley region. | | | species within the urban core area are listed as extirpated. The species is presumed absent from the BSA based on the lack of suitable colony nesting habitat and species being extirpated from the interior Rancho Cordova urban core area. |
| Western yellow-Billed Cuckoo | *Coccyzus americanus occidentalis* | FT, SE | Species inhabits riparian forests, along broad, lower flood bottoms of larger river systems. Nests in large blocks of riparian jungles often mixed with cottonwoods. Nesting appears to be preferred in riparian forest habitats with a dense understory; requires water near nesting site. Breeds June-August. | A | No Effect No Take | **Presumed Absent:** The BSA lacks large/dense stands of riparian habitat that the species needs for nesting and foraging. The species has not been identified within the area since 1877 The species is presumed absent due to the lack of suitable habitat and lack of known species occurrence. |
| White-tailed kite | *Elanus leucurus* | FP | Inhabits rolling foothills and valley margins with scattered oaks and river bottomlands or marshes next to deciduous woodland. Prefers open grasslands, meadows or marshes for foraging close to isolated, dense-topped trees for nesting and perching. In southern California, will roost in saltgrass and Bermuda grass. Often found near agricultural lands. Nests are placed near the tops of dense oak, willow, or other tree stands. Breeds February through October. | HP | No Take | **Low Potential:** The BSA does contain potentially suitable nesting trees; however, the BSA is not within SSHCP modeled nesting or foraging habitat for the species. The disturbed habitat within the BSA is unlikely to provide suitable foraging habitat for the species, and the nearest suitable foraging habitat is over 0.5-miles southwest of the BSA and over 1-mile east of the BSA. No active or historic nests were observed during the biological surveys conducted on March 23, 2023. There are 3 recent occurrences of the species 3 miles northwest of the BSA within the American River corridor. Due to the presence of potentially suitable nesting trees within |

| Common Name | Species Name | Status | General Habitat Description | Habitat Present | Effects Determination | Potential for Occurrence/Rationale |
|---|---|---|---|---|---|---|
| | | | | | | the BSA and local occurrence data, the species is considered to have a low potential to occur within the BSA. The project would provide pre-construction raptor and nesting bird survey to ensure no take of white-tailed kite would occur. |
| ***Fish Species*** | | | | | | |
| steelhead - Central Valley DPS | *Oncorhynchus mykiss* | FT | Spawning occurs in small tributaries on coarse gravel beds in riffle areas. Central Valley steelhead are found in the Sacramento River system; the principal remaining wild populations spawn annually in Deer and Mill Creeks in Tehama County, in the lower Yuba River, a small population in the lower Stanislaus River. | A | No Effect | **Presumed Absent:** Morrison Channel does not have connectivity to the American River, and would not support central valley steelhead. The species is presumed absent due to the lack of suitable habitat and lack of connectivity to known species rivers. A "No Effect" determination is proposed for the species Section 7 ESA consultation. |
| ***Invertebrate Species*** | | | | | | |
| Conservancy fairy shrimp | *Branchinecta conservatio* | FE | Inhabits relatively large and turbid clay bottomed playa vernal pools. Species requires pools to continuously hold water for a minimum of 19 days and must remain inundated into the summer months. Occupied playa pools typically are 1 to 88 acres in size, but species may utilize smaller, less turbid pools. | A | No Effect | **Presumed Absent:** The BSA does not contain vernal pools. The nearest presumed extant CNDDB occurrence of the species is located approximately 2.5 miles south of the BSA within suitable vernal pool habitat. The species is presumed absent from the BSA based on the absence of potentially suitable habitat. A "No Effect" determination is proposed for the species Section 7 ESA consultation. |
| Crotch bumble bee | *Bombus crotchii* | SCE | This species is known to occur in central California, Nevada south to Baja California and into Mexico. Inhabits coastal areas, deserts and the Central Valley. The species nests underground in grassland, shrubland and chaparral habitats. The species has a short tongue and primarily feeds on the following | A | No Take | **Presumed Absent:** The BSA contains highly disturbed/ruderal areas composed of a dominance of invasive forb species. A habitat assessment was conducted on March 23, 2023, which found bur clover (*Medicago polymorpha)* within the parcel, but it was not observed as a dominant species. No other potential |

| Common Name | Species Name | Status | General Habitat Description | Habitat Present | Effects Determination | Potential for Occurrence/Rationale |
|---|---|---|---|---|---|---|
| | | | plants Asclepias, Chaenactis, Lupinus, Medicago, Phacelia and Salvia. | | | host flowering species were observed, and no bumble bee individuals or nests were identified. Therefore, the species is presumed absent from nesting or foraging within the BSA due to the lack of suitable host plant species or suitable habitat. |
| Monarch Butterfly | *Danaus plexippus* | FC | Winter roosts along the coast from northern Mendocino to Baja California. Utilizes wind protected tree groves in proximity to nectar and water sources. Host plants include milkweed species such as Asclepias syriaca, A. incarnara, and A. speciosa. Suitable habitat includes fields, meadows, weedy areas, marshes, and roadsides. Mass adult migrations occur from August to October. | A | No Effect | **Presumed Absent:** During the biological survey, the BSA was confirmed to not contain obligate milkweed host plant for the species. Therefore, the species is presumed absent from the BSA due to the lack of suitable habitat and host species. A "No Effect" determination is proposed for the species Section 7 ESA consultation. |
| Valley Elderberry Longhorn beetle | *Desmocerus californicus dimorphus* | FT | Species requires elderberry shrubs as host plants. Typically occurs in moist valley oak woodlands associated with riparian corridors in the lower Sacramento River and upper San Joaquin River drainages. (Sea level-3,000 feet). | A | No Effect | **Presumed Absent:** During the biological survey, the BSA was confirmed to not contain obligate elderberry host plant for the species. Therefore, the species is presumed absent from the BSA due to the lack of suitable habitat and host species. A "No Effect" determination is proposed for the species Section 7 ESA consultation. |
| Vernal Pool fairy shrimp | *Branchinecta lynchi* | FT | In California inhabits portions of Tehama county, south through the Central Valley, and scattered locations in Riverside County and the Coast Ranges. Species associated with smaller and shallower cool-water vernal pools approximately 6 inches deep and short periods of inundation. In the southernmost extremes of the range, the | A | No Effect | **Presumed Absent:** The BSA does not contain vernal pools. The nearest presumed extant CNDDB occurrence of the species is located approximately 2.5 miles south of the BSA within suitable vernal pool habitat. The species is presumed absent from the BSA based on the absence of potentially suitable habitat. A "No Effect" determination is |

| Common Name | Species Name | Status | General Habitat Description | Habitat Present | Effects Determination | Potential for Occurrence/Rationale |
|---|---|---|---|---|---|---|
| | | | species occurs in large, deep cool-water pools. Inhabited pools have low to moderate levels of alkalinity and total dissolved solids. The shrimp are temperature sensitive, requiring pools below 50 F to hatch and dying within pools reaching 75 F. Young emerge during cold-weather winter storms. | | | proposed for the species Section 7 ESA consultation. |
| Vernal Pool tadpole shrimp | *Lepidurus packardi* | FE | Inhabits vernal pools and swales containing clear to highly turbid waters such as pools located in grass bottomed swales of unplowed grasslands, old alluvial soils underlain by hardpan, and mud-bottomed pools with highly turbid water. | A | No Effect | **Presumed Absent:** The BSA does not contain vernal pools. The nearest presumed extant CNDDB occurrence of the species is located approximately 2.5 miles south of the BSA within suitable vernal pool habitat. The species is presumed absent from the BSA based on the absence of potentially suitable habitat. A "No Effect" determination is proposed for the species Section 7 ESA consultation. |
| ***Mammal Species*** | | | | | | |
| American badger | *Taxidea taxus* | SSC | Prefers treeless, dry, open stages of most shrub and herbaceous habitats with friable soils and a supply of rodent prey. Species also inhabits forest glades, meadows, marshes, brushy areas, hot deserts, and mountain meadows. Species is somewhat tolerant of human activity, but is sensitive to automobile mortality, trapping, and persistent poisons (up to 12,000 feet). | A | No Take | **Presumed Absent:** The BSA does not contain suitable habitat, and the species has been listed as extirpated by CNDDB in the nearest occurrence locations. The species is presumed absent from the BSA. |
| Pallid bat | *Lasiurus blossevillii* | SSC | Inhabits low elevations of deserts, grasslands, shrub lands, woodlands and forests year round. Most common in open, dry habitats with rocky areas for roosting. Forages over open ground within 1-3 miles of day roosts. Prefers | A | No Take | **Presumed Absent:** The BSA does not contain suitable caves, crevices, or mines for day roosts, and there are no suitable roosting trees within the BSA. The species is presumed absent from the |

| Common Name | Species Name | Status | General Habitat Description | Habitat Present | Effects Determination | Potential for Occurrence/Rationale |
|---|---|---|---|---|---|---|
| | | | caves, crevices, and mines for day roosts, but may utilize hollow trees, bridges and buildings. Roosts must protect bats from high temperatures. Very sensitive to disturbance of roosting sites. Maternity colonies form early April and young are born April-July (below 10,000 feet). | | | BSA due to the lack of suitable roosting habitat. |
| ***Reptile Species*** | | | | | | |
| giant garter snake | *Thamnophis gigas* | FT, ST | Inhabits marsh, swamp, wetland (including agricultural wetlands), sloughs, ponds, rice fields, low gradient streams and irrigation/drainage canals adjacent to uplands. Ideal habitat contains both shallow and deep water with variations in topography. Species requires adequate water during the active season (April-November), emergent, herbaceous wetland vegetation, such as cattails and bulrushes, for escape cover and foraging habitat and mammal burrows estivation. Requires grassy banks and openings in waterside vegetation for basking and higher elevation uplands for cover and refuge from flood waters during winter dormant season. | HP | No Effect<br>No Take | **Presumed Absent:** The BSA does not contain essential habitat components for the species, and the species is known to be extirpated from within the urban core area. Therefore, the species is presumed absent from the BSA, and no take would occur. A "No Effect" determination is proposed for the species under Section 7 of the FESA. |
| western pond turtle | *Emys marmorata* | SSC | A fully aquatic turtle of ponds, marshes, rivers, streams and irrigation ditches with aquatic vegetation. Requires basking sites and suitable (sandy banks or grassy open field) upland habitat for reproduction (up to 4,690 feet). | A | No Take | **Presumed Absent:** Morrison Channel does not contain potentially suitable habitat elements for the species (permanent water source, basking sites, upland habitat for reproduction), and the species is not known to occur within the urban core area. There is one recent CNDDB occurrence of the species 2 miles south of the BSA within Mather Lake (i.e., suitable habitat). The species |

| Common Name | Species Name | Status | General Habitat Description | Habitat Present | Effects Determination | Potential for Occurrence/Rationale |
|---|---|---|---|---|---|---|
| | | | | | | is presumed absent due to the lack of suitable habitat and the distance to local occurrences. |
| ***Plant Species*** | | | | | | |
| Ahart's dwarf rush | *Juncus leiospermus var. ahartii* | CRPR 1B.2 | An annual herb inhabiting grassland swales, gopher mounds, and vernal pool margins of mesic valley and foothill grassland communities. Flowers March-May (100-750 feet). | A | N/A | **Presumed Absent:** The BSA does not contain suitable grassland swales, vernal pools, or mesic valley grassland habitat. The species is presumed absent from the BSA due to the lack of suitable habitat. |
| Boggs Lake hedge-hyssop | *Gratiola heterosepala* | SE<br><br>CRPR 1B.2 | An annual herb inhabiting clay soils and shallow waters of marshes, swamps, lake margins, and vernal pools. Flowers April-August (30-7,800 feet). | A | No Take | **Presumed Absent:** The BSA does not contain suitable shallow marsh, swamp, or vernal pool habitat. The species is presumed absent from the BSA due to the lack of suitable habitat. |
| Dwarf downingia | *Downingia pusilla* | CRPR 2B.2 | An annual herb inhabiting vernal pools and mesic soils in valley and foothill grassland communities. Flowers March-May (0-1,500 feet). | A | N/A | **Presumed Absent:** The BSA does not contain suitable vernal pool or mesic valley grassland habitat. The species is presumed absent from the BSA due to the lack of suitable habitat. |
| Legenere | *Legenere limosa* | CRPR 1B.1 | An annual herb inhabiting wet areas, vernal pools, and ponds. Flowers April-June (0-2,900 feet). | A | N/A | **Presumed Absent:** The BSA does not contain suitable vernal pool or pond habitat. The BSA does contain a wetted channel but it is concrete lined and would not support the species. The species is presumed absent due to the lack of suitable habitat. |
| Pincushion navarretia | *Navarretia myersii ssp. myersii* | CRPR 1B.1 | An annual herb native to California inhabiting vernal pool communities, often in acidic soil conditions. Flowers April-May (65-1,080 feet). | A | N/A | **Presumed Absent:** The BSA does not contain suitable vernal pool habitat. The species is presumed absent from the BSA due to the lack of suitable habitat. |
| Sacramento Orcutt grass | *Orcuttia viscida* | FE, SE<br><br>CRPR 1B.1 | An annual herb inhabiting vernal pools. Flowers April-July (100-330 feet). | A | N/A | **Presumed Absent:** The BSA does not contain suitable vernal pool habitat. The species is presumed absent from the BSA due to the lack of suitable habitat. |
| Sanford's arrowhead | *Sagittaria sanfordii* | CRPR 1B.2 | An aquatic, perennial rhizomatous herb inhabiting freshwater marshes, swamps, | HP | N/A | **Presumed Absent:** The BSA does contain potentially suitable marginal |

| Common Name | Species Name | Status | General Habitat Description | Habitat Present | Effects Determination | Potential for Occurrence/Rationale |
|---|---|---|---|---|---|---|
| | | | ponds, slow flowing streams or sloughs and ditches. Many occurrences previously noted in the Central Valley and in southern California have been extirpated as the species' aquatic habitat has been lost to human activity. Flowers May-October (0-2,132 feet). | | | habitat within Morrison Channel. The nearest recent (<20 years) CNDDB occurrence of the species is approximately 3.5 miles east within Buffalo Creek. The species was observed within the BSA during biological surveys during the species blooming period (May 17, 2023). However, the species is outside the proposed project area and no effects would occur. The specimen will be provided additional protection or will be relocated if CDFW determines it necessary. |
| Slender Orcutt grass | *Orcuttia tenuis* | FT, SE<br><br>CRPR 1B.1 | An annual herb inhabiting saline or alkaline soils of chenopod scrub, meadows and seeps, and sandy valley and foothill grassland communities. Flowers June-July (0-1,840 feet). | A | N/A | **Presumed Absent:** The BSA does not contain suitable vernal pool habitat. The species is presumed absent from the BSA due to the lack of suitable habitat. |

| **Federal Designations (FESA, USFWS):** | **State Designations (CESA, CDFW):** | **CDFW Designations** |
|---|---|---|
| **FE:** Federally listed, endangered **FC:** Federal candidate<br>**FT:** Federally listed, threatened **DL:** Federally listed, delisted | **SE:** State-listed, endangered **SCE:** Candidate Endangered<br>**ST:** State-listed, threatened **SCT:** Candidate Threatened | **SSC:** Species of Special Concern<br>**FP:** Fully Protected |

**California Native Plant Society (CNPS) California Rare Plant Rank (CRPR)**

***Note: according to CNPS (Skinner and Pavlik 1994), plants on Lists 1B and 2 meet definitions for listing as threatened or endangered under Section 1901, Chapter 10 of the California Fish and Game Code. This interpretation is inconsistent with other definitions.***

**1A:** Plants presumed extinct in California.
**1B:** Plants rare and endangered in California and throughout their range.
**2:** Plants rare, threatened, or endangered in California but more common elsewhere in their range.
**3:** Plants about which need more information; a review list.

**Plants 1B, 2, and 3 extension meanings:**
**_.1** Seriously endangered in California (over 80% of occurrences threatened / high degree and immediacy of threat)
**_.2** Fairly endangered in California (20-80% occurrences threatened)
**_.3** Not very endangered in California (<20% of occurrences threatened or no current threats known)

| **Habitat Potential** | **Potential for Occurrence Criteria:** |
|---|---|
| Absent [A] - No habitat present.<br>Habitat Present [HP] - Habitat is, or may be present.<br>Critical Habitat [CH] – Within designated Critical Habitat. | **Present**: Species was observed on site during a site visit or focused survey.<br>**Moderate to High**: Habitat strongly associated with the species occurs on site and recent (<20 years extant occurrence(s) recorded within the project vicinity.<br>**Low**: Low-quality habitat is present and recent (<20 years) extant occurrence(s) recorded within the project vicinity.<br>**Presumed Absent**: No habitat is present within the project area, or low-quality habitat is present but no recent (<20 years) extant occurrence(s) recorded within the project vicinity. |

**Sources:** Calflora 2023; CDFW 2023; CNDDB 2023; CNPS 2023; Jepson, 2nd Ed. 2023; NMFS 2023; USFWS 2023

# Chapter 4. Survey Results and Effects of the Action

## 4.1. Habitats and Natural Communities of Concern

The BSA lies within the Great Valley floristic province (Jepson eFlora 2012), a biologically diverse ecosystem. Biological surveys and a jurisdictional delineation were conducted to assess natural communities and biological resources within the BSA. No sensitive or special status plant communities were found within the BSA; however, one potentially jurisdictional aquatic resource was identified and mapped within the BSA during survey efforts.

### 4.1.1. Discussion of Jurisdictional Resources

Potential jurisdictional aquatic resources within the BSA were assessed and potential wetland features were evaluated for presence of wetland indicators: hydrophytic vegetation, hydric soils and wetland hydrology. Surveys of potential jurisdictional aquatic resources were confirmed using aerial imagery and field verification, and followed the guidelines provided in the USACE *Wetland Delineation Manual* (USACE 1987), *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region* (USACE 2008a), and *A Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States* (USACE 2008b). Wetlands that exhibit all three wetland indicators are considered WOTUS if they are hydraulically connected to another WOTUS, subject to Section 404 and Section 401 of the CWA. All surface waters are also considered WoS by the RWQCB under the Porter Cologne Water Quality Control Act. These aquatic resources and any associated riparian habitats are also considered fish and wildlife habitat under jurisdiction of the CDFW pursuant to California FGC Section 1600.

A jurisdictional delineation was conducted by Wood Rodgers biologist, Andrew Dellas on March 23, 2023, to identify jurisdictional aquatic resources present within the BSA. The observed OHWMs were mapped in the field with a R1 GNSS Receiver and ArcGIS software. Delineation efforts identified one (1) potentially jurisdictional resource: Morrison Channel. An Aquatic Resources Delineation Report (ARDR) has been prepared as part of the preliminary jurisdictional analysis (Appendix C). The ARDR will be submitted as part of the SSHCP Application Package to support aquatic resources impact assessment.

On May 25, 2023, the Supreme Court of the United States (SCOTUS) issued a unanimous ruling limiting the federal government's jurisdiction over wetlands and tributaries which previously considered waters of the U.S. (WOTUS). In Sackett v. EPA, the Court expressly endorsed the test articulated in the Rapanos plurality opinion and outright rejected Justice Kennedy's "significant nexus" test. Therefore, the Sackett v. EPA decision limits the definition of WOTUS to relatively permanent bodies of navigable waters, and to assert jurisdiction over an adjacent wetland or tributary under the CWA, a party must establish "first, that the adjacent [body of water constitutes] . . . 'water[s] of the United States' (i.e., "only those relatively permanent, standing or continuously flowing bodies of water 'forming geographic[al] features' connected to traditional interstate navigable waters); and second, that the wetland or tributary has a continuous surface connection with that water, making it difficult to determine where the 'water' ends and the 'wetland' begins." (SCOTUS 2023). On May 26, 2023, the U.S. Environmental Protection Agency (U.S. EPA) and U.S. Army Corps of Engineers (USACE) issued a formal state indicating that "In light of this decision, the agencies will interpret the phrase "waters of the United States" consistent with the Supreme Court's decision in Sackett. The agencies continue to review the decision to determine next steps".

Though the Morrison Channel feature meets the surface connectivity parameter (continuous surface connection) to Morrison Creek, a confirmed WOTUS; it does not meet the definition of "only those relatively permanent, standing or continuously flowing bodies of water 'forming geographic[al] features.' Therefore, the stream channel identified within the BSA would not meet the definition of a WOTUS under the CWA. Subsequently, Section 404 and Section 401 permitting requirements would not be required. Conversely, the Morrison Channel

aquatic feature would meet the definition of a water of the state of California (WoS) and would be required to follow the State Water Resources Control Board Discharge Procedures (SWRCB 2019), as well as Section 1602 of the CFG Code for Streambed Alteration.

#### 4.1.1.1. Jurisdictional Resources Survey Results

Stream Channel (Morrison Channel)
As a result of the preliminary jurisdictional delineation, approximately 0.09 acres (720 linear feet) of stream channel was identified within the BSA. The stream channel is a stormwater facility carrying stormwater flows through the City in east to west orientation through the BSA. The stream channel is listed by the City as a portion of Morrison Creek. The stream channel leaves the BSA to the west, is culverted under Sunrise Boulevard, then under the Folsom South Canal continuing west for approximately 1.4 miles. The channel is then culverted under the Mather Air Field, and continues further west for approximately 2 miles where it confluences with the nature Morrison Creek channel. During the March 23, 2023, jurisdictional delineation the stream channel was dry, only one day after heavy rains. Therefore, due to the nature of the stormwater channel only carrying stormwater flows during the winter season and drying quickly, the feature is considered ephemeral.

Though the Morrison Channel feature meets the surface connectivity parameter (continuous surface connection) to Morrison Creek, a confirmed WOTUS; it does not meet the definition of "only those relatively permanent, standing or continuously flowing bodies of water 'forming geographic[al] features.' Therefore, the stream channel identified within the BSA would not meet the definition of a WOTUS under the CWA. Subsequently, Section 404 and Section 401 permitting requirements would not be required. Conversely, the Morrison Channel aquatic feature would meet the definition of a water of the state of California (WoS) and would be required to follow the State Water Resources Control Board Discharge Procedures (SWRCB 2019), as well as Section 1602 of the CFG Code for Streambed Alteration.

The channel was delineated using OHWM primary indicators and completion of the USACE *Arid West Ephemeral and Intermittent Streams OHWM Datasheet*. Following the Cowardin Classification System (Cowardin et al. 1979), the stream channel was defined as R4SBAx (Riverine (R), Intermittent (4), Streambed (SB), Temporarily Flood (A), Excavated (x). In addition, the RWQCB and CDFW evaluate impacts to the bed, bank, and channel of a waterbody; therefore, the areas within the BSA up to the "top of bank" (TOB) were also delineated (see **Table 4** and **Figure 5** for acreage details and preliminary jurisdictional analysis).

**Table 4. Jurisdictional Resources Survey Results**

| **Waters of the State and CDFW Jurisdiction (acres)** | | |
|---|---|---|
| | *Waters of the State* | *CDFW Jurisdiction* |
| **Aquatic Resources** | | |
| Morrison Channel | 0.09 | 0.09 |
| **Jurisdictional Upland Habitat** | | |
| OHWM to TOB | 0.29 | 0.29 |
| **Total** | **0.38** | **0.38** |

Wetlands

No wetlands were delineated within the study area. The RWQCB and CDFW evaluate impacts to the bed, bank, and channel of a waterbody; therefore, the areas within the BSA up to the "top of bank" (TOB) were also delineated. However, these areas are above the OHWM and would not be considered aquatic resources as they do not meet the parameters of a defined wetland. These areas are considered uplands and are discussed further below.

Uplands

Areas that did not meet wetland parameters (hydrophytic vegetation, hydric soils and/or wetland hydrology) or did not exhibit primary OHWM indicators were classified as non-wetland, upland, habitat and mapped as such. Dominant vegetation included FAC-UPL species with dry, light colored silt loam soils. Hydric soils, a dominance of hydrophytic vegetation, and/or wetland hydrology were not present. Therefore, the areas were not classified as wetland features.

#### 4.1.1.2. Project Impacts to Jurisdictional Resources

The project will result in both permanent and temporary effects to jurisdictional aquatic resources. Approximately <0.01 acres of stream channel will have permanent effects due to construction of the weir structure. Approximately 0.05 acres of stream channel will have temporary effects due to construction access requirements.

Additionally, approximately 0.07 acres of permanent effects and 0.09 acres of temporary effects to jurisdictional uplands between the OHWM and TOB would occur. Permanent and temporary impacts to jurisdictional resources resulting from the proposed project are shown in **Table 5** and **Figure 6**.

**Table 5. Project Effects to Jurisdictional Resources**

| **Waters of the U.S., State and CDFW Waters (acres)** | | | | |
|---|---|---|---|---|
| **Jurisdictional Resources** | *Permanent Impacts WoS* | *Temporary Impacts WoS* | *Permanent Impacts CDFW* | *Temporary Impacts CDFW* |
| Morrison Channel | <0.01 | 0.05 | <0.01 | 0.05 |
| Jurisdictional Uplands | 0.07 | 0.09 | 0.07 | 0.09 |
| **Total** | **0.07** | **0.14** | **0.07** | **0.14** |


FIGURE 5

**PRELIMINARY JURISDICTIONAL DELINEATION RESULTS**

MONIER CIRCLE FLOOD CONTROL BASIN PROJECT

SACRAMENTO COUNTY, CALIFORNIA

JUNE 2023

0 25 50 100

Feet

NORTH

WOOD RODGERS

\\woodrodgers.loc\ProductionData\Jobs\Jobs\8470_024_Monier_Circle_Detention_Basin\GIS\Data\Environmental\Env.gdb\F5_Preliminary Jurisdiction Delineation Results_20230606.mxd 6/30/2023 11:55:47 AM adellas

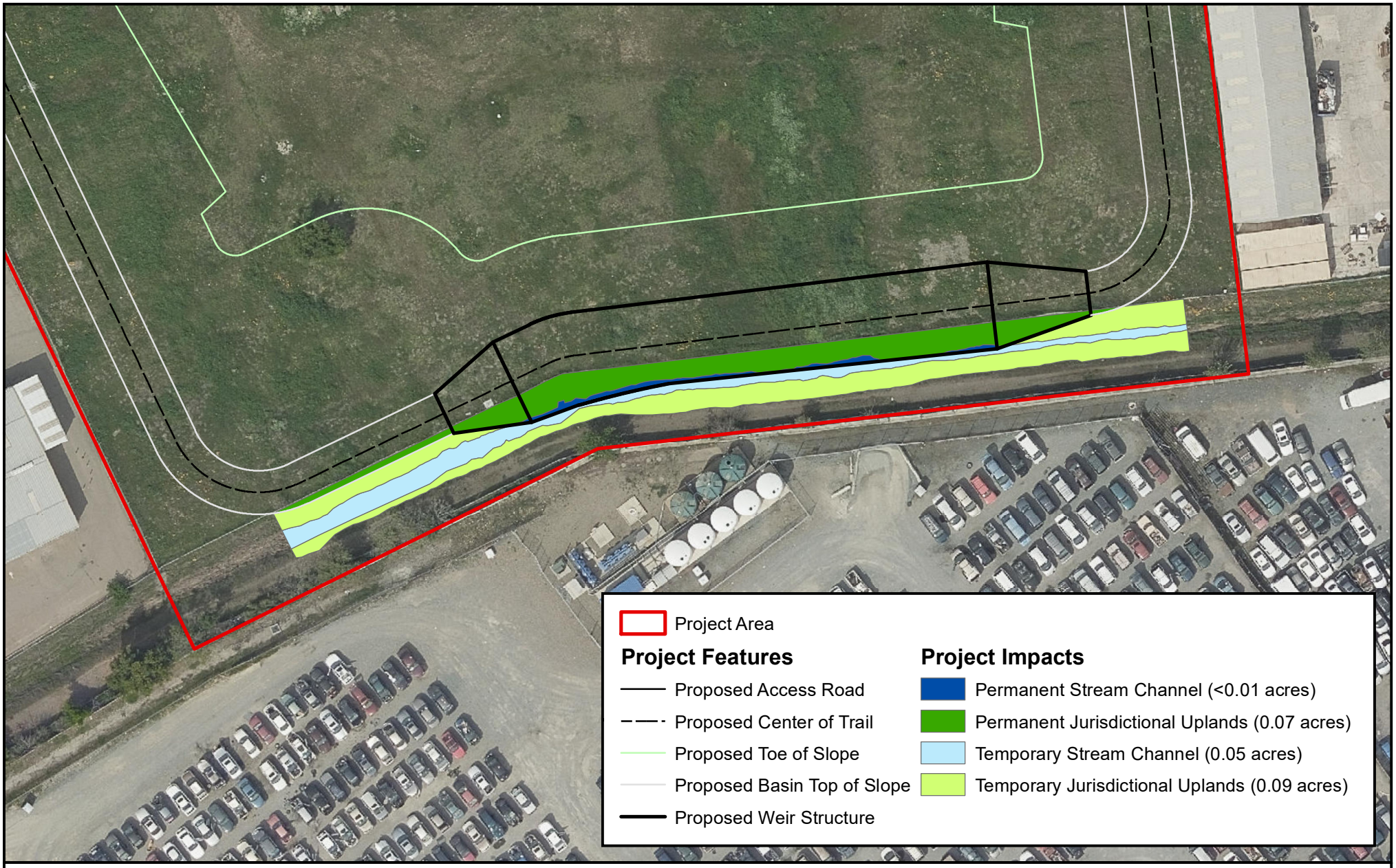


FIGURE 6

**PROJECT IMPACTS TO JURISDICTIONAL RESOURCES**

MONIER CIRCLE STORMWATER DETENTIONL BASIN PROJECT

SACRAMENTO COUNTY, CALIFORNIA

JULY 2023

0 25 50 100

Feet

NORTH

WOOD RODGERS

#### 4.1.1.3. Avoidance and Minimization Efforts for Jurisdictional Resources

The project has been designed to minimize temporary and permanent impacts to jurisdictional resources and SSHCP Aquatic Land Cover to the maximum extent practicable. Prior to construction, a SSHCP Consistency Determination and required regulatory permitting would be conducted. In addition to all measures specified in SSHCP and regulatory permits, the following Mitigation Measures will be incorporated into the design to minimize construction impacts to jurisdictional resources and sensitive natural communities within the project impact area.

**BIO-1: Implement SSHCP General AMMs Condition 1. Avoid and Minimize Urban Development Impacts to Watershed Hydrology and Water Quality**

To satisfy the conditions of the SSHCP, USACE PGP, and RWQCB Order, the City and/or contractor shall implement all project applicable AMMs as described in SSHCP Chapter 5. Condition 1, Avoid and Minimize Urban Development Impacts to Watershed Hydrology and Water Quality.

**BIO-2: Implement SSHCP AMMs Condition 3. Construction Best Management Practices**

To satisfy the conditions of the SSHCP, USACE PGP, and RWQCB Order, the City and/or contractor shall implement all project applicable AMMs as described in SSHCP Chapter 5. Condition 3, Construction BMPs.

**BIO-3: Implement SSHCP AMMs Condition 7. Avoid and Minimize Impacts to Streams and Creeks**

To satisfy the conditions of the SSHCP, USACE PGP, and RWQCB Order, the City and/or contractor shall implement all project applicable AMMs as described in SSHCP Chapter 5. Condition 7, Avoid and Minimize Impacts to Streams and Creeks.

**BIO-4: Secure Aquatic Resource Impact Permit**

To satisfy conditions of the SSHCP Aquatic Resources Program, the City shall secure an aquatic resources impact permit in accordance with the City of Rancho Cordova Municipal Code Chapter 16.94 "Aquatic Resources Protection". The City and/or contractor shall adhere to all conditions outlined in the Aquatic Resource Impact Permit.

**BIO-5: Obtain and Implement USACE PGP and RWQCB Order Authorization**

Before the approval of grading and improvement plans and before any groundbreaking activity associated with the project, the project applicant shall ensure that Clean Water Act (if determined applicable), and State Water Quality Order authorization is obtained. construction contractor shall adhere to all conditions outlined in the Streambed Alteration Agreement.

**BIO-6: Obtain and Implement CDFW 1602 Streambed Alteration Agreement**

Before the approval of grading and improvement plans and before any groundbreaking activity associated with the project, the project applicants shall ensure that a CDFW 1602 Streambed Alteration Agreement has been obtained. The construction contractor shall adhere to all conditions outlined in the Streambed Alteration Agreement.

#### 4.1.1.4. Compensatory Mitigation for Jurisdictional Resources

Measures **BIO-7** is proposed to provide compensatory mitigation requirements for permanent and temporary impacts to jurisdictional resources. Regulatory permitting efforts with the USACE (if determined applicable), RWQCB, and CDFW will determine final mitigation ratios for permanent and temporary effects to jurisdictional resources.

**BIO-7: Mitigate for Impacts to Aquatic Resources and Sensitive Habitats**

> Before the approval of grading and improvement plans and before any groundbreaking activity associated with the project, the City shall ensure that mitigation for impacts to aquatic features and other habitat has been implemented through the SSHCP In-Lieu Fee Program or by other methods agreeable to the USACE, RWQCB, CDFW, and South Sacramento Conservation Agency as appropriate, depending on agency jurisdiction.

#### 4.1.1.5. Cumulative Impacts to Jurisdictional Waters

Minimal permanent modifications would occur as part of the proposed project. The majority of disturbances to jurisdictional resources would be temporary and any temporary impacts would be restored. When viewed within the historical context of disturbance within the area, the project will result in a comparatively minor impact to jurisdictional aquatic resources in the local region. The proposed project's minor permanent and majority temporary impacts will contribute to the long-term anthropomorphic modification of these features; however, with the inclusion of compensatory mitigation for project impacts to jurisdictional waters, no cumulative impacts to jurisdictional waters are anticipated.

## 4.2. Special Status Plant Species

Preliminary literature research was conducted to determine the special status plant species with the potential to occur in the vicinity of the project. A review of USFWS, CNDDB, and CNPS online databases concluded that 8 special status plant species had the potential to occur within the BSA. Based on literature research, and confirmation of habitat conditions within the BSA during field surveys, it was determined that one plant species was confirmed present within the BSA: Sanford's arrowhead.

### 4.2.1. Discussion of Sanford's Arrowhead

Sanford's arrowhead is listed under CNPS as a 1B.2, species of concern, and is a SSHCP Covered Species. Sanford's arrowhead is a perennial rhizomatous herb found in sluggish waterways, swamps, freshwater marshes, ponds, ditches, and margins of slow flowing streams or sloughs up to 2,132 feet elevation. The blooming season for the species occurs from May to October. The species was once common in irrigation ditches in the Sacramento and San Joaquin valleys. Channelization of natural waterways, changes in seasonal agricultural water use, and water conservation have eliminated much of its previous habitat. Sanford's arrowhead spreads by underground rhizomes and is found preferentially in clay soils.

#### 4.2.1.1. Sanford's Arrowhead Survey Results

The BSA does contain potentially suitable marginal habitat within Morrison Channel; however, the BSA does not contain SSHCP modeled habitat for the species. The nearest recent (<20 years) CNDDB occurrence of the species is approximately 3.5 miles east within Buffalo Creek. The species was observed within the BSA during biological surveys (May 17, 2023), during the species blooming period. However, the species was observed outside of the proposed project impact area. The species is considered present within the BSA.

#### 4.2.1.2. Project Impacts to Sanford's Arrowhead

The specimen of the species that was observed within the BSA was located within Morrison Channel approximately 50 feet outside of the proposed project impact area. However, the species is rhizomatous, and could be washed downstream prior to project construction. With the implementation of measure **BIO-8**, no impacts that would jeopardize the species survival would occur, and if the species is found within the project impact area it would be transplanted to an appropriate location in coordination with regulatory agencies.

#### 4.2.1.3. Avoidance and Minimization Measures for Sanford's Arrowhead

The following measures would provide avoidance and minimization of potential project impacts to Sanford's arrowhead. SSHCP measures PLANT-1 and PLANT-2 would not be applicable, as there is no modeled habitat for the species within the BSA.

**BIO-8: Implement Pre-Construction Focused Rare Plant Survey**

> Prior to construction, a rare plant survey shall be conducted within the proposed project footprint, plus a 100-foot buffer within suitable habitat to confirm the presence and number of individuals of Sanford's arrowhead. The rare plant survey shall be conducted within the appropriate blooming period prior to construction.
>
> To avoid direct impacts, a qualified biologist shall prepare a salvage and/or transplant plan for any identified specimens. The transplant plan shall describe the transplanting process and identify a suitable location for the species to be transplanted. The plan shall be reviewed and approved by the appropriate wildlife agencies and implemented prior to the start of construction.

#### 4.2.1.4. Compensatory Mitigation for Sanford's Arrowhead

With the implementation of measure **BIO-8**, no impacts that would jeopardize the species survival would occur, and if the species is found within the project impact area it would be transplanted to an appropriate location in coordination with regulatory agencies. No compensatory mitigation would be required.

#### 4.2.1.5. Cumulative Effects to Sanford's Arrowhead

With the implementation of measure **BIO-8**, no cumulative effects to Sanford's arrowhead are anticipated.

## 4.3. Special Status Wildlife Species

### 4.3.1. White-Tailed Kite

White-tailed kite is a fully protected species under CFG Code Section 3511 and is a Covered Species under the SSHCP. The species has a restricted distribution in the U.S., occurring only in California and western Oregon and along the Texas coast (American Ornithologists' Union 1983). The species is fairly common in California's Central Valley margins with scattered oaks and river bottomlands. White-tailed kites nest in riparian and oak woodlands and forage in nearby grasslands, pastures, agricultural fields, and wetlands. They use nearby treetops for perching and nesting sites. Voles and mice are common prey species.

#### 4.3.1.1. White-Tailed Kite Survey Results

The BSA does contain potentially suitable nesting trees; however, the BSA is not within SSHCP modeled nesting or foraging habitat for the species. The disturbed habitat within the BSA is unlikely to provide suitable foraging habitat for the species, and the nearest suitable foraging habitat is over 0.5-miles southwest of the BSA

and over 1-mile east of the BSA. No active or historic nests were observed during the biological surveys conducted on March 23, 2023. There are 3 recent occurrences of the species 3 miles northwest of the BSA within the American River corridor. Due to the presence of potentially suitable nesting trees within the BSA and local occurrence data, the species is considered to have a low potential to occur within the BSA.

#### 4.3.1.2. Project Impacts to White-Tailed Kite

The project would provide pre-construction raptor and nesting bird survey to ensure no take of white-tailed kite would occur. With the implementation of measure **BIO-9**, no direct impacts to individual white-tailed kites or nest sites would occur as a result of the project.

#### 4.3.1.3. Avoidance and Minimization Measures for White-Tailed Kite

The following measures would provide avoidance and minimization of potential project impacts to white-tailed kite, and other SSHCP Covered Raptor Species. SSHCP RAPTOR-1 would not be applicable, as there is no modeled habitat for covered raptor species within the BSA.

**BIO-9: Implement Covered Raptor Species SSHCP Avoidance and Minimization Measures**

RAPTOR-2 (Raptor Pre-Construction Survey)
Pre-construction surveys will be required to determine if active nests are present with a project footprint or within 0.25 mile of a project footprint if existing or potential nest sites are found during initial surveys and construction activities will occur during the raptor breeding season. An approved biologist will conduct pre-construction surveys within 30 days and 3 days of ground disturbing activities within the proposed project footprint and within 0.25 mile of the proposed project footprint to determine presence of nesting covered raptor species. Preconstruction surveys will be conducted during the raptor breeding season. If a nest is present, then RAPTOR-3 and RAPTOR-4 will be implemented. The approved biologist will inform the Land Use Authority Permittee and Implementing Entity of species locations, and they in turn will notify the Wildlife Agencies.

RAPTOR-3 (Raptor Nest/Roost Buffer)
If active nests are found within the project footprint or within 0.25 mile of any project-related Covered Activity, the Third-Party Project Proponent will establish a 0.25 mile temporary nest disturbance buffer around the active nest until the young have fledged.

RAPTOR-4 (Raptor Nest/Roost Buffer Monitoring)
If project-related Covered Activities within the temporary nest disturbance buffer are determined to be necessary during the nesting season, then an approved biologist experienced with raptor behavior will be retained by the Third-Party Project Proponent to monitor the nest throughout the nesting season and to determine when the young have fledged. The approved biologist will be on site daily while construction-related activities are taking place within the disturbance buffer. Work within the temporary nest disturbance buffer can occur with the written permission of the Implementing Entity and Wildlife Agencies. If nesting raptors begin to exhibit agitated behavior, such as defensive flights at intruders, getting up from a brooding position, or flying off the nest, the approved biologist/monitor will have the authority to shut down construction activities. If agitated behavior is exhibited, the biologist, Third-Party Project Proponent, Implementing Entity, and Wildlife Agencies will meet to determine the best course of action to avoid nest abandonment or take of individuals. The approved biologist will also train construction personnel on the required avoidance procedures, buffer zones, and protocols in the event that a covered raptor species flies into an active construction zone (i.e., outside the buffer zone).

#### 4.3.1.4. Compensatory Mitigation for White-Tailed Kite

With the implementation of measure BIO-9, no direct impacts to white-tailed kite individuals or nest sites would be anticipated for the project. Therefore, no compensatory mitigation would be required.

#### 4.3.1.5. Cumulative Effects to White-Tailed Kite

With the implementation of measure BIO-9, no direct impacts to white-tailed kite individuals or nest sites would be anticipated for the project. Therefore, no cumulative impacts to white-tailed kite would occur.

### 4.3.2. Migratory Birds

Native birds, protected under the MBTA and similar provisions under CFG Code, have the potential to nest within the project area. To avoid and minimize potential impacts to migratory birds, avoidance and minimization measure **BIO-10** would be implemented as part of the project. Therefore, no take of migratory birds or raptors protected under the MBTA and CFG Code is anticipated.

**BIO-10: Provide Pre-Construction Migratory Bird Survey**

> If construction activities, including vegetation removal and ground disturbance, cannot be avoided during the migratory bird nesting season (February 1 – August 31), a pre-construction nesting bird survey must be conducted by a qualified biologist within 3 days prior to vegetation removal.
>
> If an active nest is observed, a protective buffer will be fenced off, and no work will be allowed within the buffer until the nest is no longer active (e.g., all nestlings have successfully fledged). The buffer width will be determined by a qualified biologist, in coordination with the city and the appropriate wildlife agencies, and based on species biology and site conditions.

# **Chapter 5.** Conclusions and Regulatory Determination

## 5.1. Federal Endangered Species Act Consultation Summary

No special status wildlife or plant species listed under the FESA are anticipated to occur within the project area. Therefore, no effects to FESA listed species would occur, and no consultation with the USFWS for project effects under Section 7 of the FESA is required.

## 5.2. Essential Fish Habitat Consultation Summary

According to the National Marine Fishers Service (NMFS) Essential Fish Habitat (EFH) mapper (NMFS 2022) the project area is within the NMFS EFH polygon for Chinook salmon. However, the aquatic habitat within the project area has no connectivity to the waterways that support Chinook salmon or other listed anadromous fish. Therefore, no chinook salmon EFH is present within the project limits, and no consultation with NMFS for project effects to EFH is required.

## 5.3. California Endangered Species Act Consultation Summary

No special status wildlife or plant species listed under the CESA are anticipated to occur within the project area. Therefore, no effects to CESA listed species would occur, and no take would occur. With the avoidance of take, the project does not anticipate that a CDFW Section 2081 Incidental Take Permit would be required.

## 5.4. Wetlands and Other Waters Coordination Summary

The project will result in both permanent and temporary effects to jurisdictional resources. No wetlands will be impacted by the project. Project effects would include negligible permanent impacts to the Morrison Channel (<0.01 acres), and permanent impacts jurisdictional upland habitat (0.05 acres). In addition, temporary impacts to the Morrison Channel (0.07 acres), and temporary impacts to jurisdictional upland habitat (0.09). Temporary impacts are anticipated to be restored on-site to pre-project conditions or better. Before the approval of grading and improvement plans and before any groundbreaking activity associated with the project, the City shall ensure that mitigation for permanent impacts to aquatic features and other habitat has been implemented through the SSHCP In-Lieu Fee Program or by other methods agreeable to the USACE, RWQCB, CDFW, and South Sacramento Conservation Agency as appropriate, depending on agency jurisdiction.

# **Chapter 6.** References

American Ornithologists' Union 1983. Checklist of North American Birds. 6th ed. Lawrence, KS: Allen Press.

Babcock 1995. Home Range and Habitat use of Breeding Swainson's Hawks in the Sacramento Valley of California.

Calflora 2023. Information on wild California plants for conservation, education, and appreciation. Available at: calflora.org

Cal-IPC. 2023. The Cal-IPC Inventory. Available at: <https://www.cal-ipc.org/plants/inventory/>

Caltrans 2023. Caltrans Water Quality Planning Tool. Available at: http://svctenvims.dot.ca.gov/wqpt/wqpt.aspx

CDFW 2023a. CWHR Life History Accounts and Range Maps. Available at: <http://www.dfg.ca.gov/biogeodata/cwhr/cawildlife.aspx>

CDFW 2023b. California Natural Diversity Database, Rarefind 5. Available at:<http://www.dfg.ca.gov/biogeodata/cnddb/> (accessed 4/7/2020).

CDFW 1994. Staff Report Regarding Mitigation for Impacts to Swainson's Hawks (*Buteo swainsoni*) in the Central Valley of California. Available at: <https://www.dfg.ca.gov/wildlife/nongame/survey_monitor.html>

CNPS 2023. Inventory of Rare and Endangered Plants (online edition, v8-02). California Native Plant Society, Sacramento, CA. Available at: <http://www.rareplants.cnps.org>

County of Sacramento, et. al. 2018. Final South Sacramento Habitat Conservation Plan. January 2018. Sacramento, CA.

County of Sacramento, et. al. 2018. Final SSHCP Aquatic Resources Program. February 2018. Sacramento, CA.

England, A.S., M.J. Bechard, and C.S. Houston. 1997. Swainson's Hawk (*Buteo swainsoni*). In: A. Poole and F. Gill (eds.), The Birds of North America, No. 265. The Academy of Natural Sci., Philadelphia, PA, and The American Ornithologists' Union, Washington, D.C.

Hickman, James C. 1996. The Jepson Manual, Higher Plants of California. University of California Press. Berkley, CA.

Jepson Eflora. 2023. Jepson eFlora: Geographic subdivisions. Available at: <http://ucjeps.berkeley.edu/eflora/geography.html>

NRCS 2023. Custom Soil Resource Report for the Monier Circle Flood Control Basin Project.

NMFS 2023. National Marine Fisheries Service. Protected Resources App. <https://www.fisheries.noaa.gov/resource/map/protected-resources-app>

RWQCB 2019. Waste Discharge Requirements Order R5-2019-0023 and Clean Water Act Section 401 Water Quality Certification for USACE SSHCP Programmatic General Permit Sacramento County.

SCOTUS 2023. Supreme Court of the United States. Sackett et ux. V. Environmental Protection Agency et al. Available at: https://www.supremecourt.gov/opinions/22pdf/21-454_4g15.pdf

SWRCB 2023. Wetland Riparian Area Protection Policy. Clean Water Act Section 401 - Certification and Wetlands Program. Available at: https://www.waterboards.ca.gov/water_issues/programs/cwa401/wrapp.html

SWRCB 2019. 401 Water Quality Certification and Wetlands Program. "State Wetland Definition and Procedures for Discharge of Dredged or Fill Materials to Waters of the State." Available at: https://www.waterboards.ca.gov/water_issues/programs/cwa401/

U.S. Climate Data 2023. U.S. Climate Data-Sacramento, California. Available at: <http://www.usclimatedata.com/climate/sacramento/california/united-states/usca1197>

USACE 2020. National Wetland Plant List, version 3.5. U.S. Army Corps of Engineers. Engineer Research and Development Center. Cold Regions Research and Engineering Laboratory, Hanover, NH. Available at: http://wetland-plants.usace.army.mil/

USACE 2019. South Sacramento HCP Programmatic General Permit 17. "Minimal Impact Covered Activities under the South Sacramento Habitat Conservation Plan. U.S. Army Corps of Engineers, Sacramento District. Effective: July 25, 2019. Expires: July 25, 2024.

USACE 2008a. Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0). U.S Army Corps of Engineers – Engineering Research and Development Center. Wetlands Regulatory Assistance Program.

USACE 2008b. A Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States: A Delineation Manual. U.S. Army Corps of Engineers – Engineering Research and Development Center.

USACE 1987. Wetlands Delineation Manual Wetlands Research Program Technical Report Y-87-1, Final Report, January 1987, Waterways Experiment Station, 3909 Halls Ferry Road, Vicksburg, MS 39180-6199. Available at: <http://el.erdc.usace.army.mil/elpubs/pdf/wlman87.pdf>.

USDA 2007. Ecological Subregions: Sections and Subsections for the conterminous United States. Available at: <https://www.fs.usda.gov/treesearch/pubs/48672>

USFWS 2023. Official Species List: Sacramento Fish and Wildlife Office. Project Code: 2023-0049736. Available at: <https://ipac.ecosphere.fws.gov/>

Zeiner, D.C., W.F.Laudenslayer, Jr., K.E. Mayer, and M. White, eds. 1988-1990. California's Wildlife. Vol. I-III. CDFW, Sacramento, California.

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# Appendix A. Species Database Query Results

# Selected Elements by Common Name

## California Department of Fish and Wildlife

## California Natural Diversity Database

**Query Criteria:** Quad IS (Sacramento East (3812154) OR Carmichael (3812153) OR Citrus Heights (3812163) OR Buffalo Creek (3812152) OR Rio Linda (3812164) OR Folsom (3812162))

| Species | Element Code | Federal Status | State Status | Global Rank | State Rank | Rare Plant Rank/CDFW SSC or FP |
|---|---|---|---|---|---|---|
| **Ahart's dwarf rush**<br>*Juncus leiospermus var. ahartii* | PMJUN011L1 | None | None | G2T1 | S1 | 1B.2 |
| **American badger**<br>*Taxidea taxus* | AMAJF04010 | None | None | G5 | S3 | SSC |
| **An andrenid bee**<br>*Andrena subapasta* | IIHYM35210 | None | None | G1G2 | S1S2 | |
| **bank swallow**<br>*Riparia riparia* | ABPAU08010 | None | Threatened | G5 | S2 | |
| **Boggs Lake hedge-hyssop**<br>*Gratiola heterosepala* | PDSCR0R060 | None | Endangered | G2 | S2 | 1B.2 |
| **Brandegee's clarkia**<br>*Clarkia biloba ssp. brandegeeae* | PDONA05053 | None | None | G4G5T4 | S4 | 4.2 |
| **burrowing owl**<br>*Athene cunicularia* | ABNSB10010 | None | None | G4 | S3 | SSC |
| **California linderiella**<br>*Linderiella occidentalis* | ICBRA06010 | None | None | G2G3 | S2S3 | |
| **Cooper's hawk**<br>*Accipiter cooperii* | ABNKC12040 | None | None | G5 | S4 | WL |
| **Crotch bumble bee**<br>*Bombus crotchii* | IIHYM24480 | None | Candidate Endangered | G2 | S2 | |
| **double-crested cormorant**<br>*Nannopterum auritum* | ABNFD01020 | None | None | G5 | S4 | WL |
| **dwarf downingia**<br>*Downingia pusilla* | PDCAM060C0 | None | None | GU | S2 | 2B.2 |
| **Elderberry Savanna**<br>*Elderberry Savanna* | CTT63440CA | None | None | G2 | S2.1 | |
| **ferruginous hawk**<br>*Buteo regalis* | ABNKC19120 | None | None | G4 | S3S4 | WL |
| **giant gartersnake**<br>*Thamnophis gigas* | ARADB36150 | Threatened | Threatened | G2 | S2 | |
| **golden eagle**<br>*Aquila chrysaetos* | ABNKC22010 | None | None | G5 | S3 | FP |
| **great blue heron**<br>*Ardea herodias* | ABNGA04010 | None | None | G5 | S4 | |
| **great egret**<br>*Ardea alba* | ABNGA04040 | None | None | G5 | S4 | |
| **hairy water flea**<br>*Dumontia oregonensis* | ICBRA23010 | None | None | G1G3 | S1 | |

# United States Department of the Interior

FISH AND WILDLIFE SERVICE
Sacramento Fish And Wildlife Office
Federal Building
2800 Cottage Way, Room W-2605
Sacramento, CA 95825-1846
Phone: (916) 414-6600 Fax: (916) 414-6713

In Reply Refer To: February 27, 2023
Project Code: 2023-0049736
Project Name: Monier Circle Stormwater Detention Basin

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)

(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF

**Migratory Birds**: In addition to responsibilities to protect threatened and endangered species under the Endangered Species Act (ESA), there are additional responsibilities under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA) to protect native birds from project-related impacts. Any activity, intentional or unintentional, resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the U.S. Fish and Wildlife Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). For more information regarding these Acts see https://www.fws.gov/birds/policies-and-regulations.php.

The MBTA has no provision for allowing take of migratory birds that may be unintentionally killed or injured by otherwise lawful activities. It is the responsibility of the project proponent to comply with these Acts by identifying potential impacts to migratory birds and eagles within applicable NEPA documents (when there is a federal nexus) or a Bird/Eagle Conservation Plan (when there is no federal nexus). Proponents should implement conservation measures to avoid or minimize the production of project-related stressors or minimize the exposure of birds and their resources to the project-related stressors. For more information on avian stressors and recommended conservation measures see https://www.fws.gov/birds/bird-enthusiasts/threats-to-birds.php.

In addition to MBTA and BGEPA, Executive Order 13186: *Responsibilities of Federal Agencies to Protect Migratory Birds*, obligates all Federal agencies that engage in or authorize activities that might affect migratory birds, to minimize those effects and encourage conservation measures that will improve bird populations. Executive Order 13186 provides for the protection of both migratory birds and migratory bird habitat. For information regarding the implementation of Executive Order 13186, please visit https://www.fws.gov/birds/policies-and-regulations/executive-orders/e0-13186.php.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Code in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List

# OFFICIAL SPECIES LIST

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

**Sacramento Fish And Wildlife Office**
Federal Building
2800 Cottage Way, Room W-2605
Sacramento, CA 95825-1846
(916) 414-6600

# PROJECT SUMMARY

Project Code: 2023-0049736
Project Name: Monier Circle Stormwater Detention Basin
Project Type: Flooding
Project Description: The City of Rancho Cordova proposes to construct a new stormwater detention basin.
Project Location:

The approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@38.580712500000004,-121.2609280609743,14z


Counties: Sacramento County, California

# ENDANGERED SPECIES ACT SPECIES

There is a total of 8 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries[1], as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

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1. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

## AMPHIBIANS

| NAME | STATUS |
|---|---|
| California Tiger Salamander *Ambystoma californiense*<br>Population: U.S.A. (Central CA DPS)<br>There is **final** critical habitat for this species. Your location does not overlap the critical habitat.<br>Species profile: https://ecos.fws.gov/ecp/species/2076 | Threatened |

## INSECTS

| NAME | STATUS |
|---|---|
| Monarch Butterfly *Danaus plexippus*<br>No critical habitat has been designated for this species.<br>Species profile: https://ecos.fws.gov/ecp/species/9743 | Candidate |
| Valley Elderberry Longhorn Beetle *Desmocerus californicus dimorphus*<br>There is **final** critical habitat for this species. Your location does not overlap the critical habitat.<br>Species profile: https://ecos.fws.gov/ecp/species/7850 | Threatened |

## CRUSTACEANS

| NAME | STATUS |
|---|---|
| Conservancy Fairy Shrimp *Branchinecta conservatio*<br>There is **final** critical habitat for this species. Your location does not overlap the critical habitat.<br>Species profile: https://ecos.fws.gov/ecp/species/8246 | Endangered |
| Vernal Pool Fairy Shrimp *Branchinecta lynchi*<br>There is **final** critical habitat for this species. Your location does not overlap the critical habitat.<br>Species profile: https://ecos.fws.gov/ecp/species/498 | Threatened |
| Vernal Pool Tadpole Shrimp *Lepidurus packardi*<br>There is **final** critical habitat for this species. Your location does not overlap the critical habitat.<br>Species profile: https://ecos.fws.gov/ecp/species/2246 | Endangered |

## FLOWERING PLANTS

| NAME | STATUS |
|---|---|
| Sacramento Orcutt Grass *Orcuttia viscida*<br>There is **final** critical habitat for this species. Your location does not overlap the critical habitat.<br>Species profile: https://ecos.fws.gov/ecp/species/5507 | Endangered |
| Slender Orcutt Grass *Orcuttia tenuis*<br>There is **final** critical habitat for this species. Your location does not overlap the critical habitat.<br>Species profile: https://ecos.fws.gov/ecp/species/1063 | Threatened |

## CRITICAL HABITATS

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

## IPAC USER CONTACT INFORMATION

Agency: Rancho Cordova city
Name: Andrew Dellas
Address: 3301 C St. #100B
City: Sacramento
State: CA
Zip: 95816
Email adellas@dokkenengineering.com
Phone: 9165861695

## LEAD AGENCY CONTACT INFORMATION

Lead Agency: Army Corps of Engineers

| Species | Element Code | Federal Status | State Status | Global Rank | State Rank | Rare Plant Rank/CDFW SSC or FP |
|---|---|---|---|---|---|---|
| **legenere**<br>*Legenere limosa* | PDCAM0C010 | None | None | G2 | S2 | 1B.1 |
| **merlin**<br>*Falco columbarius* | ABNKD06030 | None | None | G5 | S3S4 | WL |
| **midvalley fairy shrimp**<br>*Branchinecta mesovallensis* | ICBRA03150 | None | None | G2 | S2S3 | |
| **Northern Claypan Vernal Pool**<br>*Northern Claypan Vernal Pool* | CTT44120CA | None | None | G1 | S1.1 | |
| **Northern Hardpan Vernal Pool**<br>*Northern Hardpan Vernal Pool* | CTT44110CA | None | None | G3 | S3.1 | |
| **Northern Volcanic Mud Flow Vernal Pool**<br>*Northern Volcanic Mud Flow Vernal Pool* | CTT44132CA | None | None | G1 | S1.1 | |
| **pallid bat**<br>*Antrozous pallidus* | AMACC10010 | None | None | G4 | S3 | SSC |
| **pincushion navarretia**<br>*Navarretia myersii ssp. myersii* | PDPLM0C0X1 | None | None | G2T2 | S2 | 1B.1 |
| **purple martin**<br>*Progne subis* | ABPAU01010 | None | None | G5 | S3 | SSC |
| **Ricksecker's water scavenger beetle**<br>*Hydrochara rickseckeri* | IICOL5V010 | None | None | G2? | S2? | |
| **Sacramento Orcutt grass**<br>*Orcuttia viscida* | PMPOA4G070 | Endangered | Endangered | G1 | S1 | 1B.1 |
| **Sanford's arrowhead**<br>*Sagittaria sanfordii* | PMALI040Q0 | None | None | G3 | S3 | 1B.2 |
| **silver-haired bat**<br>*Lasionycteris noctivagans* | AMACC02010 | None | None | G3G4 | S3S4 | |
| **slender Orcutt grass**<br>*Orcuttia tenuis* | PMPOA4G050 | Threatened | Endangered | G2 | S2 | 1B.1 |
| **song sparrow ("Modesto" population)**<br>*Melospiza melodia pop. 1* | ABPBXA3013 | None | None | G5T3?Q | S3? | SSC |
| **steelhead - Central Valley DPS**<br>*Oncorhynchus mykiss irideus pop. 11* | AFCHA0209K | Threatened | None | G5T2Q | S2 | |
| **stinkbells**<br>*Fritillaria agrestis* | PMLIL0V010 | None | None | G3 | S3 | 4.2 |
| **Swainson's hawk**<br>*Buteo swainsoni* | ABNKC19070 | None | Threatened | G5 | S3 | |
| **tricolored blackbird**<br>*Agelaius tricolor* | ABPBXB0020 | None | Threatened | G1G2 | S1S2 | SSC |
| **valley elderberry longhorn beetle**<br>*Desmocerus californicus dimorphus* | IICOL48011 | Threatened | None | G3T2T3 | S3 | |
| **Valley Needlegrass Grassland**<br>*Valley Needlegrass Grassland* | CTT42110CA | None | None | G3 | S3.1 | |

# Selected Elements by Common Name

## California Department of Fish and Wildlife

## California Natural Diversity Database

| Species | Element Code | Federal Status | State Status | Global Rank | State Rank | Rare Plant Rank/CDFW SSC or FP |
|---|---|---|---|---|---|---|
| **vernal pool fairy shrimp**<br>*Branchinecta lynchi* | ICBRA03030 | Threatened | None | G3 | S3 | |
| **vernal pool tadpole shrimp**<br>*Lepidurus packardi* | ICBRA10010 | Endangered | None | G4 | S3 | |
| **western pond turtle**<br>*Emys marmorata* | ARAAD02030 | None | None | G3G4 | S3 | SSC |
| **western ridged mussel**<br>*Gonidea angulata* | IMBIV19010 | None | None | G3 | S1S2 | |
| **western spadefoot**<br>*Spea hammondii* | AAABF02020 | None | None | G2G3 | S3S4 | SSC |
| **western yellow-billed cuckoo**<br>*Coccyzus americanus occidentalis* | ABNRB02022 | Threatened | Endangered | G5T2T3 | S1 | |
| **white-tailed kite**<br>*Elanus leucurus* | ABNKC06010 | None | None | G5 | S3S4 | FP |

**Record Count: 47**

CNPS Rare Plant Inventory

California Native Plant Society

## Search Results

**8** matches found. Click on scientific name for details

Search Criteria: CRPR is one of [**1A:1B:2A:2B:3**] , Quad is one of [**3812162:3812153:3812163:3812164:3812152:3812154**]

| ▲ SCIENTIFIC NAME | COMMON NAME | FAMILY | LIFEFORM | BLOOMING PERIOD | FED LIST | STATE LIST | GLOBAL RANK | STATE RANK | CA RARE PLANT RANK | CA ENDEMIC | DATE ADDED |
|---|---|---|---|---|---|---|---|---|---|---|---|
| *Downingia pusilla* | dwarf downingia | Campanulaceae | annual herb | Mar-May | None | None | GU | S2 | 2B.2 | | 1980-01-01 |
| *Gratiola heterosepala* | Boggs Lake hedge-hyssop | Plantaginaceae | annual herb | Apr-Aug | None | CE | G2 | S2 | 1B.2 | | 1974-01-01 |
| *Juncus leiospermus* var. *ahartii* | Ahart's dwarf rush | Juncaceae | annual herb | Mar-May | None | None | G2T1 | S1 | 1B.2 | Yes | 1984-01-01 |
| *Legenere limosa* | legenere | Campanulaceae | annual herb | Apr-Jun | None | None | G2 | S2 | 1B.1 | Yes | 1974-01-01 |
| *Navarretia myersii* ssp. *myersii* | pincushion navarretia | Polemoniaceae | annual herb | Apr-May | None | None | G2T2 | S2 | 1B.1 | Yes | 1994-01-01 |
| *Orcuttia tenuis* | slender Orcutt grass | Poaceae | annual herb | May-Sep(Oct) | FT | CE | G2 | S2 | 1B.1 | Yes | 1974-01-01 |
| *Orcuttia viscida* | Sacramento Orcutt grass | Poaceae | annual herb | Apr-Jul(Sep) | FE | CE | G1 | S1 | 1B.1 | Yes | 1974-01-01 |
| *Sagittaria sanfordii* | Sanford's arrowhead | Alismataceae | perennial rhizomatous herb (emergent) | May-Oct(Nov) | None | None | G3 | S3 | 1B.2 | Yes | 1984-01-01 |

Showing 1 to 8 of 8 entries

**Suggested Citation:**

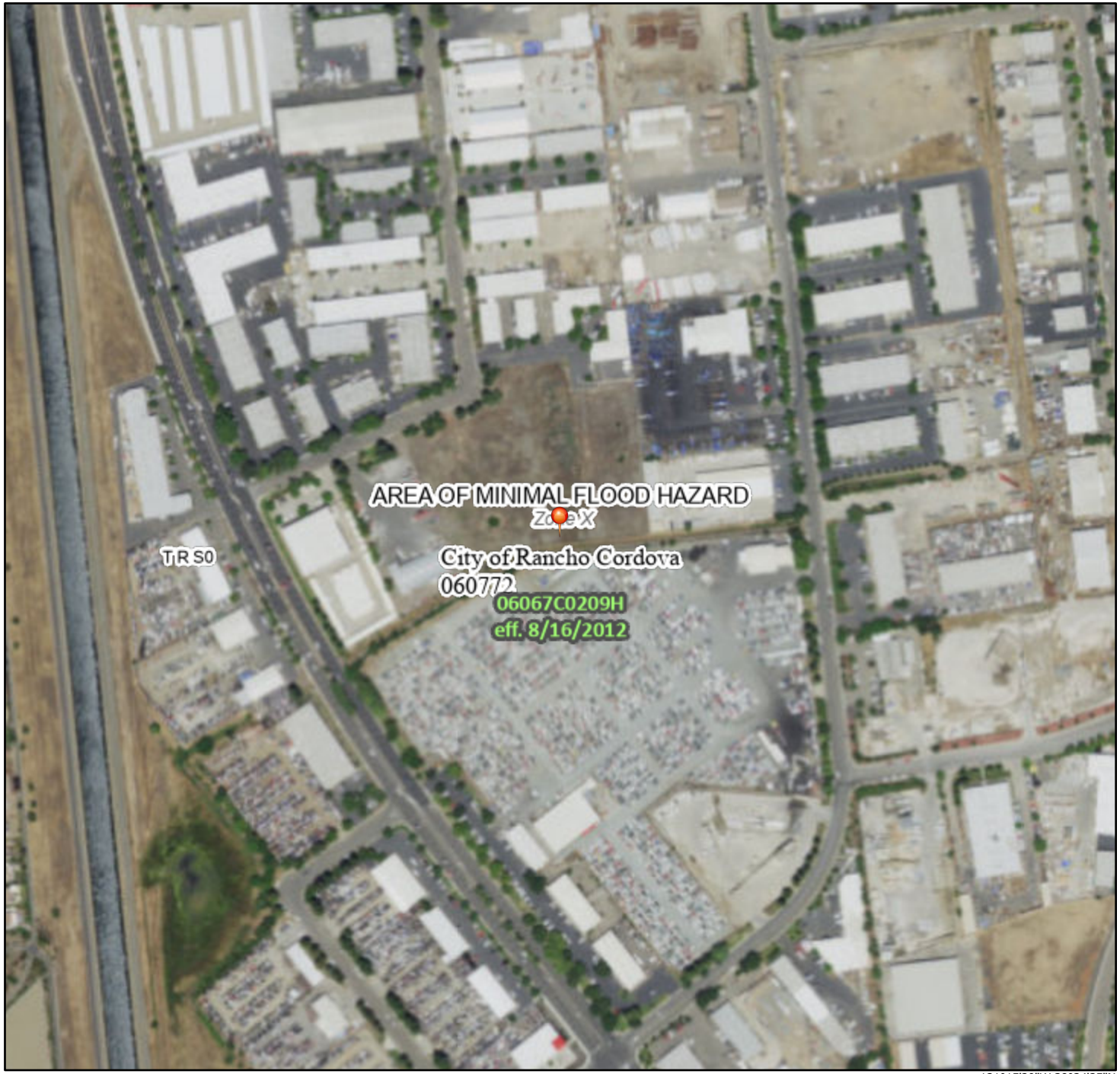
California Native Plant Society, Rare Plant Program. 2023. Rare Plant Inventory (online edition, v9.5). Website https://www.rareplants.cnps.org [accessed 27 February 2023].

# Appendix B. FEMA FIRMette Map

# National Flood Hazard Layer FIRMette

FEMA

121°15'57"W 38°35'3"N




121°15'20"W 38°34'35"N

0 250 500 1,000 1,500 2,000 Feet

1:6,000

*Basemap: USGS National Map: Orthoimagery: Data refreshed October, 2020*

## Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

**SPECIAL FLOOD HAZARD AREAS**
- Without Base Flood Elevation (BFE) *Zone A, V, A99*
- With BFE or Depth *Zone AE, AO, AH, VE, AR*
- Regulatory Floodway

**OTHER AREAS OF FLOOD HAZARD**
- 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*
- Future Conditions 1% Annual Chance Flood Hazard *Zone X*
- Area with Reduced Flood Risk due to Levee. See Notes. *Zone X*
- Area with Flood Risk due to Levee *Zone D*

**OTHER AREAS**
- NO SCREEN Area of Minimal Flood Hazard *Zone X*
- Effective LOMRs
- Area of Undetermined Flood Hazard *Zone D*

**GENERAL STRUCTURES**
- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

**OTHER FEATURES**
- 20.2 Cross Sections with 1% Annual Chance
- 17.5 Water Surface Elevation
- Coastal Transect
- 513 Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

**MAP PANELS**
- Digital Data Available
- No Digital Data Available
- Unmapped

N

The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 3/8/2023 at 2:22 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

# Appendix C. Aquatic Resources Delineation Report

# AQUATIC RESOURCE DELINEATION REPORT

**For**

**Monier Circle Stormwater Detention Basin Project**

**City of Rancho Cordova**

**Sacramento County, California**

**July 2023**

**Prepared For:**
City of Rancho Cordova
Public Works Department
2729 Prospect Park Drive
Rancho Cordova, California 95670

**Prepared By:**
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# Executive Summary

This report summarizes the delineation of aquatic resources complete by Wood Rodgers, Inc. (Wood Rodgers) for the Monier Circle Stormwater Detention Basin Project (project). Wood Rodgers conducted a formal routine onsite delineation of aquatic resources within the approximately 12.53-acre survey area, located in the City of Rancho Cordova (City), Sacramento County, California. Delineation procedures followed the technical methods outlined in the U.S. Army Corps of Engineers (USACE) *Wetlands Delineation Manual* (USACE 1987), *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region* (USACE 2008a), and *A Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States* (USACE 2008b).

The aquatic resources were classified using the *Classification of Wetlands and Deepwater Habitats of the United States* (Cowardin et al. 1979). Based on the results of the delineation, review of available aerial imagery, and topographic mapping, a total of 0.09 acres of non-wetland waters were identified and mapped within the survey area classified as riverine (Morrison Flood Control Channel or "Morrison Channel"). In addition to the non-wetland water, approximately 0.29 acres of California Fish and Wildlife jurisdictional habitat was delineated to the top of bank of the Morrison Channel. See Table 1 below for a summary of delineation results. All areas that have been investigated in the field have been mapped and are included on the enclosed Aquatic Resource Delineation Map (Appendix A).

On May 25, 2023, the Supreme Court of the United States (SCOTUS) issued a unanimous ruling limiting the federal government's jurisdiction over wetlands and tributaries which previously considered waters of the U.S. (WOTUS). In Sackett v. EPA (SCOTUS 2023), the Court expressly endorsed the test articulated in the Rapanos plurality opinion and outright rejected Justice Kennedy's "significant nexus" test. Therefore, the Sackett v. EPA decision limits the definition of WOTUS to relatively permanent bodies of navigable waters, and to assert jurisdiction over an adjacent wetland or tributary under the CWA, a party must establish "first, that the adjacent [body of water constitutes] . . . 'water[s] of the United States' (i.e., "only those relatively permanent, standing or continuously flowing bodies of water 'forming geographic[al] features' connected to traditional interstate navigable waters); and second, that the wetland or tributary has a continuous surface connection with that water, making it difficult to determine where the 'water' ends and the 'wetland' begins." (SCOTUS 2023). On May 26, 2023, the U.S. Environmental Protection Agency (U.S. EPA) and U.S. Army Corps of Engineers (USACE) issued a formal state indicating that "*In light of this decision, the agencies will interpret the phrase "waters of the United States" consistent with the Supreme Court's decision in Sackett. The agencies continue to review the decision to determine next steps"* (USACE 2023).

Though the Morrison Channel feature meets the surface connectivity parameter (continuous surface connection) to Morrison Creek, a confirmed WOTUS; it does not meet the definition of "only those relatively permanent, standing or continuously flowing bodies of water 'forming geographic[al] features.' Therefore, the stream channel identified within the BSA would not meet the definition of a WOTUS under the CWA. Subsequently, Section 404 and Section 401 permitting requirements would not be required. Conversely, the Morrison Channel aquatic feature would meet the definition of a water of the state of California (WoS) and would be required to follow the State Water Resources Control Board Discharge Procedures (SWRCB 2019), as well as Section 1602 of the California Fish and Game Code (CFG Code) for Streambed Alteration.

**Table 1: Summary of Aquatic Resources in the Survey Area**

| Aquatic Resource Type | Area (acres) | Area (linear feet) |
|---|---|---|
| **Waters of the State (RWQCB)** | | |
| *Non-wetland Waters* | | |
| Stream Channel (Morrison Flood Control Channel) | 0.09 | 720 |
| *Non-Aquatic Upland Resources* | | |
| Bankfull Jurisdiction | 0.29 | N/A |
| | | |
| **Total Waters of the State** | 0.38 | 720 |
| **California Fish and Wildlife Resources (CDFW)** | | |
| Stream Channel (Morrison Flood Control Channel) | 0.09 | 720 |
| *Non-Aquatic Upland Resources* | | |
| Jurisdictional Habitat to Top of Bank | 0.29 | N/A |
| | | |
| **Total CDFW Resources** | 0.38 | 720 |

# Table of Contents

# Acronyms and Abbreviations

| | |
|---|---|
| BSA | Biological Study Area |
| CDFW | California Department of Fish and Wildlife |
| CFG Code | California Fish and Game Code |
| CWA | Clean Water Act |
| GNSS | Global Navigation Satellite System |
| NRCS | National Resource Conservation Service |
| NWPL | National Wetland Plant List |
| OHWM | Ordinary High Water Mark |
| RWQCB | Regional Water Quality Control Board |
| SCOTUS | Supreme Court of the U.S. |
| SSHCP | South Sacramento Habitat Conservation Plan |
| SWRCB | State Water Resources Control Board |
| Town | Town of Knights Landing |
| UDA | Urban Development Area |
| U.S. | United States |
| USACE | United States Army Corps of Engineers |
| USEPA | United States Environmental Protection Agency |
| USGS | United States Geological Survey |
| WoS | Waters of the State |
| WOTUS | Waters of the U.S. |

# Chapter 1. Introduction

This Aquatic Resource Delineation describes the baseline data and preliminary results regarding the type, amount, and extent of wetlands and non-wetland waters of the United States (U.S.) within the Biological Study Area (BSA) under jurisdiction of the United States Army Corps of Engineers (USACE). The report also describes the type, amount, and extent of wetlands and non-wetland waters under jurisdiction of the Regional Water Quality Control Board (RWQCB) and the California Department of Fish and Wildlife (CDFW).

## 1.1 Project Description

The City of Rancho Cordova (City) is proposing to construct the Monier Circle Stormwater Detention Basin Project (project). The project is located on a City-owned parcel on Monier Circle (APN 072-1010-029), Sacramento County, California. The basin would cover a majority of the parcel and provide approximately 37.2 acre-feet of storage during the 100-year, 24-hour storm event. Proposed improvements include a weir along the drainage channel on the south side of the detention basin. During storm events, runoff in the channel would be diverted over the weir into the detention basin where it would be stored until the water surface elevations recede in the channel, then it would be pumped to the channel using a small sump pump. Invasive species vegetation along the channel would be removed and replaced with native vegetation where feasible.

Construction would consist of clearing and grubbing the existing above ground features that are within the grading limits. Existing trees along Monier Circle frontage and sewer main within existing utility easement would be protected and remain. An existing 36-inch drainpipe within an existing utility easement shall remain and outfall into the basin. The existing 36-inch drainpipe within the basin excavation area shall be removed and disposed. All other underground utilities (sewer, drain, water, electrical and gas) within the grading limits would be removed and disposed. Earthwork excavation would be completed to construct detention basin and weir spillway. Any excess earthwork material would be off hauled. A pumping station and outfall structure would be constructed adjacent to the existing drainage canal. Upon completion of all earthwork excavations, landscape and irrigation systems would be installed around the detention basin perimeter and an all-weather path would be constructed along the top of detention basin for pedestrian recreational use.

### 1.1.1. Purpose and Need

The purpose of the project is to construct a stormwater detention basin that will alleviate 100-year, 24-hour event flooding along Sunrise Boulevard.

The project is needed to address flooding problems along Sunrise Boulevard, between Monier Circle and Mechanical Drive due to the lack of capacity in the existing stormwater system within the City

## 1.2 Contact Information

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adellas@woodrodgers.com

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Rancho Cordova, California 95670
(916) 851-8842
kcourdy@cityofranchocordova.org

# Chapter 2. Location

The project is located on a City-owned parcel on Monier Circle (APN 072-1010-029) within the City of Rancho Cordova, Sacramento County, California. The approximate center of the project site is Latitude 38.580927°N and Longitude -121.260920°W. The survey area is located within the *Carmichael* U.S. Geological Survey (USGS) 7.5-minute quadrangle, Section 6, Township 8 North, Range 7 East of the Mount Diablo meridian. The project site occurs at an elevation of approximately 115 to 119 feet above mean sea level within the Valley-America hydrologic unit, Sherman Lake-Sacramento River watershed, Lake Greenhaven-Sacramento subwatershed (HUC 180201630701). Refer to **Figure 1** Project Vicinity, and **Figure 2** Project Location in **Appendix B**.

Driving directions from USACE Sacramento Office (1325 J Street, Sacramento, CA 95814) are as follows: drive east on J Street toward 15th Street. Turn right on 15th Street and drive south toward K Street. Use the left two lanes to turn left on X Street. Use the middle two lanes to merge onto I-80 E ramp. Merge onto I-60/US 50 E. Take 50 E for 11 miles and take exit 17 for Zinfandel Drive. Turn right onto Zinfandel Drive, and for 500 feet. Use the left two lanes to turn left onto White Rock Road for 1.2 miles. Turn right onto Sunrise Boulevard for 0.7 miles then turn left onto Monier Circle. The destination will be approximately 275 feet on your right.

# Chapter 3. Methods

## 3.1 Survey Area

Prior to field surveys, a biological study area (BSA) was defined as the proposed project survey area. The BSA is defined as all areas that will be temporarily or permanently impacted by the project, including proposed right of way, construction easements, cut and fill limits, potential staging areas, and access roads. The BSA is approximately 12.53 acres and is considered the full extent of the survey area for this aquatic resources delineation report.

## 3.2 Sources of Information

The following sources of information were reviewed in conjunction with the field survey:

- Carmichael USGS 7.5-minute topographic quadrangle
- Google Earth aerial imagery (1985-2023)
- National Wetland Inventory Maps (USFWS 2023)
- National Resource Conservation Service (NRCS) Custom Soil Survey Report (NRCS 2023)
- USACE Antecedent Precipitation Tool (USACE 2023)

## 3.3 Definitions and Terminology

The USACE and U.S. Environmental Protection Agency (USEPA) jointly define wetlands as: "those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions" [40 CFR 230.3(t)].

Similarly, the California State Water Resources Control Board guidance document *State Wetland Definition and Procedures for Discharges of Dredged of Fill Materials to Waters of the State*, adopted April 2019, defines wetlands as: "An area is wetland if, under normal circumstances, (1) the area has continuous or recurrent saturation of the upper substrate caused by groundwater, or shallow surface water, or both; (2) the duration of such saturation is sufficient to cause anaerobic conditions in the upper substrate; and (3) the area's vegetation is dominated by hydrophytes or the area lacks vegetation."

Three general environmental parameters define a wetland. These parameters must include the presence of hydrophytic vegetation, hydric soils, and wetland hydrology. Except under certain situations, evidence of a minimum of one positive wetland indicator from each of the above parameters must be identified in order to make a positive wetland determination.

In addition, waters of the US are also defined as areas that "include essentially all surface waters such as rivers, streams and their tributaries, all wetlands adjacent to these waters, and all ponds, lakes and reservoirs". The boundaries of some waters of the US (i.e., such as streams or lakes) are further defined by the ordinary high water mark (OHWM). The OHWM is characterized as the line on the shores established by the fluctuations of water and indicated by physical characteristics such as: a clear natural line impressed on the bank, shelving, changes in the character of the soil, wetland vegetation, the presence of litter and debris, and other appropriate means that consider the characteristics of the surrounding areas. These definitions are the basis of this delineation method.

Areas that do not meet any one of the wetland parameters (hydrophytic vegetation, hydric soils and/or wetland hydrology) or non-vegetated stream channel/open water (OHWM) were classified as a non-wetland, upland and mapped as such.

On May 25, 2023, the Supreme Court of the United States (SCOTUS) issued a unanimous ruling limiting the federal government's jurisdiction over wetlands and tributaries which previously considered waters of the U.S. (WOTUS). In Sackett v. EPA, the Court expressly endorsed the test articulated in the Rapanos plurality opinion and outright rejected Justice Kennedy's "significant nexus" test. Therefore, the Sackett v. EPA decision limits the definition of WOTUS to relatively permanent bodies of navigable waters, and to assert jurisdiction over an adjacent wetland or tributary under the CWA, a party must establish "first, that the adjacent [body of water constitutes] . . . 'water[s] of the United States' (i.e., "only those relatively permanent, standing or continuously flowing bodies of water 'forming geographic[al] features' connected to traditional interstate navigable waters); and second, that the wetland or tributary has a continuous surface connection with that water, making it difficult to determine where the 'water' ends and the 'wetland' begins." (SCOTUS 2023). On May 26, 2023, the U.S. Environmental Protection Agency (U.S. EPA) and USACE issued a formal state indicating that "*In light of this decision, the agencies will interpret the phrase "waters of the United States" consistent with the Supreme Court's decision in Sackett. The agencies continue to review the decision to determine next steps"*.

## 3.4 Field Methods

The aquatic resource delineation was conducted by Wood Rodgers Senior Biologist / Professional Wetland Scientist (PWS), Andrew Dellas on March 23, 2023. The weather during the delineation was partly sunny at approximately 57 degrees Fahrenheit. At the time of the field investigation, the conditions observed within the survey area were typical for the region. During the delineation efforts dominant vegetation was recorded, representative hydrologic indicators were noted.

Non-Wetland Waters

The boundaries of non-tidal, non-wetland waters (Morrison Channel) were delineated at the OHWM. The OHWM represents the lateral extent at which waters flow at the ordinary or typical flow for each season. The OHWM was identified in the field and mapped following the methods in USACE's Regulatory Guidance Letter 05-05 (U.S. Army Corps of Engineers 2005) and guidance in *A Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States* (USACE 2008b).

Information on slope, sediment texture, vegetation, and OHWM primary indicators of the low-flow channel, and active floodplain were recorded on an OHWM Delineation Datasheet (see **Appendix B**). OHWM data points was recorded using a Trimble R1 global navigation satellite system (GNSS) receiver and hand-held tablet running ArcGIS Collector data collection software.

# Chapter 4. Existing Conditions

## 4.1 Landscape Setting

The Project occurs within the City of Rancho Cordova, Sacramento County in the California Dry Steppe Province ecological subregion, Great Valley Section, and ecological subsection 262Ag "Hardpan Terraces" of California (USDA 2007). The region receives an average of 18.52 inches of precipitation annually in the form of rain. The average annual high temperature is 74 degrees Fahrenheit (°F) and average annual low temperature is 48 °F (U.S. Climate Data 2023).

The BSA is within the Carmichael USGS 7 ½ Minute Quadrangle. The Project area occurs within a single distinct topographic region of valley floor, and the natural elevation within the Project area ranges from approximately 115 to 119 feet above mean sea level. The topography of the valley floor consists of low-elevation fluvial plains formed on nonmarine sedimentary rock with gently rolling terrain located on the Sacramento valley floor.

The Natural Resource Conservation Service (NRCS) Custom Soil Resource Report for the Project (NRCS 2023) identifies soils within the BSA solely as:

- Xerorthents, dredge tailings-Urban land complex, 0 to 2 percent slopes

## 4.2 Habitat Communities

The BSA is dominated by urban cover classes. Land use within the Project vicinity is designated by the City's General Plan (2011) as part of the Sunrise Boulevard South Planning Area, and land use zoning designated as "Heavy Industrial" (M-2). Land cover types were delineated and described based on the land cover definitions of the South Sacramento Habitat Conservation Plan (SSHCP) for consistency and permitting guidance. Dominant cover classes include high-density development, disturbed, and stream/creek (**Appendix B. Vegetation Communities Map)**.

**Developed and Other Non-Habitat Land Cover Types**

High-Density Development Land Cover
The high-density development land cover type includes urban and suburban residential neighborhoods, urban centers, industrial areas, airports, and wastewater treatment plants. Most of this high-density development occurs in the SSHCP Urban Development Area (UDA) in the northwestern portion of the Plan Area. Within the BSA, high-density development includes the streets, parking lots, and industrial areas surrounding the Project area.

Disturbed Land Cover
The disturbed land cover type is defined as open-space areas that have been subject to previous or ongoing disturbances. Disturbed land cover type is vegetated with diverse weedy flora. These areas are of special concern as they tend to harbor and facilitate the spread of invasive plant species.

Dominant vascular plant species identified in the disturbed land cover class within the Project area included:

- common mustard (*Brassica rapa*)
- flax-leaved horseweed (*Erigeron bonariensis*)
- milk thistle (*Silybum marianum*)
- redstem filaree (*Erodium cicutarium*)

- ripgut brome (*Bromus diandrus*)
- stinkwort (*Dittrichia graveolens*)
- white stemmed filaree (*Erodium brachycarpum*)
- willowherb (*Epilobium brachycarpum*)
- winter vetch (*Vicia villosa*)
- yellow star thistle (*Centaurea solstitialis*)

**Aquatic Land Cover Types**

Stream/Creek (Morrison Channel)

The Stream/Creek land cover type includes intermittent and perennial linear water features such as rivers, streams, creeks, drainages, and roadside and irrigation ditches. Within the UDA, this land cover type includes streams identified by the USACE.

# Chapter 5. Results

Based on the results of the delineation, review of available aerial imagery, and topographic mapping, a total of 0.09 acres of non-wetland waters were identified and mapped within the survey area classified as riverine (Morrison Channel). The Aquatic Resource Delineation Map is provided in **Appendix A**. OHWM data forms are provided in **Appendix B**.

## 5.1 U.S. Army Corps of Engineers Jurisdictional Aquatic Resources

On May 25, 2023, the Supreme Court of the United States (SCOTUS) issued a unanimous ruling limiting the federal government's jurisdiction over wetlands and tributaries which previously considered waters of the U.S. (WOTUS). In Sackett v. EPA, the Court expressly endorsed the test articulated in the Rapanos plurality opinion and outright rejected Justice Kennedy's "significant nexus" test. Therefore, the Sackett v. EPA decision limits the definition of WOTUS to relatively permanent bodies of navigable waters, and to assert jurisdiction over an adjacent wetland or tributary under the CWA, a party must establish "first, that the adjacent [body of water constitutes] . . . 'water[s] of the United States' (i.e., "only those relatively permanent, standing or continuously flowing bodies of water 'forming geographic[al] features' connected to traditional interstate navigable waters); and second, that the wetland or tributary has a continuous surface connection with that water, making it difficult to determine where the 'water' ends and the 'wetland' begins." (SCOTUS 2023). On May 26, 2023, the U.S. Environmental Protection Agency (U.S. EPA) and USACE issued a formal state indicating that "In light of this decision, the agencies will interpret the phrase "waters of the United States" consistent with the Supreme Court's decision in Sackett. The agencies continue to review the decision to determine next steps".

Though the Morrison Channel feature meets the surface connectivity parameter (continuous surface connection) to Morrison Creek, a confirmed WOTUS; it does not meet the definition of "only those relatively permanent, standing or continuously flowing bodies of water 'forming geographic[al] features.' Therefore, the stream channel identified within the BSA would not meet the definition of a WOTUS under the CWA. Subsequently, Section 404 and Section 401 permitting requirements would not be required. Conversely, the Morrison Channel aquatic feature would meet the definition of a water of the state of California (WoS) and would be required to follow the State Water Resources Control Board Discharge Procedures (SWRCB 2019), as well as Section 1602 of the California Fish and Game Code (CFG Code) for Streambed Alteration.

## 5.2 Regional Water Quality Control Board Jurisdictional Aquatic Resources

The RWQCB has jurisdiction under Section 401 of the CWA and regulates any activity which may result in a discharge to surface waters. Typically, the areas subject to jurisdiction of the RWQCB coincide with those of the USACE (i.e., waters of the U.S. including any wetlands). The RWQCB also asserts authority over "Waters of the State" under waste discharge requirements pursuant to the Porter-Cologne Water Quality Control Act, through the State Policy for Water Quality Control: State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State (Procedures). Due to the lack of CWA nexus for the project, the RWQCB would require requlatory permiting under the Procedures.

<u>Stream Channel (Morrison Channel)</u>

As a result of the preliminary jurisdictional delineation, approximately 0.09 acres (720 linear feet) of stream channel was identified within the BSA. The stream channel is a stormwater facility carrying stormwater flows through the City in east to west orientation through the BSA. The stream channel is listed by the City as a portion of the Morrison Flood Control Channel within the City. The stream channel leaves the BSA to

the west, is culverted under Sunrise Boulevard, then under the Folsom South Canal continuing west for approximately 1.4 miles. The channel is then culverted under the Mather Air Field, and continues further west for approximately 2 miles where it confluences with the nature Morrison Creek channel.

During the March 23, 2023, jurisdictional delineation the stream channel was dry, only one day after heavy rains. Therefore, due to the nature of the stormwater channel only carrying stormwater flows during the winter season and drying quickly, the feature is considered ephemeral. Using the Cowardin Classification System, the stream channel was defined as R4SBAx (Riverine (R), Intermittent (4), Streambed (SB), Temporarily Flood (A), Excavated (x)

**Table 2: Summary of Aquatic Resources in the Survey Area**

| Feature ID | Feature Type and Name | Cowardin Type* | Waters of the State (Acres) | Waters of the State (Linear Feet) |
|---|---|---|---|---|
| **Non-Wetland Waters** | | | | |
| SC-1 | Riverine – Stream Channel 1 | R4SB | 0.09 | 720 |
| | | **Total** | **0.09** | **720** |

**Cowardin et.al. 1979*

### Wetlands

No wetlands were delineated within the study area. The RWQCB and CDFW evaluate impacts to the bed, bank, and channel of a waterbody; therefore, the areas within the BSA up to the "top of bank" (TOB) were also delineated. However, these areas are above the OHWM and would not be considered aquatic resources as they do not meet the parameters of a defined wetland. These areas are considered uplands and are discussed further below.

### Uplands

Areas that did not meet wetland parameters (hydrophytic vegetation, hydric soils and/or wetland hydrology) or did not exhibit primary OHWM indicators were classified as non-wetland, upland, habitat and mapped as such. Dominant vegetation included FAC-UPL species with dry, light colored silt loam soils. Hydric soils, a dominance of hydrophytic vegetation, and/or wetland hydrology were not present. Therefore, the areas were not classified as wetland features.

Approximately 12.44 acres of upland habitat was identified within the survey area.

## 5.3 California Department of Fish and Wildlife

Under CFG Code Section 1602, public agencies are required to notify CDFW before undertaking any project that will divert, obstruct, or change the natural flow, bed, channel, or bank of any river, stream, or lake. CDFW typically interprets the term "streambed" to encompass all portions of the bed, banks, and channel of any stream, including intermittent and ephemeral streams, extending laterally to the upland edge of the top of bank. CDFW jurisdictional fish and wildlife resources would coincide with waters of the state described above in Section 5.2. This includes the lateral extent of non-wetland waters (0.09 acres), and would also include upland habitat to the top of bank of the Morrison Channel delineated (0.29). Therefore, approximately 0.38 acres of CDFW fish and wildlife resources would occur within the survey area.

# Chapter 6. References

Cowardin et.al. 1979. Classification of Wetlands and Deepwater Habitats of the United States.

NRCS 2023. Natural Resource Conservation Service Web Soil Survey. Monier Circle Stormwater Detention Basin Project.

SCOTUS 2023. Supreme Court of the United States. Sackett et ux. V. Environmental Protection Agency et al. Available at: https://www.supremecourt.gov/opinions/22pdf/21-454_4g15.pdf

SWRCB 2019. 401 Water Quality Certification and Wetlands Program. "State Wetland Definition and Procedures for Discharge of Dredged or Fill Materials to Waters of the State." Available at: https://www.waterboards.ca.gov/water_issues/programs/cwa401/

USACE 2023. 26 May 2023 - Supreme Court Ruling in Sackett v. Environmental Protection Agency. HQUSACE Regulatory. Available at: <https://www.usace.army.mil/Media/Announcements/Article/3409141/26-may-2023-supreme-court-ruling-in-sackett-v-environmental-protection-agency/>

USACE 2020. National Wetland Plant List, version 3.5. U.S. Army Corps of Engineers. Engineer Research and Development Center. Cold Regions Research and Engineering Laboratory, Hanover, NH. Available at: http://wetland-plants.usace.army.mil/

USACE 2019. South Sacramento HCP Programmatic General Permit 17. "Minimal Impact Covered Activities under the South Sacramento Habitat Conservation Plan. U.S. Army Corps of Engineers, Sacramento District. Effective: July 25, 2019. Expires: July 25, 2024.

USACE 2008a. Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0). U.S Army Corps of Engineers – Engineering Research and Development Center. Wetlands Regulatory Assistance Program.

USACE 2008b. A Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States: A Delineation Manual. U.S. Army Corps of Engineers – Engineering Research and Development Center.

USACE 1987. Wetlands Delineation Manual Wetlands Research Program Technical Report Y-87-1, Final Report, January 1987, Waterways Experiment Station, 3909 Halls Ferry Road, Vicksburg, MS 39180-6199. Available at: <http://el.erdc.usace.army.mil/elpubs/pdf/wlman87.pdf>.

USDA 2007. U.S Department of Agriculture. Description of "Ecological Subregions: Sections of the Conterminous United States". January 2007. Available at: <https://www.fs.usda.gov/treesearch/pubs/48669>

USFWS 2023. National Wetlands Inventory. United States Fish and Wildlife Service. Available at: <https://www.fws.gov/wetlands/data/mapper.html>

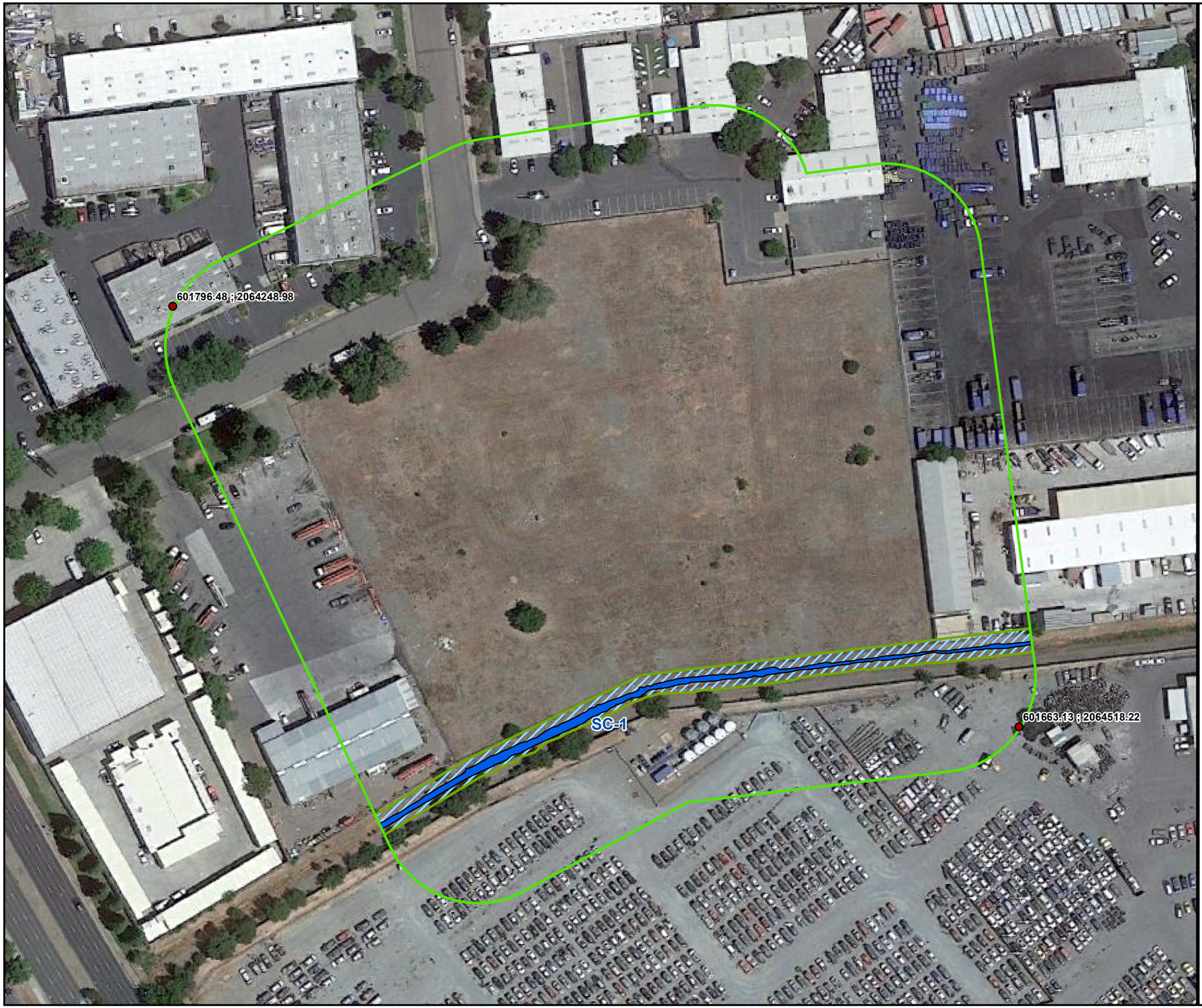
# Appendix A – Aquatic Resources Delineation Map

# AQUATIC RESOURCE DELINEATION MAP

MONIER CIRCLE STORMWATER
DETENTION BASIN PROJECT

CITY OF RANCHO CORDOVA
SACRAMENTO COUNTY, CALIFORNIA

JUNE 2023




## Legend

- Study Area
- Reference Points
- OHWM Boundary
- Top of Bank / Bankfull Elevation

**Jurisdictional Resources**

- Stream Channel (0.09 acres)
- Bankfull Jurisdictional Uplands (0.29 acres)

**Summary of Aquatic Resources**

| | | | | |
|---|---|---|---|---|
| 38.580244 N<br>-121.260912 W | SC-1 | R4SB | 0.09 | 720 |
| | | **Total** | **0.09** | **720** |

0 37.5 75 150
Feet

NORTH

WOOD RODGERS

# Appendix B - Supporting Resources

**Figure 1. Vicinity Map**

**Figure 2. Location Map**

**Figure 3. Vegetation Communities Map**

**NRCS Web Soil Survey Report**

**OHWM Data Forms**

**Plant Species Observed Within the Survey Area**

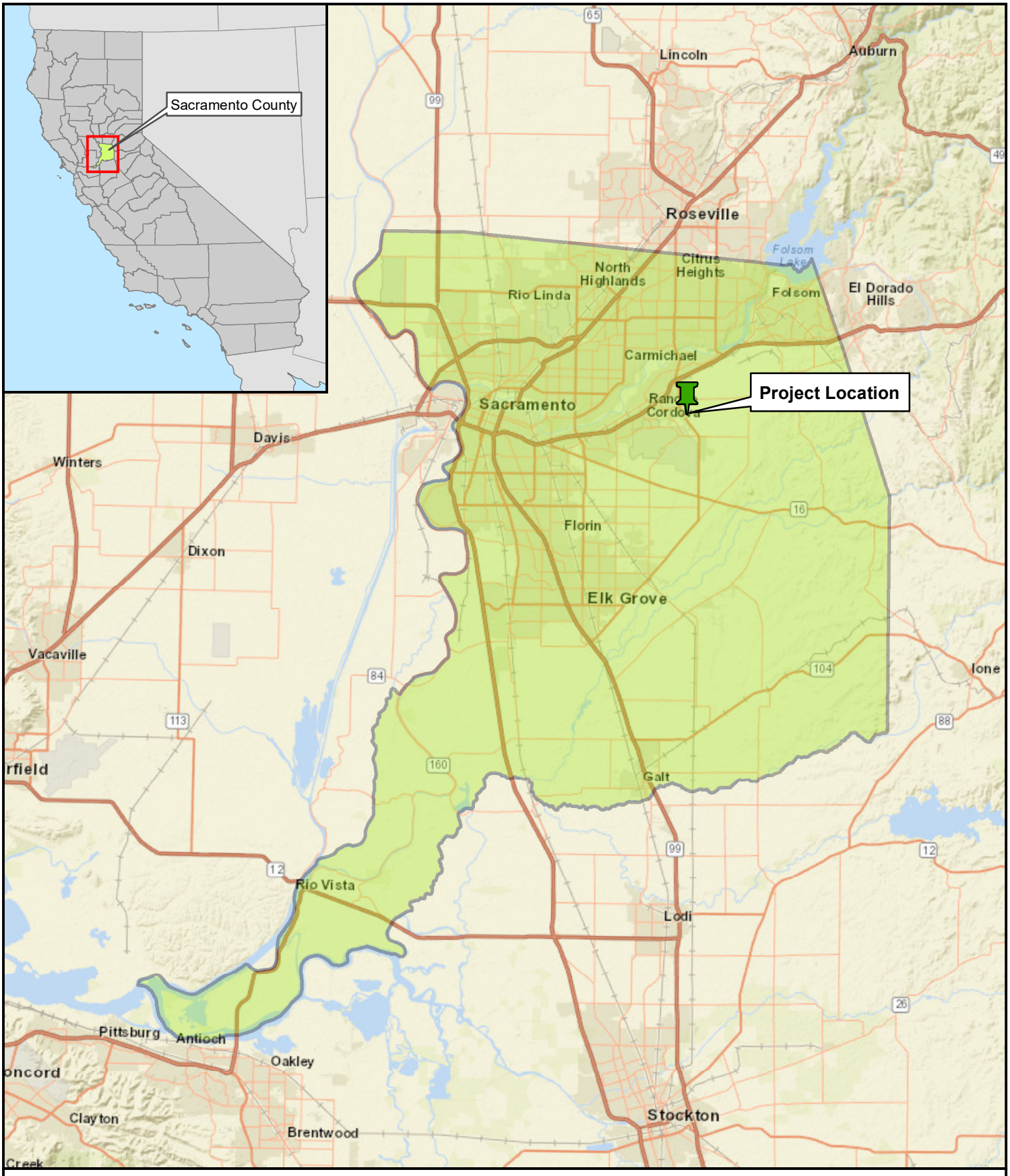



FIGURE 1

**PROJECT VICINITY**

MONIER CIRCLE FLOOD CONTROL BASIN PROJECT

SACRAMENTO COUNTY, CALIFORNIA

MARCH 2023

0 2.5 5 10

Miles

NORTH

WOOD RODGERS

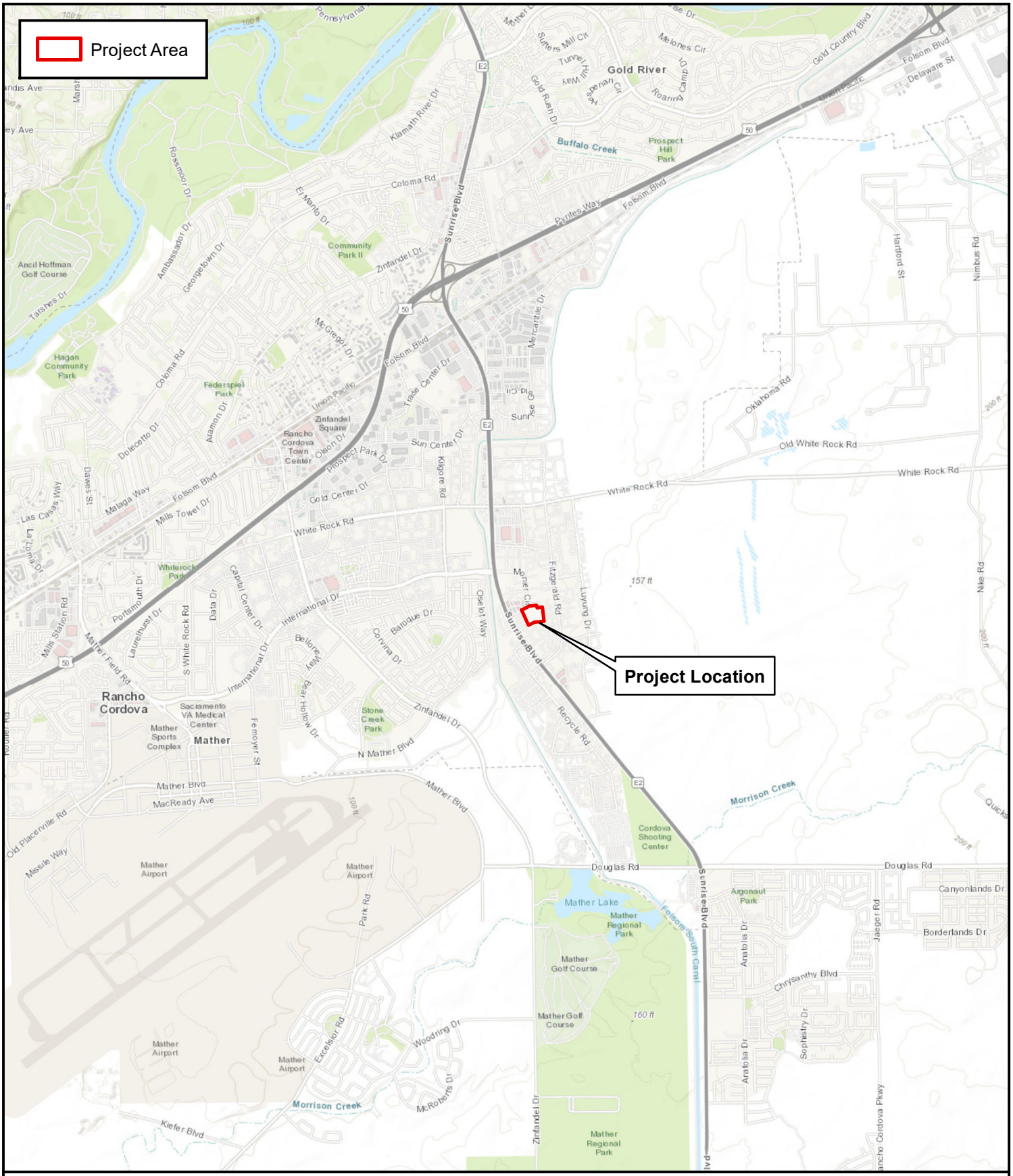



FIGURE 2

**PROJECT LOCATION**

MONIER CIRCLE FLOOD CONTROL BASIN PROJECT

SACRAMENTO COUNTY, CALIFORNIA

MARCH 2023


FIGURE 3

**SSHCP LAND COVER TYPES**

MONIER CIRCLE FLOOD CONTROL BASIN PROJECT

SACRAMENTO COUNTY, CALIFORNIA

JUNE 2023

0 50 100 200

Feet

NORTH

WOOD RODGERS

# Arid West Ephemeral and Intermittent Streams OHWM Datasheet

**Project:** Monier Circle
**Project Number:**
**Stream:** Morrison Creek
**Investigator(s):** A. Pellas, E. Spokely

**Date:** 3/23/23 **Time:** 2:30 PM
**Town:** Rancho Cordova **State:** CA
**Photo begin file#:** **Photo end file#:**

Y ☑ / N ☐ Do normal circumstances exist on the site?

Y ☐ / N ☐ Is the site significantly disturbed?

**Location Details:**
Monier Circle - City Parcel APN 072101002

**Projection:** State Plane II **Datum:** GNSS
**Coordinates:**

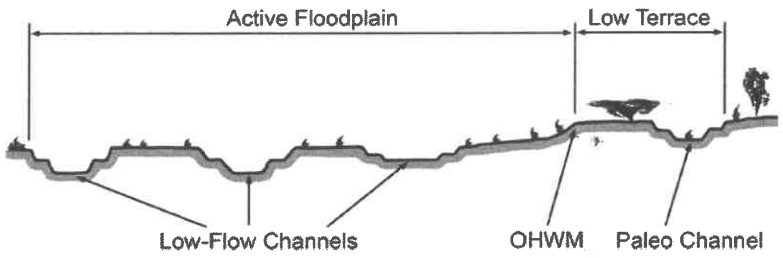
**Potential anthropogenic influences on the channel system:**
Inner city high development area stormwater drainage channel "Morrison Creek"

**Brief site description:**
Earthen bottom channel w/steep banks on either side.

**Checklist of resources (if available):**

- ☑ Aerial photography
  Dates: 1947-2022 (Historic aerials.com + Google earth.)
- ☐ Topographic maps
- ☐ Geologic maps
- ☑ Vegetation maps
- ☑ Soils maps
- ☐ Rainfall/precipitation maps
- ☐ Existing delineation(s) for site
- ☑ Global positioning system (GPS)
- ☐ Other studies
- ☐ Stream gage data
  Gage number:
  Period of record:
- ☐ History of recent effective discharges
- ☐ Results of flood frequency analysis
- ☐ Most recent shift-adjusted rating
- ☐ Gage heights for 2-, 5-, 10-, and 25-year events and the most recent event exceeding a 5-year event

Hydrogeomorphic Floodplain Units

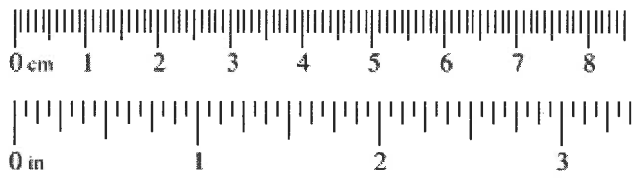



**Procedure for identifying and characterizing the floodplain units to assist in identifying the OHWM:**

1. Walk the channel and floodplain within the study area to get an impression of the geomorphology and vegetation present at the site.
2. Select a representative cross section across the channel. Draw the cross section and label the floodplain units.
3. Determine a point on the cross section that is characteristic of one of the hydrogeomorphic floodplain units.
   a) Record the floodplain unit and GPS position.
   b) Describe the sediment texture (using the Wentworth class size) and the vegetation characteristics of the floodplain unit.
   c) Identify any indicators present at the location.
4. Repeat for other points in different hydrogeomorphic floodplain units across the cross section.
5. Identify the OHWM and record the indicators. Record the OHWM position via:
   - ☐ Mapping on aerial photograph
   - ☑ GPS
   - ☑ Digitized on computer
   - ☐ Other:

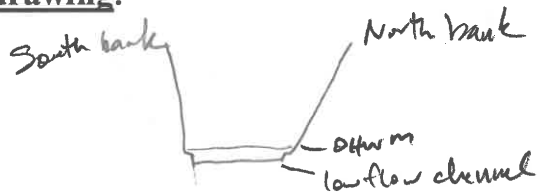
## Wentworth Size Classes

| Inches (in) | Millimeters (mm) | Wentworth size class | |
|---|---|---|---|
| 10.08 | 256 | Boulder | |
| | | Cobble | Gravel |
| 2.56 | 64 | Pebble | |
| 0.157 | 4 | Granule | |
| 0.079 | 2.00 | Very coarse sand | |
| 0.039 | 1.00 | Coarse sand | |
| 0.020 | 0.50 | Medium sand | Sand |
| 1/2 0.0098 | 0.25 | Fine sand | |
| 1/4 0.005 | 0.125 | Very fine sand | |
| 1/8 0.0025 | 0.0625 | Coarse silt | |
| 1/16 0.0012 | 0.031 | Medium silt | |
| 1/32 0.00061 | 0.0156 | Fine silt | Silt |
| 1/64 0.00031 | 0.0078 | Very fine silt | |
| 1/128 0.00015 | 0.0039 | Clay | Mud |



**Project ID:** **Cross section ID:** **Date:** 3/23/23 **Time:** 3:00 pm

**Cross section drawing:**




## OHWM

**GPS point:** OHWM 1 + 2

**Indicators:**

- [x] Change in average sediment texture
- [x] Change in vegetation species
- [x] Change in vegetation cover
- [x] Break in bank slope
- [ ] Other: _____
- [ ] Other: _____

**Comments:**

All check boxes primary indicators

## Floodplain unit:

- [ ] Low-Flow Channel
- [x] Active Floodplain
- [ ] Low Terrace

**GPS point:** OHWM 1 + 2

**Characteristics of the floodplain unit:**

Average sediment texture: Sandy loam (sand 1/4", Silt 1/64")

Total veg cover: 30 % Tree: 0 % Shrub: 0 % Herb: 30 %

Community successional stage:

- [ ] NA
- [x] Early (herbaceous & seedlings)
- [ ] Mid (herbaceous, shrubs, saplings)
- [ ] Late (herbaceous, shrubs, mature trees)

**Indicators:**

- [ ] Mudcracks
- [ ] Ripples
- [x] Drift and/or debris
- [x] Presence of bed and bank
- [ ] Benches
- [ ] Soil development
- [ ] Surface relief
- [x] Other: Break in bank slope
- [ ] Other: _____
- [ ] Other: _____

**Comments:**

Below OHWM 30% veg cover. Above OHWM 99%.

Below OHWM, Rumex Crispus, Eleocharis. Above OHWM Milk thistle, Foxtail Barley, etc.

**Project ID:** **Cross section ID:** **Date:** **Time:**

**Floodplain unit:** ☐ Low-Flow Channel ☐ Active Floodplain ☐ Low Terrace

**GPS point:** _____

**Characteristics of the floodplain unit:**

Average sediment texture: _____

Total veg cover: _____ % Tree: _____% Shrub: _____% Herb: _____%

Community successional stage:

- ☐ NA
- ☐ Early (herbaceous & seedlings)
- ☐ Mid (herbaceous, shrubs, saplings)
- ☐ Late (herbaceous, shrubs, mature trees)

**Indicators:**

- ☐ Mudcracks
- ☐ Ripples
- ☐ Drift and/or debris
- ☐ Presence of bed and bank
- ☐ Benches
- ☐ Soil development
- ☐ Surface relief
- ☐ Other: _____
- ☐ Other: _____
- ☐ Other: _____

**Comments:**

**Floodplain unit:** ☐ Low-Flow Channel ☐ Active Floodplain ☐ Low Terrace

**GPS point:** _____

**Characteristics of the floodplain unit:**

Average sediment texture: _____

Total veg cover: _____ % Tree: _____% Shrub: _____% Herb: _____%

Community successional stage:

- ☐ NA
- ☐ Early (herbaceous & seedlings)
- ☐ Mid (herbaceous, shrubs, saplings)
- ☐ Late (herbaceous, shrubs, mature trees)

**Indicators:**

- ☐ Mudcracks
- ☐ Ripples
- ☐ Drift and/or debris
- ☐ Presence of bed and bank
- ☐ Benches
- ☐ Soil development
- ☐ Surface relief
- ☐ Other: _____
- ☐ Other: _____
- ☐ Other: _____

**Comments:**

United States Department of Agriculture

NRCS

Natural Resources Conservation Service

A product of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local participants

# Custom Soil Resource Report for Sacramento County, California

## Monier Circle Stormwater Detention Basin


February 27, 2023

# Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (https://offices.sc.egov.usda.gov/locator/app?agency=nrcs) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

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# Contents

# How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil

scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and

identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

# Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

# Custom Soil Resource Report
## Soil Map


Map Scale: 1:1,630 if printed on A landscape (11" x 8.5") sheet.

N

Meters: 0 20 40 80 120

Feet: 0 50 100 200 300

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 10N WGS84

## MAP LEGEND

**Area of Interest (AOI)**
- Area of Interest (AOI)

**Soils**
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

**Special Point Features**
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

**Water Features**
- Streams and Canals

**Transportation**
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

**Background**
- Aerial Photography

## MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Sacramento County, California
Survey Area Data: Version 22, Sep 1, 2022

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Apr 23, 2022—Apr 24, 2022

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

# Map Unit Legend

| Map Unit Symbol | Map Unit Name | Acres in AOI | Percent of AOI |
|---|---|---|---|
| 246 | Xerorthents, dredge tailings-Urban land complex, 0 to 2 percent slopes | 6.3 | 100.0% |
| **Totals for Area of Interest** | | **6.3** | **100.0%** |

# Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however,

onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

# Sacramento County, California

## 246—Xerorthents, dredge tailings-Urban land complex, 0 to 2 percent slopes

### Map Unit Setting

*National map unit symbol:* hhqx
*Elevation:* 80 to 400 feet
*Mean annual precipitation:* 18 to 20 inches
*Mean annual air temperature:* 61 degrees F
*Frost-free period:* 250 to 300 days
*Farmland classification:* Not prime farmland

### Map Unit Composition

*Xerorthents, dredge tailings, and similar soils:* 45 percent
*Urban land:* 40 percent
*Minor components:* 15 percent
*Estimates are based on observations, descriptions, and transects of the mapunit.*

### Description of Xerorthents, Dredge Tailings

#### Setting

*Parent material:* Mine spoil or earthy fill

#### Typical profile

*H1 - 0 to 60 inches:* fragmental material

#### Properties and qualities

*Slope:* 0 to 2 percent
*Depth to restrictive feature:* More than 80 inches
*Drainage class:* Somewhat excessively drained
*Runoff class:* Negligible
*Capacity of the most limiting layer to transmit water (Ksat):* High to very high (5.95 to 19.98 in/hr)
*Depth to water table:* More than 80 inches
*Frequency of flooding:* None
*Frequency of ponding:* None
*Available water supply, 0 to 60 inches:* Very low (about 1.2 inches)

#### Interpretive groups

*Land capability classification (irrigated):* None specified
*Land capability classification (nonirrigated):* 8s
*Hydrologic Soil Group:* A
*Ecological site:* R017XY905CA - Dry Alluvial Fans and Terraces
*Hydric soil rating:* No

### Description of Urban Land

#### Typical profile

*H1 - 0 to 6 inches:* variable

#### Interpretive groups

*Land capability classification (irrigated):* None specified
*Land capability classification (nonirrigated):* 8
*Hydric soil rating:* No

**Minor Components**

**Natomas**

*Percent of map unit:* 5 percent
*Hydric soil rating:* No

**Unnamed, slickens**

*Percent of map unit:* 5 percent
*Landform:* Depressions
*Hydric soil rating:* Yes

**Americano**

*Percent of map unit:* 5 percent
*Hydric soil rating:* No

# References

American Association of State Highway and Transportation Officials (AASHTO). 2004. Standard specifications for transportation materials and methods of sampling and testing. 24th edition.

American Society for Testing and Materials (ASTM). 2005. Standard classification of soils for engineering purposes. ASTM Standard D2487-00.

Cowardin, L.M., V. Carter, F.C. Golet, and E.T. LaRoe. 1979. Classification of wetlands and deep-water habitats of the United States. U.S. Fish and Wildlife Service FWS/OBS-79/31.

Federal Register. July 13, 1994. Changes in hydric soils of the United States.

Federal Register. September 18, 2002. Hydric soils of the United States.

Hurt, G.W., and L.M. Vasilas, editors. Version 6.0, 2006. Field indicators of hydric soils in the United States.

National Research Council. 1995. Wetlands: Characteristics and boundaries.

Soil Survey Division Staff. 1993. Soil survey manual. Soil Conservation Service. U.S. Department of Agriculture Handbook 18. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_054262

Soil Survey Staff. 1999. Soil taxonomy: A basic system of soil classification for making and interpreting soil surveys. 2nd edition. Natural Resources Conservation Service, U.S. Department of Agriculture Handbook 436. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_053577

Soil Survey Staff. 2010. Keys to soil taxonomy. 11th edition. U.S. Department of Agriculture, Natural Resources Conservation Service. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_053580

Tiner, R.W., Jr. 1985. Wetlands of Delaware. U.S. Fish and Wildlife Service and Delaware Department of Natural Resources and Environmental Control, Wetlands Section.

United States Army Corps of Engineers, Environmental Laboratory. 1987. Corps of Engineers wetlands delineation manual. Waterways Experiment Station Technical Report Y-87-1.

United States Department of Agriculture, Natural Resources Conservation Service. National forestry manual. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/home/?cid=nrcs142p2_053374

United States Department of Agriculture, Natural Resources Conservation Service. National range and pasture handbook. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/landuse/rangepasture/?cid=stelprdb1043084

United States Department of Agriculture, Natural Resources Conservation Service. National soil survey handbook, title 430-VI. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/scientists/?cid=nrcs142p2_054242

United States Department of Agriculture, Natural Resources Conservation Service. 2006. Land resource regions and major land resource areas of the United States, the Caribbean, and the Pacific Basin. U.S. Department of Agriculture Handbook 296. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_053624

United States Department of Agriculture, Soil Conservation Service. 1961. Land capability classification. U.S. Department of Agriculture Handbook 210. http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_052290.pdf

**Plant Species Observed within the Survey Area**

| Common Name | Scientific Name | AW Region Wetland Indicator |
|---|---|---|
| **Disturbed Land Cover** | | |
| barley | *Hordeum marinum* | FAC |
| California poppy | *Eschscholzia californica* | NL |
| Callery pear | *Pyrus calleryana* | NL |
| cherry tree | *Prunus sp.* | NL |
| Chinese hackberry | *Celtis sinensis* | NL |
| Chinese Pistache | *Pistacia sp.* | NL |
| common mustard* | *Brassica rapa* | FACU |
| common sow thistle | *Sonchus oleraceus* | UPL |
| cudweed | *Pseudognaphalium beneolens* | NL |
| flax-leaved horseweed* | *Erigeron bonariensis* | FACU |
| foxtail barley | *Hordeum murinum* | FACU |
| henbit deadnettle | *Lamium amplexicaule* | NL |
| interior live oak | *Quercus wislizeni* | NL |
| jointed charlock | *Raphanus raphanistrum* | NL |
| Medusa head | *Elymus caput-medusae* | NL |
| milk thistle* | *Silybum marianum* | NL |
| prickly lettuce | *Lactuca serriola* | FACU |
| redstem filaree* | *Erodium cicutarium* | NL |
| ripgut brome* | *Bromus diandrus* | NL |
| stinkwort* | *Dittrichia graveolens* | NL |
| sweetgum | *Liguidambar styracifula* | NL |
| white stemmed filaree* | *Erodium brachycarpum* | NL |
| wild geranium | *Geranium dissectum* | NL |
| wild oat | *Avena fatua* | NL |
| willowherb* | *Epilobium brachycarpum* | FAC |
| winter vetch* | *Vicia villosa* | NL |
| yellow star thistle* | *Centaurea solstitialis* | NL |
| **Stream/Creek Land Cover** | | |
| common chickweed | *Stellaria media* | FACU |
| curly dock | *Rumex crispus* | FAC |
| tall flatsedge | *Cyperus eragrostis* | FACW |
| Spikerush | *Eleocharis palustris* | OBL |

# Appendix C – Representative Photographs


# Monier Circle Stormwater Detention Basin Project

## Location Map

NORTH

0 34 68

Feet

WOOD RODGERS

Photo Location

Service Layer Credits: World Imagery: Maxar, Microsoft
World Boundaries and Places: Esri, HERE, Garmin, iPC

IMG_2317.JPEG

**1: Representative photograph of SSHCP Disturbed Land Cover within the project area - facing southwest.**

IMG_2334.JPEG

**2: Representative photograph of SSHCP Disturbed Land Cover within the project area - facing southwest.**

IMG_2339.JPEG

**3: Representative photograph of SSHCP Disturbed Land Cover within the project area - facing southeast.**

IMG_2340.JPEG

**4: Representative photograph of SSHCP Disturbed Land Cover within the project area - facing south.**

IMG_2345.JPEG

**5: Representative photograph of the Morrison Creek Drainage channel - facing east.**

IMG_2350.JPEG

**6: Representative photograph of the Morrison Creek Drainage channel - facing west.**