Print Form

Notice of Determination

Appendix D

To:

☒ Office of Planning and Research

U.S. Mail: P.O. Box 3044, Sacramento, CA 95812-3044

Street Address: 1400 Tenth St., Rm 113, Sacramento, CA 95814

☐ County Clerk
County of: ______
Address: ______

From:

Public Agency: Department of Fish and Wildlife
Address: 2825 Cordelia Road, Suite 100
Fairfield, CA 94534
Contact: Erin Chappell
Phone: (707) 428-2002

Lead Agency (if different from above):
Same as above
Address: ______
Contact: ______
Phone: ______

SUBJECT: Filing of Notice of Determination in compliance with Section 21108 or 21152 of the Public Resources Code.

State Clearinghouse Number (if submitted to State Clearinghouse): 2003 12039

Project Title: Montezuma Slough Fish Screen Replacement Project Addendum to the Suisun Marsh Plar

Project Applicant: California Department of Fish and Wildlife

Project Location (include county): Grizzly Island Wildlife Area, Solano County

Project Description:

The proposed project would be implemented under the Suisun Marsh Habitat Management, Preservation, and Restoration Plan and would comply with the Environmental Commitments and Mitigation Measures established in the SMP Environmental Impact Statement/ Environmental Impact Report (EIS/EIR).The project proposes to improve water control infrastructure in the southeastern portion of the GIWA. The project would replace and relocate existing deteriorated water intake and fish

This is to advise that the California Department of Fish and Wildlife has approved the above (☒ Lead Agency or ☐ Responsible Agency)

described project on 5/10/2023 (date) and has made the following determinations regarding the above described project.

1. The project [☐ will ☒ will not] have a significant effect on the environment.
2. ☒ An Environmental Impact Report was prepared for this project pursuant to the provisions of CEQA.
   ☐ A Negative Declaration was prepared for this project pursuant to the provisions of CEQA.
3. Mitigation measures [☒ were ☐ were not] made a condition of the approval of the project.
4. A mitigation reporting or monitoring plan [☒ was ☐ was not] adopted for this project.
5. A statement of Overriding Considerations [☒ was ☐ was not] adopted for this project.
6. Findings [☒ were ☐ were not] made pursuant to the provisions of CEQA.

This is to certify that the final EIR with comments and responses and record of project approval, or the negative Declaration, is available to the General Public at:

The Suisun Marsh EIS/EIR is available for review at: https://suisunrcd.org/permits/.

Signature (Public Agency): Erin Chappell B77E9A8211EF498 Title: Regional Manager

Date: 5/10/2023 Date Received for filing at OPR: ______

Authority cited: Sections 21083, Public Resources Code.
Reference Section 21000-21174, Public Resources Code.

Revised 2011

Addendum to the Suisun Marsh Habitat Management, Preservation, and Restoration Plan Final Environmental Impact Statement / Environmental Impact Report

Montezuma Slough Fish Screen Replacement Project

Prepared by:

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With Assistance From

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March 2023

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1.0 BACKGROUND

The Grizzly Island Wildlife Area (GIWA) is located within Suisun Marsh, the largest contiguous estuarine marsh in the entire United States. California Department of Fish and Wildlife (CDFW) staff manage extensive water control infrastructure within GIWA to maintain more than 12,000 acres of diked managed wetlands that provide high nutrient wetland food crops and resting ponds for state and federally listed fish and wildlife species, resident mammals, shorebirds, waterbirds, and migratory waterfowl populations. The Suisun Marsh Habitat Management, Preservation, and Restoration Plan (SMP) was prepared in 2011 to guide restoration and managed wetland activities in the Suisun Marsh (U.S. Bureau of Reclamation et al. 2011). An Environmental Impact Statement/Environmental Impact Report (EIS/EIR) was prepared for the SMP and certified on December 22, 2011 (State Clearinghouse No. 2003112039).

The Montezuma Slough Fish Screen Replacement Project (Project) proposes to implement managed wetland maintenance activities identified in the SMP to improve water control infrastructure in the southeastern portion of GIWA. The Project activities are generally consistent with the EIS/EIR. However, replacement of water intake pipes and associated fish screens would likely require the temporary use of sheet pile cofferdams exterior to the levee in Montezuma Slough. The EIS/EIR did not explicitly analyze the temporary use of cofferdams in tidal sloughs (i.e., Montezuma Slough). This Addendum has been prepared to evaluate the potential effects of the proposed Project and verify modifications to the activities evaluated in the EIS/EIR would not require subsequent environmental review pursuant to Section 15162 of the CEQA Guidelines.

1.1 CEQA Process

The CEQA Guidelines (Section 15162 and 15164) indicate that an Addendum to a previously certified EIR may be prepared if only minor technical changes or additions to the environmental evaluation of a project are necessary, provided none of the following conditions requiring the preparation of a Subsequent EIR occur:

1. Substantial changes are proposed in the project which require major revisions of the previous EIR due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects;

2. Substantial changes occur with respect to the circumstances under which the project is undertaken which require major revisions to the previous EIR due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects;

3. New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete, shows any of the following:

    a. The project will have one or more significant effects not discussed in previous EIR;

    b. Significant effects previously examined will be substantially more severe than shown in the previous EIR.

c. Mitigation measures or alternatives previously found not to be feasible would in fact be feasible, and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or

d. Mitigation measures or alternatives that are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.

This Addendum documents that the proposed changes associated with the Project do not trigger any of the conditions described above. In accordance with CEQA Guidelines Section 15164, an Addendum need not be circulated for public review but requires consideration by the decision-making body along with the final EIR prior to implementing the Project.

2.0 PROJECT DESCRIPTION

The purpose of the Project is to meet the water delivery and operational needs of GIWA, enhance interior water conveyance with installation of additional water control structures, and protect native resident and anadromous fish populations located in Montezuma Slough. The water supply for nearly half of GIWA is currently provided through two existing 48-inch intake pipes and failing fish screen facilities located on the eastern boundary of GIWA approximately 3.2 miles upstream from the confluence of Montezuma Slough and the Sacramento River. These two intakes divert water via gravity and tidal fluctuation from the tidally influenced Montezuma Slough through the exterior levee from failing corrugated metal pipes. The existing intakes and fish screens are beyond repair for service and maintenance and must be replaced entirely.

The Project would replace the existing deteriorated and outdated intake pipes and fish screen facilities with modern technology and corrosive resistant design and would relocate the water intake pipes and fish screen facilities to increase water delivery reliability. In its current location the water intakes would convey water into a deteriorating interior ditch that is subject to berm failure. If the berms adjacent to the delivery ditch are further damaged, water delivery to much of GIWA could be temporarily compromised until the berms are repaired. The new intake location would bypass the interior ditch and deliver water directly into Grizzly Island Ditch. Grizzly Island Ditch is the main water conveyance through GIWA and provides improved access for CDFW maintenance staff, thus improving the overall reliability of water delivery on GIWA.

2.1 Project Location

The Project is located on Grizzly Island, at the southeast end of Grizzly Island Road within GIWA (Figure 1). The 82-acre Project Area encompasses an existing permanent pond, abutting levee roads, and is bound by Montezuma Slough to the east and Grizzly Island Ditch to the south (Figure 2). The latitude and longitude of the approximate center of the Project Area are 38°05'52.69" North and 121°53'56.07" West. The Project Area is within Assessor Parcel Numbers 004-623-0040 and 004-623-0030 in Solano County, California.

Figure 1. Project Vicinity

Montezuma Slough Fish Screen Replacement Project

Applicant: California Department of Fish and Wildlife

Address: 2548 Grizzly Island Road Suisun, CA 94585

Section/Township/Range: S17, 18, 19, 20; T3N; R1E

Prepared by: Ducks Unlimited, Inc

Date Prepared: March 2023

Figure 2. Project Area

Montezuma Slough Fish Screen Replacement Project

Applicant: California Department of Fish and Wildlife

Address: 2548 Grizzly Island Road Suisun, CA 94585

Section/Township/Range: S17, 18, 19, 20; T3N; R1E

Prepared by: Ducks Unlimited, Inc

Date Prepared: March 2023

2.2 Project Components

The Project consists of replacement and relocation of existing deteriorated water intake and fish screen facilities, as well as installation of new drainpipes, various interior water control infrastructure improvements, installation of riprap, and interior berm improvements. Replacement of the water intake and fish screen facilities would require the temporary use of sheet pile cofferdams exterior to the levee in Montezuma Slough which was not previously explicitly evaluated in the EIS/EIR. The following sections describe each Project component and proposed construction methods.

2.2.1 Water Intake and Fish Screen Relocation and Replacement

Replacement water intakes and associated fish screens would be constructed approximately 1,500 feet to the southeast of the existing water intake structures. The new intake pipes would be installed through the existing exterior levee that separates a permanent pond and Grizzly Island Ditch from Montezuma Slough. A sheet pile cofferdam in combination with an earthen cofferdam could be used during construction to dewater the work area, if necessary (see In-Channel Work below). The two new high-density polyethylene (HDPE) pipes would be 42-inches in diameter, slightly smaller than the 48-inch diameter of the existing intake pipes, and would divert water from Montezuma Slough directly into Grizzly Island Ditch. New fish screens would be installed on the Montezuma Slough end of both relocated intake pipes to prevent fish from being entrained into GIWA. The fish screens would be designed by Intake Screens, Inc. to meet relevant state and federal fish screening standards. Canal gates would be installed on the ditch end to control water levels. A fence would be constructed around the intake and fish screens to keep the public from entering the facility.

In association with the water intake and fish screen replacement, Grizzly Island Ditch would be cleaned and excavated to construct a ponding basin and riprap would be placed within the ditch to reduce erosion. These activities are further described under Interior Ditch Cleaning and Riprap Placement below. Excavated material generated during construction of the proposed ponding basin would be temporarily used as soil for interior earthen cofferdams (see In-Channel Work below) and afterward to recontour the existing exterior levee along Montezuma Slough as well as an upland interior berm within GIWA (see below, Existing Berm Improvement). Less than 0.01 acre or approximately 100 square feet of the existing permanent pond (i.e., managed wetland) would be temporarily disturbed during recontouring activities to cover the new pipeline alignment through the exterior levee. This recontoured area would not result in a permanent conversion of wetland. No other wetland impacts would occur as a result of the fish screen installation.

2.2.2 Interior Ditch Cleaning and Riprap Placement

To reduce erosion at the new discharge location, a ponding basin with a final elevation of -6 feet North American Vertical Datum 1988 (NAVD 88) would be excavated and up to 200 linear feet of riprap would be placed within Grizzly Island Ditch. Interior ditch cleaning and riprap placement is consistent with managed wetland maintenance activities identified in the SMP and evaluated in the EIS/EIR.

2.2.3 Drainpipe Installation

Once the replacement intake is installed at the new location, the existing water intakes and associated fish screens would be removed and disposed of off-site. Two new 36-inch HDPE drainpipes would be installed at the location where the previous screened intake pipes were removed. The drainpipes would include canal gates on the inland pond side (northwest) and flap gates on the Montezuma Slough side (southeast) to only allow water to drain from the interior ditch into Montezuma Slough and prevent water from being diverted from Montezuma Slough into the site (i.e., water would only be discharged from the pond/ditch channel to Montezuma Slough). A sheet pile cofferdam in combination with an earthen cofferdam could be used to dewater the work area, if necessary (see In-Channel Work below). With the exception of the exterior sheet pile cofferdam, drainpipe installation is consistent with managed wetland maintenance activities identified in the SMP and evaluated in the EIS/EIR.

2.2.4 New and Replacement Interior Water Control Structures

Three water control structures would be installed or replaced in interior berms to improve water conveyance within GIWA. A new 24-inch HDPE culvert would be installed under the existing berm separating the permanent pond from Dutton's Pond, north of the Project Area. This culvert would include a canal gate on the southwestern permanent pond side and a flap gate on the northeast end to allow water to only flow north into Dutton's Pond.

In addition, two existing 48-inch culverts located under Grizzly Island Road, connecting Grizzly Island Ditch to the permanent water pond, would be removed and replaced with two new 36-inch HDPE culverts with canal gates on the permanent pond side (north). Canal gates would be used to control water levels in the permanent water pond. This activity is consistent with managed wetland maintenance activities identified in the SMP and evaluated in the EIS/EIR.

2.2.5 Existing Berm Improvement

Excavated material generated from construction of the ponding basin within Grizzly Island Ditch that is not used to recontour the existing exterior levee along Montezuma Slough would be used to improve upland berms within the interior of GIWA. Compacted fill would be added to a berm within the interior of GIWA to increase the crown elevation by 0 to 1 foot at side slopes ranging from approximately 2:1 to 5:1. The improvements could be placed along the berm west of the ditch adjacent to the permanent pond or another location depending on GIWA needs at the time of construction. This activity is consistent with managed wetland maintenance activities identified in the SMP and evaluated in the EIS/EIR.

2.3 Construction Methods

Project construction would utilize fill materials derived on site, resulting in a cut/fill balance. Approximately 1,000 cubic yards of material would be relocated during construction of the Project.

2.3.1 In-Channel Work

Replacement of the water intakes and fish screen facilities may require the temporary installation of sheet pile cofferdams in Montezuma Slough. Approximately 300 linear feet of sheet pile cofferdam may be installed at the new intake and fish screen location within Montezuma Slough. An additional approximately 300 linear feet of sheet pile cofferdam may also be required at the existing water intake and fish screen facility location to facilitate removal. Dependent on timing and tidal elevations, the exterior sheet pile cofferdam may be omitted at the existing intake site.

In-channel construction activities, including installation of sheet piles, would occur at low tide to avoid potential release of turbid water into Montezuma Slough. If needed, both sheet pile cofferdams would be imported to the Project Area via haul truck or barge. Sheet piles would likely be pushed into place with an excavator and/or crane. If site conditions require, and if authorized by the U.S. Fish and Wildlife Service (USFWS) and National Marine Fisheries Service (NMFS), a vibratory hammer may be used. A qualified biologist would install a fish seine and monitor installation of the final sheet pile to avoid entrapment of fish in the cofferdam.

Sheet piles would arc against the bank of the exterior levee to isolate the work area from adjacent tidal waters. Approximately 4,500 square feet of surface area would be dewatered at both the existing and proposed water intake locations (see Table 1). Any residual water within the isolated work areas (i.e., between the existing levee and the cofferdam) would be pumped from the work area as needed. Any water pumped out of the work areas would be discharged within an interior wetland unit where any potential sediment could settle out prior to draining to tidal waters. Sheet pile cofferdams would be removed once removal and installment of the water intake and fish screen facilities is complete.

In addition, temporary earthen cofferdams may be placed within interior ditches to facilitate replacement of the water intakes and fish screen facilities. A 120-foot temporary earthen cofferdam would be installed west of the existing intake site (i.e., within an interior ditch), consistent with the SMP. The total surface area that would be dewatered within the interior ditch would be approximately 11,000 square feet (see Table 1). If needed, a temporary earthen cofferdam could be constructed along Grizzly Island Ditch, east of the new intake. The earthen cofferdam would be up to 100 linear feet and dewater a portion of Grizzly Island Ditch within the interior of GIWA. The total maximum surface area that could be dewatered within Grizzly Island Ditch would be 30,000 square feet. Any residual water would be pumped from the work area and discharged within interior wetland units as described above. The earthen cofferdam would be removed after construction is complete.

Table 1. Dewatered Work Areas

Work Area	Montezuma Slough (Square Feet)	Interior Ditch (Square Feet)
Northern Work Area[1]	4,500	11,000
Southern Work Area[2]	4,500	30,000
Total	**9,000**	**41,000**

[1]The northern work area includes the dewatered work area required to remove the existing intake and fish screen and install the proposed drainpipe.

[2]The southern work area includes the dewatered work area required to install the proposed replacement intake and fish screen.

Source: Ducks Unlimited 2023.

2.4 Construction Sequence

The following summarizes the anticipated general sequence of construction. Outside of measures to establish the boundary of work areas and to install necessary best management practices (BMPs), these steps are not intended to be comprehensive or prescriptive. The construction contractor may elect to install components in a different order based on site conditions, available equipment and operators, and Project schedule. Details on construction methods are provided in the following sections.

1. Establish work area boundaries and install BMPs.
2. Mobilize equipment and prepare access and staging areas.
3. Clear/grub work areas.
4. Install exterior sheet pile cofferdam around the new water intake and fish screen relocation area to isolate the work area from Montezuma Slough.
5. Install the new water intake and fish screen facilities within the dewatered portion of Montezuma Slough and Grizzly Island Ditch.
6. If needed, install earthen cofferdam within Grizzly Island Ditch.
7. Construct ponding basin, place riprap, and improve the exterior levee at the new water intake location.
8. Remove exterior sheet pile cofferdam and interior earthen cofferdam once new water intake is installed.
9. Install a temporary interior earthen cofferdam west of the existing water intake structure to dewater the work area.
10. If needed, install exterior sheet pile cofferdam around the existing water intake and fish screen work area.
11. Remove existing water intakes and fish screens. Replace with drainpipes.
12. Install new water control structures along interior berms.
13. Remove the interior earthen cofferdam and exterior sheet pile cofferdams. Return interior ditch to pre-construction conditions.
14. Place excess excavated material along interior GIWA berm.
15. Restore temporarily disturbed areas to pre-Project conditions.
16. Finalize work and demobilize.

Some of the construction activities could take place concurrently or in tandem, with multiple crews to achieve Project goals. Pending receipt of required permits, construction may begin as early as the summer of 2023 and would take approximately one construction season to complete. In-channel construction activities within Montezuma Slough would occur during the in-channel work window of September 1 through November 30.

2.5 Construction Access

The Project Area would be accessed via Grizzly Island Road. All standard construction equipment would be walked or driven via haul truck down Grizzly Island Road and offloaded. A barge could potentially be utilized within Montezuma Slough during the installation of the sheet pile cofferdam. Sheet piles could be offloaded and installed via a crane and/or long reach excavator staged along the exterior levee top road.

2.6 Construction Staging

Equipment would be staged on existing road/levee tops. Given the nature of the site, staging would need to occur within 100 feet of wetlands. Applicable conservation measures and permit conditions listed in the SMP Regional General Permits and associated USFWS and NMFS Biological Opinions would be implemented (see Section 2.8, Permits, Approvals, and Regulatory Requirements).

2.7 Construction Equipment

Project activities would be implemented using heavy construction equipment such as excavators, front loaders, bulldozer, compactors, cranes, haul trucks, and other similar equipment.

1. Excavators to remove and place soil for the proposed water control structures.
2. Bulldozers to move and shape excavated material within the Project Area.
3. Front loaders to move equipment and materials within the Project Area.
4. Haul trucks to transport material within the Project Area.
5. Cranes for the placement and installation of the sheet piles for the cofferdam within Montezuma Slough.
6. Vibratory hammer, if needed, for the installation and removal of sheet piles.
7. Work trucks to transport workers to, from, and within the Project Area.
8. Hand tools to clear vegetation as needed and to compact fill in place.

2.8 Permits, Approvals, and Regulatory Requirements

The following permits and authorizations have been issued for wetland management activities identified in the SMP. The Project would implement all appropriate conservation measures and permit conditions listed in these authorizations.

- US Army Corps of Engineers (USACE), Regional General Permit 3 (SPN-2012-00258), dated January 27, 2023.
- San Francisco Bay Regional Water Quality Control Board, Water Quality Certification for the Reissuance of Regional General Permit 3 (CIWQS Reg. Meas. 413754), dated December 22, 2022;
- USFWS Programmatic Biological Opinion (08FBDT00-2016-F-0153 & 08ESMF00-2012-F-0062), dated June 10, 2013, and subsequent amendment dated June 13, 2016; and
- NMFS Biological Opinion (2012-02390), dated July 3, 2013.

3.0 ANALYSIS OF POTENTIAL ENVIRONMENTAL EFFECTS

The 2011 EIS/EIR evaluated the potential effects of the Project on the following environmental topics:

- Water Supply, Hydrology, and Delta Water Management
- Water Quality
- Geology and Groundwater
- Flood Control and Levee Stability
- Sediment Transport
- Transportation and Navigation
- Air Quality
- Noise
- Climate Change
- Fish
- Vegetation and Wetlands
- Wildlife
- Land and Water Use
- Social and Economic Conditions

- Utilities and Public Services
- Recreation Resources
- Power Production and Energy
- Visual/Aesthetic Resources
- Cultural Resources
- Public Health and Environmental Hazards
- Environmental Justice
- Indian Trust Assets

Since certification of the EIS/EIR, the CEQA Guidelines have been updated to include evaluation of impacts to the following resources: energy, tribal cultural resources, and wildfire. The format of this analysis is structured consistent with the most recent CEQA Initial Study Checklist provided in Appendix G of the CEQA Guidelines.

3.1 Aesthetics

The proposed Project would result in temporary construction-related impacts consistent with those discussed in Section 7.6 of the EIS/EIR. The use of sheet pile cofferdams in Montezuma Slough would be temporary in nature and could require the use of long-reach excavators, an in-channel barge, and other construction equipment consistent with those described in the EIS/EIR. Once installation of the water control structures and new fish screens is complete, most infrastructure components would be submerged or below ground. Above ground infrastructure would be similar in appearance and scale to existing water control infrastructure located in GIWA and would not alter the existing visual character of the marsh. The proposed Project would not affect resources along a Scenic Highway and would not conflict with policies or goals related to visual resources. The proposed Project would not create a new source of light and glare that affects views in the area beyond the negligible increase in glare from the placement of riprap already evaluated within the EIS/EIR. In addition, the proposed Project would incorporate the environmental commitments for visual/aesthetic resources identified in Chapter 2 of the EIS/EIR. The proposed Project would not result in any new or substantially more severe or significant effects to aesthetics beyond those previously evaluated in the EIS/EIR.

3.2 Agriculture and Forestry Resources

As described in Section 7.1 and shown in Figures 7.1-1 and 7.1-2 of the EIS/EIR, the Project Area is designated as marsh and is not classified as farmland or grazing land. The proposed Project would not affect any agriculture and/or forestry resources.

3.3 Air Quality

The Project Area is within the San Francisco Bay Area Air Basin (SFBAAB) under the jurisdiction of the Bay Area Air Quality Management District (BAAQMD). The SFBAAB is a nonattainment area for state and national ozone standards and national particulate matter ambient air quality standards (BAAQMD 2017). Section 5.7 of the EIS/EIR evaluates air quality impacts associated with restoration and wetland management activities per the draft BAAQMD standards issued in 2009. In 2017, BAAQMD adopted CEQA Guidelines including construction thresholds consistent with those used to evaluate impacts in the EIS/EIR. As shown in Table 5.8-14 of the EIS/EIR, combined restoration and wetland management activities would exceed the current BAAQMD construction emissions threshold for oxides of nitrogen of 54 lb/day (U.S. Bureau of Reclamation et al. 2011; BAAQMD 2017). The proposed Project would require similar use of heavy construction equipment evaluated in the EIS/EIR and could potentially result in construction emissions in excess of BAAQMD thresholds for oxides of nitrogen if other restoration and wetland management activities occur concurrently. Therefore, the Project would implement EIS/EIR Mitigation Measures AQ-MM-1 through AQ-MM-4 limiting construction activity, reducing construction emissions, implementing all BAAQMD mitigation measures, and limiting restoration and management activity. Implementing the proposed Project would not impede attainment or maintenance of BAAQMD air quality standards and would not conflict with or obstruct implementation of the applicable air quality plan. It also would not result in a cumulatively considerable net increase of any air pollutant. With implementation of Mitigation Measures AQ-MM-1 through AQ-MM-4 from the final EIS/EIR, the proposed Project would not result in any new or substantially more severe or significant effects to air quality beyond those previously evaluated in the EIS/EIR.

3.4 Biological Resources

As described in Chapter 6 of the EIS/EIR, construction of the proposed Project would temporarily disturb natural habitats within Montezuma Slough and adjacent managed wetlands and could affect special-status species and/or their habitats if they occur in the vicinity of Project work. Specifically, disturbance to species and/or their habitats could occur in the portion of Montezuma Slough where sheet piles would be installed and where dewatering would occur, and in the adjacent portion of the slough if a barge is used for sheet pile installation. A Biological Opinion addressing the effects of the SMP on USFWS-managed species and habitat was previously issued by the USFWS in June 2013. In June 2016, the USFWS amended the Biological Opinion to address potential effects on species from the temporary use of cofferdams in tidal sloughs. Additionally, a Biological Opinion addressing the effects of the SMP on habitats and fish under NMFS jurisdiction was issued in July 2013. All appropriate conservation measures, including biological monitoring and the installation of a fish seine, would be implemented under the Project. The following provides an additional assessment of the potential impacts of the Project on fish, vegetation, and wildlife.

3.4.1 Potential Impacts to Migratory and Resident Fish

The proposed Project could affect migratory and resident fish in Montezuma Slough, including Central Valley spring-run Chinook salmon (*Oncorhynchus tshawytscha*), Sacramento River winter-run Chinook salmon (*O. tshawytscha*), Central California coast steelhead (*O. mykiss*), Central Valley steelhead (*O. mykiss*), North American Green Sturgeon, southern Distinct Population Segment (DPS) (*Acipenser medirostris*), Delta smelt (*Hypomesus transpacificus*), and longfin smelt (*Spirinchus thaleichthys*). Designated critical habitat for delta smelt is also located in the Project Area, as is Essential Fish Habitat for species associated with the Pacific Coast Salmon Fisheries Management Plan (FMP), the Pacific Coast Groundfish FMP, and the Coastal Pelagic Species FMP.

Removal of vegetation during replacement of water intakes and associated fish screens could adversely impact the quality of fish habitat in the vicinity. However, as described in Section 6.1 of the EIS/EIR, removal of vegetation would be avoided as feasible, impacts would be temporary, and adjacent areas would continue to provide habitat.

Installation and removal of the sheet pile cofferdam could require the use of vibratory. If utilized, the use of vibratory hammers would be limited in duration and timed to occur during the in-channel work window (i.e., September 1 through November 30) when special status fish are generally absent from Montezuma Slough, as described in Section 6.1 of the EIS/EIR. In-channel work (i.e., installation of sheet piles) would be conducted at low tide to further avoid the potential release of turbid water into Montezuma Slough and impacts to fish. Studies show vibratory hammers produce less peak sound pressure than impact hammers and result in reduced adverse effects to fish (Caltrans 2020). A hydroacoustic study conducted by the California Department of Water Resources (DWR) in 2011 found that vibratory hammers resulted in daily average peak sound levels in the range of 162–178 decibels (dB) and accumulated sound exposure level (SEL) (i.e., cumulative strikes over 1 full day) values of 159–184 dB measured at a distance of 33 feet from the source. These measured levels are well below injury thresholds for fish. It is anticipated that installing sheet piles using vibratory pile driving, if utilized by the Project, would result in underwater sound levels similar to those measured during the study. For this reason, it is expected that instantaneous peak sound pressures (which ranged from 155 dB to 192.4 dB in 2011) would be well below the interim threshold criterion of 206 dB identified by the Fisheries Hydroacoustic Working Group that included NMFS, USFWS, USACE, CDFW, the Federal Highway Administration, and transportation departments from the states of California, Oregon, and Washington (FHWG 2008). Further, it is expected that accumulated SEL pressures (which ranged from 159 dB to 184 dB in 2011) would be below the accumulated SEL criterion of 187 dB for fish weighing 2 grams or more and only slightly above the accumulated SEL criteria of 183 dB for fish weighing less than 2 grams. For this criterion, the distance from the pile-driving sound source where potential injury to small fish could occur would be small (much less than 33 feet) (as cited in DWR 2014). In addition, the use of vibratory would be limited to no more than seven days for installation and no more than seven additional days for removal. Pile driving activities would only occur during the day, allowing for overnight rest periods when fish movements are more common. In addition, all conservation measures included in the 2016 USFWS amendment to the Biological Opinion addressing cofferdam installations and removals would be implemented, including biological monitoring and installation of a fish seine to avoid entrainment of or adverse effects on special-status fish. Once installed, a sheet pile cofferdam would protect fish from entering work areas and being inadvertently injured or killed. Construction activities, including sheet pile cofferdams, would not obstruct migration pathways or affect migrating fish.

The new fish screen would replace the existing deteriorated fish screen with modern technology and corrosive resistant design that meets the USFWS delta smelt approach velocities of 0.2 feet per second (fps), which is well below the required approach velocities for salmonids. This improved design would also reduce the risk of fish entrainment into managed wetland, providing long-term benefits to fish in Montezuma Slough.

As such, the proposed Project would not result in new or substantially more severe or significant effects to migratory and/or resident fish species beyond those previously evaluated in the EIS/EIR.

3.4.2 *Potential Impacts to Vegetation*

As described in Section 6.2 and shown in Figure 6.2-1 of the EIS/EIR, the Project Area consists of tidal slough and managed wetland habitat. Special-status plants, including soft bird's beak (*Cordylanthus mollis* ssp. *mollis*) and Suisun thistle (*Cirsium hydrophilum*) could potentially be affected by Project construction activities. However, all appropriate conservation measures identified in the Biological Opinion issued by USFWS, including plant surveys, would be implemented to minimize effects. Replacement of water intakes and associated fish screen facilities may also impact wetland habitats. However, as described in Section 2.0, Project Description, construction activities would be completed during the dry season, fill placed within wetlands would be minimal, and temporarily disturbed areas would reestablish following completion of construction activities. Additionally, riprap would be placed within Grizzly Island Ditch but would not result in a loss of waters of the U.S. The proposed Project would not result in new or substantially more severe or significant effects to vegetation beyond those previously evaluated in the EIS/EIR.

3.4.3 Potential Impacts to Wildlife

The following special-status wildlife species have the potential to occur in the Project Area: salt marsh harvest mouse (*Reithrodontomys raviventris*), California black rail (*Laterallus jamaicensis coturniculus*), California clapper rail (*Rallus longirostris obsoletus*), California least tern (*Sternula antillarum browni*), Swainson's hawk (*Buteo swainsoni*), tricolored blackbird (*Agelaius tricolor*), and white-tailed kite (*Elanus leucurus*).

Salt marsh harvest mouse favor salt marshes with dense plant cover of pickle-weed and fat hen. No suitable habitat is present in the Project Area and the Project is not anticipated to adversely affect salt marsh harvest mouse. No nesting habitat for California black rail, California clapper rail, and California least tern is present within the Project Area. Large trees in the southeastern portion of the Project Area provide some suitable nesting habitat for Swainson's hawk, tricolored blackbird, and white-tailed kite. In addition, only marginal foraging habitat is present in the Project Area. Consistent with environmental commitments identified in the EIS/EIR, construction would occur outside of periods of species sensitivity (e.g., nesting periods), thereby avoiding breeding season impacts. The proposed Project would not result in new or substantially more severe or significant effects to wildlife beyond those previously evaluated in the EIS/EIR.

3.5 Cultural Resources

The Project Area is within the area previously evaluated for cultural resources described in Section 7.7 of the EIS/EIR. Fifteen previously recorded cultural resources are located in managed wetland areas in the SMP area. However, no resources have previously been recorded within the Project Area. Pursuant to Mitigation Measure CUL-MM-7 and CUL-MM-8 of the EIS/EIR, National Historic Preservation Act Section 106 Consultation with the State Historic Preservation Office has been completed. The Project would implement Mitigation Measure CUL-MM-6 and environmental commitments requiring the contractor to stop work if previously unknown historic or archeological artifacts are discovered during construction activities. The proposed Project would not result in any new or substantially more severe or significant effects to cultural resources beyond those previously evaluated in the EIS/EIR.

3.6 Energy

Construction activities associated with the Project modifications would have similar energy needs as those evaluated in Section 7.5 of the EIS/EIR. Once operational, electrical power would be required to operate the fish screen. However, upgraded fish screen facilities included in the proposed Project would replace existing fish screen facilities. The upgraded facility would not require substantially more energy than under existing conditions. The proposed Project would not require a significant amount of energy or use of energy in a way that is wasteful, inefficient, or unnecessary. The Project modifications would also not conflict with existing state or local plans for the use of renewable energy.

3.7 Geology and Soils

As described in Section 5.3 of the EIS/EIR, the proposed Project would include excavation and fill placement that could result in unstable cut or fill slopes. However, fill material would be compacted and placed along levees at slopes resistant to erosion. In addition, disturbance of emergent vegetation would be limited, and riprap would be placed within Grizzly Island Ditch at the new discharge location to limit erosion. The Project Area is flat and has high liquefaction potential (see Figures 5.3-1 and 5.3-2 of the EIS/EIR). The active Concord and Green Valley Fault zones are located approximately 11 miles west of the Project Area. However, the Project does not propose any new structures beyond water control infrastructure previously considered in the EIS/EIR. Implementation of the Project would not affect the risk to life or property from rupture of a known earthquake fault, strong seismic ground shaking, seismically related ground failure, or landslides. No known paleontological resources or sites occur in the Project Area. The proposed Project would not result in new or substantially more severe or significant effects related to geology and soils beyond those previously evaluated in the EIS/EIR.

3.8 Greenhouse Gas Emissions

As described in Sections 5.7 and 5.9 of the EIS/EIR, greenhouse gas emissions from wetland management construction activities would generate approximately 322.5 tons of carbon dioxide (CO_2) per year. In addition, management activities would result in CO_2 emissions beyond the 30-year SMP construction period in the amount of 292.6 tons of CO_2 per year. Construction activities from the proposed Project would not result in substantially more greenhouse gas emissions than previously evaluated. In addition, the proposed Project would not conflict with an applicable greenhouse gas reduction plan, policy, or regulation. The proposed Project would not result in new or substantially more severe or significant effects related to greenhouse gas emissions beyond those previously evaluated in the EIS/EIR.

3.9 Hazards and Hazardous Materials

Construction of the Project would involve small quantities of hazardous materials, such as fuels and lubricants for construction equipment, consistent with those described in the EIS/EIR. The Project would implement BMPs for spill prevention and control and the storage and handling of hazardous materials to minimize the potential for impacts, consistent with environmental commitments identified in the EIS/EIR. No effects related to hazards and hazardous materials would occur near a school or airport. The proposed Project would not result in new or substantially more severe or significant effects related to hazards or hazardous materials beyond those previously evaluated in the EIS/EIR.

3.10 Hydrology and Water Quality

As described in Section 5.2 of the EIS/EIR, managed wetland activities could result in temporary and localized impacts to water quality. The installation and removal of sheet pile cofferdams would each be limited to seven days to reduce temporary increases in water turbidity in Montezuma Slough. Any water pumped out of the work area would be discharged to an interior wetland unit where any potential sediment could settle out prior to draining to tidal waters.

Consistent with the evaluation in Section 5.1 and Section 5.4 of the EIS/EIR, the proposed Project would improve managed wetland water supply by improving the ability to flood and drain wetlands through upgraded water control infrastructure. The proposed relocation of water intakes and fish screen facilities approximately 1,500 feet to the southeast of the existing location would allow water to be directly diverted into Grizzly Island Ditch, thereby improving water delivery to GIWA. Levee improvements and riprap placement implemented by the Project would increase levee stability, minimize erosion, and improve stormwater runoff. The proposed Project would not result in new or substantially more severe or significant effects related to hydrology and water quality beyond those previously evaluated in the EIS/EIR.

3.11 Land Use and Planning

The Project Area is designated as Marsh in the Solano County General Plan (Solano County 2008). As described in Section 7.1 of the EIS/EIR, the Project would be consistent with that current land use designation. The Project is consistent with the land use policies and goals of the Solano County General Plan, Suisun Marsh Protection Plan, and the Suisun Marsh Protection Act of 1977. The proposed Project would not result in new or substantially more severe or significant effects related to land use and planning beyond those previously evaluated in the EIS/EIR.

3.12 Mineral Resources

As described in Section 5.3 of the EIS/EIR, no mineral resources have been identified within the Project Area. The proposed Project would not result in new or substantially more severe or significant effects to mineral resources beyond those previously evaluated in the EIS/EIR.

3.13 Noise

Impacts related to noise and ground vibration are evaluated in Section 5.8 of the EIS/EIR. The Project would borrow soils from onsite locations and truck traffic would be limited to riprap imports and the mobilization of construction equipment. The use of cranes, excavators, diesel-powered barges, bulldozers, and other heavy construction equipment would result in temporary increases in ambient noise levels, consistent with those previously evaluated. As shown in Table 5.8-5 of the EIS/EIR construction operations could result in noise that exceeds 75 A-weighted decibels (dBA) within about 200 feet of construction operations. No sensitive receptors are located within 200 feet of the Project Area.

Noise generated by vibratory hammers was not explicitly evaluated in the EIS/EIR. If utilized, vibratory hammers would be used no more than seven days during installation of the sheet pile cofferdams and no more than seven days during removal of the sheet pile cofferdams. Noise and ground vibration impacts generated by vibratory hammers would be temporary and localized and would not impact sensitive receptors. The proposed Project would not result in new or substantially more severe or significant effects related to noise beyond those previously evaluated in the EIS/EIR.

3.14 Population and Housing

The Project modifications are specific to water control infrastructure for managed wetland units in GIWA. The Project would only temporarily require a minimal number of construction workers and would not substantially increase employment or induce population growth. No existing people or housing would be displaced. The proposed Project would not result in new or substantially more severe or significant effects related to population and housing beyond those previously evaluated in the EIS/EIR.

3.15 Public Services

Roadway closures, increased traffic from construction worker vehicle trips, and any in-channel work would be temporary during construction and would not substantially restrict emergency access or increase emergency service response times. The proposed Project would not increase the need for public services and would not result in new or substantially more severe or significant effects related to public services beyond those previously evaluated in the EIS/EIR.

3.16 Recreation

The proposed Project would result in temporary closures of public parking, fishing pier, and bathroom facilities during construction. However, construction would not occur during major summer holiday periods, when recreational use is at its highest, and there are other nearby areas within in GIWA where the public could participate in similar recreational opportunities. Temporary impacts on recreational facilities from short-term construction projects associated with the SMP were also contemplated in the EIR/EIS. The proposed Project would not result in new or substantially more severe or significant effects to recreation beyond those previously evaluated in the EIS/EIR.

3.17 Transportation

Temporary roadway closures, detours, and a temporary increase in vehicle trips would occur during construction of the proposed Project, consistent with impacts previously evaluated in Section 5.6 of the EIS/EIR. Soils needed to construct the proposed Project would be sourced from onsite borrow areas and would not require truck trips offsite. Haul truck trips would only be required to import riprap and mobilize construction equipment and would not be more than those previously evaluated in the EIS/EIR. Additionally, as evaluated in the Section 5.6 of the EIS/EIR, in-channel work required to install and remove the proposed sheet pile cofferdams would temporarily result in the reduction of some channel area available for boat navigation. Impacts related to Project construction would be temporary and small in scale. Once operational, transportation impacts would be limited to monitoring and maintenance of the site and would be equivalent to existing conditions. The proposed Project would not result in new or substantially more severe or significant impacts to transportation beyond those previously evaluated in the EIS/EIR.

3.18 Tribal Cultural Resources

As described in Section 7.7 of the EIS/EIR, a records search and literature review conducted for the SMP identified three Native American archaeological resources in or adjacent to the plan area: CA-SOL-13, CA-SOL-

66, and ISO 20. CA-SOL-13 and ISO 20 are located in lowland marsh contexts, whereas CA-SOL-66 is situated at the edge of Suisun Marsh. No resources were identified in the Project Area. In the event that previously unidentified resources and/or buried human remains are encountered during construction, BMPs, including stop work measures, would be implemented to protect tribal cultural resources. The proposed Project would not result in new or substantially more severe or significant effects to tribal cultural resources beyond those previously evaluated in the EIS/EIR.

3.19 Utilities and Service Systems

As described in the EIS/EIR, construction activities would only generate small amounts of solid waste and would not impact the lifespan of landfills. As shown in Figure 7.3-1 of the EIS/EIR, no gas pipelines are located near the Project Area. Levee improvements associated with the installation of the new fish screen facilities may require the relocation of an overhead powerline pole in the southeastern portion of the Project Area. If required, relocation of the powerline pole would result in a temporary disruption to electricity service. Any disruption to electricity service would be authorized by the local electricity provider (i.e., Pacific Gas & Electric) and would be limited to one day or less. The affected powerline services GIWA and potential disruptions would not affect any residential communities. The proposed Project would not result in new or substantially more severe or significant effects to utilities or service systems beyond those previously evaluated in the EIS/EIR.

3.20 Wildfire

The Project Area is not located within a high or very high fire hazard severity zone (CAL FIRE 2022). The Project would occur in a local responsibility area serviced by the Suisun Fire Protection District. The proposed Project would not result in new or substantially more severe or significant effects related to wildfire beyond those previously evaluated in the EIS/EIR.

3.21 Mandatory Findings of Significance

This analysis evaluates impacts associated with the proposed Project in comparison to those previously evaluated in the EIS/EIR prepared for the SMP. The proposed Project modifications would not result in any new or substantially more severe or significant effects beyond those previously identified in the EIS/EIR. With implementation of all appropriate conservation measures and permit conditions listed in the authorizations issued by the USACE, RWQCB, BCDC, USFWS, and NMFS, and appropriate environmental commitments and mitigation measures identified in the EIS/EIR, the proposed Project would not substantially degrade the quality of the environment, substantially reduce habitat for fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory. The proposed Project is generally consistent with the SMP and any adverse effects from the use of exterior sheet pile cofferdams would be temporary and limited in scope. The proposed Project would not make a cumulatively considerable incremental contribution to any significant cumulative adverse impacts and would not result in any new or substantially more severe cumulative impacts beyond those identified in the EIS/EIR. In addition, the proposed Project would result in less-than-significant impacts and would not cause substantial adverse effects on human beings, either directly or indirectly.

4.0 CONCLUSIONS

This Addendum has been prepared to evaluate the potential effects of modifications in the Project design since the EIS/EIR was prepared, including the use of temporary sheet pile cofferdams in Montezuma Slough. As described above, these proposed modifications would not result in any new or substantially more significant environmental impacts than those previously identified in the EIS/EIR. The project would also implement all applicable environmental commitments and mitigation measures identified in the EIS/EIR.

Based on the above analysis and discussion, no major revisions to the EIS/EIR are needed because: 1) no new significant impacts or substantially more severe impacts would result from the proposed modifications; 2) there have been no substantial changes in circumstances under which the Project was undertaken which would result in new significant environmental impacts or substantially more severe impacts; and 3) no new information has come to light that would indicate the potential for new significant impacts or substantially more severe impacts than were discussed in the EIS/EIR. Therefore, no further evaluation is required, and a Subsequent EIR is not needed pursuant to CEQA Guidelines Sections 15162 and 15164.

5.0 LITERATURE CITED

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