BUREAU OF RECLAMATION

Environmental Assessment

Delta Cross Channel Gate Improvements Project

Sacramento, California

Interior Region 10 California-Great Basin

CGB-EA-2025-068

Cover Photo: Delta Cross Channel Gates (Bureau of Reclamation/Todd Plain)

U.S. Department of the Interior

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Mission Statements

The U.S. Department of the Interior protects and manages the Nation's natural resources and cultural heritage; provides scientific and other information about those resources; and honors its trust responsibilities or special commitments to American Indians, Alaska Natives, Native Hawaiians, and affiliated Island Communities.

The mission of the Bureau of Reclamation is to manage, develop, and protect water and related resources in an environmentally and economically sound manner in the interest of the American public.

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Abbreviations and Acronyms

ADA	Americans with Disabilities Act of 1990
APE	area of potential effect
Banks Pumping Plant	Harvey O. Banks Pumping Plant
Basin Plan	Water Quality Control Plan for the Sacramento River and San Joaquin River Basins
Bay-Delta Plan	Water Quality Control Plan for the San Francisco Bay/Sacramento–San Joaquin Delta Estuary
BMP	best management practice
Caltrans	California Department of Transportation
CDFW	California Department of Fish and Wildlife
CFR	Code of Federal Regulations
cfs	cubic feet per second
CNPS	California Native Plant Society
Council	Delta Stewardship Council
CVP	Central Valley Project
CWA	Clean Water Act
D-1641	State Water Resources Control Board Decision 1641
DCC	Delta Cross Channel
Delta	Sacramento-San Joaquin River Delta
DCP	Delta Conveyance Project
DPAC	Delta Protection Advisory Committee
DPC	State of California Delta Protection Commission
DWR	California Department of Water Resources
EA	environmental assessment
ESA	Federal Endangered Species Acts
GHG	Greenhouse Gases
Jones Pumping Plant	C.W. "Bill" Jones Pumping Plant
LTO	Long-Term Operation of the CVP and SWP
MBTA	Migratory Bird Treaty Act

NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NMFS	National Marine Fisheries Service
NPS	United States Department of the Interior, National Park Service
O&M	operations and maintenance
OSHA	Occupational Safety and Health Administration
Proposed Action	Delta Cross Channel Gate Improvements Project
Reclamation	U.S. Department of the Interior, Bureau of Reclamation
ROW	right-of-way
RSP	rock slope protection
SPRR	Southern Pacific Railroad Company
SR	State Route
State Parks	California Department of Parks and Recreation
Water Board	State Water Resources Control Board
SWP	State Water Project
USACE	U.S. Army Corps of Engineers
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey

1.0 Introduction

The U.S. Department of the Interior, Bureau of Reclamation (Reclamation) as the federal Lead Agency has prepared an environmental assessment (EA) under the National Environmental Policy Act (NEPA).

Executive Order 14154, *Unleashing American Energy* (Jan. 20, 2025), and a Presidential Memorandum, *Ending Illegal Discrimination and Restoring Merit-Based Opportunity* (Jan. 21, 2025), require the Department to strictly adhere to NEPA, 42 U.S.C. §§ 4321 et seq. Further, such Order and Memorandum repeal Executive Orders 12898 (Feb. 11, 1994) and 14096 (Apr. 21, 2023). Because Executive Orders 12898 and 14096 have been repealed, complying with such Orders is a legal impossibility. Reclamation verifies that it has complied with the requirements of NEPA, including the Department's regulations and procedures implementing NEPA at 43 C.F.R. Part 46 and Part 516 of the Departmental Manual, consistent with the President's January 2025 Order and Memorandum. Reclamation has also voluntarily considered the Council on Environmental Quality's rescinded regulations implementing NEPA, previously found at 40 C.F.R. Parts 1500–1508, as guidance to the extent appropriate and consistent with the requirements of NEPA and Executive Order 14154.

1.1 Background

The Central Valley Project (CVP) was originally conceived as a state project; the state studied the project as early as 1921, and the California state legislature formally authorized it for construction in 1933. After it became clear that the state was unable to finance the project, the federal government (through the U.S. Army Corps of Engineers, or USACE) assumed control of the CVP as a public works construction project under authority provided under the Rivers and Harbors Act of 1935. The Franklin D. Roosevelt Administration subsequently transferred the project to Reclamation. Construction on the first unit of the CVP, the Contra Costa Canal, began in October 1937. Water was first delivered in 1940. Additional CVP units were completed over time, and some USACE-constructed units have also been incorporated into the project. Constructed as an initial feature of the CVP in 1951, the Delta Cross Channel (DCC) is a controlled diversion channel between the Sacramento River and Snodgrass Slough, located near Walnut Grove, California. The DCC is 6,000 feet long, has a bottom width of 210 feet, and a capacity of 3,500 cubic feet per second (cfs). Near the entrance, or upstream end, of the DCC, there are two 60-foot-wide by 30-foot-tall radial gates weighing a total of 243 tons that can open to allow water to flow down the channel or close to prevent fish from being drawn into the interior Sacramento-San Joaquin River Delta (Delta). The gate structure extends across the full width of the channel and, when open, provides a 120-foot-wide opening for passing fresh water from the Sacramento River into Snodgrass Slough and the Lower Mokelumne River. From there, flows enter the central part of the Delta and toward the CVP C.W. "Bill" Jones Pumping Plant

(Jones Pumping Plant) and State Water Project (SWP) Harvey O. Banks Pumping Plant (Banks Pumping Plant) facilities.

The DCC gates are operated by Reclamation to manage water quality throughout the central part of the Delta and at the CVP and SWP pumping facilities. The DCC gates are operated according to State Water Resources Control Board (Water Board) Decision 1641 (D-1641) standards (Water Board 2000) and the Long-Term Operations of the CVP and SWP (LTO) Record of Decision (ROD) (Reclamation 2024). The gates are currently operated by Reclamation staff who must travel approximately 1.5 hours each way from Reclamation's Tracy Operations Office to the facility to manually change the gates position. Each gate takes 25 minutes to open or close.

Reclamation operates the DCC gates in the open position to: (1) improve the movement of water from the Sacramento River to the export facilities at the Banks and Jones Pumping Plants; (2) improve water quality in the central and southern Delta; and (3) reduce salinity intrusion rates in the western Delta. During the late fall, winter, and spring, the gates are periodically closed to protect out-migrating salmonids from entering the interior Delta and to facilitate meeting flow objectives for fish passage. Additionally, whenever flows in the Sacramento River near Locke reach 20,000 to 25,000 cfs on a sustained basis, the gates are closed to reduce potential scouring or flooding downstream of the DCC gates. In certain circumstances when water surface elevations downstream of the DCC gates are higher than the Sacramento River, Reclamation may open the DCC gates to allow flows from the interior Delta to flow into the Sacramento River and reduce flood risks upstream in the North Delta.

Based on a condition assessment of the existing facility completed by Reclamation, improvements are needed to allow for more frequent operations, increase the facility's operational life, decrease operation and maintenance costs, increase the safety of employees, and improve conditions for recreational boaters. Additionally, due to frequent use of the area for recreational activities, public access enhancements would improve public safety in the area.

1.2 Purpose and Need for the Proposed Action

The purpose of the Delta Cross Channel Gate Improvements Project (Proposed Action) is to update this aging facility to improve its operational flexibility, reliability, duration and safety. These updates would allow Reclamation to improve the use of the DCC gate facility for the LTO. These updates would also include a new public access ramp to provide accessibility downstream of the DCC gate structure for fishing and for launching of non-motorized watercraft.

Improved flexibility and reliability of gate operations is important for protecting migrating salmonids, managing water quality and water supply, and maintaining the ability to close the gates during high flow conditions in the Sacramento River. Structure improvements would extend the life of the DCC gate facility. Additionally, improvements would support improved working conditions for DCC operators and maintenance workers, and address safety hazards

associated with boat passage Improved public access in the area would also result from the Proposed Action to provide for safer and increased recreational opportunities.

Additionally, the Proposed Action addresses the need to facilitate operation of the CVP to deliver more water and produce additional hydropower, including by increasing storage and conveyance, and jointly operate federal and state facilities to provide water resources to high-need communities, notwithstanding any contrary State or local laws, in alignment with, as provided in Section 2 of Executive Order 14181, *Emergency Measures to Provide Water Resources in California and Improve Disaster Response in Certain Areas*, dated January 24, 2025 (E.O. 14181).

1.3 Proposed Action Area

The Proposed Action Area includes land owned by Reclamation in the vicinity of the DCC, between the communities of Locke and Walnut Grove, in Sacramento County, California. The Proposed Action Area includes the confluence of the DCC and Sacramento River and lies within the Isleton California U.S. Geological Survey (USGS) 7.5-minute topographic quadrangle (Figure 1-1) with the center of the Proposed Action Area generally located at 38.2466° latitude, -121.5096° longitude. The area evaluated for the Proposed Action consists of assessor's parcel numbers 146-0160-021, 146-0150-001, 146-0150-006, 146-0150-010, 146-0160-022, and 146-0150-009.

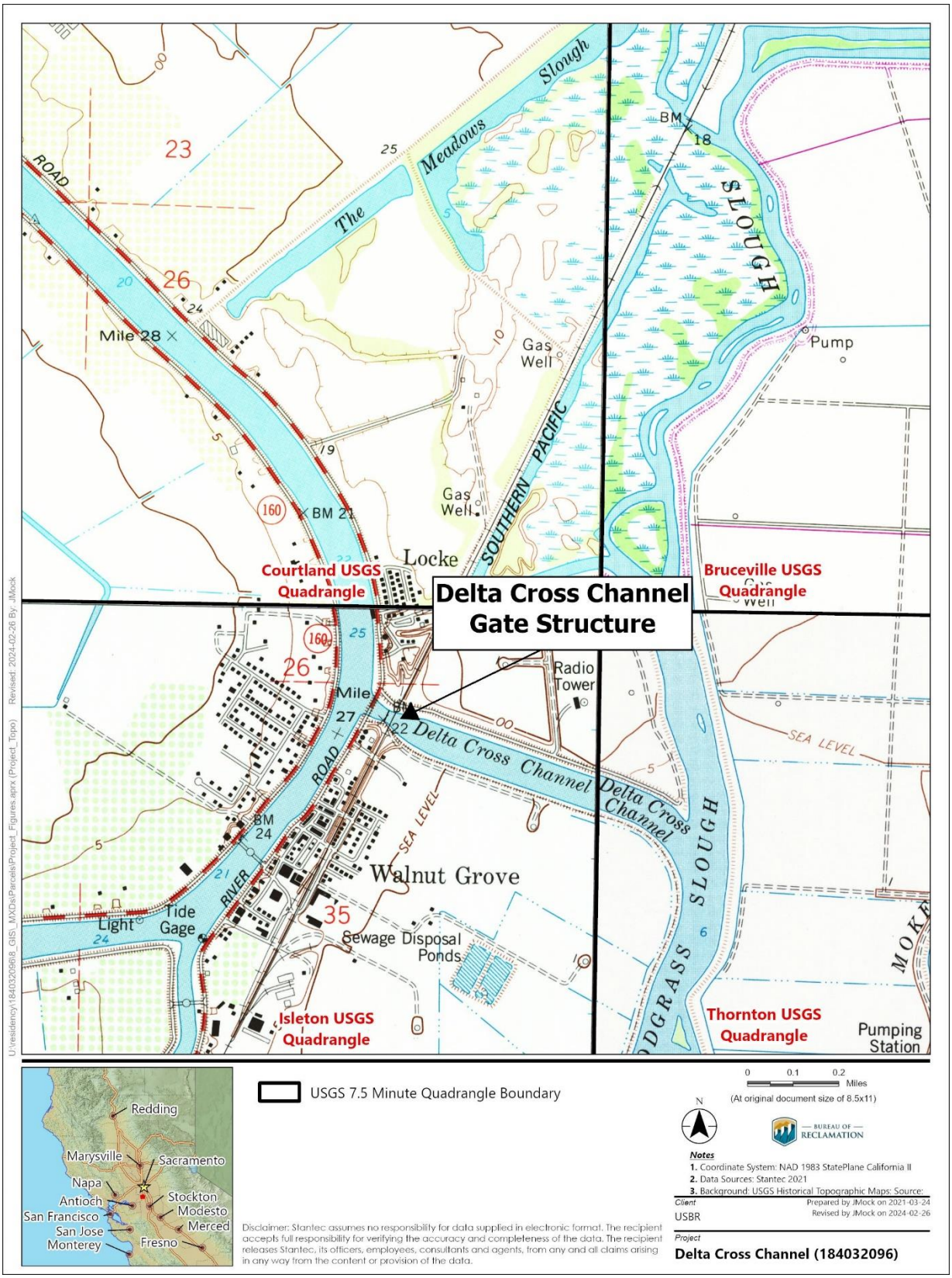

Figure 1-1. Proposed Action Area and Vicinity

2.0 Alternatives

Over the course of the DCC gate facility's life, Reclamation has performed routine and as-needed operations and maintenance (O&M) activities at the facility. Based on facility site inspections completed in 2022, the DCC gate structure and its foundation remain in good condition but are showing signs of isolated coating deterioration (e.g., localized areas of peeling paint). The hoists have required periodic maintenance and replacement of key mechanical components to maintain a workable condition.

In 2022, Reclamation initiated a value planning process to identify and evaluate additional alternatives that could be implemented at the DCC gates to meet the purpose and need of the facility improvements. The value planning process resulted in the No Action Alternative and the Proposed Action which are analyzed in this EA.

While the concrete structure and its foundation have provided appropriate service over the last 70 years, neither element was designed to current seismic criteria and standards of practice. Anticipated seismic loadings, therefore, pose a risk to the long-term operational viability of the gate facility due to potential failure of the structure walls and/or liquefaction of the foundation. A seismic event could damage the DCC gate facility and potentially render the facility inoperable.

No modifications to the existing facility's concrete structure and foundation are planned for this Proposed Action. Should future analyses indicate such modifications are required, and if these improvements to the structure and/or the foundation would result in additional activities not analyzed in this environmental assessment (EA), then additional analysis would be required under NEPA prior to implementation.

2.1 No Action Alternative

Under the No Action Alternative, O&M activities would continue as implemented currently. Over the next 50 years, the planning horizon for the Proposed Action, it is reasonable to expect a similar pattern of structure performance, durability, and maintenance needs. The concrete and foundation features are expected to continue to provide service for static and operational loading with minimal maintenance. The existing hoist system with manually operated hooks would continue to be used to operate the gates, with the option to lock or dog the gate only in the fully open.

Under the No Action Alternative, current safety risks would persist including confined space entry requirements to inspect or maintain interior portions of the existing gates, handrails that do not meet current Occupational Safety and Health Administration (OSHA) standards, and gate operations integrated with boater access under the gates. Under the No Action Alternative, the gates would continue to be vulnerable to coating deterioration and the associated corrosion without repair/replacement of the gates coating system. It is reasonable to expect coating

maintenance would be needed at least two to three times within the next 50 years to adequately protect the gates against corrosion. Depending on water surface elevations in the Sacramento River that may be increased by rising sea levels and/or higher flow and flood conditions, some reinforcement of the gate arms may be needed to meet applicable structural codes. Critical mechanical components of the hoists have been maintained, repaired, and/or replaced over the last 70 years and these components are likely to provide reliable service for many years but would require continued, and potentially shorter, maintenance intervals over the next 50 years. The local control features for the hoists would also likely require routine maintenance and replacement of its key electronic features over the next 50 years.

In addition, the potential for gate failure resulting in urgent maintenance required for regular operation of the facility would continue under the No Action Alternative. Should the DCC gates become non-operational due to component fatigue or failure, the inability to operate the gates normally in accordance with the D-1641 would result in changes to water quality (e.g., salinity levels), changes in migratory corridors for listed fish species (entrained into the interior Delta), and modifications to flow (Reclamation 2012).

2.2 Proposed Action

The Proposed Action consists of improvements to the existing DCC gate facility, including complete replacement of the existing radial gates and installation of new wire rope hoists with full remote operation control and monitoring capability. As a result of the gate remote operation control capability, automatic gate devices would be introduced to the hoisting system.

Reclamation would continue current facility-use practices, including routine O&M though under the Proposed Action. However, the Proposed Action would minimize situations when the DCC gates become non-operational due to component fatigue or failure. The Proposed Action improvements would decrease the amount of urgent maintenance activities at the facility that result in changes to water quality (e.g., salinity levels), changes in migratory corridors for listed fish species (entrained into the interior Delta), and modifications to flow (Reclamation 2012).

The existing radial gates would be replaced with new radial gates with an open framing design which would no longer require confined space access and would simplify gate inspection and repainting activities in the future. The new radial gates would be fabricated off-site and transported to the site in multiple pieces and, once onsite, the new gates would be assembled for installation on the existing gate structure. The arms of the existing gates would be cut at the trunnion (i.e., pivot point) and the existing gates would be removed by a large crane(s). The new gates would be installed with trunnion hubs connected to the existing trunnion pins. During replacement of the gates, barges may be used for work access and staging within the bays of the DCC gate structure during construction. These barges would be transported by truck and then placed either from a land-side crane or launched from a local boat ramp in Snodgrass Slough and pushed into place by a small skiff. These barges would be tied to the DCC structure and bank with mooring lines.

Prior to the installation of the new gates, the existing trunnion girders and trunnion pins would undergo minor rehabilitation. Trunnion girder rehabilitation would involve inspection, cleaning, and recoating of the exposed portions of the trunnion girder. Trunnion pin rehabilitation would involve inspection, cleaning, and polishing of the existing trunnion pins.

The existing gate hoists would be removed and replaced in their entirety with new state-of-the-art technology wire rope hoists. The new hoists would be designed for projected future gate operation frequency. Additionally, controlled braking would be provided with the new hoists, which would be particularly critical to improve safety for any boats attempting to pass beneath the gates during gate operations. The existing maintenance gantry crane would be replaced to facilitate maintenance of the DCC gate facility hoists and gates.

The communication system would be upgraded under the Proposed Action to provide remote operation and monitoring of the site from Reclamation's Central Valley Operations office. Video cameras would be installed at the DCC gate facility to monitor facility operations for safety. The video camera system would also allow agency personnel to confirm boats have safely cleared the gates before closing. The system would include cameras located upstream and downstream and on the north and south sides of the DCC gate facility. Details of the camera locations would be determined during final design. Since the focus of remote operation is on safety issues related to gate movements and boating traffic, the cameras would be mounted directly to the structure or on poles attached to the structure at locations providing a clear line of sight to observe the channel immediately upstream and downstream of each gate. The Proposed Action would utilize existing electrical power supply features at the site but would upgrade electrical components within the gate facility area to handle projected operational power demands. Existing overhead electrical and communications lines crossing over the DCC gate facility would be relocated by or in coordination with the local electric utility to accommodate construction vehicles, with new lines installed underground in trenches (approximately 3 feet deep) north and south of the facility within the DCC gate facility's maintenance yard area, a previously disturbed area, and through a conduit secured to the gate facility across the DCC.

Under the Proposed Action, site improvements include paving the north and south parking areas immediately outside of the security fence, replacing the existing fencing, and replacing all handrails (see Figure 2-1). In order to match the current configuration, the new handrail on the downstream edge of the operations deck would be upgraded to accommodate use of the handrail's top rail to support the new gantry crane.

A new 240 square foot maintenance building would be installed just north of the DCC gate facility to securely house communications, controls, and electrical equipment. The existing fencing around the north end of the structure would be removed and replaced with new fencing that would extend into the current parking area to provide a secure perimeter around both the structure and the building. Pavement on the north side of the gate structure would be extended inside the new fence line to provide secure access to the maintenance building.

Under the Proposed Action, boater safety improvements would consist of passive and active safety measures that would be installed on the upstream side of the DCC gate facility (boat

traffic from the Sacramento River) and the downstream side of the facility (boat traffic from Snodgrass Slough). Passive features include the placement of new and enlarged signs designed to better describe gate operations to the public.

Active features for warning of imminent gate operations and prevention of boater passage under the DCC gates as they are closing or opening include improvements/replacements to existing flashing lights and audible alarms that are used prior to gate operations, addition of programable electronic message boards which would allow Reclamation to update the message for the boating public to better reflect current operations, as well as addition of movable boat barriers. The boat barriers would be installed on the upstream and downstream sides of the gates to block access for boat traffic and prevent boats from passing beneath the gates during gate operations. The boat barriers would be connected to a roller attached to the structure on the upstream side of the DCC gate facility and the downstream side of the adjacent railroad bridge such that the barriers can be lowered into place just above the current water levels. The boat barriers would be controlled locally or from Reclamation's remote operations center.

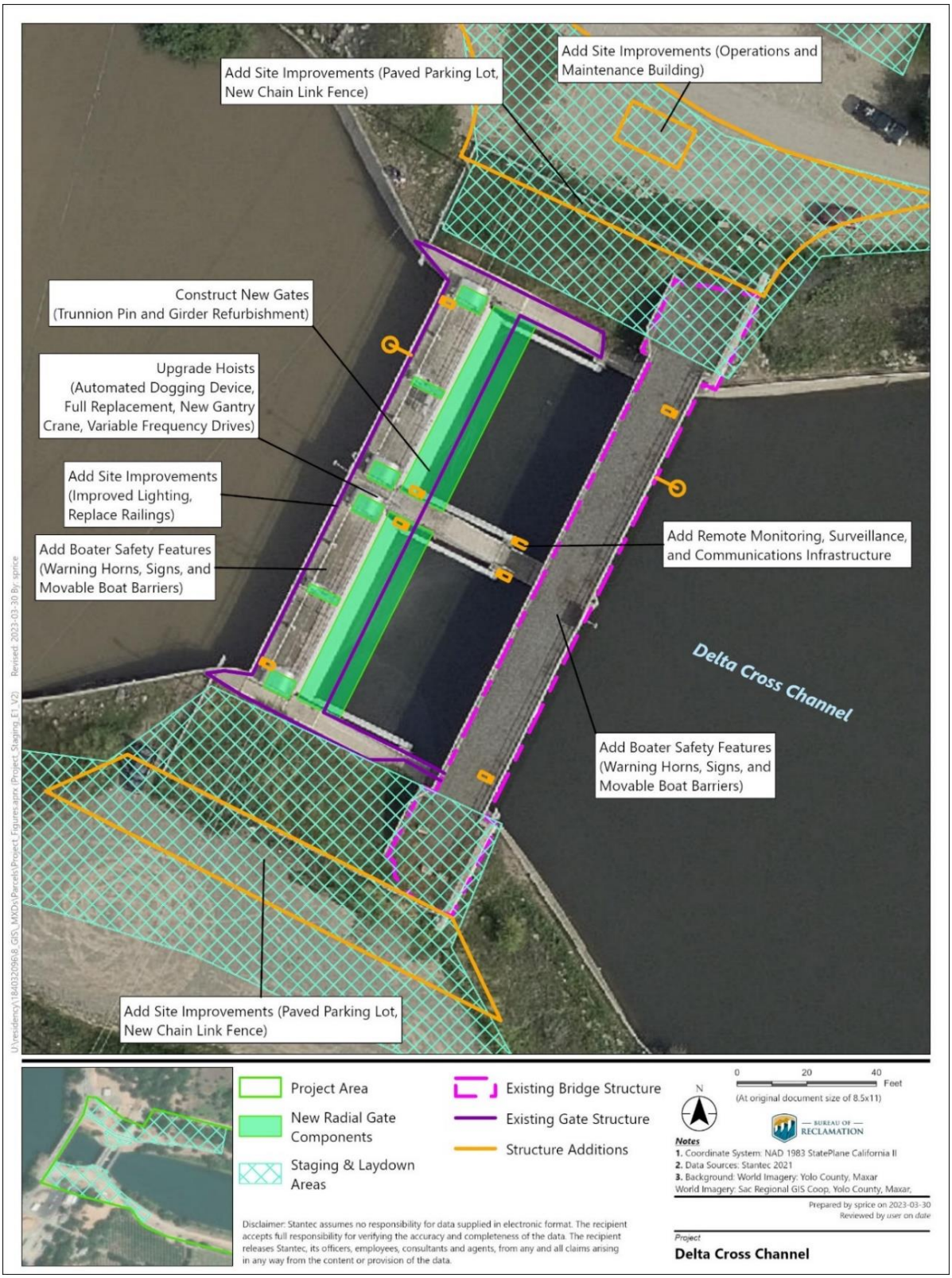

Figure 2-1. Location and Component Features of Gate Facility and Adjacent Facilities

The Proposed Action would include a small maintenance building on the north side of the structure, moveable barriers would be added as an additional boater safety feature, and public access ramp would be constructed within lands owned by Reclamation within the right-of-way (ROW) on the north bank of the DCC downstream of the railroad bridge. The ramp would allow for public access to the DCC downstream from the structure for fishing and for launching non-motorized watercraft (e.g., kayaks, canoes, paddle boards). The ramp would be compliant with Federal and State of California guidelines for accessibility. See Figure 2-1 and Figure 2-2 for location and component features of the DCC gate facility and adjacent facilities, and recreational improvements, respectively.

2.2.1 Construction Logistics

Construction of the facility's gate improvements, site improvements, and recreational improvements would take approximately eight months to complete. Construction of upland activities (e.g., site improvements and maintenance building) would occur separately from the activities associated with the gate improvements and as described below. In-water work (e.g., gate replacement and installation of the recreational improvements/public access ramp) would be timed to occur within a 3.5-month period, when the gates are typically out of the channel (mid-June through September). It is expected that in-water work would occur over two open gate windows (i.e., over two consecutive construction seasons).

The main access road is River Road (Route E13), which runs along the eastern side of the Sacramento River and crosses the DCC just west of the DCC gate facility. River Road is a two-lane rural arterial that runs along the Sacramento River and connects to Twin Cities Road to the north and Walnut Grove-Thornton Road to the south. Both roads connect to Interstate 5 about six miles to the east. State Route (SR) 160 runs opposite River Road along the west side of the Sacramento River. The SR 160 is a two-lane road that, near the Proposed Action Area, runs along the west side of the Sacramento River and connects to River Road on the East side of the Sacramento River via the Walnut Grove Bridge about 0.5 miles south of the Proposed Action Area.

River Road is designated by the County of Sacramento as a Surface Transportation Assistance Act Truck Route from north of Twin Cities Road to Walnut Grove-Thornton Road; Walnut Grove-Thornton Road/West Walnut Grove Road is also designated by County of San Joaquin as an STAA Truck Route from River Road to Interstate 5 (County of Sacramento 2021). STAA allows large trucks to operate on the interstate and certain primary routes called collectively the National Network.

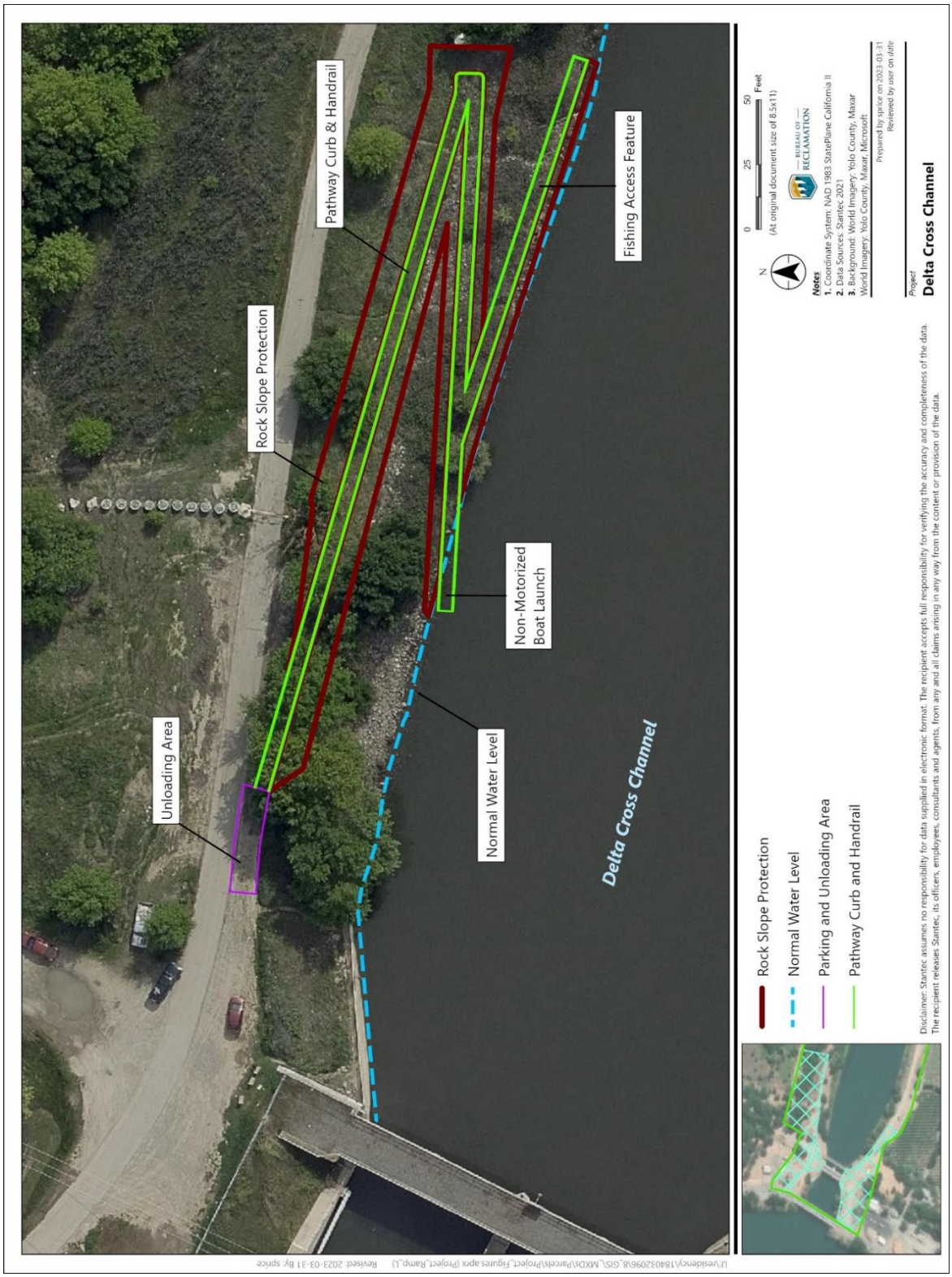

Figure 2-2. Location and Component Features for Public Access Ramp

Site access to the Proposed Action Area is provided from River Road primarily through Levee Road, an unpaved access road that runs along the northern bank of the DCC and continues east towards Snodgrass Slough. An additional unnamed, unpaved access road connecting from River Road south of the DCC runs along the southern bank of the DCC and continues east towards Snodgrass Slough. According to California Department of Transportation (Caltrans) and the STAA, a truck route from Interstate 5 to Walnut Grove Road heading westbound, and then north along River Road is the quickest and most feasible truck route to the Proposed Action Area. Routine contractor crews can take alternative routes to access River Road to get to the Proposed Action Area.

Construction activities over the construction period are estimated to require about 17 asphalt trucks; ten tractor-trailers for the gates, gate hoists, trunnion girder and hoist deck gantry, handrails, chain link fencing, control shed, security lights, boat barriers, and bollards (post used to create perimeter); and miscellaneous trucks for other supplies, equipment, materials, and fuel.

Property at the site available for staging materials would be limited to the Proposed Action Area boundaries, as depicted in Figure 2-3.

Construction sequencing for the gates would be scheduled for compatibility with operational requirements of the facility. The removal and replacement of gates would be limited to a 3.5-month work window from mid-June through the end of September and is expected to be completed over one construction season. It is expected that both gates can be replaced in series during a single 3.5-month "open bays" work window. The new gates, new hoist, and electrical equipment would be transported onsite and assembled prior to the open bay work window. If the construction cannot be completed during a single open bay work window, schedule adjustments (e.g., addition of a second season) may be needed.

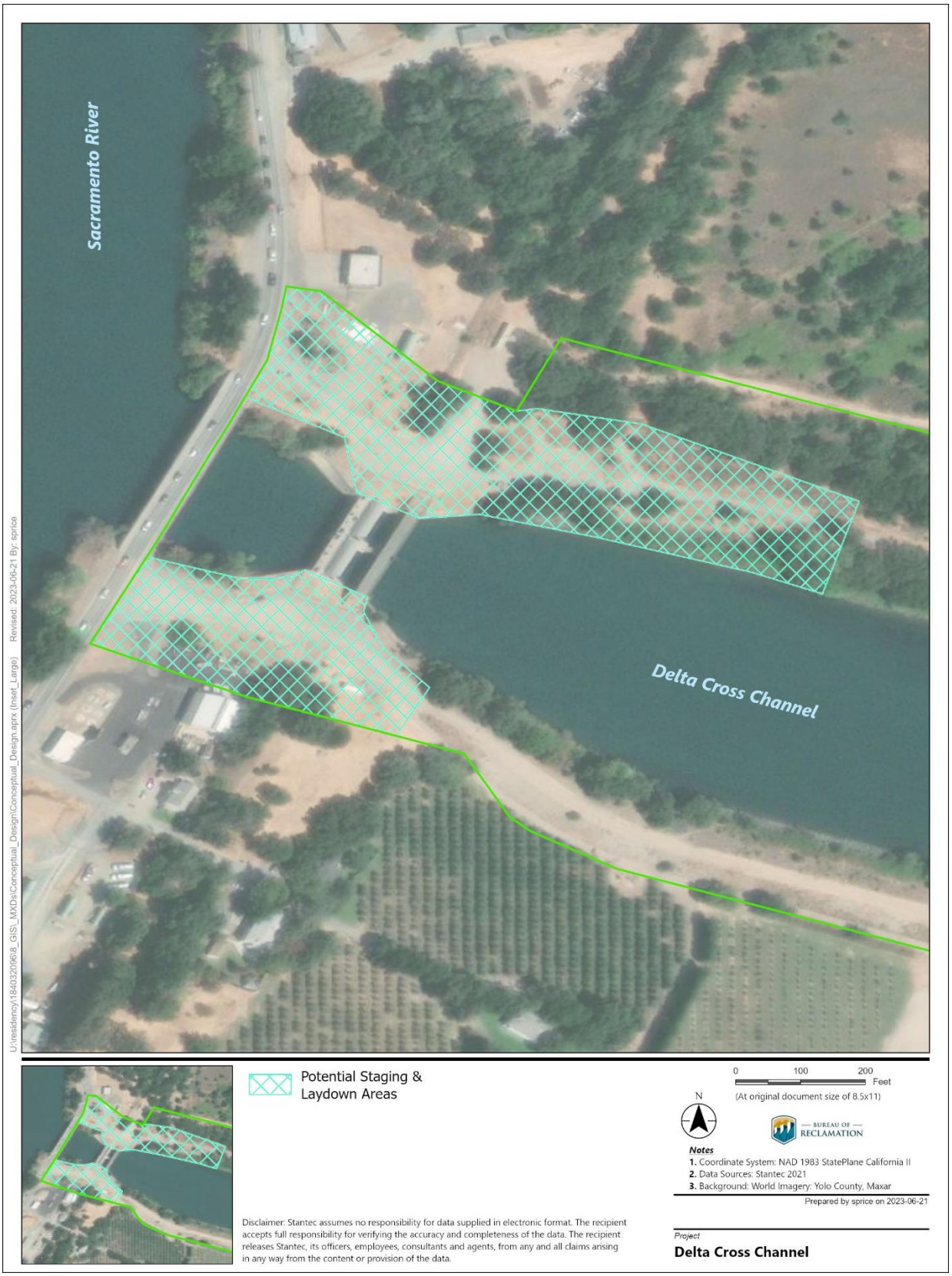

Figure 2-3. Potential Staging Areas for Proposed Action

During replacement of the gates, barges may be used for work access and staging within the bays of the DCC gate structure during construction. These barges would be transported by truck and then placed either from a land-side crane or launched from a local boat ramp in Snodgrass Slough and pushed into place by a small skiff. These barges would be tied to the DCC structure and bank with mooring lines. After the new gate replacements, the existing gates would be removed from the Proposed Action Area.

Commissioning activities for the new gates could extend beyond the scheduled "open bays" work window, however, there would not be in-water activities associated with commissioning beyond gate operations. These activities would typically include operational testing and adjustments and final check of the equipment by Reclamation. It would be expected that the gates would still be operational during this period and any operations of the new gates would be consistent with existing operations. Construction would occur in the following sequence:

- Assemble new gates onsite, in laydown areas within the staging areas on the north and south sides of the gate structure/channel (see Figure 2-1)
- Remove the existing gates from the structure and transport off site to an approved disposal site
- Refurbish trunnion pin and girder
- Install and align new gates via crane
- Touch up gate painting
- Install cathodic protection system
- Remove and replace existing maintenance gantry with new maintenance gantry
- Remove and replace existing hoists with new hoists
- Construct communications, control equipment and site lighting

2.2.2 Site Improvements

Site improvements such as the north and south parking areas would occur over a four-month period. Additional improvements would include replacing existing handrails, fencing, and hoist and maintenance gantry as well as clearing and grubbing the site. Existing power and communications lines would be relocated prior to construction of new gate facilities. Site improvements would generally go through the following sequence:

- Relocate existing power and communications lines
- Demolish existing handrail, fencing, hoist and maintenance gantry
- Construct operations and maintenance building
- Install new handrail, gantry rail and support, and movable boat barriers
- Prep and pave site and install new fencing

2.2.3 Public Access Ramp

Construction of the public access ramp (see Figure 2-2) would require a limited amount of in-water work for the last 30-feet of the ramp which would extend into the DCC to accommodate launching non-motorized watercraft. To minimize sediment during construction, a floating turbidity barrier would be placed in the water around the lower portion of the ramp construction area to control turbidity during construction. The floating turbidity barrier uses a reinforced polypropylene geomembrane or similar fabric curtain that is suspended from a floating device on the water surface and held in a vertical position by ballast weight at the bottom.

To minimize impacts on aquatic species, construction of the in-water portion of the access ramp would be timed to occur during the open gate operational period from mid-June through the end of September and is expected to be completed over one construction season..

Construction of the access ramp is anticipated to take approximately two months with the in-water work taking about two weeks to complete. The sequence of construction would involve completing all major gate/hoist work on the north gates first, followed by work on the south gates. While work on the south gate is underway, construction of the access ramp would begin. In-water work for the ramp would be completed before completion of the south gate construction. Construction of the approximate 600 feet long, five-foot wide public access ramp would require excavation into the channel bank of up to three feet. Construction would include the following processes:

- Excavate ramp and place aggregate base along access ramp
- Cut and fill on both sides of the access ramp to balance earthwork to the extent possible
- Install floating turbidity barrier, excavate and prepare channel for placement of the precast concrete slab
- Install precast concrete slab and then remove floating turbidity barrier
- Build concrete formwork for concrete to be placed by concrete truck, except for the lowest panel
- Place concrete to construct ramp, path, and boat launch except for the lowest portion of the boat launch which would be a precast concrete slab
- Add rock slope protection (RSP) material on the bank to stabilize earthwork and provide slope protection – no RSP material would be placed in flowing water
- Install handrails along the ramp

2.2.4 Environmental Commitments

The following Environmental Commitments would be implemented as part of the Proposed Action.

- Best management practices will be used, including training personnel in spill prevention, to prevent the accidental release of chemicals, fuels, lubricants, and non-storm drainage water. Equipment and materials for cleanup of spills will be available on-site.
- A qualified biologist will conduct environmental awareness training for all construction workers prior to the start of construction activities so workers can recognize special-status species and their habitats.
- The new access ramp that will be below water will be precast to avoid the need for a cofferdam or pile driving and to minimize in-water disturbance.
- Tree removal will be minimized to the extent practicable. In lieu of removing trees to accommodate the placement of RSP material, the RSP will be placed around standing trees.
- A floating turbidity barrier will be installed around the lower portion of the access ramp during construction to control any turbidity during construction.
- Lights and lighted signage will be posted to not shine directly on the river channel.
- In-water work activities will be scheduled within the work window of June 15 through September 30. If construction activities are anticipated to occur outside of the work window, Reclamation will notify the National Marine Fisheries Service (NMFS) at least 14 days prior to the end of the specified time window.
- Pre-construction surveys for western pond turtle will be conducted no more than 30 days prior to construction to ensure no turtles are present within the construction area. If a pond turtle nest is found, the biologist shall flag the site and determine if construction activities can avoid affecting the nest. If the nest cannot be avoided, it will be excavated and re-buried at a suitable location outside of the construction impact zone by a qualified biologist.
- To avoid effects on nesting birds, vegetation removal, grading, and other construction activities will be scheduled to avoid the breeding season for nesting raptors and other special-status birds (i.e., February 1 through September 31) to the extent practicable. If the breeding season cannot be completely avoided, then nesting bird surveys will be conducted as follows:
- If vegetation removal is scheduled during the breeding season (February 1 through September 31), a qualified biologist shall conduct a minimum of one pre-construction survey for nesting migratory birds and raptors within the Proposed Action area and a 250-foot buffer around this area (where accessible) for all construction related activities that will occur during the nesting season. The pre-construction survey shall be conducted no more than 15 days prior to the initiation of construction in a given area and will be phased based on construction schedule. If an active nest is found during nesting bird surveys, appropriate conservation measures (as determined by a qualified biologist) shall be implemented.

- To avoid effects on roosting bats, removal of large trees with cavities shall occur before maternity colonies form (i.e., prior to March 1) or after young are volant (i.e., after August 31), to the extent practicable.
- If construction, including the removal of large trees, occurs during the non-volant season (March 1 through August 31), a qualified biologist shall conduct a pre-construction survey of the Proposed Action Area for maternity colonies. The pre-construction survey will be performed no more than 14 days prior to the implementation of construction activities (including staging and equipment access). If a lapse in construction activities for 14 days or longer occurs between those dates, another pre-construction survey will be performed. If any maternity colonies are detected, appropriate conservation measures (as determined by a qualified biologist) shall be implemented.
- Construction monitoring will be conducted (by a qualified biologist) to ensure effectiveness of avoidance and minimization measures and implement re medial measures if necessary.
- A restoration plan will be prepared and implemented for resources temporarily affected by Proposed Action construction to ensure the Proposed Action area will be restored as close as practicable to the original contour and conditions.
- Vehicles and equipment will only be washed at designated areas approved by Reclamation. Where feasible the locations will be located at least 150 feet away from bodies of water to limit run-off discharge that could enter a water body.
- Best Management Practices (BMPs) will be used to prevent the accidental release of chemicals, fuels, lubricants, and non-storm drainage water through appropriate measures, including training personnel in spill prevention and making equipment and materials for cleanup of spills available on-site.
- Installation of signs at the gates as well as posting of information on Reclamation's website and local marinas will include in-channel construction schedule.
- During all in-water work, visual surface water monitoring will be conducted as well as water quality sampling.
- In the event of a cultural resource's discovery, the procedures outlined at 36 CFR § 800.13 will be followed.
- Basic Construction Emissions Control Practices, as established by the Sacramento Metropolitan Air Quality Management District will be implemented during all construction activities.
- Fill material will be obtained from a local source when possible and will consist of rock fill that is free of fine sediments to the extent practicable to reduce suspended materials from entering the water column.
- Plastic monofilament netting, loosely woven netting, or similar material in any form will not be used for erosion control or other purpose at the Proposed Action site.
- Vehicle traffic will be restricted to established roads, construction areas, and other designated areas, and shall not exceed a speed limit of 15 mph in undeveloped portions of the workspaces (i.e., unpaved access roads).
- Trash and food items will be placed in closed containers and removed daily to reduce the attractiveness to opportunistic predators.

- Workers will be prohibited from bringing pets and firearms to the Proposed Action Area and from feeding wildlife.
- A traffic control plan will be prepared by the contractor that complies with all regulatory requirements within the Proposed Action area's jurisdiction and will include but not be limited to the following:
    - Adequate staging areas and construction crew parking will be provided to avoid impeding traffic for long durations.
    - Safe access for all traffic will be maintained at all times during construction, including but not limited to motor vehicles, pedestrians, boaters, and bicyclists.

3.0 Affected Environment and Environmental Consequences

3.1 Resources Eliminated from Further Analysis

The following resources were not analyzed in detail in this EA. As described in Code of Federal Regulations title 40, section 1501.2, an "agency shall identify environmental effects and values in adequate detail so the decision maker can appropriately consider such effects and values alongside economic and technical analyses." To meet this purpose, the following resources were not analyzed in detail because there would not be impacts to these resources, as explained in Table 3-1 below.

Table 3-1. Resources Eliminated from Further Analysis

Resource	Determination
Aesthetics	Both Alternatives would not substantially alter the appearance of the DCC. Where the replacement of components is required, the replacement parts would be similar to the design, materials, placement, and function of the original items. Therefore, replacing components would not cause an adverse effect because it would not diminish the visual quality of the DCC. The public access ramp would slightly alter the appearance of the channel downstream of the gate facility. The public access ramp would be within a small portion of the overall channel (about six percent of the overall length of the channel) and would not represent a substantial change from current visual conditions within the DCC.
Agricultural	Both Alternatives would have no adverse effect on agricultural resources. The existing DCC gate facility and improvements to the DCC gate facility under the Proposed Action are entirely on federal lands managed by Reclamation and would not impact current operations of the CVP.
Indian Sacred Sites	Executive Order 13007 (May 24, 1996) requires that federal agencies accommodate access to and ceremonial use of Indian sacred sites by Indian religious practitioners and avoids adversely affecting the physical integrity of such sacred sites. Reclamation submitted Sacred Lands Search Requests to the Native American Heritage Commission (NAHC) in 2015 and in 2021. For both occurrences, the NAHC indicated they had no knowledge of sacred sites in the vicinity of the DCC. Access through the gates would be maintained to the extent possible during construction and once construction is complete, there would be no change in gate operations. Thus, neither the No Action Alternative nor the Proposed Action would limit access to, or ceremonial use of, Indian sacred sites that may

Resource	Determination
	exist on federal lands within the vicinity of the DCC by Indian religious practitioners or affect the physical integrity of such sacred sites.
Indian Trust Assets	Indian Trust Assets are legal interests in assets that are held in trust by the United States for federally recognized Indian tribes or individuals. There are no Indian reservations, rancherias or allotments in the Proposed Action Area, therefore, neither the No Action Alternative nor Proposed Action would affect Indian Trust Assets.
Land Use and Planning	The No Action Alternative and Proposed Action would occur within the existing facility area and entirely within ROW on federal lands or interests of Reclamation. The Proposed Action would not cause changes in land uses.
Socioeconomic	Neither the No Action Alternative nor the Proposed Action would have an adverse effect on socioeconomic resources. The Proposed Action would not substantially alter existing socioeconomic resources in the vicinity of the DCC.
Utilities and Public Services	Neither the No Action Alternative nor the Proposed Action would substantially alter utilities or public services within the Proposed Action Area. Overhead utilities would be buried underground; however, there would not be a substantial increase in electrical load at the facility, and no additional public services would be required as part of operations. Given recreational users are already present in the DCC, the addition of the public access ramp is not expected to increase the need for emergency services or personnel within the vicinity of the DCC.

3.2 Air Quality

The following section describes air quality.

3.2.1 Affected Environment

The Proposed Action is located in the Sacramento Valley Air Basin and is under the jurisdiction of the Sacramento Metropolitan Air Quality Management District. The air basin is designated as non-attainment for ozone and particulate matter 2.5 microns or smaller ($PM_{2.5}$) (CARB 2024) under federal designation. Additionally, the air basin is designated as non-attainment for California Ambient Air Quality Standards for ozone (one-hour and 8-hour) and particulate matter 10 microns in size or smaller (PM_{10}) (CARB 2024). The air basin meets standards for all other criteria pollutants under both the federal and state standards (CARB 2024). Table 3-2 provides a breakdown of the State and Federal attainment status for Sacramento County, where available.

Table 3-2. State and Federal Air Quality Pollutants in the Proposed Action Area

Pollutant	State Attainment Status	Federal Attainment Status
Ozone ($O_{3)}$ (2008 standard)	Nonattainment	Nonattainment (Severe)
Ozone ($O_{3)}$ (2015 standard)	Nonattainment	Nonattainment (Moderate)
Respirable Particulate Matter (PM_{10})	Nonattainment	Attainment/ Maintenance (Moderate)
Fine Particulate Matter ($PM_{2.5}$)	Attainment	Nonattainment (Moderate) (24-hr 2006 Standard)
Carbon monoxide (CO)	Attainment	Attainment/ Maintenance
Nitrogen dioxide ($NO_{2)}$	Attainment	Unclassifiable/ Attainment
Sulfur dioxide (SO_2)	Attainment	Unclassifiable/ Attainment
Lead (Pb)	Attainment	Unclassifiable/ Attainment
Visibility-Reducing Particles	Unclassified	N/A
Sulfates	Attainment	N/A
Hydrogen Sulfide	Unclassified	N/A
Vinyl Chloride	No Information Available	N/A

Sources: CARB 2024, SMAQMD 2024, USEPA Greenbook 2025.

Construction emissions will be the primary contributor to air quality impacts from the Proposed Action though soil disturbance could produce fugitive dust. Greenhouse Gases (GHG) emissions generated during the Proposed Action will be temporary. Construction activities associated with the Proposed Action will result in minimal levels of temporary emissions of air pollutants, particulate matter, and greenhouse gases (GHGs). Construction equipment (such as graders, backhoes, compactors, dump trucks, and worker vehicles) will emit ozone precursors, particulate matter, and GHGs.

3.2.2 Environmental Consequences

3.2.2.1 No Action Alternative

No construction activities are proposed under the No Action Alternative; therefore, the No Action Alternative would have no new effect on air quality, GHGs, or climate change.

3.2.2.2 Proposed Action

Construction emissions will be the primary contributor to air quality impacts from the Proposed Action. Construction activities associated with the Proposed Action would not be of significant duration nor magnitude and would not exceed thresholds of significance for criteria air pollutants. While construction activities would temporarily increase airborne dust particles and

engine emissions, these impacts would be local and mainly occurring during construction (approximately eight months). Environmental Commitments listed in Section 2.2.4 have been incorporated into the Proposed Action, which include implementing the basic construction emissions control practices, as established by the Sacramento Metropolitan Air Quality Management District, during construction activities.

In addition, fewer vehicle trips by Reclamation's operators may be needed for operating the DCC gates with implementation of remote gate operation, thereby reducing future vehicle emissions associated with the Proposed Action. Since the Proposed Action does not modify operations of the DCC gate facility, it would not result in new long term effects on air quality, greenhouse gas emissions, or climate change.

3.3 Biological Resources

The following section describes biological resources.

3.3.1 Affected Environment

Sections below summarize fish and aquatic resources and terrestrial biological resources conditions within and near the Proposed Action Area. The study area for biological resources is the same as the Proposed Action Area (Figure 1-1). The Proposed Action Area encompasses 21 acres, including potential staging areas and areas where ground disturbance may occur.

3.3.1.1 Fish and Aquatic Resources

The DCC gate facility can be operated by Reclamation to protect Sacramento River out-migrating salmonids from entering the interior Delta and to facilitate meeting the D-1641 flow objectives on the Sacramento River at Rio Vista for fish passage. The nearby South Mokelumne River and North Mokelumne River are key tributaries for upstream migration of fall-run Chinook salmon and Central Valley steelhead returning to the Lower Mokelumne River and Cosumnes River to spawn.

DCC gate operations impact Delta hydrodynamics and potentially affect fish behavior and survival. Late fall out-migrating behaviors can be affected by passage through the DCC gates when opened. Salmonids leaving the Sacramento River and entering the interior Delta by way of the DCC have lower survival rates than those utilizing other routes (Reclamation 2012a). Additionally, passage through the DCC gates when opened increases the risk of upstream migrating salmonid adults straying into the Sacramento River system instead of typical upstream migration to the Lower Mokelumne River and Cosumnes River (Reclamation 2012a).

Special status fish species listed as threatened or endangered under the Federal Endangered Species Acts (ESA), or species of special concern that occur in the Proposed Action Area include Central Valley fall-run Chinook salmon (State species of special concern), Sacramento River winter-run Chinook salmon (Federal and State endangered), Central Valley spring-run Chinook

salmon (Federal and State threatened), California Central Valley steelhead (Federal threatened), Delta smelt (Federal and State endangered), longfin smelt (Federal endangered, State threatened), southern distinct population segment of the North American green sturgeon (Federal threatened, State species of special concern) and white sturgeon (State candidate). Critical habitat for the Federally listed fish species near the Proposed Action Area includes mainstem Sacramento River to its confluence with San Joaquin River, including some of its tributaries and the DCC; Mokelumne River; Cosumnes River; and the San Francisco Bay-Delta south of the San Joaquin River to its southern tidal boundary. The fish are affected by water temperature and water quality changes, migration barriers, and flow modification (Reclamation 2012a).

Sensitive Aquatic Habitat

The delineation of aquatic resources within the Proposed Action Area identified a total of about 9.4 acres of wetlands and other jurisdictional waters consisting of about 0.3 acres of riparian wetland and 9.1 acres of perennial stream (see Figure 3-1) (Reclamation 2023a).

Figure 3-1. Aquatic Habitats Within the Proposed Action Area and Vicinity

3.3.1.2 Terrestrial Biological Resources

Terrestrial biological resources evaluated in this EA include terrestrial special-status plant and wildlife species that are: (1) listed as threatened or endangered under the Federal ESA; (2) proposed for ESA listing as threatened or endangered; and (3) ESA candidate species. In addition to these special-status species, migratory birds and raptors protected under the Migratory Bird Treaty Act are also described in this report.

The terrestrial biological resources that may occur in the Proposed Action Area were determined, in part, by reviewing natural resource agency databases, literature, and other relevant sources. The following information sources included, but were not limited to:

- USGS California 7.5-minute topographic quadrangles for *Thornton, Isleton, Rio Vista, Liberty* Island, Courtland, Bruceville, Bouldin Island, Terminous, and Jersey Island
- Aerial photographs of the study area and surrounding vicinity (Google Earth 2021)
- United States Fish and Wildlife Service (USFWS) list of endangered and threatened species that may occur in the study area (USFWS 2021a)
- USFWS National Wetlands Inventory (USFWS 2021b)
- The California Department of Fish and Wildlife (CDFW) California Natural Diversity Database (CNDDB) plant and animal records within five miles of the study area (CDFW 2021a) (Attachment A) and the California Native Plant Society (CNPS) online Inventory of Rare and Endangered Plants (CNPS 2021) records for the *Isleton California* USGS 7.5-minute topographic quadrangle and the quadrangles immediately adjacent (i.e., reviewed 9 quadrangles total)
- Special Animals List (CDFW 2021b)
- State and Federally Listed Endangered and Threatened Animals of California (CDFW 2021c)
- State and Federally Listed Endangered, Threatened and Rare Plants of California (CDFW 2021d)
- Special Vascular Plants, Bryophytes, and Lichens List (CDFW 2021e)
- California Wildlife Habitat Relationships System (CDFW 2014); and
- Other pertinent databases and literature, including *The Jepson Manual: Vascular Plants of California, Second Edition* (Baldwin et al. 2012) including applicable errata and supplements (Jepson Flora Project 2021).

For each species identified during the desktop review, habitat requirements were assessed and compared to the habitats in the Proposed Action Area and immediate vicinity to determine the species' potential to occur in or near the Proposed Action Area. Based on the desktop review and assessment of habit in the Proposed Action Area, 34 regionally occurring special-status

terrestrial wildlife species and 24 special-status plant species were identified as having potential to occur. Special-status wildlife and plant species that are listed or proposed for Federal listing under the ESA with potential to occur in the Proposed Action Area include giant garter snake (*Thamnophis gigas*; ESA threatened), large-flowered fiddleneck (*Amsinckia grandiflora*; ESA endangered), and species protected by the Migratory Bird Treaty Act (MBTA). All regionally occurring wildlife species listed under the ESA, and their potential to occur, are included in the *Biological Resources Technical Memorandum, Delta Cross Channel Gate Improvements Project* (Appendix A).

Survey Methods and Results

Both focused surveys and reconnaissance-level field surveys to document the vegetation communities and identify potentially suitable habitat for the 34 special-status terrestrial wildlife species were performed in March/April of 2021. Focused surveys included, botanical surveys, protocol level surveys for MBTA species of special concern; habitat assessments and surveys; all of which were performed between January and August 2021, depending on the specific methods prescribed for the focused survey being performed (e.g., botanical surveys were performed in May and August to coincide with the blooming periods of the 24 special-status plant species). A complete description of survey methodologies is included in Appendix A.

The surveys identified suitable habitat for a variety of birds and raptors protected under the MBTA. The surveys also determined a limited amount of low-quality upland and aquatic dispersal habitat for giant garter snake is within 250 feet of the Proposed Action Area. Because of the limited habitat, the potential for the species to occur in the Proposed Action Area during their active and/or inactive season is very low (see Appendix A). There are no elderberry shrubs within the Proposed Action Area or in the immediate vicinity and therefore no suitable habitat for valley elderberry longhorn beetle is present in the Proposed Action Area.

The open water habitat within the DCC provides suitable aquatic habitat and the adjacent riprap along the channel banks provides suitable basking habitat for the western pond turtle (*Emys marmorata*), proposed for ESA listing in October 2023 (USFWS 2023). Upland vegetated habitats only provide marginal nesting habitat for the species. Several western pond turtles were documented within the Proposed Action Area during 2021 wildlife surveys (Appendix A).

During the March/April 2021 survey, it was determined that the conditions present in the study area provide limited habitat to support the giant garter snake, but the species could disperse into the study area from areas of suitable habitat outside the study area (e.g., Snodgrass Slough). The open water of DCC in the study area does not provide suitable aquatic habitat for the species as it is too deep and wide and does not support dense stands of emergent vegetation that giant garter snake needs for cover and foraging habitat. The upland areas adjacent to the channel are generally shaded by mature riparian tree canopy and lack the sunny, grassy conditions that the species prefers to bask in during periods of inactivity. The uplands in the study area also lacked burrows or other refugia that would be located above the high tide line to serve as giant garter snake overwintering habitat during extended periods of inactivity.

Vegetation Mapping

Vegetation communities identified within the Proposed Action Area and vicinity during the reconnaissance-level surveys include, wild oats and annual brome grasslands, Valley oak woodland and forest, Fremont cottonwood forest and woodland, and sandbar willow thickets, along with non-vegetated areas including open water and roads/disturbed areas. All vegetation communities observed in the Proposed Action Area are described in Appendix A.

Vegetation mapping efforts identified ten different alliances and associations within the Proposed Action Area and vicinity. Vegetation communities were classified to the level necessary (i.e., A category of vegetation classification which describes repeating patterns of plants across a landscape or association) to determine sensitivity. Specific vegetation associations shown in Figure 3-2 include Fremont cottonwood (*Populus fremontii*) forest, sandbar willow (*Salix exigua*) thickets, valley oak (*Quercus lobata*) woodland, and wild oats (*Avina* spp.) grasslands.

Botanical Survey Results

For each species, habitat requirements were assessed and compared to the habitats in the Proposed Action Area and immediate vicinity to determine if potential habitat for each species occurs in the Proposed Action Area. All regionally occurring plant species listed under the ESA are included in Appendix A, regardless of whether the Proposed Action Area provides potential habitat. Of the 24 regionally occurring special-status plant species, the focused botanical surveys identified Bristly sedge (*Carex comosa*) and Suisun Marsh aster (*Symphyotrichum lentum*) growing on both the northern and southern waterside toes of the DCC embankments.

Swainson's Hawk Survey Results

Five potentially active Swainson's hawk nests were identified within 0.5 miles of the Proposed Action Area. The final survey in July 2021 determined that only one of the nests, located approximately 0.4 miles north of the Proposed Action Area, was active.

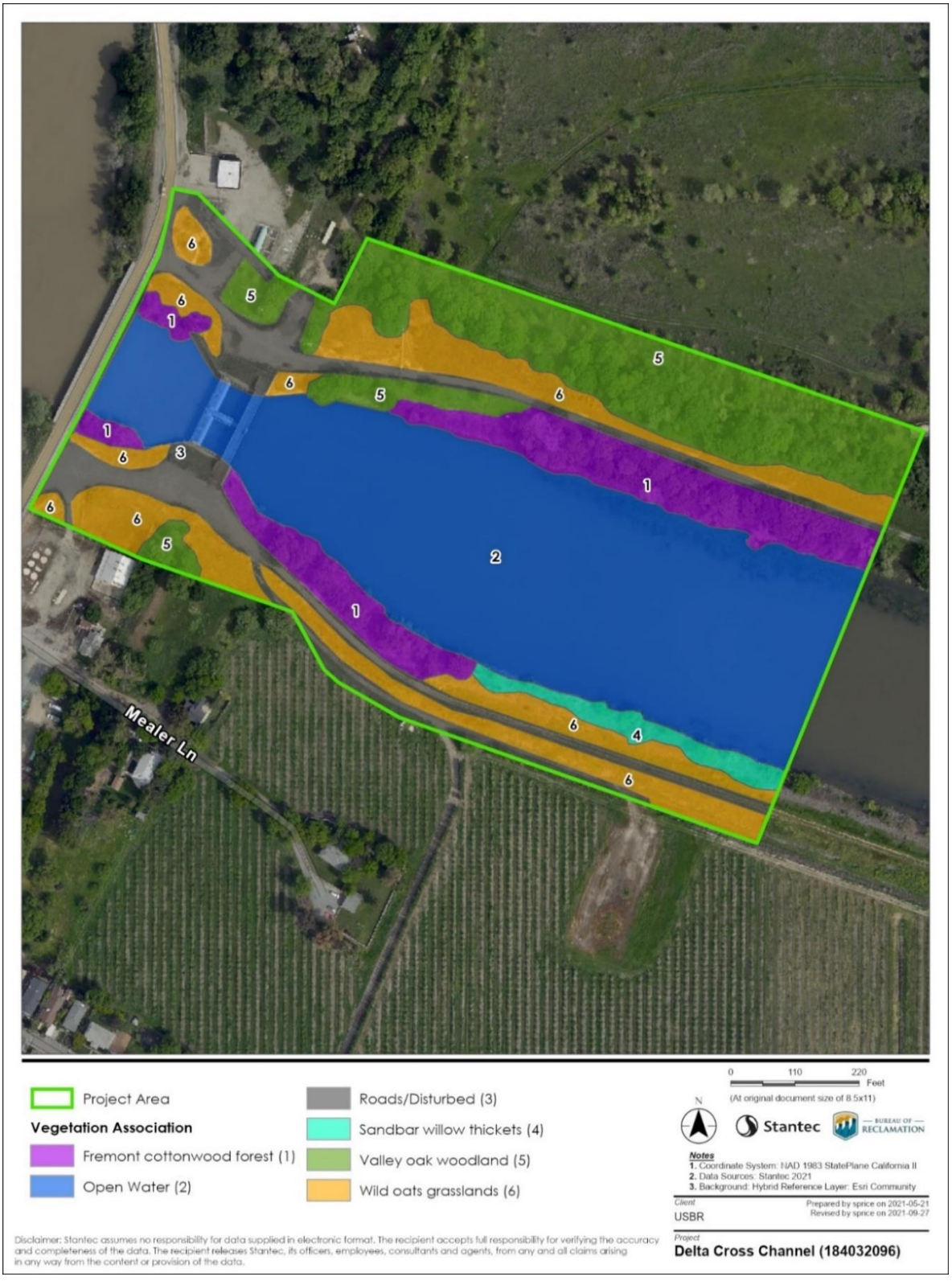

Figure 3-2. Vegetation Associations within the Proposed Action Area

3.3.2 Environmental Consequences

Potential environmental impacts of the No Action Alternative and Proposed Action are described below.

3.3.2.1 No Action Alternative

Under the No Action Alternative, Reclamation would continue current facility-use practices, including routine O&M. Fish and aquatic resources and terrestrial resources impacted by current operations of the DCC gates would continue as consulted upon under the LTO Biological Opinions (NMFS 2024; USFWS 2024).

Fish and aquatic resources and terrestrial resources would be susceptible to the current effects of operating the DCC gates. The potential for gate failure resulting in urgent maintenance required for regular operation of the facility would be the same as current facility conditions. Should the DCC gates become non-operational due to component fatigue or failure, the inability to operate the gates normally in accordance with the D-1641 would result in changes to water quality (e.g., salinity levels), changes in migratory corridors for listed fish species (entrained into the interior Delta), and modifications to flow (Reclamation 2012).

3.3.2.2 Proposed Action

The Proposed Action involves construction activities to upgrade the DCC gates and facilities and the addition of a new public access ramp. Under the Proposed Action, Reclamation would continue current facility-use practices, including routine O&M though the current facilities condition would be improved resulting in reduced situations when urgent maintenance is required to continue facility operations. The Proposed Action would minimize the risk of situations when the DCC gates become non-operational due to component fatigue or failure. The Proposed Action improvements would decrease the amount of urgent maintenance activities at the facility that result in changes to water quality (e.g., salinity levels), changes in migratory corridors for listed fish species (entrained into the interior Delta), and modifications to flow (Reclamation 2012).

Potential effects of Proposed Action on aquatic resources, sensitive natural communities, and special-status species and their habitat and special-status species and their habitat, are described below.

Fish and Aquatic Resources

The in-water gate construction window of mid-June through September, and in-water work for the public access ramp (occurring within a 2-week period in the gate construction window), would minimize effects on listed fish species. The in-water construction window described for the Proposed Action was developed to take advantage of the period of time in which the listed fish species are least likely to be present, either as migrating adults and emigrating juveniles (all runs of Chinook salmon, steelhead, green sturgeon), or rearing (green sturgeon). The in-water work required for the public access ramp would not include pile driving or cofferdam placement. A precast concrete panel would be placed in the lowest segment of the public access ramp

using a crane to minimize disturbance in-water. The Proposed Action Area is confined to the existing DCC, DCC gate facility area, and proposed public access ramp and parking area.

Noise and vibration during construction have the potential to affect fish, particularly eggs and embryos in the vicinity of the activity. While no eggs or embryos for the listed fish species are likely within the Proposed Action Area, juveniles may be present that could be sensitive to excessive noise and vibration. Removal of existing gates and placement of the new gates may result in some periods of infrequent low-level light noise; however, the noise is not expected to exceed instantaneous levels (206 peak decibels) or exceed extended period levels (i.e., repeated sound) (187 decibels or 183 for fish under 2 grams). Keeping noise levels at or below instantaneous and extended period levels have been found to safeguard sensitive salmonid life stages (i.e., eggs and embryos) (Fisheries Hydroacoustic Working Group 2008). No excessive noise is expected from transferring the barges to the Proposed Action Area. The effects on listed fish would be low.

Security lights would be placed on the DCC gate structure at locations intended to direct light away from the DCC, and thus avoid impacts on fish. The enhanced audio warning systems would not exceed 187 decibels and would not impact listed fish.

A small amount of the excavation needed for the public access ramp would occur within the Proposed Action Area. Impacts to fish and aquatic resources could include short-term water quality impacts due to exposure to excess sediment from in-channel excavation associated with the public access ramp. Prolonged exposure to high levels of suspended sediment could result in increased stress and create a loss of visual capability in fish in aquatic habitats within the Proposed Action Area, leading to reduced feeding and growth rates; thickening, clogging, and/or abrasion of the gills, potentially causing the loss of respiratory function; changes in physiological functions, and reducing the tolerance of fish to disease and toxicants (Waters 1995, Newcombe and Jensen 1996; Wilber and Clark 2001Kjelland et al. 2025). Although excavation needed within the DCC for the public access ramp would be minimal (e.g., less than 10 cubic yards and less than 0.1 acre [less than .01 percent of the overall waters within the channel]), prior to construction, a floating turbidity barrier would be placed around the in-water construction area to minimize effects from increased sedimentation and turbidity. The anticipated change in sedimentation resulting from construction would be confined to the existing DCC area of the lowest segment of the public access ramp. A precast concrete panel would be placed in the lowest segment of the public access ramp using a crane to minimize impacts on fish and aquatic species during in-water construction.

The Proposed Action would potentially result in temporary impacts (i.e., discharge of dredged or fill material) on aquatic habitat including about 0.01 acre of riparian wetland and 0.11 acre of perennial stream. Temporary impacts could occur as a result of construction equipment access and placement of the public access ramp.

Permanent impacts on aquatic habitat from placement of the public access ramp would include 0.01 acre of riparian wetland adjacent to the DCC and 0.004 acres of perennial stream. These acreages represent a negligible amount of habitat in the Proposed Action Area (about 3 percent and 0.04 percent respectively of the aquatic habitat that was assessed within the Proposed Action Area) and would not result in an adverse effect on these resources.

Terrestrial Biological Resources

Ground-disturbing activities associated with the Proposed Action, including staging of equipment and materials, could cause temporary effects on terrestrial species, if they are present in the Proposed Action Area.

The Proposed Action Area provides potential nesting and foraging habitat for a variety of migratory birds protected under the Migratory Bird Treaty Act (e.g., Swainson's hawk). Construction activities (e.g., vegetation removal and equipment operation) may be scheduled during the avian breeding season (generally February 1 through August 31, depending on the species). As such, construction associated with the Proposed Action could disturb nesting birds in or adjacent to the Proposed Action Area. Construction-related disturbance could result in the incidental loss of fertile eggs or nestlings or nest abandonment, which could potentially cause impacts on local or regional populations of affected birds. Environmental Commitments listed in Section 2.2.4 have been incorporated into the Proposed Action to reduce the potential to affect migratory birds during construction. Therefore, adverse effects on migratory birds are not expected. Once constructed, DCC gate facility operations would be consistent with current operations, and there would be no long-term effects on birds.

The forested habitats in the Proposed Action Area and vicinity, including the Fremont cottonwood forest and woodland and the valley oak woodland and forest, provide suitable roosting and foraging habitat for western red bats. Additionally, based on nearby recorded occurrences of the species, there is a high potential for western red bat to occur in the Proposed Action Area. However, given the ability of individual bats to move away from disturbances, direct impacts on bats are not expected when the bats are not using a roost site for a maternity colony (i.e., a breeding roost to bear and rear young). Bats may form maternity colonies in tree cavities and large culverts near the Proposed Action Area. Environmental Commitments listed in Section 3 have been incorporated into the Proposed Action to reduce the potential to affect the western red bat. Therefore, adverse effects are not expected. Once constructed, operations would be consistent with current DCC operations, and there would be no long-term effects on bats.

Upland vegetated habitats only provide marginal nesting habitat for the western pond turtle in the Proposed Action Area. Potential effects on western pond turtle could include injury or mortality of individual turtles; temporary impediments to dispersal along the channel; and the removal of vegetation in upland habitats adjacent to the DCC. Presence of turtles in the Proposed Action Area is low though excavation of the public access ramp would occur within the channel, which could potentially disturb turtles or nests within the construction zone if present.

Environmental Commitments listed in Section 2.2.4 have been incorporated into the Proposed Action, which include pre-construction surveys to avoid the need for removal and/or relocation of turtle nests within the Proposed Action Area. Additionally, prior to construction, a floating turbidity barrier would be placed around the in-water construction area to minimize effects from increased sedimentation and turbidity on aquatic species in the Proposed Action Area and the surrounding in-water channel areas. These measures would reduce the potential to impact the western pond turtle and sedimentation in the channel during in-water construction.

Proposed Action Area conditions provide limited habitat to support giant garter snake, and thus they are not expected to occur; therefore, the Proposed Action is expected to have no effect on giant garter snake.

3.4 Cultural Resources

The following section describes cultural resources.

3.4.1 Affected Environment

Prehistoric and historic-era archaeological sites, Traditional Cultural Properties, sites of religious and cultural significance, and architectural properties (e.g., buildings, bridges, and structures) are considered cultural resources. These include historic properties as defined by the National Historic Preservation Act of 1966 (as amended through December 16, 2016, and Codified in Title 54 of the United States Code) (NHPA).

Research on known/recorded and potential/unrecorded cultural resources in the Proposed Action Area was completed and documented in the *Cultural Resources Inventory and Assessment for the Delta Cross Channel Gate Upgrades Project* report prepared for this Proposed Action (Reclamation 2022 and 2023b). Following is a summary of the findings.

3.4.1.1 Archaeological Resources

Two previously recorded cultural resources (a residence that has been since removed and the Sacramento River Tribal Cultural Landscape) and two previously recorded studies were identified within the Proposed Action's area of potential effect (APE). Historical maps and aerial photos show that a residence was established in the northeastern portion of the Proposed Action area sometime prior to 1859 and had been cleared by 1950 when the DCC was constructed. The Sacramento River Tribal Cultural Landscape was observed within the Proposed Action area, with limited natural integrity along the riverbanks within the Proposed Action APE due to the presence of concrete shoulders and riprap.

The APE includes all the federal lands managed by Reclamation in the vicinity of the DCC gate facility, as well as the confluence of the DCC and Sacramento River. The site investigation concluded that there appears to be extremely limited natural integrity along the riverbanks within the APE.

3.4.1.2 Buried Site Sensitivity

The geoarchaeological sensitivity assessment for the APE included a review of digital soil data and modeling to determine the potential presence of buried archaeological sites. Based on the soils analyses, it was determined that the northwest portion of the APE is considered to have the greatest potential to contain buried sites. Additionally, the modeling results indicated that the potential for buried archaeological resources is estimated as highest in two small areas located in the western part of the APE, which includes a very small area (less than .1 acre) south of the DCC, outside of the Proposed Action disturbance area and a slightly larger area (about 0.5 acre) north of the DCC gate structure.

3.4.1.3 Historic Resources

The DCC has been only minimally altered since its construction 1950-1951 and it continues to fulfill its original purpose. The DCC gate facility meets eligibility requirements for listing under the National Register of Historic Places (NRHP) as part of the CVP.

Two non-Reclamation structures, a highway bridge owned by Caltrans and the privately owned bridge formerly associated with the Walnut Grove Branch Line of the Southern Pacific Railroad Company (SPRR), are also located within the APE. The highway and railroad bridges were both constructed by Reclamation in 1950-1951 as part of the DCC project. However, neither is connected to water conveyance nor to the operations of the DCC gates. The SPRR abandoned the Walnut Grove Branch Line railroad bridge that crossed the DCC in 1977 through1978 and removed the tracks and ties from the bridge shortly thereafter. Although the bridge remains intact, and the ballast bed is still present, the bridge does not retain integrity. The railroad bridge remains in private ownership. The railroad bridge and highway bridge were both previously evaluated and were found to not meet NRHP significance criteria and are ineligible for listing in the NRHP (Reclamation 2022).

3.4.2 Environmental Consequences

Potential impacts of the No Action Alternative and Proposed Action on cultural resources are described below.

3.4.2.1 No Action Alternative

Under the No Action Alternative, Reclamation would continue current DCC gate facility-use practices. Impacts on cultural resources would not increase by normal use and operation of the facility. Ongoing O&M activities under the No Action Alternative are expected to be consistent with current activities and could include various improvements to the facility, such as safety improvements and repair or replacement of the gates' coating system, as well as maintenance and replacement of key electronic features. Expected O&M activities under the No Action Alternative would not substantially alter the historic nature of the facility and would not result in an adverse impact on cultural resources.

3.4.2.2 Proposed Action

The Proposed Action would have no adverse impacts on the DCC gate facility under the Secretary of the Interior's Standards for the Treatment of Historic Properties, 36 CFR 800.5 (a)(2)(i), because this Proposed Action does not propose to destroy or demolish the structure. While the Proposed Action would remove the original radial gates and hoists, new parts of similar design, materials, placement, and function would replace these mechanical components. No part of the DCC gate facility or DCC would be destroyed as part of the Proposed Action. The replacement of mechanical components is an expected part of the maintenance and continued operation of facilities like the DCC gate facility, and the improvements have been carefully designed to preserve the historic appearance of the property. The overall design, materials, and workmanship of the headgate structure would not be affected by the replacement of its component parts, and it would retain its original scale, massing, and function. The replacement of these mechanical features of the DCC would meet the Secretary of the Interior Standards for the Treatment of Historic Properties (NPS 2017) codified in 36 CFR Part 67 that by not radically changing or obscuring the character-defining materials and features of the historic property, the Proposed Action would not cause an adverse effect. Additionally, the Proposed Action would rehabilitate the structure in such a manner that is consistent with the Secretary of Interior the Treatment of Historic Properties (NPS 2017) and allow it to continue to serve its historic function.

Earth disturbances associated with construction activities for the Proposed Action would occur within a portion of the area identified as having a high site sensitivity for buried resources. However, excavation within this segment would not be deep and/or extensive enough to impact any of the floodplain deposits that have a potential to contain archaeological materials. Although there are no known archaeological resources in the APE that would be affected by the Proposed Action, there is a possibility of the inadvertent discovery of an archaeological resource during construction, particularly in areas of higher sensitivity. To minimize effects on cultural resources, an Inadvertent Discovery Plan would be prepared which would minimize adverse effects on cultural resources in the event they are encountered during construction. Thus, the Proposed Action would not result in an adverse effect on cultural resources.

3.5 Geology and Soils

The following section describes geology and soils.

3.5.1 Affected Environment

The DCC is an excavated channel, bounded by levees, supported by soil, and loaded on either side (end piers) by backfill. Soil at the site consists of layered alluvial deposits, composed primarily of varying amounts of fine sand, silt, and low plasticity, stiff clay (Caltrans 2017). Bedrock is at such a great depth that it is not a consideration for settlement or bearing capacity.

The Proposed Action is located within the Great Valley geomorphic province, which is underlain by sediments of the Cretaceous, Tertiary, and Quaternary age. The regional site geology consists of Great Valley basin deposits in the California Coastal Range identified as recent Quaternary-age intertidal deposits. Nearest faults to the DCC are the Midland fault zone and the Rio Vista fault to the west and the Foothills fault system to the east (USGS 2021a). The Great Valley thrust fault system, including the Trout Creek section and the Gordon Valley section, the Calaveras fault zone, and the San Andreas fault are also regionally relevant faults in the vicinity of the Proposed Action.

3.5.2 Environmental Consequences

3.5.2.1 No Action Alternative

No construction activities are proposed under the No Action Alternative and, consequently, there would be no effect on geology and soils.

3.5.2.2 Proposed Action

Construction of facility gate improvements and public access ramp associated with the Proposed Action would require excavation up to about six feet below existing grade, with the majority of excavation occurring within three feet or less and may result in localized erosion.

Environmental commitments listed in Section 2.2.4 have been incorporated into the Proposed Action, which includes BMPs to avoid or reduce localized erosion caused by construction activities. The paving associated with the Proposed Action, including the public access ramp, would help stabilize surrounding soil once construction has been completed, which would reduce long-term erosion within the vicinity of the DCC gate facility and channel in the future. The Proposed Action would not adversely affect geology or soil resources in the Proposed Action Area.

3.6 Hazards, Hazardous Materials, and Public Health

The following section describes hazards, hazardous materials, and public health resources.

3.6.1 Affected Environment

The existing DCC gates consist of two radial type steel gates that were fabricated and installed in the 1950s. Each gate is 60 feet wide and 30 feet tall, with a 38-foot radius, and weighs approximately 243 tons. The framing of each radial gate includes an upstream and downstream skin plate. The area between the skin plates is vented by large, grated openings in the horizontal girder webs and air vents at the top of the end plates at each side, which allows the space to area between skin plates to fill with water when the gate is closed. When the gate is opening the water drains out of the grated openings. To inspect the interior integrity of the gates, confined space entry is required through difficult to access hatches on each gate, which presents a safety hazard to personnel.

Handrails at the DCC gate facility do not currently meet OSHA requirements. The handrails are 36 inches tall (except upstream of the gates, where they have been raised to 42 inches) and lack toe-kick protection. Current OSHA regulations require 42-inch height and toe-kick protection for handrails in this type of installation. The facility also requires modification to comply with current accessibility standards issued under the Americans with Disabilities Act of 1990 (ADA). While the DCC gate facility is fenced to deter public access, the steep abutments of the facility and areas immediately upstream and downstream are used often by the public for recreational fishing in the DCC.

The operations of the DCC gates are noted as a public health concern with regard to boat safety. Recreational boaters use the DCC to shorten travel times by traveling under the gates. If the DCC gates are shut, boat traffic must travel an additional 1-2 hours around the island. Although a warning horn is sounded prior to gate closing or opening, and some signage is displayed about imminent gate operations, the existing safety features are often ignored by boaters. Boats will try to cross under the DCC gates as they are closing or opening, creating safety concerns. The existing hoist system used to operate the gates has manually operated hooks, added to the gate after its original construction, that are used to lock or dog the gate only in the fully open position; the existing gates cannot be securely locked, if needed, in partially open position.

The facility is near Hazardous, Toxic, and Radioactive Waste (HTRW) sites since it adjoins an old railroad and there is historical presence of leaking underground storage tanks (UST) in the vicinity. According to the Water Board GeoTracker, one nearby UST site appears to be open, while two others have been closed (Water Board 2025). The open site is an auxiliary transmission site roughly 2,000 feet from the DCC's north bank; and is currently being monitored. The closed sites include a former BC Stocking Terminal on River Road roughly 400 feet southwest of the DCC from the south bank. Cleanup was completed and the site was closed in January 2021. The second site, a Unocal Bulk facility roughly 850 feet north of the DCC's north bank along River Road was closed July 2023.

3.6.2 Environmental Consequences

Potential environmental impacts of the No Action Alternative and Proposed Action on hazards, hazardous materials, and public health resources are described below.

3.6.2.1 No Action Alternative

Under the No Action Alternative, current safety hazards would persist on and surrounding the DCC gate facility. Maintenance staff would continue to be exposed to safety risks such as confined space entry requirements when inspecting or maintaining interior portions of the existing gates. Additionally, as the facility ages, it could be expected that the frequency of inspections needed for maintenance would increase. Additionally, the facility would not meet ADA accessibility standards and current handrails would not meet OSHA requirements. Failure to comply with the standards introduces the potential for injury to the public and staff.

Under the No Action Alternative, the steep abutments of the facility and surrounding areas would continue to be accessed by the public for fishing, posing a risk for injury, and boater safety hazards would continue due to the current DCC gate facility-use practices. Environmental hazards, including any open sites within the vicinity of the DCC, would not be affected under the No Action Alternative, given there would be no ground disturbance.

3.6.2.2 Proposed Action

Given the closest known location that contains hazardous materials is outside of the construction disturbance area for the Proposed Action (roughly 2,000 feet), the Proposed Action would not result in the release of buried hazardous materials. The replacement of the DCC gates and the construction of the maintenance building and public access ramp will involve the use, transport, storage, and disposal of hazardous materials for construction equipment, such as fuels, lubricants, and solvents. Risks to the public and the environment may arise from the use of diesel or gasoline powered construction equipment (e.g., trucks, excavators) and lubricants like oil and hydraulic fluids. These pollutants may be present in small amounts in the construction equipment and staging areas, which would be restricted to the public during construction.

Occasionally, accidental releases of small quantities of these hazardous materials could occur, potentially exposing people and the environment. However, all handling and storage of these materials will be in compliance with local, state, and federal regulations. Impacts resulting from the release of these materials would be minimized during construction by implementation of BMPs as described in Section 3, Environmental Commitments.

Under the Proposed Action, new radial gates would be installed with an open framing design which would no longer require confined space access and would simplify gate inspection and repainting activities in the future. The new public access ramp downstream of the structure would provide increased safe ADA-accessible public access points for fishing and allow for the launching of non-motorized watercraft. In addition, all handrails would be replaced or modified to meet OSHA requirements. The current opening and closing operations of the DCC gates due to the potential for boat passage would be improved under the Proposed Action. The installation of video cameras, improvements/replacements to existing flashing lights and audible alarms that are used prior to gate operations, addition of programable electronic message boards, as well as addition of movable boat barriers, will allow the agency to increase boater safety awareness and conditions in the water and around the facility.

The Proposed Action would be a benefit to the public, recreational boaters, and workers implementing maintenance on the DCC gates and facility area by reducing current hazards and public safety issues and concerns.

3.7 Hydrology and Water Quality

The following section describes hydrology and water quality.

3.7.1 Affected Environment

As described above, Reclamation operates the DCC to improve the movement of water from the Sacramento River to the export facilities at the Jones and Banks Pumping Plants; improve water quality in the central and south Delta; reduce salinity intrusion rates in the west Delta; and allow passage for boaters. Reclamation closes the Delta Cross Channel during the late fall, winter, and spring to reduce straying of Mokelumne River fall-run Chinook salmon, protect out-migrating salmonids from entering the interior Delta, facilitate the State Water Board D-1641 Rio Vista flow objectives for fish passage, and reduce potential scouring and flooding that might occur in the channels on the downstream side of the gates when Sacramento River flows exceed 20,000 cfs on a sustained basis. Delta Cross Channel closure will continue to occur as follows:

October 1 – November 30: From October 1 through November 30, the DCC gates, in addition to the requirements in D-1641, will be closed to further reduce juvenile salmonid entrainment risk based on the Knights Landing Catch Index and Sacramento Catch Index as described in Table 3-3.

December 1–January 31: From December 1 to January 31, DCC gates are closed except to avoid exceeding a D-1641 water quality criterion within the next 14 days based on water quality modeling (rather than increase releases and reduce reservoir storage further). Reclamation and California Department of Water Resources (DWR) will then assess and evaluate opening the DCC gates for up to 5 days for up to two events within this period to avoid D-1641 water quality criteria exceedance. Reclamation and DWR will coordinate with USFWS, NMFS, CDFW and the Water Board on how to balance D-1641 water quality and ESA-listed fish. During these potential DCC gates openings, the CVP and SWP will limit combined exports as not to exceed 1,500 cfs, Health and Safety pumping level.

February 1–May 20: DCC gates are closed as required under D-1641.

May 21–June 15: DCC gates may be closed for a total of 14 days for fishery protection purposes.

June 16–September 30: From June 16 to September 30, gates are open.

Table 3-3. Delta Cross Channel Action Triggers and Responses from October 1–November 30

Action Trigger	Action Response[1,2]
Water quality criteria per D-1641 are met; and Knights Landing Catch Index or Sacramento Catch Index (daily index) ≥ 3.0	Within 48 hours of index being reported to Reclamation, close the DCC gates for at least 3 days and keep closed until the catch index is less than three fish per day at both the Knights Landing and Sacramento monitoring sites for two consecutive days
Water quality criteria per D-1641 are met; and Knights Landing Catch Index or Sacramento Catch Index (daily index) ≥ 3.0; and Real time hydrodynamic and salinity modeling shows water quality concern level targets are exceeded during 14- day period following DCC closure	Reclamation and DWR, through Delta Monitoring Teams, review monitoring data and complete risk assessment to inform real-time operations of DCC gate closure.
Water quality criteria are not met per D-1641 criteria	No DCC gate closure

Source: Reclamation 2024

Notes:

[1] Whenever flows in the Sacramento River at Sacramento reach 20,000 to 25,000 cfs, the gates are closed to reduce potential scouring and flooding that might occur in the channels on the downstream side of the gates.

[2] If drought conditions are observed (i.e., fall inflow conditions are less than 90 percent of historic flows) Reclamation will consider opening the DCC gates no more than twice with a maximum possible length of five days to avoid D-1641 water quality exceedances.

Key:

cfs = cubic feet per second

D-1641 = State Water Resources Control Board Decision 1641

DCC = Delta Cross Channel

Surface water quality conditions near the DCC gate facility are influenced by Reclamation's operation of the DCC gates. As described previously, Reclamation operates the DCC gates in the open position to improve the movement of water from the Sacramento River to the export facilities at the Banks and Jones Pumping Plants, improve water quality in the central and southern Delta, and reduce salinity intrusion rates in the western Delta.

Water quality conditions in the Delta are highly variable and strongly influenced by inflows from the rivers and by estuarine dynamics of the San Francisco Bay-Delta Estuary, particularly during periods of low flow in the Delta or high volumes of water export pumping. Concentrations of water quality constituents in the Delta are affected by agricultural diversions, drainage flows, wastewater discharges, cooling water intakes and discharges, and groundwater accretions. Table 3-4 includes water quality concern level targets and compliance location.

Table 3-4. Water Quality Concern Level Targets for Operation of the Delta Cross Channel Gates

Location for Compliance with Water Quality Level Target	Water Quality Concern Level Targets (Water Quality Model simulated 14-day average Electrical Conductivity) (µmhos/cm)
Jersey Point	1,800
Bethel Island	1,000
Holland Cut	800
Bacon Island	700

Key: µmhos/cm = micromhos per centimeter

USGS's California Water Science Center operates flow monitoring stations near the DCC gate facility: Sacramento River above Delta Cross Channel (Station No. 11447890), and Delta Cross Channel near Walnut Grove (Station No. 11336600). These stations, as part of a network of 35 stations located throughout the Delta, are part of a network collecting real-time data used by water project operators, including Reclamation, for understanding how the tidal currents, river inflows, water project exports, temporary barriers, and DCC gate facility operations affect hydrologic and hydrodynamic conditions in Delta waterways (USGS 2016).

In addition to flow and water level information collected by USGS at Sacramento River above the DCC (Station No. 11447890) and Delta Cross Channel near Walnut Grove (Station No. 11336600), USGS operates a high-frequency water-quality monitoring station at Sacramento River above the DCC (Station No. 11447890) and water quality monitoring stations throughout the Delta (USGS 2017). Water quality parameters measured at the site include water temperature, dissolved oxygen, pH, salinity, dissolved organic matter, chlorophyll, turbidity, and nitrate-nitrite (USGS 2021b). Management and regulation of water quality conditions in the Sacramento River and Delta near the Proposed Action Area falls within the jurisdiction of the Water Board's Central Valley Regional office as it is located within the Central Portion of Delta Waterways as established in Appendix 42 of the Water Quality Control Plan for the Sacramento River and San Joaquin River Basins.

Clean Water Act Section 303(d) listings for the Central Portion of Delta Waterways are provided in Table 3-5 (Water Board 2022).

Table 3-5. Clean Water Act Section 303(d) List of Water Quality Impairments for Central Portion of Delta Waterways

Pollutant/Stressor	Source
Chlorpyrifos	Agriculture, urban runoff/storm sewers
dichloro-diphenyl-trichloroethane (DDT)	Agriculture
Diazinon	Agriculture, urban runoff/storm sewers
Group A Pesticides	Agriculture
Invasive Species	Source unknown
Mercury	Resource extraction
Unknown Toxicity	Source unknown

Source: Water Board 2022

Notes:

Group A pesticides include one or more of the following compounds: aldrin, dieldrin, endrin, chlordane, lindane, heptachlor, heptachlor epoxide, endosulfan, and toxaphene.

3.7.2 Environmental Consequences

The sections below describe the effects of the No Action Alternative and Proposed Action on hydrology and water quality.

3.7.2.1 No Action Alternative

Under the No Action Alternative, facility improvements would not be completed. Should the DCC gates become non-operational due to component fatigue or failure, inability to operate the DCC gates normally in accordance with the D-1641 flow objectives would result in changes to water quality and modifications to flow (Reclamation 2012a). However, given current conditions and expected O&M activities, operations of the DCC gate facility are anticipated to continue to meet current Delta water quality requirements.

Changes in water levels in the Sacramento River and Delta near the DCC gate facility associated with climate change may affect Reclamation's ability to operate the DCC gate facility. These increases may require that DCC gate facility operations and management be revised to handle stage elevations and flood flows that differ from data used for design and construction of the existing DCC gate facility.

3.7.2.2 Proposed Action

Most construction activities associated with the Proposed Action would occur in upland areas, outside of the DCC. Soil disturbance would be minimal; however, erosion caused by ground disturbance could result in the deposit of sediment in the DCC. Additionally, in-channel construction could result in sediment within the DCC, temporarily impacting water quality. Water quality impacts would be minimized during construction by implementation of BMPs, as described in Section 3, Environmental Commitments. Additionally, during the in-channel

construction for the public access ramp, a floating turbidity barrier would be placed around the in-water construction area to minimize effects from increased sedimentation and turbidity.

The work sequencing for the Proposed Action would be compatible with operational requirements of the facility; channel obstructions during the water year and would not prevent the DCC gates from performing their functions related hydrologic processes. The work window to perform construction activities on DCC gate facilities while the gates are raised is limited to mid-June through the end of September; a 3.5-month window.

The Proposed Action would help to preserve and strengthen the ability of the DCC gate facility to operate in accordance with D-1641 flow objectives, and Reclamation's discretion for the LTO ROD.

3.8 Noise

The following section describes recreation resources.

3.8.1 Affected Environment

The DCC facility is located in Sacramento County. Land uses surrounding the Proposed Action area are mostly rural, with some residential and commercial nearby in the communities of Locke and Walnut Grove. The nearest residence is located over 250 feet from the Proposed Action area. There is an existing warning horn on the DCC gate facility for boaters. The warning horn is sounded 20 minutes prior to gate operations; however, the sound has come under criticism from the boating community as being unreliable.

Neither Walnut Grove nor Locke have ordinances limiting noise associated with construction activities, and noise within the Proposed Action area is governed by Sacramento County. The Sacramento County General Plan states that noise associated with construction activities shall adhere to the County Code Section 6.68.090(e) which states that noise sources associated with construction activities are exempt from maximum noise level requirements if activities do not take place between the hours of (County of Sacramento 2022):

- 8:00 p.m. and 6:00 a.m. on weekdays and Friday commencing at 8:00 p.m. through and including 7:00 a.m. on Saturday.
- Saturdays commencing at 8:00 p.m. through and including 7:00 a.m. on the next following Sunday.
- Sundays after the hour of 8:00 p.m.

The existing noise environment is generally influenced by transportation noise from vehicle traffic on local roads, agricultural equipment operations, boats, and occasional aircraft as well as natural sounds such as from birds, insects, and wind. Occasional seasonal or intermittent noise

associated with recreation occurs in the area east of the DCC gate facility. Noise associated with recreational activities include boating, vehicle parking, and fishing (non-water/body contact only).

3.8.2 Environmental Consequences

3.8.2.1 No Action Alternative

No construction activities are proposed under the No Action Alternative, therefore there would be no effects on noise.

3.8.2.2 Proposed Action

Temporary construction noise occurring under the Proposed Action would be minimal and short in duration, lasting up to a total of about eight months. The nearest residence is over 250 feet from the Proposed Action Area. Noise levels during construction of the Proposed Action would not be in excess (e.g., no pile driving would occur), and would consist of excavation equipment, backup alarms, trucks, and construction personnel. Construction would be limited to daytime hours, generally between the hours of 7:00 a.m. and 7:00 p.m. on weekdays. Work is not expected to take place over weekends.

The Proposed Action includes the installation of an enhanced audio warning system to improve the safety of water and land recreational users within the vicinity of the gate facility. The warning system would operate intermittently in the daytime, and only during periods when the gates are in motion. Potentially sensitive receptors such as nearby residences or recreational users would not be subject to excessive noise levels.

3.9 Recreation

The following section describes recreation resources.

3.9.1 Affected Environment

Recreation and tourism are integral to the economy of the Delta, estimated to bring 12 million activity days of use each year for resource-related (e.g., boating and fishing), urban parks-related, and right-of-way-related (e.g., bicycling and driving for pleasure) recreation, and direct recreation-related spending estimated at approximately $250 million per year (DPC 2020). Two of the most financially productive, though weakening, segments of the Delta's recreation and tourism economy are marinas and Legacy Communities (DPC 2020).

The State of California Delta Protection Commission's (DPC) Economic and Sustainability Plan (DPC 2020) identifies the DCC and gate facility as an important link for recreational boaters. When opened, small boat passage (due to limited clearance) past the DCC gates allows for direct access from the Sacramento River area to popular boating areas in the Delta. Recreational boating facilities near the Proposed Action Area include a marina and two boat docks. Boating

activities peak during summer months (Reclamation 2012a). Although Reclamation posts and distributes information about schedules for DCC gate facility operations to interested parties and local marina owners/operators, boaters typically do not know in advance whether the DCC gates will be open or not (DPC 2020).

In 2019, the California legislature established the Sacramento-San Joaquin Delta National Heritage Area to promote public engagement and education, historic preservation, development of regional tourism and recreation, and economic development, among other goals. This area includes the Proposed Action area (DPC 2021).

Recreational boaters use the DCC to shorten travel times by traveling under the gates. If the DCC gates are shut, boat traffic must travel an additional 1-2 hours around the island. Boaters will try to cross under the DCC gates as they are closing or opening, creating safety concerns. Additionally, boaters state that they do not hear the warning horn prior to the gate closing or opening or see visual signage warning of imminent gate operations.

Delta Meadows River State Park is located just northeast of the DCC gate facility and is accessible via the gravel DCC access road. Although park is open, there are no restroom facilities or services provided. However, the park remains accessible and is frequented by the public for walking along the levees, and fishing in the DCC and adjacent sloughs. California Department of Parks and Recreation (State Parks) advertises the park as significant for viewing of the historic Delta with sloughs, a natural island, and meadows full of wildlife. It reports that portions of the park are popular as mooring sites for boaters during the summer (State Parks 2023). State Parks is currently classifying and preparing a General Plan for the Delta Meadows property to determine the park unit's uses and create a plan for its management, development, and operation (2025).

Undeveloped areas immediately upstream and downstream of the DCC gate facility provide recreational fishing access in the DCC. Although no formal access is provided, recreational fishing frequently occurs along northern and southern banks of the DCC outside of fenced areas that currently surround the DCC gate facility.

3.9.2 Environmental Consequences

Potential environmental impacts of the No Action Alternative and Proposed Action on recreation resources are described below.

3.9.2.1 No Action Alternative

Under the No Action Alternative, Reclamation would continue current facility-use practices. Boater safety issues would persist at the DCC gate facility. Other recreational use surrounding the DCC gate facility (e.g., public access to Delta Meadows State Park, and recreational fishing from undeveloped areas along the banks of the DCC) is expected to continue as described in the Affected Environment. Under the No Action alternative, public access features would not be

constructed and there would not be developed fishing or non-motorized boating access to the DCC.

3.9.2.2 Proposed Action

During construction of all in-channel work, there may be temporary (e.g., one week), intermittent closures of the DCC gates to facilitate the movement of construction equipment. Construction of the Proposed Action would focus on one gate bay at a time while keeping the other bay open for boating and recreational users. However, temporary closure of both gate bays may be needed while construction operations shift from the first bay to the second bay to meet construction schedule and site-safety requirements. Signs would be installed at the gates and information would be posted on Reclamation's website and local marinas to provide information on in-channel construction schedule. For safety reasons, recreationalists (e.g., anglers) would temporarily (e.g., one week) be diverted away from the construction activities within the vicinity of the DCC gate facility.

Mechanical (hoist replacement) and passive and active safety improvements included in the Proposed Action would improve boater safety within the DCC during gate operations. Controlled braking capabilities of new hoists would allow for stopping of gate openings or closures if boats attempted to pass beneath the gates during gate operations. New and enlarged and programable signs would provide improved gate operations information. Moveable boat barriers would block access for boat traffic and prevent boats from passing beneath the gates while the gates are operating (opening or closing).

The Proposed Action would include a new public access ramp on the north bank of the DCC, downstream of the railroad bridge. The ramp would provide a new access point for recreational users and non-motorized watercraft downstream of the DCC. The ramp would be compliant with federal and State of California guidelines for accessibility and provide public access to the DCC for both fishing and launching non-motorized watercraft (e.g., kayaks). The Proposed Action would provide formal access through a boat launch and fishing platform, thereby improving the recreational opportunities. The formal access and safety measures would contribute to regional efforts intended to safeguard recreational resources and would result in a beneficial effect on recreation within the Proposed Action Area and vicinity.

3.10 Traffic and Transportation

The following section describes traffic and transportation.

3.10.1 Affected Environment

The main access road to the Proposed Action area is via River Road (Route E13), which runs along the eastern side of the Sacramento River and crosses the DCC just west of the DCC gate facility. River Road is a two-lane rural arterial that runs along the Sacramento River and connects Twin Cities Road to the north and Walnut Grove-Thornton Road to the south. Both roads

connect to Interstate 5 about six miles to the east. State Route (SR) 160 runs opposite River Road along the west side of the Sacramento River. SR 160 is a two-lane road that, near the Proposed Action Area, runs along the west side of the Sacramento River and connects to River Road on the East side of the Sacramento River via the Walnut Grove Bridge about 0.5 miles south of the Proposed Action area. Additionally, River Road is designated by the County of Sacramento as a Surface Transportation Assistance Act (STAA) Truck Route from north of Twin Cities Road to Walnut Grove-Thornton Road (County of Sacramento 2018).

According to Caltrans and the STAA, a truck route from Interstate 5 to Walnut Grove Road heading westbound, and then north along River Road is the quickest and most feasible truck route to the Proposed Action area.

3.10.2 Environmental Consequences

3.10.2.1 No Action Alternative

No construction activities are proposed under the No Action Alternative, therefore, there would be no effects on traffic or transportation.

3.10.2.2 Proposed Action

During construction of the Proposed Action, there would be a slight temporary increase in traffic due to worker vehicles (e.g. up to five per day) and large trucks periodically transporting material and equipment to the Proposed Action Area. The new radial gates would be fabricated off-site and transported to the site in multiple pieces and, once onsite, the new gates would be assembled for installation on the existing gate structure, reducing the overall number of trips needed to deliver equipment. Additionally, Reclamation has committed to requiring the contractor to prepare a traffic control plan, which would further reduce the potential for any conflicts or impacts on the circulation system. Transportation of large trucks and equipment would not result in a significant increase of transportation and traffic in the Proposed Action Area.

The proposed public access ramp is not expected to attract substantial new users such that additional parking would be needed. Additionally, with remote operations and upgraded facilities, maintenance trips are expected to remain similar or be reduced from current operations. The Proposed Action would not increase overall traffic in the area.

3.11 Cumulative Impacts

CEQ regulations define a cumulative impact as the *"effects on the environment that result from the incremental effects of the action when added to the effects of other past, present, and reasonably foreseeable actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions. Cumulative impacts can result from individually*

minor but collectively significant actions taking place over a period of time" (40 CFR 1508.1(i)(3)).

The current effects of past actions were described in the affected environment, which reflects management actions and natural events that have affected the environment and landscape (43 CFR 46.115). Reclamation considers future actions which have completed planning and required compliance activities to be reasonably foreseeable and those that will have effects within the temporal period and spatial overlap of this action.

Reasonably foreseeable future activities within the Proposed Action Area include the Long-Term Operations of the CVP and SWP, Sites Reservoir Project, Del Puerto Canyon Reservoir Project, Delta Conveyance Project, Water Quality Control Plan for the San Francisco Bay/Sacramento–San Joaquin Delta Estuary Bay-Delta (Bay-Delta Plan) and the Delta Plan. These are described in more detail below.

3.11.1 Long Term Operations of the CVP and SWP

Reclamation operates the CVP and the DWR operates the SWP, under the 1986 Coordinated Operation Agreement, as amended in 2018, between the federal government and the State of California, as authorized by Public Law 99-546. A December 20, 2024, Record of Decision (Reclamation 2024) implements the LTO of the CVP and SWP as consulted upon in the 2024 Biological Opinions from the USFWS and NMFS. The adopted alternative is currently being evaluated for consistency with E.O. 14181 which directs Reclamation "*…to operate the CVP to deliver more water and produce additional hydropower,…*".

The DCC gate facility is a critical component to operations of the CVP and SWP. Because the Proposed Action is being implemented to improve the operational flexibility and reliability associated with LTO, the Proposed Action would be consistent with current and planned operations and thus, would not contribute to cumulative effects.

3.11.2 Sites Reservoir

The Sites Reservoir Project involves the construction of off-stream surface storage north of the Delta for enhanced water management flexibility in the Sacramento Valley, increased California water supply reliability, and storage and operational benefits for programs to enhance water supply reliability, both locally and Statewide, benefit Delta water quality, and improve ecosystems. Secondary objectives for the project are to: (1) allow for flexible hydropower generation to support integration of renewable energy sources; (2) develop additional recreation opportunities; and (3) provide incremental flood damage reduction opportunities (Sites Project Authority and Reclamation 2017). A Draft Environmental Impact Report/Environmental Impact Statement (EIR/EIS) was released for public review on August 14, 2017. A revised Draft Environmental Impact Report/Supplemental Draft Environmental Impact Statement (REIR/SEIS) was released for public review in November 2021. A Final Environmental Impact Report/Final Environmental Impact Statement was released in November 2023.

The DCC gate facility is a critical component to operations of the CVP and SWP. The Proposed Action and Sites Reservoir would be operated in accordance with the LTO BO, consistent with current and planned operations. Construction of Sites Reservoir would result in significant effects on water quality, biological resources, geological resources, land use, agricultural resources, air quality and cultural resources (including Tribal) (SPA and Reclamation 2023). However, given the distance between the two projects (about 80 miles), construction of the Proposed Action would not substantially affect any of the facilities or resources associated with the Sites Reservoir Project, such that it would contribute to cumulative effects.

3.11.3 Del Puerto Canyon Reservoir

Del Puerto Water District and Exchange Contractors would construct and operate the Del Puerto Canyon Reservoir. The project will deliver existing contracted water from the Delta- Mendota Canal into the new 80 thousand acre-feet reservoir. The reservoir would allow water to be delivered into storage during wetter periods until it is needed in drier periods for irrigation, groundwater recharge, or wildlife beneficial uses. The reservoir would be located in Del Puerto Canyon in the Coast Range foothills west of Patterson and south of the Sacramento–San Joaquin Delta, just west of Interstate 5.

The DCC gate facility is a critical component to operations of the CVP and SWP. The Proposed Action and Del Puerto Canyon Reservoir would be operated in accordance with the LTO BO, consistent with current and planned operations. Construction of Del Puerto Canyon Reservoir would result in significant effects on aesthetics, cultural resources, greenhouse gas emissions, traffic and transportation, utilities and service systems (Del Puerto Water District 2020). However, given the distance between the two projects (about 50 miles), construction of the Proposed Action would not substantially affect any of the facilities or resources associated with the Del Puerto Canyon Reservoir, such that it would contribute to cumulative effects.

3.11.4 Delta Conveyance Project

DWR is proposing the Delta Conveyance Project (DCP). DWR's fundamental purpose of the project is to develop new diversion and conveyance facilities in the Delta to restore and protect the reliability of SWP water deliveries south of the Delta, consistent with the State's Water Resilience Portfolio. It intends to protect against future water supply losses caused by climate change, sea level rise, and earthquakes. The DCP also intends to ensure that the SWP can capture, move, and store water to make the most of big, but infrequent, storm events (DWR 2023). The DCP consists of the construction, operation, and maintenance of new SWP water diversion and conveyance facilities in the Delta that would be operated in coordination with the existing SWP facilities. The new water conveyance facilities would divert up to 6,000 cfs of water from two new north Delta intakes through new fish screens and convey it via a single tunnel on an eastern alignment directly to a new pumping plant and aqueduct complex between Byron Highway and Mountain House Road near Mountain House in the south Delta, discharging it to the Bethany Reservoir for delivery to existing SWP export facilities.

The DCP is expected to result in significant effects on agricultural lands, aesthetics, cultural resources, transportation, noise, paleontological resources, and Tribal resources. Construction and operation of the Proposed Action is not expected to substantially affect any of the facilities or resources associated with the DCP, and therefore would not contribute to cumulative effects

3.11.5 Bay-Delta Water Quality Control Plan

The Water Board is responsible for adopting and updating the Bay-Delta Plan, which establishes water quality control measures and flow requirements needed to provide reasonable protection of beneficial uses in the watershed. The Water Board is in the process of a review and update of the 2006 Bay Delta Plan. The proposed changes to the Bay-Delta Plan include: new inflow requirements for the Sacramento River, its tributaries, and eastside tributaries to the Delta (the Mokelumne, Calaveras and Cosumnes rivers); new and modified Delta outflow requirements; new requirements for cold water habitat; new and modified interior Delta flow requirements; recommendations for complementary ecosystem protection actions that others should take; and adaptive management, monitoring, evaluation, special study, and reporting provisions. The update includes consideration of voluntary agreements (Water Board 2023).

On December 12, 2018, the Water Board adopted the Bay Delta Plan amendments and Final Supplemental Environmental Document, establishing the Lower San Joaquin River Flow Objectives and Revised Southern Delta Salinity Objectives. The Water Board is in the process of considering possible amendments of the Bay-Delta Plan to incorporate the Voluntary Agreement for the Tuolumne River and implement lower San Joaquin River flows and southern Delta Salinity Objectives.

The Water Board is also currently considering amendments that are focused on the Sacramento River and its tributaries, Delta eastside tributaries (including the Calaveras, Cosumnes, and Mokelumne rivers), Delta outflows and interior Delta flows. The DCC gate facility is currently operated in accordance with the Bay-Delta Plan. Construction activities associated with the Proposed Action would be timed to coincide with current gate operations and would not conflict with operations necessary to meet water quality objectives as established in the Bay-Delta Plan. Once constructed, the gates would be operated in accordance with future Bay-Delta Plan requirements, and the Proposed Action is not expected to contribute to cumulative effects.

3.11.6 Delta Plan

The Delta Plan is a comprehensive, long-term, legally enforceable plan to guide how multiple federal, State, and local agencies manage the Delta's water and environmental resources. The Delta Plan was adopted by the Delta Stewardship Council (Council) in 2013. Developed to achieve the State's coequal goals of a reliable statewide water supply and a protected, restored Delta ecosystem in a manner that preserves the values of the Delta as a place, the Delta Plan includes 14 regulatory policies and 95 recommendations. Collectively, these policies and recommendations address current and predicted challenges related to the Delta's ecology, flood management, land use, water quality, and water supply reliability. Seven amendments have been made to the Delta Plan to-date.

Although there are no State or local agency actions anticipated for implementation of the Proposed Action, the Proposed Action aligns with relevant Delta Plan Chapter 3 *(A More Reliable Water Supply for California*) and Chapter 5 (*Protect and Enhance the Unique Cultural, Recreational, Natural Resource, and Agricultural Values of the California Delta as an Evolving Place*) recommendations related to conveyance and operations, and recreation, respectively.

The Proposed Action is being implemented to improve flexibility and reliability of gate operations and is important for protecting migrating salmonids and managing water quality and water supply. Thus, the Proposed Action is not expected to contribute to cumulative effects on the Delta's ecology, flood management, land use, water quality, and water supply reliability.

4.0 Consultation and Coordination

Sections below describe the agencies and Native American tribes consulted during development of the EA.

4.1 Agencies and Persons Consulted

Reclamation consulted and coordinated with several federal and non-federal agencies, members of the public, interest groups, tribal groups, and Native American representatives prior to and during the preparation of this EA.

4.1.1 Agency Coordination

From the onset of this Proposed Action, Reclamation has engaged agencies on all aspects of Proposed Action activities. Several agencies, both federal and non-federal, were identified as having special expertise and interest with respect to the Proposed Action. To support engagement activities and communications with these agencies, Reclamation established an Interagency Coordination Team and has engaged directly with the Delta Protection Advisory Committee (DPAC), DPC, State Parks, and Council staff.

Reclamation established an Interagency Coordination Team for this Proposed Action. Interagency Coordination Team members include representatives from NMFS, U.S. Army Corps of Engineers (USACE), USFWS, CDFW, State Parks, and DWR. Since early 2021, Reclamation has held regular Interagency Coordination Team meetings to provide updates, as necessary, on milestones and challenges experienced during planning and development. Additionally, these meetings and communications facilitated the discussion of any Proposed Action-specific technical issues and served as an opportunity for agencies to provide input on progression of the Proposed Action. Interagency Coordination meetings were held on February 25, 2021, June 14, 2021, February 15, 2022, June 6, 2022, and March 27, 2023. Reclamation also met with NMFS and USFWS on June 13, 2023, to discuss initiating consultation.

The DPAC, a State agency created and appointed pursuant to Section 29753 of the Public Resources Code, includes representatives who provide recommendations to the DPC on diverse topics in the Delta. As the voice of Delta residents and businesses, DPAC members include business, agricultural, recreational, flood entity, Delta cultural preservation entity, Delta organization, State agency, non-governmental conservation/habitat restoration organization, Delta water exports entity, and utility representatives. Reclamation provided a presentation on studies related to the Proposed Action and addressed questions and concerns at DPAC meetings on September 2, 2020, March 2, 2021, September 7, 2021, and February 6, 2024.

Reclamation held meetings with DPC staff on March 21, 2022, and May 30, 2023, with State Parks staff on September 23, 2022, and November 10, 2022, and Council staff on June 22, 2023,

to discuss this Proposed Action and receive input. Additionally, representatives from DWR and State Parks participated in the Value Planning Study for this Proposed Action during July 2022 to support Reclamation in generating ideas that can improve performance, reliability, quality, safety, and reduce life cycle costs.

4.1.2 Public Involvement

Throughout planning and development for this Proposed Action, Reclamation provided opportunities for members of the public to engage with and consult using a variety of communication venues and engagement tools. Meetings, briefings, and presentations directed towards the public and accessible by the public were held both in-person and virtually, depending on local public health guidance given the COVID-19 pandemic, to provide the widest array of attendance options for interested individuals. Additional communication and engagement tools and strategies utilized creation of a specific webpage for this Proposed Action hosted on the Reclamation's Bay-Delta Office web portal; informational materials such as fact sheets and meeting flyers; a stakeholder database to group individuals; organizations, and agencies based on their type and level of participation in this Proposed Action; and translated materials to reach Spanish-language communities.

Reclamation held a virtual public workshop on March 9, 2022. Reclamation held a second public workshop on August 8, 2023, in Walnut Grove, California where the option of virtual attendance via Zoom was also provided. The purpose of the workshops was to provide background on the existing DCC gates and this Proposed Action; share the study process, options developed to date, and next steps; and answer questions and receive feedback about the Proposed Action.

In addition to members of the public, interested parties/groups that regularly meet in Walnut Grove and whose members represent a diverse array of community interests such as agriculture, business, and recreation were identified for targeted engagement during the development of the Proposed Action. These groups include the Walnut Grove Rotary Club and the Delta Citizens Municipal Advisory Council. Reclamation provided a presentation on the Proposed Action and addressed questions and concerns at a Walnut Grove Rotary Club meeting on April 4, 2022, and at Delta Citizens Municipal Advisory Council meeting on September 7, 2021. The intent of engagement with these groups was to strengthen communication and collaboration between Reclamation and community members of Walnut Grove.

4.1.3 Coordination with Tribal Governments and Native American Representatives

In compliance with Section 106 of the NHPA, Reclamation led formal consultation efforts with Tribes who have knowledge of cultural resources in the Proposed Action Area. Prior to commencement of Native American Consultation, a Sacred Lands Search Request was submitted to the Native American Heritage Commission. Although no sacred sites were identified within the Proposed Action Area, the California Native American Heritage Commission provided a list of 16 Tribes who also have knowledge of cultural resources in the Proposed Action Area.

To initiate consultation with the Tribes, formal letters were sent out via certified mail. All letters were received by the Tribes (based upon return receipts), except for the letter to the Tsi Akim Maidu, which was returned as undeliverable. Four Tribes acknowledged receipt of a letter including (alphabetically) Buena Vista Rancheria of Me-Wuk Indians, United Auburn Indian Community of the Auburn Rancheria, Wilton Rancheria, and the Yocha Dehe Wintun Nation.

Buena Vista Rancheria of Me-Wuk Indians requested a consultation through a virtual meeting to learn about this Proposed Action. Reclamation conducted the meeting on February 24, 2022, which was attended by the Tribe's Tribal Heritage Preservation Officer, representatives from Reclamation, Stantec Consulting Services Inc., Far Western Anthropological Research Group, Inc., and the consulting ethnographer supporting the Proposed Action. During the meeting, participants discussed protection of Tribal resources along with the desire for continued engagement of the Tribe throughout implementation of the Proposed Action. No other Tribe requested consultation and/or provided information about tribal concerns or interests in this Proposed Action as of this writing.

4.2 Endangered Species Act (16 U.S.C. § 1531 et seq.)

Section 7 of the ESA requires federal agencies, in consultation with the Secretary of Interior and/or Commerce, to ensure that their actions do not jeopardize the continued existence of endangered or threatened species or result in the destruction or adverse modification of the critical habitat of these species. The ESA was established to protect and recover imperiled species and the ecosystems on which they depend. The USFWS and the NMFS administer the act and are responsible for consulting with other federal agencies under Section 7 of the ESA.

Reclamation coordinated with the agencies early in the planning process providing regular updates to agency personnel who participated in interagency coordination meetings (see Section 5.1.1). Reclamation began coordination on the Proposed Action with NMFS and USFWS on June 13, 2023. Reclamation determined that no effects would occur to any species under the jurisdiction of USFWS. Reclamation provided a Biological Assessment to NMFS on September 1, 2023. The federally listed fish species that may occur in the Proposed Action Area are under the jurisdiction of NMFS and are provided in Table 4-1.

Table 4-1. Federally Listed Species that May Occur in the Action Area

Species	Federal Status[1]	DCH/EFH in Action Area
Sacramento River winter-run Chinook salmon	E	DCH, EFH
Central Valley spring-run Chinook salmon	T	DCH, EFH
California Central Valley steelhead	T	DCH
North American green sturgeon	T	DCH

Note:
1 Status= Listing of Federally special-status species.
Key:

DCH = Designated Critical Habitat
E = Endangered
EFH = Essential Fish Habitat
SC = Species of Concern
T = Threatened

Winter-run and spring-run Chinook salmon are not anticipated to be in the Proposed Action Area during the work window (Reclamation 2024). Reclamation has determined that the Proposed Action may affect, but is not likely to adversely affect, the Sacramento River winter-run Chinook salmon, Central Valley spring-run Chinook salmon, Central Valley steelhead, and the North American green sturgeon either as migrating adults or emigrating juveniles and their associated Designated Critical Habitat or Essential Fish Habitat. On October 30, 2023, NMFS issued a concurrence letter to Reclamation to concur that the Proposed Action is not likely to adversely affect the subject listed species and designated critical habitats (NMFS 2023).

4.3 National Historic Preservation Act (54 U.S.C. § 306108)

Title 54 U.S.C. § 306108, commonly known as Section 106 of the NHPA (formerly 16 U.S.C. 470 et seq.), requires federal agencies to consider the effects of their undertakings on historic properties, properties determined eligible for inclusion in the National Register, and to afford the Advisory Council on Historic Preservation an opportunity to comment. Compliance with Section 106 follows a series of steps, identified in its implementing regulations found at 36 CFR Part 800, that include identifying consulting and interested parties, identifying historic properties within the area of potential effect, and assessing effects on identified historic properties through consultations with the State Historical Preservation Officer, Indian tribes and other consulting parties.

Reclamation coordinated with the agencies early in the planning process providing regular updates to agency personnel who participated in interagency coordination meetings (see Section 5.1.1). Reclamation consulted with Advisory Council on Historic Preservation, State Office of Historic Preservation on March 21, 2024, and received concurrence on April 19, 2024 (State Parks 2024). Consultations were based on the Finding of Effect determination of No Adverse Effect. Coordination activities would be ongoing for the duration of this Proposed Action.

4.4 Clean Water Act (33 U.S.C. § 1251 et seq.)

Section 301 of the Clean Water Act (CWA) (33 U.S.C. § 1311) prohibits the discharge of any pollutants into waters of the United States, except as allowed by permit issued pursuant to various sections of the Clean Water Act.

4.4.1 Section 401

Section 401(a)(1) of the CWA (33 U.S.C. § 1341) requires any applicant for a Federal license or permit to conduct any activity, including but not limited to the construction or operation of

facilities that may result in any discharge into navigable waters, shall provide the federal licensing or permitting agency a certification from the State in which the discharge originates or will originate, or, if appropriate, from the interstate water pollution control agency having jurisdiction over the navigable water at the point where the discharge originates or will originate, that any such discharge will comply with the applicable provisions of the CWA. In California, the Environmental Protection Agency has designated Section 401 authority to the Water Board. In addition to coordinating with the USACE, Reclamation has also been coordinating with the Water Board regarding obtaining a Section 401 Water Quality Certification. Reclamation will be submitting the 401 WQC application to the Water Board following public review of this EA.

4.4.2 Section 404

Section 404 of the CWA (33 U.S.C. § 1344) authorizes the USACE to issue permits to regulate the discharge of "dredged or fill materials into waters of the United States." The USACE is responsible for the issuance of CWA Section 404 permits for projects that include the temporary or permanent discharge of dredged or fill material into federally jurisdictional wetlands or other waters of the United States (e.g., streams). Projects are permitted under either individual or general (e.g., nationwide) permits.

Reclamation has coordinated with the USACE regarding Section 404 permitting requirements and has provided regular updates on Proposed Action status. The USACE has indicated that the Proposed Action should be permitted using a non-notifying Nationwide Permit No. 3 for the improvements to the DCC gate facility and a non-notifying Nationwide Permit No. 18 for the public access ramp.

4.5 Rivers and Harbors Act of 1899 (33 U.S.C. § 403), as Amended

4.5.1 Section 10

Under Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 403), the USACE regulates work in, over, or under, excavation of material from, or deposition of material into, navigable waters. Navigable waters of the United States are defined as those waters subject to the ebb and flow of the tide shoreward to the mean high-water mark, and those that are currently used, have been used in the past, or may be susceptible to use, to transport interstate or foreign commerce.

Reclamation conducted pre-application meetings with the USACE and the Water Board on October 18, 2023, and subsequent follow up meetings with each Agency on November 7, 2023, and November 9, 2023, respectively. Reclamation conducted an additional coordination meeting with the USACE and Water Board on January 27, 2025. These meetings were held to discuss requirements of the permitting requirements for the Proposed Action to ensure compliance with Sections 404, 401 and 10, as applicable. Reclamation will be obtaining authorizations from the USACE and Water Board under the Clean Water Act prior to construction commencing. Coordination activities will be ongoing for the duration of Proposed Action.

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Appendix A - Biological Resources Technical Memorandum