



State of California – Natural Resources Agency
DEPARTMENT OF FISH AND WILDLIFE
Northern Region
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Redding, CA 96001
www.wildlife.ca.gov

GAVIN NEWSOM, Governor
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October 10, 2024

Amber Kelly
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**SUBJECT: REVIEW OF CITY OF REDDING PUMP HOUSE 1 REPLACEMENT PROJECT,
SHASTA COUNTY, STATE CLEARINGHOUSE NUMBER: 2024010756**

Dear Amber Kelly:

The California Department of Fish and Wildlife (CDFW) has reviewed the Draft Environmental Impact Report (DEIR), dated August 2024, for the above-referenced project (Project). CDFW appreciates this opportunity to comment on the Project, pursuant to the California Environmental Quality Act (CEQA) Guidelines¹.

CDFW's 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 Agency capacity, has jurisdiction over the conservation, protection, and management of fish, wildlife, native plants, and habitat necessary for biologically sustainable populations of those species (Id., § 1802). Similarly, for purposes of CEQA, CDFW is charged by law to provide, 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.

¹ 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 is also submitting comments 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. 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.) or state listed rare plants pursuant to the Native Plant Protection Act (NPPA; Fish & G. Code § 1900 et seq.), authorization as provided by the applicable Fish and Game Code may be required.

Project Description:

The City of Redding (Lead Agency) is proposing to construct a new fish screened intake and pumping plant to replace the existing Pumping Station 1 (PS1), along the Sacramento River Trail (River Trail) in the City of Redding. Consistent with the land use and zoning designations, the Project area is primarily used for recreation. Other land use types adjacent to the project area include Greenway, Low-density Residential, Public Facilities or Institutional, and Parks.

The DEIR states that “The City of Redding (City) is proposing to construct a new state-of-the-art fish screened intake and pumping plant to replace the existing PS1 along the southern bank of the Sacramento River, approximately 0.3 mile upstream of the Diestelhorst Bridge and approximately 0.7 mile upstream of the Anderson-Cottonwood Irrigation District Diversion Dam in the city of Redding. The existing facility was constructed in 1937 and is the primary surface water supply for much of the city of Redding. The proposed project would include construction of a new screened intake and pump station and new access road/public trail; removal of the existing Jenny Creek culverts; restoration of Jenny Creek to an open channel; and installation of an operations building with an employee restroom, two prefabricated bridges, and new utilities from the new PS1 site to Overhill Drive and the existing PS1. In addition, all existing PS1 facilities except the existing riverbank armoring would be demolished. The existing PS1 site would be covered with gravel, and native species would be planted along portions of the perimeter of the site.”

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Comments and Recommendations

In February 2024, CDFW responded to the Lead Agency's request for comment on the [Notice of Preparation](#)² for the above referenced Project. CDFW staff recognize that the Lead Agency has taken some appropriate steps to evaluate this Project's impacts to biological resources however CDFW offers the following comments and recommendations to further assist the Lead Agency in adequately identifying, avoiding, and minimizing potentially significant, direct, and indirect impacts on biological resources with the implementation of the Project.

Baseline Biological Conditions

Section 1.5 references Section 3.2, Environmental Setting, for baseline conditions; however, it does not provide a comprehensive examination of the Project's biological baseline. While Sections 5, Biological Resources, and Appendix D, Biological Resources and Habitat Assessment, offer some insights into the biological conditions present onsite, there is no specific section detailing the biological baseline in Project area.

To enhance accuracy and avoid assumptions that could lead to inaccurate assumptions by agencies and the public in evaluating the significance of Project impacts and the efficacy of proposed mitigation measures, CDFW recommends a dedicated section in the DEIR that explicitly details the biological baseline conditions. This new section should comprehensively address key components such as:

1. **Species Inventory:** A detailed list of all flora and fauna, including sensitive, threatened, or endangered species, along with their population estimates and distribution patterns within the Project area.
2. **Habitat Assessment:** A thorough description of existing habitats, including their size, quality, and ecological functions (e.g., breeding, foraging, and migratory routes), highlighting any unique or critical habitats such as wetlands, riparian zones, or native grasslands.
3. **Ecosystem Services:** An evaluation of the ecological functions and services provided by the existing biological resources, such as carbon sequestration, water filtration, soil stabilization, and recreational value.
4. **Interconnectivity and Landscape Context:** An assessment of how the Project area fits into the broader landscape, including connectivity to other natural

² <https://ceqanet.opr.ca.gov/2024010756>

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habitats, wildlife corridors, and potential barriers that could impact species movement.

By incorporating this comprehensive biological baseline information, the DEIR will enhance its clarity regarding the biological landscape, thereby facilitating a more informed evaluation of potential impacts and the adequacy of proposed mitigation measures.

CDFW Recommendation #1: Include biological baseline section to sufficiently capture the full spectrum of biological values and ecological functions that characterize the Project area.

CDFW Recommendation #1: Update the biological baseline section to more accurately describe current environmental conditions.

Impacts to Riparian and Aquatic Resources

The DEIR indicates that temporary and/or permanent impacts to streambed and riparian habitats would occur. Construction of a sheet-pile retaining wall, and fill material would be placed between the existing bank and the new sheet-pile walls this would result in the loss of approximately 0.18 acre of aquatic habitat within the Sacramento River, which is Designated Critical Habitat for salmon, steelhead, and green sturgeon. The decommissioning of the existing PS1 would result in approximately 0.02 acre of restored aquatic habitat, ultimately resulting in a net loss of 0.16 acre. Additionally, the DEIR indicates that approximately 0.35 acre of riparian and floodplain habitat above the ordinary high-water mark (OHWM) of the Sacramento River would be permanently altered, and numerous trees would be removed. Approximately 0.36 acre of riparian and floodplain along the Sacramento River would be temporarily disturbed during pump station construction. The DEIR does not discuss in adequate detail the efforts to be made to mitigate the Projects impacts to riparian and aquatic habitats.

California has lost much of its original wetland and riparian habitat, with acreage and values continuing to decline³. CDFW maintains responsibility for wetland and riparian habitats and considers impacts to these habitats as significant. Riparian trees and vegetation, and associated floodplains provide

³ California Department of Fish and Wildlife (2007). *California wildlife: conservation challenges*. California Department of Fish and Game. Sacramento, CA.

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many essential benefits to stream and river fish habitat ⁴. Riparian areas are valuable for their ecosystem processes such as protecting water quality by filtering pollutants and transferring nutrients; stabilizing stream banks to prevent erosion and sedimentation/siltation; and dissipating flow energy during flood conditions, thereby spreading the volume of surface water, reducing peak flows downstream, and increasing the duration of low flows by slowly releasing stored water into the channel through subsurface flow.

Several stream alterations to Jenny Creek and the Sacramento River are described in the Project description, temporary and permanent removal of riparian vegetation, realignment of the Jenny Creek channel, grading, and fill to complete the construction of the new pumphouse along the bank of the Sacramento River. The Project could also have lasting impacts on the stream after construction is complete by altering existing water flow paths and modifying sediment transport. Absent appropriate minimization and mitigation, Project impacts may result in substantial erosion and sedimentation within and adjacent to the Project area.

To adequately minimize and mitigate impacts to less than significant for both riparian and aquatic habitat, CDFW recommends the preparation of Riparian Restoration Mitigation and Monitoring Plan (RRMP) that includes a discussion of how the Jenny Creek and Sacramento River corridor will be restored and/or enhanced following project completion. The RRMP should include onsite replacement of riparian vegetation at a 3:1 ratio. The RRMP should identify species to be planted, success criteria for plantings, such as percent survival or percent cover, actions necessary for maintaining the plants for five years, including, but not limited to, invasive species management, weeding, deer protection, replacement, and other anticipated maintenance activities. The RRMP should include an outline of the information to be collected for annual reports. It should also provide an outline of corrective actions that may be necessary during a five-year mitigation monitoring period and procedures necessary for implementing corrective actions. If revegetation survival and/or cover requirements do not meet established goals, replacement planting, additional watering, weeding, invasive exotic eradication, or any other practice, should be required to achieve these requirements. Replacement plants shall be monitored with the same survival and growth requirements for

⁴ Moyle P.B. (2002). Inland fishes of California. University of California Press. Berkeley, CA.

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five years after planting. The RRMP should be submitted for CDFW review prior to Project approval.

CDFW Recommendation #2: Prepare and implement an RRMP to restore and mitigate project impacts to riparian and floodplain habitat.

Impacts to Fish

The DEIR indicates that the Project activities may directly affect special-status fish species through exposure to increased underwater sound levels. These species may be injured or killed when exposed to elevated underwater sound pressure waves generated from construction activities such as pile driving. Hydroacoustic impacts can include physical injury, mortality, and alteration of behavior. Because the associated pile driving could have a significant impact on special status fish species, CDFW recommends that the DEIR includes additional mitigation measures for impacts to fish as a result of pile driving activities to further avoid and minimize direct impacts to special status fish. A fisheries protection plan, such as a Salmonid Impact Avoidance and Minimization Plan (Plan), for pile construction impacts should be developed. The Plan should include at a minimum, guidance from the Fisheries Hydroacoustic Working Group⁵ for minimizing hydroacoustic impacts to salmonids. Measures applicable to this project may include sound attenuation techniques such as dampening blocks and/or air bubble curtains, as needed, to minimize hydroacoustic impacts.

CDFW Recommendation #3: Prepare and implement a Salmonid Impact Avoidance and Minimization Plan to avoid and minimize hydroacoustic impacts to fish as a result of the project.

In-water Work Period

The DEIR proposes *Mitigation Measure 5-1: Pile Driving* which discusses that to avoid impacts on most special-status fish species, sheet-pile installation and in-stream heavy equipment activity will only occur in accordance with the in-water work window (February 1 to April 15); however, CDFW recommends that the in-water work window should be from February 1 to April 1.

CDFW Recommendation #4: Modify in-water work window to better minimize impacts to special status fish species.

⁵ Fisheries Hydroacoustic Working Group. 2008. Interim Criteria for Injury of Fish Exposed to Pile Driving Operations: Memorandum. Washington: Federal Highway Administration.

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Impacts to Raptors

While Section 5.4.11 of the DEIR includes performing nesting bird surveys prior to the initiation of construction activities, the DEIR does not include a specific discussion about the Projects potentially significant impacts to nesting raptors.

The Project area contains potentially suitable nesting and foraging habitat for raptors including, but not limited to, osprey and bald eagle. Both species actively nest along the Sacramento River within the City of Redding. Bald eagle is listed as endangered under CESA, Fully Protected under Fish and Game Code Section 3511, and protected under the federal Bald and Golden Eagle Protection Act. Osprey are protected by Fish and Game Code Section 3503 and are a CDFW [Sensitive](#)⁶ species. The Project does not currently include measures to be implemented that would avoid, minimize, and mitigate impacts to nesting raptors. Absent mitigation, this Project has the potential to significantly impact these species, which may constitute a Mandatory Finding of Significance pursuant to CEQA Guidelines section 15065, subdivision (a)(1).

CDFW recommends a detailed analysis of potentially significant impacts to nesting raptors with the implementation of Project Alternative A and B; inclusion of pre-construction surveys for raptors within a minimum 1-mile radius of the Project area; and the inclusion of a supplemental Raptor Protection Plan, to be approved by CDFW prior to Project initiation. Key components of this plan should include a thorough habitat assessment to identify existing and potential nesting sites and foraging areas, the establishment of appropriate avoidance and minimization measures such as buffer zones or limited operating periods, and monitoring protocols for raptor nests, along with reporting procedures for survey findings and monitoring efforts. Without adequate consideration and planning, nesting raptors in the vicinity of the project, whose presence may necessitate visual and sound disturbance buffers for protection, could result in substantial delays to project implementation.

CDFW Recommendation #5: Prepare and Implement a Nesting Raptor Monitoring and Management Plan, as necessary.

Western Pond Turtle

The DEIR discusses the potential for western pond turtle (WPT) to occur throughout the Project area. The Project area includes foraging, nesting and basking habitat. CDFW agrees that Project activities have the potential to

⁶ <https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=109406>

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significantly impact WPT without appropriate avoidance and minimization measures. The DEIR offers Mitigation Measure 5-5, which provides avoidance and minimization measures to reduce the potential for significant impacts to WPT. To more adequately reduce the potential for significant impacts to WPT, CDFW recommends refining Mitigation Measure 5-5 by including the following:

- Retain a qualified biological monitor for the duration of proposed work for the Jenny Creek realignment to perform daily pre-construction surveys and monitoring of construction activities in the instance WPT is found and needs to be moved out of harm's way.
- Establish clear guidelines for the design and placement of escape ramps, ensuring they are at an appropriate slope and accessible for turtles.
- Extend the time frame for pre-construction clearance surveys, conducting them at least one week prior to construction and immediately before any significant construction activities. This will help account for changes in turtle presence, as they are known for their high site fidelity.
- Implement additional measures during the nesting season, such as increased surveys and monitoring to identify nests or nesting behavior, particularly between March and June.
- Develop clear construction monitoring protocols that outline how construction personnel will respond to turtle sightings, including communication plans and documentation of any encounters.
- Include a post-construction evaluation phase to assess the impact on WPT and include adaptive management strategies if adverse impacts occur.

Additionally, CDFW recommends including a thorough discussion regarding the proposed beneficial impacts this Project may include for WPT.

CDFW Recommendation #6: Prepare and implement a Western Pond Turtle Monitoring and Management Plan.

CESA Mitigation

Including mitigation measures for Project impacts to sensitive biological resources directly in the project description may create challenges in the acceptance of mitigation for CESA listed species. It may also create ambiguity about the Project's environmental review process. Trustee and responsible agencies require clear, separate analyses of potential impacts and corresponding mitigation strategies to ensure that the proposed measures adequately protect sensitive species and habitats. Currently, the DEIR is lacking this clarity. If mitigation is not thoroughly vetted or appears to be generalized,

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CDFW may not be able to effectively assess and approve proposed mitigation strategies for the purposes of its responsible agency permits. CDFW's regulatory frameworks require specific, measurable, and enforceable mitigation commitments that may be difficult to achieve if the measures are integrated into the project description without adequate detail or evaluation.

Lastly, integrating mitigation into the project description may limit opportunities for partner engagement, public input, and grant funding opportunities. Likewise, the process may inadvertently restrict dialogue about the Project's impacts and partner responses, which could result in less effective conservation outcomes.

While CDFW staff remain optimistic about the restoration of Jenny Creek, CDFW recommends the Lead Agency consider additional mitigation pathways for impacts to biological resources and to include these considerations as contingencies in the DEIR should the restoration of Jenny Creek be infeasible.

CDFW Recommendation #7: Provide distinct narratives for Project activities vs Mitigation activities.

California Endangered Species Act

The DEIR discusses impacts to CESA listed species including Central Valley (CV) spring-run evolutionarily significant unit (ESU) Chinook Salmon (*Oncorhynchus tshawytscha*), and Sacramento River winter-run ESU Chinook Salmon (*Oncorhynchus tshawytscha*). Please be advised that a [CESA Incidental Take Permit⁷](#) must be obtained if the Project has the potential to result in "take" (hunt, pursue, catch, capture, kill, or attempt thereof) of plants or animals listed under CESA, either during construction or over the life of the project. Issuance of a CESA permit is subject to CEQA documentation; the CEQA document must specify impacts, mitigation measures, and a mitigation monitoring and reporting program. If the Project has the potential to result in take of a CESA-listed species, early consultation is encouraged, as significant modification to the Project may be necessary to minimize and fully mitigate impacts as required by Fish and Game Code section 2081(b)(2).

Federal Endangered Species Act/CESA Consistency Determination

Section 1.7 states that a Biological Assessment (BA) documenting potential impacts to aquatic species will be submitted to USACE for initiation of Endangered Species Act (ESA) Section 7 consultation with NMFS and USFWS. On

⁷ <https://wildlife.ca.gov/Conservation/CESA/Permitting>

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September 18th, the Lead Agency noted their interest in acquiring CESA take authorization through a [Consistency Determination](#)⁸(CD).

If a species is listed as endangered or threatened under the federal ESA and listed as endangered, threatened, or candidate under CESA, Fish and Game Code section 2080.1 allows an applicant who has obtained a federal incidental take statement (federal Section 7 consultation) or a federal incidental take permit (federal Section 10(a)(1)(B)) to request that the Director of CDFW find the federally authorized take consistent with CESA. If CDFW finds the federal take authorization consistent with CESA and issues a CD, no further authorization or approval is necessary under CESA. For federal take authorization to be found consistent, it must meet the following criteria:

1. The authorized take is **incidental to an otherwise lawful activity**;
2. The impacts of the authorized take are **minimized and fully mitigated**;
3. The measures required to minimize and fully mitigate the impacts of the authorized take:
 - 1) Are **roughly proportional** in extent to the impact of the taking on the species,
 - 2) **Maintain the applicant's objectives** to the greatest extent possible, and
 - 3) May be **successfully implemented by the applicant**;
 - 4) **Adequate funding** is provided to implement the required minimization and mitigation measures and to monitor compliance with and the effectiveness of the measures; and
 - 5) Issuance of the permit **will not jeopardize the continued existence of a CESA-listed species**.

Please note, an incidental take statement should include language specifying that its authorization rely on the action(s) as described in the Biological Opinion (BO). Phrasing that has been successfully included to obtain consistency includes: "This incidental take statement is based upon the proposed action occurring as described in the accompanying biological opinion." Such language is important in linking the association of a BO and an incidental take statement, so that CDFW may have the opportunity to then authorize take through a CD.

⁸ <https://wildlife.ca.gov/Conservation/CESA/Permitting/Consistency-Determinations>

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CDFW Recommendation #8: Incorporate mitigation, financial assurance, and specific language in the BA/BO to ensure consistency with CESA.

Lake and Streambed Alteration Agreement

Fish and Game Code section 1602 requires any person, state or local governmental agency, or public utility to notify CDFW prior to beginning any activity that may do one or more of the following:

- Substantially divert or obstruct the natural flow of the bed, channel, or bank of any river, stream, or lake; or
- Substantially change or use any material from the bed, channel, or bank of any river, stream, or lake; or
- Deposit or dispose of debris, waste, or other material containing crumbled, flaked, or ground pavement where it may pass into any river, stream, or lake.

To obtain information about the 1602 Notification process, please access the [Lake and Streambed Alteration Program](#)⁹.

Submitting Data

CEQA requires that information developed in environmental documents is incorporated into a database which may be used to make subsequent or supplemental environmental determinations. (Public Resources Code, § 21003, subd. (e).) Accordingly, please report any special status species and natural communities detected during surveys to the [California Natural Diversity Database](#)¹⁰ (CNDDDB).

Promoting Collaboration

CDFW is charged with preserving and protecting the state's diverse ecosystems and wildlife; therefore, CDFW maintains a strong commitment to collaborate with other state agencies. CDFW is enthusiastic to continue assisting the Lead Agency in implementing comprehensive avoidance and minimization strategies for the benefit of California's sensitive resources and aligning regulatory frameworks.

⁹ <https://wildlife.ca.gov/Conservation/Environmental-Review/LSA>


¹⁰ <https://wildlife.ca.gov/Data/CNDDDB>

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Conclusion

CDFW appreciates the opportunity to comment on the DEIR and to assist the Lead Agency in identifying, avoiding, minimizing, and mitigating potentially significant Project impacts to biological resources. If you have any questions, please contact Davis Ferguson, Senior Environmental Scientist (Specialist) by email at R1CEQARedding@wildlife.ca.gov.

Sincerely,

DocuSigned by:

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