



State of California – Natural Resources Agency  
DEPARTMENT OF FISH AND WILDLIFE  
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**GAVIN NEWSOM, Governor**  
**CHARLTON H. BONHAM, Director**



August 5, 2025

Charlie Tschudin  
Senior Planner  
City of Sacramento Community Development Department  
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Subject: Water + Treatment Plants Resiliency and Improvements Project  
DRAFT ENVIRONMENTAL IMPACT REPORT (DEIR)  
SCH No. 2022040138

Dear Charlie Tschudin:

The California Department of Fish and Wildlife (CDFW) received and reviewed the Notice of Availability of a DEIR from the City of Sacramento for the Water+ Treatment Plants Resiliency and Improvements Project (Project) pursuant the California Environmental Quality Act (CEQA) statute and guidelines.<sup>1</sup> CDFW previously submitted comments in response to the Notice of Preparation of the DEIR on May 3, 2022.

Thank you for the opportunity to provide comments and recommendations regarding those activities involved in the Project that may affect California fish, wildlife, native plants, and their habitat. Likewise, CDFW appreciates the opportunity to provide comments regarding those aspects of the Project that CDFW, by law, may need to exercise its own regulatory authority under the Fish and Game Code.

## **CDFW ROLE**

CDFW is California's Trustee Agency for fish and wildlife resources and holds those resources in trust by statute for all the people of the State (Fish & G. Code, §§ 711.7, subd. (a) & 1802; Pub. Resources Code, § 21070; CEQA Guidelines § 15386, subd. (a).) CDFW, in its trustee capacity, has jurisdiction over the conservation, protection, and management of fish, wildlife, native plants, and habitat necessary for biologically sustainable populations of those species. (Fish & G. Code, § 1802.) Similarly for purposes of CEQA, CDFW provides, as available, biological expertise during public agency environmental review efforts, focusing specifically on projects and related activities that have the potential to adversely affect fish and wildlife resources.

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<sup>1</sup> CEQA is codified in the California Public Resources Code in section 21000 et seq. The "CEQA Guidelines" are found in Title 14 of the California Code of Regulations, commencing with section 15000.

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CDFW may also act as a Responsible Agency under CEQA. (Pub. Resources Code, § 21069; CEQA Guidelines, § 15381.) CDFW expects that it may need to exercise regulatory authority as provided by the Fish and Game Code. As proposed, for example, the Project may be subject to CDFW's lake and streambed alteration regulatory authority. (Fish & G. Code, § 1600 et seq.) Likewise, to the extent implementation of the Project as proposed may result in "take" as defined by State law of any species protected under the California Endangered Species Act (CESA) (Fish & G. Code, § 2050 et seq.), the project proponent may seek related take authorization as provided by the Fish and Game Code.

### **PROJECT DESCRIPTION SUMMARY**

The Project site is located within the City of Sacramento (the City). The Fairbairn Water Treatment Plant (FWTP) Project Area, including the approximately 34-acre FWTP property, is located adjacent to the American River and near Sacramento State University. Streets adjacent to and within the FWTP Project Area include State University Drive to the west and College Town Drive to the south. The Sacramento River Water Treatment Plant (SRWTP) Project Area, including the approximately 50-acre SRWTP property, is located near the confluence of the Sacramento River and American River. Nearby roads around the SRWTP property include Bannon Street and Richards Boulevard to the north, 7th Street and North B Street to the east, Summit Tunnel Avenue to the south, and Bercut Drive to the west.

The Project consists of an initial phase and a buildout phase. The initial phase would improve treatment reliability at both water treatment plants by replacing facilities that have reached the end of their effective lives, provide resiliency within each treatment system through the addition of ozone treatment, to help address changing water quality in the Sacramento and American Rivers, and the conversion from chlorine gas to sodium hypochlorite, a safer and more reliably available chemical for disinfection. The buildout phase would meet the increasing water demands of the City's service area through 2050 by further increasing the capacity of the SRWTP to treat water diverted from the Sacramento River. Project components include the following:

1. Facility and treatment process improvements at both the FWTP and the SRWTP including replacement of aging infrastructure; integration of ozone into the treatment processes; and conversion from chlorine gas to sodium hypochlorite as the primary chemical for disinfection of the water.
2. Upgrades to existing utilities that serve the FWTP and SRWTP (i.e., storm drainage systems and electrical service line connections).
3. Construction of a new Sacramento River water intake and pump station, and installation of a new raw water conveyance pipeline to transfer raw water from the Sacramento River to the SRWTP facilities.
4. Improvements to the existing Sacramento River water intake and associated facilities, and installation of a second new pipeline to transport sediment deposited

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within the intake to SRWTP (following approximately the same alignment as the raw water conveyance pipeline described above).

5. Improvement of the potable water transmission system in the vicinity of SRWTP to address critical hydraulic constrictions.

### COMMENTS AND RECOMMENDATIONS

CDFW offers the comments and recommendations below to assist the City in adequately identifying and, where appropriate, mitigating the Project's significant, or potentially significant, direct and indirect impacts on fish and wildlife (biological) resources. Editorial comments or other suggestions may also be included to improve the document. Based on the potential for the Project to have a significant impact on biological resources, CDFW concludes that an Environmental Impact Report is appropriate for the Project.

CDFW is primarily concerned with the project impacts to the Sacramento River and its associated riparian habitat that would be caused by the construction of the new water intake, pump station, and raw water conveyance pipeline to transfer raw water from Sacramento River to SRWTP and the installation of a second new pipeline to transport sediment deposited within the existing intake to SRWTP.

#### **COMMENT 1: Hydroacoustic Impact Assessment for Pile Driving, Table 3.5-4, page 3.5-24**

**Issue:** The DEIR provided a summary (Table 3.5-4) of known acute and sub-lethal effects of noise on fish with injury thresholds measured in decibels (dB). The thresholds used are not sufficient to reduce impacts to listed fish species to less than significant. All fish less than 2 grams should have an injury threshold for 183 dB (SEL) from using an impact hammer. Also, the 150 dB (RMS) for behavioral disturbances to salmon/steelhead applies to all fish species regardless of pile driving method based on hydroacoustic analysis from the *Pile Driving Sound Measurement Thresholds for ESA-listed Species in the Southeast Region* (National Marine Fisheries, 2024). The wrong threshold may lead to unexpected mortalities. The table also does not account for damage to the inner ear, damage or destruction of the swim bladder, adverse effects on eggs and larvae, and cumulative stress induced impacts leading to high potential for predation.

**Recommendation or Recommended Mitigation Measure:** CDFW recommends that the DEIR updates Table 3.5-4 and refers to the National Marine Fisheries' *Pile Driving Sound Measurement Thresholds for ESA-listed Species in the Southeast Region* dated 2024 and their *NMFS Pile Driving Calculations - Pacific* for the threshold numbers to minimize fish injury and behavior disturbances.

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**COMMENT 2: Impacts to Covered Fish Species, Mitigation Measure 3.5-4 (SRWI-New), page 3.5-30**

**Issue:** CESA listed species potentially impacted by project activities may include white sturgeon (*Acipenser transmontanus*), longfin smelt (*Spirinchus thaleichthys*), Delta smelt (*Hypomesus transpacificus*), Chinook salmon – Sacramento River winter-run ESU (*Oncorhynchus tshawytscha* pop. 7), and Chinook salmon – Central Valley spring-run ESU (*Oncorhynchus tshawytscha* pop. 11), including 0.23 acres of permanent loss of shaded riverine aquatic habitat. The DEIR proposed purchasing mitigation credits from a mitigation bank approved by CDFW at a ratio agreeable to CDFW and other regulatory agencies to offset the permanent loss of 0.23 habitat; however, it does not state an enforceable ratio. Please note that obtaining a permit from CDFW by itself with no other mitigation proposal may constitute mitigation deferral. CEQA Guidelines section 15126.4, subdivision (a)(1)(B) states that formulation of mitigation measures should not be deferred until some future time.

Additionally, the measure does not include any mitigation for temporary impacts. Temporary impacts to the CESA listed species include pile driving for the sheet piles and dewatering habitat in the Sacramento River. CESA requires project impacts to be fully mitigated, including any temporary impacts. Please note that mitigation measures that are adequate to reduce impacts to a less-than significant level to meet CEQA requirements may not be enough for the issuance of an ITP. To facilitate the issuance of an ITP, if applicable, CDFW recommends the DEIR include details pertaining to the permanent protection and perpetual management of compensatory habitat necessary and required pursuant to CESA to fully mitigate project-related impacts of the taking on the Covered Species that will result with implementation of the project. The type and amount of mitigation should be based on factors including an assessment of the importance of that habitat in the project area, the extent to which covered activities will impact the habitat, and the estimate of the acreage required to provide for adequate compensation in coordination with CDFW.

Finally, the DEIR only proposes mitigation credits, which may not always be available.

**Recommendation or Recommended Mitigation Measure:** CDFW recommends defining the ratio at a minimum 3:1 to offset the permanent loss of habitat. CDFW recommends that the DEIR analyze and quantify the amount of temporary impacts to CESA-listed species and their habitat and propose mitigation to reduce project impacts to a less-than-significant level. Lastly, there are currently very limited suitable mitigation credits available, with no guarantee of future suitable credits. CDFW strongly recommends that the City consider developing alternative mitigation solutions. Alternative mitigation could include on-site and/or off-site restoration of shaded riverine aquatic habitat along the Sacramento River or other restoration/ enhancement projects developed in coordination with CDFW.

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**COMMENT 3: Cumulative Effects on the Sacramento River, Impact 3.5-3: Operation and maintenance of the proposed project could result in far-field indirect impacts to listed fish species and their associated habitat, pages 3.5-33 – 3.5-48**

**Issue:** The Project aims to divert an additional 310 million gallons per day from the Sacramento River. This additional diversion from the Sacramento River may compound other reasonably foreseeable major diversions on the Sacramento River, such as the Sites Reservoir Project, the Delta Conveyance Project, and the RiverArc Project. With the potential for several significant and compounding new diversions along the Sacramento River, the DEIR does not analyze how the Project will add to the cumulative effects that these other diversions will have on fish species reliant on the Sacramento River.

**Recommendation or Recommended Mitigation Measure:** CDFW suggests the DEIR evaluate the cumulative impacts from the additional amount of water that will be diverted from the Sacramento River may have on fish and wildlife species and provide sufficient information for meaningful review based on contemporary, foreseeable, large-scale Sacramento River projects and operations.

**COMMENT 4: Project Design Analysis and Coordination, Chapter 2: Project Description, pages 2-1 – 2-28**

**Issue:** The DEIR contains general overview plans but does not have design plans that provide the level of detail needed to fully analyze how the new structures will impact the fish species during construction and long-term operation post-construction. Detailed design plans may include but not limited to flow rates, pump sizing and selection, ventilation design, force main design, valving, bypass systems, motor selection, equipment layout, heating and insulation, foundations, topography, soil conditions, etc.

**Recommendation or Recommended Mitigation Measure:** CDFW recommends that the DEIR includes more details on the water intakes and pump stations regarding their flow rates, pump sizing and selection, ventilation design, force main design, valving, bypass systems, motor selection, equipment layout, heating and insulation, foundations, topography, soil conditions, etc. CDFW recommends early coordination with the CDFW Habitat Conservation Program and the CDFW Conservation Engineering Branch to provide review and analysis of any proposed structures or Project elements with the potential to impact fish and wildlife resources. CDFW Conservation Engineering Branch requests to be provided with engineered drawings and design specification planning sheets during the initial design process, prior to design selection and re-initiating design consultation at 30% design at minimum and through the permitting process for review and comment.

**COMMENT 5: Avian Mitigation Measures, Mitigation Measure 3.6-1 (ALL), page 3.6-27**

**Issue:** The DEIR states that a preconstruction survey shall be performed for the Project area, vehicle and equipment staging areas, and suitable habitat within 14 days of

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commencement of construction activities and that if nesting birds and raptors are found, typical buffers of 50-100 feet for passerines and 250-500 feet for raptors would apply. The DEIR lacks details on how far from the Project area the survey will be conducted.

Typically, a larger survey buffer with a minimum of 500 feet for migratory birds and 0.5-mile for raptors, as well as conducting them no more than seven (7) calendar days before construction commences would be more appropriate and protective for species that rebuild a nest quickly. The DEIR measures for nesting birds and raptors are not sufficient in detail to minimize impacts to less than significant as required by CEQA.

**Recommendation or Recommended Mitigation Measure:** CDFW recommends the DEIR describe how the considerations identified below will be implemented and incorporated into the appropriate DEIR section(s):

1. CDFW recommends the Project proponent add specific avoidance and minimization measures to the Mitigation Measures section. Project-specific avoidance and minimization measures may include but not be limited to: Project phasing and timing, monitoring of Project-related noise (where applicable), sound walls, visual barriers, and buffers, where appropriate. The DEIR should include appropriate preconstruction surveys for non-listed migratory birds at a minimum radius of 500 feet (for migratory birds) and 0.5-mile (for raptors) around the Project area that can be accessed by the Project proponent. The DEIR should include specific avoidance and minimization measures that will be implemented should a nest be located within the Project site. One example is a nest buffer radius which can be determined by monitoring the active nests and determining the distance at which the activities will disturb the nesting birds.
2. CDFW recommends including performance-based protection measures for avoiding all nests protected under the Migratory Bird Treaty Act and Fish and Game Code. While some birds may tolerate disturbance within 500 feet of construction activities, other birds may have a different disturbance threshold and “take” could occur if the temporary disturbance buffers are not designed to reduce stress to that individual pair. It is the Project proponent's responsibility to confirm that the buffer is sufficient to avoid take/nest failure.
3. CDFW recommends a final preconstruction bird survey be required no more than seven (7) calendar days prior to the start of vegetation clearing or ground disturbance activities, as instances of nesting could be missed in earlier surveys. Monitoring of potential nesting activities in the Project area should continue, at a minimum, until the end of the avian nesting season (typically September 1). If a lapse in Project-related work of seven (7) calendar days or longer occurs, another focused bird survey should be completed before Project work can be reinitiated. It is the Project proponent's responsibility to comply with Fish and Game Code Sections 3503, 3503.5, and 3513, regardless of the time of year.
4. CDFW recommends that any removal of known raptor nest trees, even outside of the nesting season, be replaced with an appropriate native tree species planting at

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a ratio of 3:1 at or near the Project area or in another area that will be protected in perpetuity to reduce impacts resulting from the loss of nesting habitat.

**COMMENT 6: Swainson's Hawk Mitigation Measures, Mitigation Measure 3.6-1 (ALL) Additional Measures for Swainson's Hawk, pages 3.6-27 – 3.6-28**

**Issue:** The DEIR states that a qualified biologist shall conduct a minimum of two pre-construction surveys during the recommended survey periods in accordance with the *Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in California's Central Valley* (Swainson's Hawk Technical Advisory Committee, 2000). However, the Swainson's Hawk (SWHA) Technical Advisory Committee (TAC) document states that "to meet the minimum level of protection for the species, surveys should be completed for at least the two survey periods immediately prior to a project's initiation". The two survey periods equal a total of 6 preconstruction surveys. In addition, the SWHA mitigation measures do not provide guidance on what would happen should an active SWHA nest be found on one of the riparian trees on the Sacramento River slated for removal. Therefore, these measures do not reduce project impacts to less than significant.

**Recommendation or Recommended Mitigation Measure:** CDFW recommends that the SWHA preconstruction survey measure be modified to accurately reflect the TAC's recommendation for surveys during two survey periods prior to project initiation.

CDFW recommends that the Project proponent avoid all active SWHA nests in order to avoid "take" under CESA. Avoidance includes retaining any known nesting trees, in addition to avoiding disturbance related impacts to known active SWHA nests. Typically, CDFW considers a SWHA nest to be active if it has been utilized for breeding in the last 5 years. If an active nest cannot be avoided, CDFW recommends the project proponent obtain an incident take permit (ITP). CDFW recommends the DEIR identify potential impacts to SWHA nesting habitat and include more detailed measures for how the Project will mitigate for potential permanent impacts to SWHA nesting habitat before construction commences. These measures can include purchasing SWHA nesting mitigation credits from a CDFW-approved conservation bank, purchasing and placing a conservation easement on nearby biologically suitable, occupied SWHA nesting habitat, or another method approved by CDFW. The additional measure should be incorporated into the appropriate DEIR section(s).

**COMMENT 7: Riparian Habitat Impacts, Impact 3.6-5: Construction of the proposed project could impact riparian habitat, pages 3.6-32 – 3.6-33**

**Issue:** The DEIR states that riparian habitat will be permanently impacted by the construction of the new water intake due to tree and vegetation removal for construction of the new pump station and creation of equipment access and staging through and in the riparian habitat. DEIR states that mitigation for the removed riparian trees and vegetation will comply with the City of Sacramento City Code 12.56 which involves obtaining a tree permit and replanting or paying into a tree planting and replacement fund. The tree planting and replacement fund is not necessarily tied to riparian tree replacements as non-

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riparian trees (urban trees like streets and parks) can also be planted using the City fund, therefore is not sufficient to reduce impacts to riparian habitat to less than significant.

**Recommendation or Recommended Mitigation Measure:** Based on review of the project information, notification for a Lake or Streambed Alteration (LSA) Agreement will be required under Section 1602 of the Fish and Game Code. CDFW relies on the lead agency environmental document analysis when acting as a responsible agency issuing an LSA Agreement. To avoid duplicating mitigation efforts, the DEIR should consider a range of options that comply with municipal requirements as well as those required in other agency authorizations. These may include the purchase of suitable mitigation credits at a 3:1 replacement to loss ratio at a CDFW-approved mitigation or conservation bank, habitat restoration or enhancement onsite or offsite, habitat connectivity enhancements (wildlife crossings), partnership with other agencies or non-profit groups on restoration projects, or other projects developed in coordination CDFW.

### ENVIRONMENTAL DATA

CEQA requires that information developed in environmental impact reports and negative declarations be incorporated into a database which may be used to make subsequent or supplemental environmental determinations (Pub. Resources Code, § 21003, subd. (e).) Accordingly, please report any special-status species and natural communities detected during Project surveys to the California Natural Diversity Database (CNDDDB). The CNDDDB field survey form can be found at the following link: <https://www.wildlife.ca.gov/Data/CNDDDB/Submitting-Data>. The completed form can be submitted online or mailed electronically to CNDDDB at the following email address: [CNDDDB@wildlife.ca.gov](mailto:CNDDDB@wildlife.ca.gov).

### FILING FEES

The Project, as proposed, would have an impact on fish and/or wildlife, and assessment of filing fees is necessary. Fees are payable upon filing of the Notice of Determination by the Lead Agency and serve to help defray the cost of environmental review by CDFW. Payment of the fee is required in order for the underlying project approval to be operative, vested, and final. (Cal. Code Regs, tit. 14, § 753.5; Fish & G. Code, § 711.4; Pub. Resources Code, § 21089.)

### CONCLUSION

Pursuant to Public Resources Code § 21092 and § 21092.2, CDFW requests written notification of proposed actions and pending decisions regarding the proposed project. Written notifications shall be directed to: California Department of Fish and Wildlife North Central Region, 1701 Nimbus Road, Rancho Cordova, CA 95670 or emailed to [R2CEQA@wildlife.ca.gov](mailto:R2CEQA@wildlife.ca.gov).

CDFW appreciates the opportunity to comment on the DEIR for the Water+ Treatment Plants Resiliency and Improvements Project to assist the City of Sacramento in identifying and mitigating Project impacts on biological resources. CDFW personnel are available for


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consultation regarding biological resources and strategies to minimize and/or mitigate impacts. Questions regarding this letter or further coordination should be directed to Harvey Tran, Senior Environmental Scientist (Specialist) at (916) 358-4035 or [harvey.tran@wildlife.ca.gov](mailto:harvey.tran@wildlife.ca.gov).

Sincerely,

DocuSigned by:  
  
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Morgan Kilgour  
Regional Manager

ec: Dylan Wood, Senior Environmental Scientist (Supervisory)  
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*Department of Fish and Wildlife*

Office of Land Use and Climate Innovation, State Clearinghouse, Sacramento