

**CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE**  
ECOSYSTEM CONSERVATION DIVISION  
P.O. BOX 944209  
SACRAMENTO, CA, 94244-2090



AMENDMENT NO. 5  
(A Minor Amendment)  
California Endangered Species Act  
Incidental Take Permit No. 2081-2019-066-00  
California Department of Water Resources  
Long-Term Operation of the State Water Project in the Sacramento-San Joaquin Delta

## **INTRODUCTION**

On March 31, 2020, the California Department of Fish and Wildlife (CDFW) issued Incidental Take Permit No. 2081-2019-066-00 (ITP) to California Department of Water Resources (Permittee), authorizing take of Longfin Smelt (LFS, *Spirinchus thaleichthys*), Delta Smelt (DS, *Hypomesus transpacificus*), spring-run Chinook salmon (CHNSR, *Oncorhynchus tshawytscha*), and winter-run Chinook salmon (CHNWR, *Oncorhynchus tshawytscha*) (collectively, the Covered Species) associated with and incidental to the long-term operations of the State Water Project (SWP) in the Sacramento San Joaquin Delta (Project).

The Project as described in the ITP as originally issued by CDFW includes continued operation of the SWP facilities in the Sacramento-San Joaquin Delta (Delta) and Suisun Marsh. The SWP includes water, power, and conveyance systems, conveying an annual average of 2.9 million acre-feet of water. The principal components of the Project are operations of the Harvey O. Banks Pumping Plant (Banks Pumping Plant), the Clifton Court Forebay, the John E. Skinner Delta Fish Protective Facility, the Barker Slough Pumping Plant, the South Delta Temporary Barriers, San Luis Reservoir, the Delta Mendota Canal/California Aqueduct Intertie, the Georgiana Slough Migratory Barrier, and Suisun Marsh facilities including the Suisun Marsh Salinity Control Gates, Roaring River Distribution System, Morrow Island Distribution System, and Goodyear Slough Outfall. Permittee holds contracts with 29 public agencies in northern, central, and southern California for water supplies from the SWP. Water stored in the Oroville facilities, along with water available in the Delta (consistent with applicable regulations) is captured in the Delta and conveyed through several facilities to SWP contractors. The SWP is operated to provide flood control and water for agricultural, municipal, industrial, recreational, and environmental purposes. In issuing the ITP, CDFW found, among other things, that Permittee's compliance with the Conditions of Approval of the ITP would fully mitigate Project impacts of the taking on the Covered Species and that issuance of the ITP would not jeopardize the continued existence of the Covered Species.

The Project includes technical teams that meet on a weekly basis for a portion of each year to assess the risk of entrainment of Covered Species in the south Delta, including the Smelt and Salmon Monitoring Teams, and ensure that minimization measures that require reductions in exports at the Banks Pumping Plant are implemented.

In a letter dated September 30, 2020, Permittee requested changes to Conditions of Approval 8.1.1, 8.1.4, 8.3.1, 8.5.1, 9.1.3, and 9.2.1. Specifically, Permittee requested to change the start date for the Smelt Monitoring Team in Condition of Approval 8.1.1 and 8.1.4 to begin no later than November 1 each year to ensure consistency throughout the ITP. Permittee also asked to change the units used to report turbidity in Conditions of Approval 8.3.1, 8.5.1, and 9.1.3 from Nephelometric Turbidity Units (NTU) to Formazin Turbidity Units (FNU). Finally, Permittee requested an extension in the deadline for the first funding milestone required in Condition of Approval 9.2.1 to April 1, 2021 and clarifications to the requirements of that condition for funding restoration actions in the Sacramento River. These clarifications allow individual projects that receive funding to benefit either CHNWR or CHNSR, or both species, and allow Permittee to fund larger projects that extend over multiple years. On October 16, 2021 CDFW issued minor amendment 2081-2019-066-00-A1, including the requested changes to Conditions of Approval 8.1.1, 8.1.4, 8.3.1, 8.5.1, 9.1.3, and 9.2.1.

In a letter dated May 18, 2021, Permittee requested changes to Section 2.2 of the Project Description. Specifically, Permittee requested to change the description of Project operations for the June 1 – August 15, 2021 time period to incorporate modifications to Water Rights Decision 1641 (D-1641) included in the 2021 Temporary Urgency Change Petition Regarding Delta Water Quality (TUCP) submitted to the State Water Resources Control Board (SWRCB) by Permittee and the U.S. Bureau and Reclamation (Reclamation) on May 17, 2021, as subsequently approved by the SWRCB on June 1, 2021. Changes to D-1641 approved by the SWRCB included modifications to Delta outflow and salinity standards between June 1 and August 15, 2021, requirements to reduce SWP and Central Valley Project (CVP) exports from June 1 – August 15, 2021, and requirements to conduct new data analyses and synthesis to better understand impacts of critically dry years on fish species in the Delta. On June 2, 2021 CDFW issued minor amendment 2081-2019-066-00-A2, including changes to Section 2.2 of the Project Description reflective of the TUCP approval by the SWRCB.

In a letter dated March 18, 2022, Permittee requested changes to Condition of Approval 8.12 (Barker Slough Pumping Plant Longfin and Delta Smelt Protection). Specifically, Permittee requested the ability to meet and confer with CDFW regarding required export restrictions at the Barker Slough Pumping Plant (BSPP) if a larval DS were detected at Station 716 from April 1 – June 30, 2022. This request was made as a result of the ongoing drought, to implement the directive to the Permittee in an October 19, 2021 Emergency Proclamation, to proactively prevent situations where a community runs out

of drinking water by assisting local agencies with identifying acute drinking water shortages in domestic water supplies, and working with local agencies in implementing solutions to those water shortages. The orders and provisions of the October 2021 proclamation were maintained in full force and effect by a subsequent Executive Order issued on March 28, 2022 by the Governor. Permittee requested the ability to establish a maximum diversion rate at the BSPP based on diversion rates needed to provide minimum health and safety deliveries to customers of the North Bay Aqueduct and proactively ensure that no community within the North Bay Aqueduct service area runs out of drinking water. On April 1, 2022, CDFW issued minor amendment 2081-2019-066-00-A3, modifying Conditions of Approval 8.12 and 9.1.1 in response to this request.

Also in its March 18, 2022 letter, Permittee requested to change the description of Project operations for the April – June, 2022 time period to incorporate modifications to D-1641 included in the Water Year (WY) 2022 TUCP submitted to the SWRCB by Permittee and Reclamation on March 18, 2022, as approved by the SWRCB on April 4, 2022. Changes to D-1641 approved by the SWRCB include: 1) modifications to Delta outflow and salinity standards between April 4 – June 30, 2022; 2) requirements to reduce SWP and Central Valley Project (CVP) exports from April 4 – June 30, 2022 when not meeting D-1641 standards; 3) requirements to evaluate the feasibility of dedicating a portion of the water conserved as a result of the WY 2022 TUCP to provide pulse flows or other flow enhancements above and beyond D-1641 requirements; 4) requirements to conduct modeling, monitoring analysis and reporting to inform drought-related operational decisions and planning; and 5) requirements to conduct monitoring and reporting to facilitate improved understanding of operations during the April – June, 2022 time frame and associated impacts. On April 5, 2022, CDFW issued minor amendment 2081-2019-066-00-A4, adding section 2.2.2 to the Project Description in response to this request.

In a letter dated July 22, 2022, Permittee requested changes to Conditions of Approval 7.7 and 8.5.2. Specifically, Permittee requested to change the requirement for Designated Biologists in Condition of Approval 7.7. The requested change would require a Designated Biologist to be present only when LFS or DS are detected at station 716 in the most recent Smelt Larva Survey or 20mm Survey. Permittee also asked to replace the detection of more than 11 juvenile DS in expanded salvage as an indicator of entrainment risk triggering certain requirements of Condition of Approval 8.5.2 with a south Delta habitat-based trigger. Specifically, the Permittee requested to use a turbidity threshold that is representative of conditions which correlate with larval and juvenile DS presence in the south Delta.

In issuing the ITP and Minor Amendments Nos. 1 through 4 (collectively “the ITP, as amended”), CDFW found, among other things, that the Permittee’s compliance with the Conditions of Approval of the ITP, as amended, would fully mitigate impacts to the

Covered Species and would not jeopardize the continued existence of the Covered Species.

This Minor Amendment No. 5 (Amendment) makes the following changes to the existing ITP, as amended:

1. Modifies Condition of Approval 7.7
2. Modifies Condition of Approval 8.5.2

## AMENDMENT

The ITP, as amended, is further amended as follows (amended language in ***bold italics***; deleted language in ~~strikethrough~~):

1. Condition of Approval 7.7, ITP page 65 (Barker Slough Pumping Plant Sediment and Aquatic Weed Removal) shall be modified to read:

If Permittee seeks to conduct aquatic weed or sediment removal in the vicinity of the BSPP when water temperatures are likely to be less than 25°C, Permittee shall coordinate with CDFW at least seven days prior to initiating the aquatic weed or sediment removal. Permittee shall provide a written description of the planned aquatic weed or sediment removal activities to CDFW including a description of whether activities are planned outside the embayment and the floating booms as shown in Figure 1 in the Project Description. ***If a DS or LFS has been observed at station 716 in the most recent SLS or 20mm survey, then the*** Permittee shall ensure that a Designated Biologist is onsite before, during, and after the planned activities to assess the potential for take of DS or LFS that would not otherwise occur as a result of Project operations and permitted diversions at the BSPP.

2. Condition of Approval 8.5.2, ITP pages 85-87 (Larval and Juvenile Delta Smelt Protection) shall be modified to read:

If the five-day cumulative salvage of juvenile DS at the CVP and SWP facilities is greater than or equal to one plus the average prior three years' FMWT index (rounded down), Permittee shall restrict south Delta exports for seven consecutive days to maintain a seven-day average OMR index no more negative than -5,000 cfs. Additionally, if the five-day cumulative salvage threshold is met or exceeded, Permittee shall immediately convene the Smelt Monitoring Team to conduct a risk assessment (Condition of Approval 8.1.5.2) and determine the future risk of entrainment and take of larval and juvenile DS. The Smelt Monitoring Team may provide advice to further restrict south Delta exports to maintain a more positive OMR than -5,000 cfs. The Smelt Monitoring Team may provide advice for further restrictions within three risk categories:

- Low risk: Limit OMR between -4,000 cfs to -5,000 cfs
- Medium risk: Limit OMR between -2,500 cfs to -4,000 cs
- High risk: Limit OMR between -1,250 cfs to -2,500 cfs

The duration and magnitude of operational advice shall be provided to the WOMT (Condition of Approval 8.1.3) and decisions shall be made following the process described in Condition of Approval 8.1.4 (Collaborative Real Time Risk Assessment). When conducting risk assessments to evaluate the risk of entrainment and take of juvenile DS the Smelt Monitoring Team shall evaluate the following information sources, in addition to any other models or surveys they deem appropriate and those listed in Condition of Approval 8.1.5.2:

- Results from a CDFW approved DS life cycle model.
- DS recruitment levels identified by the Smelt Monitoring Team using the CDFW approved life cycle model that links environmental conditions to recruitment, including factors related to loss as a result of entrainment such as OMR flows. In this context, recruitment is defined as the estimated number of post-larval DS in June per number of spawning adults in the prior February-March period.
- Hydrodynamic models and forecasts of entrainment informed by the EDSM or other relevant survey data to estimate the percentage of larval and juvenile DS that could be entrained.

***When a larval or juvenile DS is detected in the SLS or 20 mm, or the 3-day average water temperature at Jersey Point is greater than or equal to 12°C, and Secchi depth from the most recent SLS or 20 mm survey is less than or equal to 1 meter, averaged across the 12 south Delta survey stations (809, 812, 815, 901, 902, 906, 910, 912, 914, 915, 918, and 919) if expanded salvage at the CVP and SWP facilities of juvenile DS exceeds 11 within a three-day period under this condition, Permittee shall restrict south Delta exports for seven consecutive days to maintain a seven-day average OMR index no more negative than -3,500 cfs **until the average Secchi depth is greater than 1 meter in the south Delta stations in a subsequent SLS or 20mm survey. If average south Delta Secchi depth continues to be less than or equal to 1 meter in a subsequent SLS or 20mm survey** juvenile DS continue to be salvaged at the CVP and SWP facilities during the seven days of OMR restrictions, then Permittee shall continue restrictions and request a risk assessment by the Smelt Monitoring Team to determine if additional advice and subsequent restrictions are warranted and provide advice to WOMT (see Condition of Approval 8.1.3) and follow the decision-making process described in Condition of Approval 8.1.4.***

All terms and conditions of the ITP, as amended and MMRP that are not expressly amended herein remain in effect and must be implemented and adhered to by the Permittee.

## FINDINGS

*Issuance of this Amendment will not increase the amount of take of the Covered Species compared to the Project as originally approved, nor will this Amendment increase other Project impacts on the Covered Species (i.e., “impacts of taking” as used in Fish and Game Code Section 2081, subd. (b)(2)).*

Discussion: This Amendment makes two specific changes to the Permit as originally issued. ITP Condition of Approval 7.7 has been changed to remove the requirement for biological monitors to be present during every BSPP sediment and weed removal activity, and instead requires monitoring when DS and LFS are observed in the area. CDFW has reviewed BSPP weed removal monitoring data provided by Permittee and concurs that larval and juvenile DS and LFS are unlikely to be present during weed removal activities during times when they are not observed at Station 716. Additionally, the automatic trigger for export restrictions in the south Delta in response to heightened entrainment risks, found in ITP Condition of Approval 8.5.2 has been changed from observations of juvenile DS in salvage as the indicator of risk, to an average turbidity measured across 12 monitoring stations in the south Delta. This shift from salvage numbers to a habitat condition is consistent with other ITP conditions which use turbidity as a signal of risk to the species and require reduced operations to minimize Project impacts to adult DS. Because of their continued population decline, detection of DS in salvage has become rare, and thus turbidity is an indicator of a high likelihood of presence of juvenile and larval DS that will provide equivalent minimization value. Additionally, CDFW reviewed the technical memorandum developed by the U.S. Fish and Wildlife Service (USFWS) and included in Permittee’s amendment application. This technical memorandum was developed by USFWS using the DS Life Cycle Model, the same model that CDFW uses in risk assessments as a part of Condition of Approval 8.5.2. CDFW concurs with Permittee that once DS begin to spawn, turbidity, as measured across the 12 south Delta stations by the SLS and 20mm surveys, is a reliable indicator of larval and juvenile DS presence in the south Delta, and thus entrainment risk. Detection of DS juveniles in salvage above FMWT-based thresholds would continue to be a basis for convening of the Smelt Monitoring Team to consider risk, under the unmodified terms of the Condition.

CDFW has determined that changes to the Conditions of Approval of the ITP, as amended, will not increase the amount of take or the severity of other impacts of the taking on the Covered Species. Given the circumstances of this Project, CDFW believes that the changes to the Project described in this Amendment that incorporates changes

to ITP Condition of Approval 7.7, Barker Slough Pumping Plant Sediment and Aquatic Weed Removal, and Condition of Approval 8.5.2, Larval and Juvenile DS Protection, are not likely to increase impacts of the Project to the Covered Species.

*Issuance of this Amendment does not affect CDFW's previous determination that issuance of the ITP meets and is otherwise consistent with the permitting criteria set forth in Fish and Game Code section 2081, subdivisions (b) and (c).*

Discussion: CDFW determined in March 2020 that the Project, as approved, met the standards for issuance of an ITP under CESA. This determination included findings that, among other things, the impacts of the taking would be minimized and fully mitigated and that the Project would not jeopardize the continued existence of the Covered Species. Those findings are unchanged with respect to this Amendment because the Project and ITP as amended: (1) will have no effect on the amount or severity of Project impacts on the Covered Species, as discussed above, and (2) does not substantively alter the measures that will be undertaken to minimize and mitigate previously authorized impacts on the Covered Species. As discussed above, CDFW has concluded that the modifications to BSPP weed removal monitoring requirements and entrainment risk factors for larval and juvenile DS provide equivalent minimization value to the prior ITP provisions.

Permittee's continued adherence to and implementation of the avoidance, minimization and mitigation measures set forth in the Conditions of Approval of the ITP, as amended and associated MMRPs will minimize and fully mitigate impacts of the taking on the Covered Species.

*None of the factors that would trigger the need for subsequent or supplemental environmental analysis of the Project under Public Resources Code section 21166 or California Code of Regulations, title 14, sections 15162 and 15163, exist as a result of this Amendment.*

Discussion: CDFW issued the ITP in March 2020 as a responsible agency under the California Environmental Quality Act (CEQA) (Pub. Resources Code, § 21000 et seq.) after, among other things, considering the Environmental Impact Report (EIR) certified by Permittee as the lead agency for the Project. In conjunction with its request for this minor amendment, on July 22, 2022, Permittee submitted to CDFW a copy of an addendum to the EIR, which concluded that the amendment request gave rise to no new or substantially more severe significant environmental impacts, and that subsequent or supplemental environmental review is not warranted. Permittee filed a Notice of Determination on this addendum on July 27, 2022. As explained in the findings below, CDFW finds for purposes of CESA that this Amendment is a minor

change to the original ITP. CDFW finds for the same reasons under CEQA that approval of the Amendment will not result in and does not have the potential to create any new significant or substantially more severe environmental effects than previously analyzed and disclosed by Permittee during its lead agency review of the Project, particularly with respect to the impacts authorized by CDFW pursuant to the ITP as amended. As a result, CDFW finds that no additional subsequent or supplemental environmental review is required by CEQA as part of CDFW's approval of this Amendment.

*CDFW finds that this Amendment is a Minor Amendment, as defined in California Code of Regulations, title 14, section 783.6, subdivision (c)(4).*

Discussion: This Amendment makes two changes to ITP Conditions of Approval to require Biological Monitors during sediment and weed removal activities at the BSPP when Covered Species are present, and to use a habitat condition to trigger certain restrictions at the south Delta export facilities and minimize Project impacts on larval and juvenile DS. These changes to the ITP will not: (1) increase the level of take or other Project impacts on Covered Species previously analyzed and authorized by the ITP, (2) affect Permittee's substantive mitigation obligations under the ITP, (3) require further environmental review under CEQA, or (4) increase temporal impacts on the Covered Species. Therefore, this Amendment will not significantly modify the scope or nature of the permitted Project or activity, or the minimization, mitigation, or monitoring measures in the ITP. CDFW has determined that the change to the ITP constitutes a Minor Amendment as defined in California Code of Regulations, title 14, section 783.6, subdivision (c)(4).

The authorization provided by this Amendment is not valid until signed by all parties and returned to CDFW. Digital signatures facilitated by CDFW will be automatically returned and shall comply with Government Code section 16.5. Wet signatures on duplicate original paper copies shall be returned by the Permittee via registered first-class mail or overnight delivery to the following address:

Department of Fish and Wildlife  
Habitat Conservation Planning Branch  
Attention: CESA Permitting Program  
Post Office Box 944209  
Sacramento, CA 94244-2090



**APPROVED BY THE CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE**

on 8/30/2022

DocuSigned by:  
*Joshua Grover*  
703E59B6647A482...

Joshua Grover  
Acting Deputy Director  
Ecosystem Conservation Division

**ACKNOWLEDGMENT**

The undersigned: (1) warrants that he or she is acting as a duly authorized representative of the Permittee, (2) acknowledges receipt of the original ITP and this Amendment, and (3) agrees on behalf of the Permittee to comply with all terms and conditions of the ITP as amended.

By: *Lenny Grimaldo* Date: 8/30/2022

Printed Name: Lenny Grimaldo Title: Asst. Environmental Director