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August 5, 2024

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Subject: State Water Project Delta Field Division Operations and Maintenance Habitat Conservation Plan, Notice of Preparation of a Draft Environmental Impact Report, SCH No. 2024060959, Multiple Counties in the Bay Delta Region and Central Region

Dear Shelley Amrhein:

The California Department of Fish and Wildlife (CDFW) has reviewed the Department of Water Resources' (DWR) Notice of Preparation (NOP) of a Draft Environmental Impact Report (DEIR) for the State Water Project Delta Field Division Operations and Maintenance Habitat Conservation Plan (Project) pursuant to the California Environmental Quality Act (CEQA) and CEQA Guidelines.¹

Thank you for the opportunity to provide comments and recommendations regarding those activities involved in the Project that may affect fish and wildlife resources of the State. Please be advised, by law, CDFW may be required to carry out or approve through the exercise of its own regulatory authority under the Fish and Game Code.

CDFW is providing DWR, as the Lead Agency, with specific detail about the scope and content of the environmental information related to CDFW's area of statutory responsibility that must be included in the EIR (See: Cal. Code Regs., tit. 14, § 15082, subd. (b).).

In an email from Laith Bander, dated July 8, 2024, CDFW received an extension to the comment period from July 22, 2024 to August 9, 2024.

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,

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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and management of fish, wildlife, native plants, and habitat necessary for biologically sustainable populations of those species. (*Id.*, § 1802.) 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.

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 over the Project pursuant to the Fish and Game Code. For example, the Project may be subject to CDFW's Lake and Streambed Alteration (LSA) regulatory authority, if the Project impacts the bed, channel or bank of any river, stream or lake within the State (Fish & G. Code, § 1600 et seq.). Likewise, to the extent the Project 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.

REGULATORY REQUIREMENTS

California Endangered Species Act

In order to comply with CESA, an Incidental Take Permit (ITP) must be obtained from CDFW if the Project has the potential to result in "take" of plants or animals listed under CESA, either during construction or over the life of the Project. Under CESA, "take" means "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill." (Fish & G. Code, § 86.) CDFW's issuance of an ITP is subject to CEQA and to facilitate permit issuance, any project modifications and mitigation measures must be incorporated into the CEQA document analysis, discussion, and mitigation monitoring and reporting program. If the Project will impact CESA listed species, early consultation is encouraged, as significant modification to the Project and mitigation measures may be required in order to obtain a CESA permit.

CEQA requires a mandatory finding of significance if a project is likely to substantially impact threatened or endangered species. (Pub. Resources Code, §§ 21001, subd. (c) & 21083; CEQA Guidelines, §§ 15380, 15064 & 15065.) In addition, pursuant to CEQA, the Lead Agency cannot approve a project unless all impacts to the environment are avoided or mitigated to less-than-significant levels, or the Lead Agency makes and supports Findings of Overriding Consideration (FOC) for impacts that remain significant despite the implementation of all feasible mitigation. FOC under CEQA, however, do not eliminate the Project proponent's obligation to comply with the Fish and Game Code.

Fully protected species may not be taken or possessed at any time except in limited circumstances (Fish & G. Code, §§ 3511, 4700, 5050, & 5515). However, Senate Bill

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(SB) 147 authorizes CDFW to issue an ITP under CESA that would authorize take of a fully protected species listed in subdivision (b) of Section 3511, subdivision (b) of Section 4700, subdivision (b) of Section 5050, and subdivision (b) of Section 5515 resulting from impacts attributable to the implementation of the projects identified in subdivision (b) if all of the listed conditions are satisfied (Fish and Game Code, § 2081.15). This includes ensuring that as to each species for which take is authorized, the project includes all further measures necessary to satisfy the conservation standard of Fish and Game Code section 2805, subdivision (d) and take is avoided to the maximum extent possible.

Lake and Streambed Alteration

CDFW requires an LSA Notification, pursuant to Fish and Game Code section 1600 et seq., for Project activities affecting rivers, lakes or streams and associated riparian habitat. Notification is required for any activity that may substantially divert or obstruct the natural flow; change or use material from the bed, channel, or bank (including associated riparian or wetland resources); or deposit or dispose of material where it may pass into a river, lake, or stream. Work within ephemeral streams, drainage ditches, washes, watercourses with a subsurface flow, and floodplains is generally subject to notification requirements. In addition, infrastructure installed beneath such aquatic features, such as through hydraulic directional drilling, is also generally subject to notification requirements. Therefore, any impact to the mainstems, tributaries, or floodplains or associated riparian habitat caused by the proposed Project will likely require an LSA Notification. CDFW may not execute a final LSA Agreement until it has considered the final EIR and complied with its responsibilities as a responsible agency under CEQA.

Migratory Birds and Raptors

CDFW has authority over actions that may result in the disturbance or destruction of active bird nest sites or the unauthorized take of birds. Fish and Game Code sections protecting birds, their eggs, and nests include section 3503 (regarding unlawful take, possession, or needless destruction of the nests or eggs of any bird), section 3503.5 (regarding the take, possession, or destruction of any birds-of-prey or their nests or eggs), and section 3513 (regarding unlawful take of any migratory nongame bird). Migratory birds are also protected under the federal Migratory Bird Treaty Act.

PROJECT DESCRIPTION AND LOCATION SUMMARY

Proponent: Department of Water Resources

Objective: The objective of the Project is to maintain, repair, and improve existing features of the State Water Project (SWP) within the Delta Field Division (DFD) service area. Primary Project activities include operating pumping plants, control systems,

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check structures and turnouts; delivering water via the aqueducts to communities and agriculture; maintaining electrical, mechanical, and mobile equipment; maintaining all buildings and structures, including open-air canals, reservoirs, dams and underground pipelines, and repairing and reconstructing these features.

Location: The Project area consists of the Habitat Conservation Plan (HCP) area which contains the “permit area” where covered activities would occur and other areas where conservation actions would be implemented under the HCP. The HCP area is located generally north and east/southeast of the San Francisco Bay area and along the western portion of the San Joaquin Basin, spanning portions of multiple counties consisting of Napa, Yolo, Solano, Sacramento, Contra Costa, Alameda, Santa Clara, San Joaquin, Stanislaus, and Merced. The 9,718-acre permit area consists of the DWR SWP right-of-way (ROW) for portions of the California Aqueduct; the Clifton Court Forebay; DFD headquarters; the South Bay Aqueduct system; fish screen locations on Sherman Island; the pipeline extension to the Del Valle Pumping Plant, the Lake Del Valle Dam, and its associated facilities; and the North Bay Aqueduct within the DFD service area where covered activities would occur, as well as DWR non-operational lands within the ROW where conservation actions may be implemented. Specific locations for conservation actions are not known at this time, but all conservation actions would occur within the broader HCP area, which was delineated based on the boundaries of watersheds at the Hydrologic Unit Code 12 level that intersect the Project area, with limited refinements to exclude areas that have no potential for conservation actions.

Timeframe: The proposed HCP for the Project is intended to have a 50-year term.

The CEQA Guidelines (§§15124 & 15378) require that the DEIR incorporate a full Project description, including reasonably foreseeable future phases of the project, and that contains sufficient information to evaluate and review the Project’s environmental impact. Please include a complete description of the following Project components in the Project description of the DEIR including, but not limited to, the below information.

- Footprints of existing SWP facilities such as aqueducts, open-air canals, reservoirs, dams, diversion structures, pumps, local water agency infrastructure, staging areas, and access routes within the DFD service area, and proposed permanent Project features such as new roads as well as other permanently or temporarily impacted areas, such as vegetation removal, pond, reservoir and drainage maintenance, conveyance structure and erosion repairs, pumping plant and dam maintenance, conservation actions and other Project components.
- Specific sites of any proposed buildings/structures, including design plans as well as a description of associated ground-disturbing activities, fencing, paving, stationary machinery, and restoration activities.

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- Operational features of the Project, including level of anticipated human presence (describe seasonal or daily peaks in activity, if relevant), artificial lighting/light reflection, noise, traffic generation, and other features.
- A description of all water rights, contractual obligations and potentially vestable rights associated with existing infrastructure within the SWP DFD, including all local water agencies and anticipated diversions. This information is important in establishing the water demands of the SWP and the potential impacts associated with the proposed operations and maintenance activities.
- A description of third-party facility owners, water contractors, encroachment permit and easement holders, and proposed activities conducted by third-party entities.
- Construction schedules, activities, equipment, and crew sizes.
- Potential foreseeable emergency projects such as canal or pipeline breaks or leaks.

ENVIRONMENTAL SETTING

Sufficient information regarding the environmental setting is necessary to understand any potentially significant impacts on the environment of the proposed Project and any alternatives identified in the DEIR (CEQA Guidelines, §§15125 & 15360). CDFW recommends the DEIR provide baseline habitat assessments for special-status plant, fish and wildlife species located and potentially located within the Project area and surrounding lands, including all rare, threatened, and endangered species (CEQA Guidelines, §15380). The DEIR should describe aquatic habitats, such as wetlands or waters of the U.S. or State, and any sensitive natural communities or riparian habitat occurring on or adjacent to Project sites (for sensitive natural communities see: <https://wildlife.ca.gov/Data/VegCAMP/NaturalCommunities#sensitive%20natural%20communities>), and any stream or wetland set back distances associated cities or counties may require. Fully protected, threatened or endangered, candidate, and other special-status species or sensitive natural communities that are known to occur, or have the potential to occur in or near Project sites, include, but are not limited to the species listed in Attachment A.

Habitat descriptions and species profiles included in the DEIR should include information from multiple sources including the East Alameda County Conservation Strategy (EACCS), <https://www.eastalco-conservation.org/documents.html>, Santa Clara Valley Habitat Conservation Plan/Natural Community Conservation Plan (Santa Clara Habitat Plan) <https://scv-habitatagency.org/178/Santa-Clara-Valley-Habitat-Plan>, Draft Solano Multispecies Habitat Conservation Plan (HCP), <https://scwa2.com/solano->

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[multispecies-habitat-conservation-plan/](#), and all relevant Regional Conservation Investment Strategies (RCIS) within the Project area, <https://wildlife.ca.gov/Conservation/Planning/Regional-Conservation/RCIS>, as well as, aerial imagery; historical and recent survey data; field reconnaissance; scientific literature and reports; U.S. Fish and Wildlife Service's (USFWS) Information, Planning, and Consultation System; California Aquatic Resources Inventory; and findings from "positive occurrence" databases such as California Natural Diversity Database (CNDDDB). Only with sufficient data and information can DWR adequately assess which special-status species are likely to occur in the Project vicinity.

CDFW recommends surveys be conducted for special-status species with potential to occur, following recommended survey protocols if available. Survey and monitoring protocols and guidelines are available at:

<https://www.wildlife.ca.gov/Conservation/Survey-Protocol>.

Botanical surveys for special-status plant species, including those listed by the California Native Plant Society (<http://www.cnps.org/cnps/rareplants/inventory/>), should also be conducted during the blooming period for all sensitive plant species potentially occurring within the Project area and include the identification of reference populations. Please refer to CDFW protocols for surveying and evaluating impacts to rare plants available at: <https://www.wildlife.ca.gov/Conservation/Plants>.

IMPACT ANALYSIS AND MITIGATION MEASURES

The CEQA Guidelines (§15126.2) necessitate the DEIR discuss all direct and indirect impacts (temporary and permanent) that may occur with implementation of the proposed Project. This includes evaluating and describing impacts such as:

- Land use changes that would reduce open space or agricultural land uses and increase residential or other land use involving increased development;
- Changes in hydrological conditions that could alter the timing and magnitude of streamflows both during construction and operation of the Project;
- Potential for impacts to special-status species;
- Loss or modification of breeding, nesting, dispersal and foraging habitat, including vegetation removal, alteration of soils and hydrology, and removal of habitat structural features (e.g., snags, roosts, overhanging banks);
- Permanent and temporary habitat disturbances associated with ground disturbance, noise, lighting, reflection, air pollution, traffic or human presence;

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- Obstruction of movement corridors, fish passage, or access to water sources and other core habitat features;
- Water quality impacts in waterbodies both within the Project area and downstream resulting from construction and operation of the Project; and
- Impacts to bed, channel, bank and riparian habitat, and the direct and indirect effects to fish, wildlife, and their habitat.

The CEQA document also should identify existing and reasonably foreseeable future projects in the Project vicinity, disclose any cumulative impacts associated with these projects, determine the significance of each cumulative impact, and assess the significance of the proposed Project's contribution to each impact (CEQA Guidelines, §15355). Although a project's impacts may be insignificant individually, its contributions to a cumulative impact may be considerable; a contribution to a significant cumulative impact (e.g., reduction of available habitat for a listed species) should be considered cumulatively considerable without mitigation to minimize or avoid the impact.

The CEQA Guidelines direct DWR, as the Lead Agency, to consider and describe in the DEIR all feasible mitigation measures to avoid and/or mitigate potentially significant impacts of the Project on the environment based on comprehensive analysis of the potential direct, indirect, and cumulative impacts of the Project. (CEQA Guidelines, §§ 15021, 15063, 15071, 15126.2, 15126.4 & 15370.) This should include a discussion of take avoidance and minimization measures for special-status species, which are recommended to be developed in early consultation with the USFWS, the National Marine Fisheries Service and CDFW. These measures can then be incorporated as enforceable Project conditions to reduce potential impacts to biological resources to less-than-significant levels.

COMMENTS AND RECOMMENDATIONS

Based on the information provided in the NOP, CDFW offers the comments and recommendations below to assist DWR in adequately identifying and/or mitigating the Project's significant, or potentially significant, direct and/or indirect impacts on fish and wildlife (biological) resources. These comments and recommendations are not an exhaustive list and CDFW may provide additional recommendations as more Project specific information is disclosed. The DEIR must include a full Project Description, Environmental Setting, and Impact Analysis and Mitigation Measures as outlined above. Editorial comments or other suggestions may also be included to improve the document.

COMMENT 1: Complete Inventory of Fully Protected, Threatened or Endangered, Candidate, and Other Special-Status Species.

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Issue: The Project encompasses the 9,718-acre permit area and HCP area and has potential to impact a variety of special-status plant and wildlife species. The NOP, in Table 1, identifies 30 covered species to be included in the HCP, however CDFW recommends additional species be considered as potentially present within the Project area and further assessed in the DEIR.

Evidence impact would be significant: Primary covered activities consist of routine maintenance, repair and improvement activities such as upland vegetation management, road construction and maintenance, maintenance of conveyance, water storage and drainage features, erosion repairs, animal abatement, pumping plant maintenance, dam maintenance, other miscellaneous maintenance, repair and improvement activities and fire and security modernization. Implementation of these activities has potential to result in impacts to special-status species and degradation of sensitive habitat.

Recommendation: CDFW recommends the DEIR establish a complete inventory of special-status species with the potential to occur within the proposed Project area. Please see Attachment A in this letter for additional species that should be added to Table 1 for further assessment. Detailed habitat assessments should be performed by a qualified biologist at each proposed Project site within the Project area to determine the presence of suitable habitat for individual plant and wildlife species. If it is determined habitat exists, protocol-level surveys should be performed to determine the presence or absence of special-status species. Survey results may be considered valid for approximately two years. If special-status species are documented within the Project area, the DEIR should provide appropriate avoidance or minimization measures to ensure impacts to these species are reduced to less-than-significant levels. If impacts to CESA-listed species cannot be avoided, CDFW recommends the species be included for take coverage in the Project's anticipated ITP.

COMMENT 2: Detailed Area Map

Issue: Figure 1, titled the HCP Area, provided in the NOP shows existing infrastructure related to the SWP as well as the scope of the HCP area. The map legend also includes the "permit area" however, the exact boundaries of the Project area are not clear.

Evidence impact would be significant: Without clearly established boundaries over such an extensive Project area it is not possible for CDFW to effectively review and evaluate potential impacts to sensitive species, including movement corridors and habitats.

Recommendation: CDFW recommends the DEIR provide a detailed map or map book(s) clearly showing the boundaries of the Project area, including the proposed HCP and conservation strategy areas. The DEIR should include maps and representative

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cross-sections showing the location of existing Project features such as O & M facilities, pumping plants, aqueducts and other SWP infrastructure where Project activities are expected to be conducted. Additionally, CDFW recommends the DEIR includes a clear and detailed map showing all watersheds that may be impacted by proposed Project activities.

COMMENT 3: Covered Activities Overlap with Existing SWP ITP

Issue: The NOP appears to include Project activities which are already covered in the existing long-term operations of the SWP in the Sacramento-San Joaquin Delta Incidental Take Permit (SWP ITP), including facility maintenance and aquatic vegetation removal at the North Bay Aqueduct facility. The NOP states that under existing conditions, such activities are currently limited due to avoiding take of listed species and therefore the applicant is seeking more flexibility.

Evidence impact would be significant: CDFW has already reviewed, evaluated, and permitted some of the proposed Project activities identified in the NOP, in a separate ITP for the long-term operations of the SWP. The species avoidance and minimization measures required for these maintenance activities are feasible and necessary to reduce the impacts of the SWP to listed fish species.

Recommendation: CDFW recommends the DEIR provide explicit descriptions of activities included in maintaining, repairing, and improving any infrastructure associated with the SWP. Specifically, should DWR intend to apply for complimentary ITPs from CDFW, the Project should not be duplicative of, or have overlap with, other ITPs, such as the existing and/or forthcoming SWP ITP or Delta Conveyance ITP. CDFW recognizes that there is potential that some of the Project activities may appear duplicative of existing covered activities but may be proposed in a way that is materially separate and/or different than the covered activity of the existing SWP ITP. In these instances, the DEIR should clarify this nuance to avoid confusion with existing covered activities.

COMMENT 4: Critical Habitat Setbacks

Issue: The Project has the potential to encroach into various habitat types including riparian natural communities and wetlands, as well as upland habitat types such as oak woodlands and coniferous forests. Encroachment into these habitat types can adversely impact sensitive species through reduction of habitat, reduced reproductive success; reduced health and vigor; nest abandonment; loss of nest trees, and/or loss of foraging habitat that would reduce nesting success (loss or reduced health or vigor of eggs or young); burrow/den collapse; crushing as a result of burrow collapse; inadvertent entrapment or entrainment; impingement; habitat loss; turbidity; introduction of debris and/or deleterious materials into stream habitats; direct mortality; and more.

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Evidence impact would be significant: Habitat types in the Project area provide many essential benefits to terrestrial, avian and aquatic species, including, but not limited to thermal protection, water quality, cover, large woody debris, foraging areas, breeding and rearing sites, pollution and contamination buffers and connectivity. Project activities adjacent to these habitats can result in fragmentation of habitat and decreases in native species abundance and biodiversity. For example, riparian buffers help keep pollutants from entering adjacent waters through a combination of processes including dilution, sequestration by plants and microbes, biodegradation, chemical degradation, volatilization, and entrapment within soil particles. Narrow riparian buffers are considerably less effective in minimizing the effects of adjacent development than wider buffers (Castelle et al. 1992, Brososke et al. 1998, Kiffney et al. 2003, Moore et al. 2005).

Recommendation: CDFW recommends the Project establish, and the DEIR incorporate, buffer zones to limit Project activities to areas outside of, and away from, critical habitats. CDFW is available to consult with DWR to determine appropriate site-specific buffers to reduce impacts to sensitive species and critical habitat to less-than-significant levels. At a minimum, CDFW recommends a 50-foot riparian buffer as measured from the top of streambank to the nearest Project infrastructure.

COMMENT 5: Candidate Species under CESA

Issue: Several species currently designated as candidate species under CESA are indicated in the NOP, Table 1, as proposed to be covered under the HCP. The NOP states white sturgeon (*Acipenser transmontanus*) was petitioned for listing under the federal Endangered Species Act (ESA) in November 2023 and has not been formally evaluated for candidacy. However, please be advised the California Fish and Game Commission approved white sturgeon as a candidate species for listing under CESA on June 19, 2024. Additionally, on March 5, 2024, the California Fish and Game Commission received a petition to list western burrowing owl, (*Athene cunicularia hypugaea*) as a threatened or endangered species under CESA. At the time Project activities commence, western burrowing owl may be formally considered a candidate species. Finally, Crotch's bumble bee (*Bombus crotchii*) is one of several bumble bee species that is currently listed as a candidate species.

Evidence impact would be significant: Project activities could result in significant impacts to CESA candidate species without appropriate avoidance or minimization measures.

Recommendation: The DEIR should fully analyze all potential impacts of the Project to white sturgeon, western burrowing owl, and Crotch's bumble bee as candidate species under CESA. As candidate species, they receive the same legal protections afforded to endangered or threatened species. Any potential take of the species resulting from the

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operations and management activities described in the NOP could constitute a potentially significant impact under CEQA. Without appropriate avoidance or minimization measures for these species and their associated habitat, Project-related activities involving water infrastructure operations and maintenance could result in significant impacts. CDFW recommends the DEIR include a detailed assessment for potential presence of each candidate species and thorough analysis of all temporary and permanent impacts to the species that are known to occur or could potentially be present within the Project area. If it is determined that the proposed Project is expected to result in take (Fish & G. Code § 86 defines “take” as “hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill”) as defined under CESA, CDFW recommends coverage of CESA candidate and listed species in an ITP before starting any Project activities.

COMMENT 6: Fully Protected Species

Issue: The NOP states that SB 147 allows CDFW to issue a take permit for fully protected species. SB 147 does allow CDFW to issue permits authorizing take of fully protected species in certain specified circumstances. Projects or categories of projects eligible for a take authorization permit pursuant to this section include “A maintenance, repair, or improvement project to the SWP, including existing infrastructure, undertaken by the Department of Water Resources” therefore; the Project appears to meet the criteria to qualify under SB 147. While the NOP describes activities with the potential to result in take of white-tailed kite (*Elanus leucurus*), a fully protected species, other fully protected species with potential to occur within the Project area are not identified in the NOP.

Evidence impact would be significant: Fully protected species with the potential to occur within the Project area but not considered in the NOP include blunt-nosed leopard lizard (*Gambelia sila*), bald eagle (*Haliaeetus leucocephalus*), golden eagle (*Aquila chrysaetos*), and salt marsh harvest mouse (*Reithrodontomys megalotis distichlis*). Project activities could result in significant impacts to these fully protected species without appropriate avoidance and minimization measures.

Recommendation: CDFW recommends the DEIR include an impacts analysis for each fully protected species with known occurrences or potential to occur within the proposed Project area. CDFW may authorize take for fully protected species, however the Project should include all feasible avoidance and minimization measures, and compensatory mitigation for all impacts that cannot be completely avoided. Mitigation measures should satisfy the conservation standard of subdivision (d) of Fish and Game Code Section 2081.15. The DEIR should specify mitigation measures that apply for state-owned SWP facilities and non-state-owned third-party facilities that may be covered under the future HCP and ITP. CDFW recommends early consultation if DWR may submit an ITP application for fully protected species.

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COMMENT 7: Consistency with Existing Conservation Plans

Issue: The proposed Project occupies an area with several existing conservation plans such as the draft Solano Multispecies HCP and the Santa Clara Valley Habitat Plan.

Evidence impact would be significant: Conservation plans within the Project area provide conservation, protection, restoration and management for fish, plants, animals and their habitats while allowing compatible and appropriate economic activity and development while preserving and restoring the ecosystems they depend on. If proposed Project activities or associated mitigation measures conflict with existing conservation plans, significant impacts to biological resources could occur.

Recommendation: The Project should be consistent or more protective than existing conservation plans. DWR should consult with the implementing entities of the existing conservation plans within the Project area during preparation of the DEIR to ensure the Project does not conflict with policies, strategies and goals of the associated plans. Special focus should be given to mitigation lands. For example, per the draft Solano HCP, “Valley Floor Grassland Foraging” habitat should be mitigated at a ratio of 1:1. However, to ensure adequate compensation for potential impacts to habitat for CESA-listed Swainson’s hawk (*Buteo swainsoni*) and Species of Special Concern, burrowing owl, CDFW recommends any Swainson’s hawk or burrowing owl habitat that is permanently impacted by Project activities be mitigated at a 3:1 ratio, and any temporary impacts at a 1:1 ratio, and nesting habitat be completely avoided. Mitigation lands for the proposed Project should be identified as early in the planning process as possible, and early consultation with CDFW is advised. The DEIR should incorporate all appropriate avoidance and minimization measures outlined in the EACCS for species that could occur within the Alameda County portion of the Project area and adhere to mitigation ratio guidelines.

COMMENT 8: Habitat Connectivity and Wildlife Passage

Issue: The NOP does not clearly state whether the proposed Project activities could result in short-term or long-term impacts to wildlife connectivity. The NOP also does not describe existing conditions regarding connectivity across the Project’s infrastructure. Species vary in their mobility and ability to pass over and under various types of infrastructure, so species-specific data are necessary to implement designs that will not impact those species.

The proposed Project includes components such as road repair or reconstruction, V-ditch installation and repair, repair or reconstruction of conveyance, pond, or drainage features, culverts, bridges, fencing repair or maintenance, stream/channel crossings, and maintenance and repair of dam spillway structures. Implementation of these components of the proposed Project could prevent, decrease, or otherwise alter use of

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existing wildlife movement corridors for the aquatic and terrestrial species listed in the NOP as present or potentially present within the Project area.

The Project could result in direct mortality, reduced reproductive success, reduced frequency of care for young resulting in reduced health or vigor of young, reduced movement between habitats needed for various life stages (e.g. aquatic and uplands) and reduced genetic exchange affecting intra-species diversity.

Evidence the impact would be significant: California wildlife is losing the ability to move and migrate as habitat conversion and built infrastructure fragment species habitat and cut off migration corridors. SB 790 and Assembly Bill 2344 both address wildlife connectivity in California and assert authority and responsibility to CDFW and/or local and state transportation agencies to implement wildlife connectivity actions by identifying where they are needed, coordinate and implement those actions, and establish compensatory mitigation credits for actions taken. SB 790 allows for the creation of Wildlife Connectivity Actions that enhance wildlife movement across any linear barriers, including, but not limited to, roads, rail lines, and canals. The Project area contains habitat that could support connectivity actions across the Project.

Roads, railways, and canals can act as filters and barriers to wildlife movement through a landscape. Crossings such as overpasses, chutes, and siphons can promote wildlife movement across canals. While canals in the Project area serve as barriers to wildlife movement, proposed conservation actions could promote wildlife movement for a range of species in the Project area, including, but not limited to, San Joaquin kit fox (*Vulpes macrotis mutica*), Tule elk (*Cervus canadensis nannodes*), coyote (*Canis latrans*), bobcat (*Lynx rufus*), American badger (*Taxidea taxus*), and rabbit, specifically, brush rabbit (*Sylvilagus bachmani*) and black-tailed jackrabbit (*Lepus californicus*).

No information is provided in the NOP to adequately determine impacts and/or benefits for wildlife connectivity from the Project.

Examples of data include the Bay Area Linkages Study. For instance, the Project features, particularly the canal east of Bethany Reservoir and in the Crow Hill and Bennett Valley area potentially serves as a barrier for San Joaquin kit fox (BIOS ds862).

Recommendation: The DEIR should thoroughly assess existing wildlife movement corridors and habitat connectivity throughout the SWP structures, and all other structures associated with the local water districts whose activities are proposed to be covered by the HCP and the DEIR. The DEIR should also assess opportunities for enhancement of existing corridors or creation of new corridors where they may be lacking. The DEIR should provide detailed maps of specific locations where wildlife connectivity could be impacted, such as canals, culverts, roads, fencing, spillways, etc.

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The DEIR should include the results of past connectivity studies within the Project area in the assessment and, where data are lacking, undertake a Project-specific wildlife movement study that evaluates the potential for the Project to significantly impact wildlife connectivity to guide the development of measures to encourage connectivity.

The DEIR should also include a robust analysis of potential impacts of Project operations and future flooding or lower water periods on wildlife movement and connectivity under and around existing structures. During this process, CDFW recommends DWR identify if any of the proposed Project activities are within state or regional linkage design areas, species core recovery areas or critical habitat, or in locations with high vehicle-animal collisions, and consider measures to incorporate movement of both aquatic and terrestrial species to allow for safe passage over or under and determination of broader impacts on connectivity.

CDFW recommends the connectivity study occur over a period of at least 24 months prior to the development of designs so they may be incorporated into the Project and include an assessment of intra- and interannual changes in species movement and changes in hydrology and climate. The study should also include a broad range of operational conditions, such as for canals, where the water level may affect connectivity. The study should occur within the limits of the proposed Project area to develop a baseline understanding of the areas where wildlife movement and crossings are most prevalent. The study should monitor and evaluate wildlife movement adjacent to and through structures and include an evaluation of existing infrastructure for passage of native and non-native terrestrial/aquatic species.

The protocol for the baseline survey, post-construction surveys, site selection criteria and design criteria for the development of the wildlife connectivity structures should, at a minimum, follow the protocols outlined in the California Department of Transportation (Caltrans), Wildlife Crossings Design Manual (Caltrans 2009), CDFW's Transportation Planning Companion Plan, associated with the State Wildlife Action Plan (CDFW 2016), and the Federal Highway Administration Wildlife Crossing Structure Handbook (FHWA 2011). CDFW recommends that monitoring data be analyzed, summarized, and results discussed in reports that may be posted to the Project webpage and be submitted to CDFW and other agencies or organizations that have a responsibility or interest in the effectiveness of wildlife movement corridors.

Recommendation 2: Habitat connectivity requires space for wildlife to move through a matrix of high- and low-quality habitat. The DEIR should include an analysis of potential indirect impacts of the Project on biological resources, including resources in areas adjacent to the Project footprint, such as nearby public lands, open space, natural habitats, riparian ecosystems, and wildlife corridors especially as they relate to connectivity. The DEIR should also include an evaluation of potential indirect impacts of the Project on any designated and/or proposed reserve or mitigation lands such as

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preserved lands associated with a conservation or recovery plan, or other conserved lands.

Recommendation 3: CDFW recommends incorporating facets in the DEIR of existing CDFW programs that can be used to promote habitat connectivity, such as RCIS's and associated Mitigation Credit Agreements and SB 790 wildlife connectivity actions. The Project area covers existing conservation plans that have conducted analyses and developed measures for connectivity, including the Santa Clara Valley Habitat Plan and the East Bay and Santa Clara RCIS. In addition, the San Joaquin RCIS (<https://sjvrcis.org/the-sjv-rcis/>) is under development, and will be located within San Joaquin, Stanislaus, Merced and Madera counties, with small portions extending into Tuolumne and Fresno counties. CDFW recommends the DEIR utilize this information to guide DWR in developing potential mitigation for the Project and potentially for future projects through the development of advance mitigation projects. DWR should keep in mind that SB 790 is not only focused on establishing mitigation credits for improving aquatic or terrestrial habitat connectivity or wildlife migration, but also includes recolonization, and breeding opportunities inhibited by built infrastructure or habitat fragmentation. Wildlife connectivity actions may include, but are not limited to, road or canal overpasses or underpasses solely for use by wildlife and actions to connect fragmented habitat. Therefore, CDFW recommends that DWR analyze and consider wildlife connectivity actions in the DEIR that can improve conditions for a variety of species including bats, birds, fish species, amphibians, and other aquatic and terrestrial plant and wildlife species.

Recommendation 4: The DEIR should provide mitigation measures for any covered activities that impact aquatic or terrestrial connectivity and movement, such as, but not limited to, road repair or reconstruction, V-ditch installation and repair, repair or reconstruction of conveyance, pond, or drainage features, culverts, bridges, fencing repair or maintenance, stream/channel crossings, and maintenance and repair of dam spillway structures.

The DEIR should establish measures for wildlife friendly designs for covered activities, including but not limited to:

- Wildlife-friendly fencing, including restrictions on placement of fencing at the opening to culverts. Fencing should also be designed to deter wildlife from crossing over roads and other infrastructure, and to reduce wildlife-vehicle collisions, during both dry and wet seasons;
- Culvert improvements to support passage during wet and dry years, including, but not limited to maintaining culverts to be free of sediments and vegetation; terracing to allow passage of terrestrial species where space allows; upsizing to support passage of impacted species; and

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- Consideration of design features for features that can support wildlife movement such as minimize lengths (entry to exit) of dedicated wildlife crossings for certain species guilds, designs (grates, shelving, terracing, etc.) that still allow light penetration; maximize heights of crossings or add bridges for larger species guilds; natural cover types to encourage use; bench designs to allow use of the crossings during flooding; and smaller animal escape areas within or adjacent to the dedicated wildlife crossings.

COMMENT 9: Pesticide Application and Impacts to Non-Target Wildlife

Issue: The NOP indicates burrowing rodent control and herbicide application will be covered third-party activities.

Evidence impact would be significant: Wildlife, including beneficial arthropods, birds, mammals, amphibians, reptiles, and fish, can be poisoned by pesticides, including herbicides and rodenticides, after exposure to a toxic dose through ingestion, inhalation, or dermal contact (Fleischli *et al.* 2004, Pimentel 2005, Berny 2007). They can also experience secondary poisoning through feeding on animals that have been directly exposed to the pesticides. Raptors (e.g., hawks and owls) and mammalian carnivores (e.g., fishers) are some of the common victims of secondary poisonings by anticoagulant rodenticides (Mendelssohn and Paz 1977, Gabriel *et al.* 2015, 2018). Even non-lethal doses of pesticides can negatively affect wildlife; pesticides can compromise immune systems, cause hormone imbalances, affect reproduction, and alter growth rates of many wildlife species (Pimentel 2005, Li and Kawada 2006, Relyea and Diecks 2008, Baldwin *et al.* 2009).

Recommendation: The DEIR should include a detailed impacts analysis on the use of pesticides on non-target native wildlife and include all feasibly available avoidance and minimization measures for pesticide use. The DEIR should state that when pesticides are used, they will be used as directed by the manufacturer including proper storage. CDFW strongly recommends that anticoagulant rodenticides not be used at SWP facilities, particularly those that incorporate “flavorizers” that make the pesticide appetizing to a variety of species. Whenever possible, physical barriers, traps, and organic pesticides should be used to control pest populations around associated infrastructure and facilities. Additionally, the DEIR should include an herbicide application plan to be approved by CDFW. The plan should include the method of application, frequency of use, and potential locations of application.

COMMENT 10: Beaver Abatement

Issue: The NOP states that animal abatement including beaver dam abatement would be a covered activity in the HCP. In 2023, CDFW established a Beaver Restoration

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Program and adopted a beaver depredation policy that promotes human-beaver coexistence. It is unclear if the Project will implement or adhere to this new program.

Evidence impact would be significant: Beaver colonization and behavior is valuable to the ecosystems they maintain (e.g., felling trees, damming waterways), however, this behavior may lead to direct contact and potential conflict with SWP facilities and infrastructure. Abatement of beavers within the Project area may result in significant impacts to environmental systems within the Project area.

Recommendation: CDFW recommends the DEIR include a thorough evaluation of potential beaver dam colonization within the Project area and potential beaver damage to existing or future SWP infrastructure. The DEIR should identify effective and feasible non-lethal deterrent strategies and options that could be implemented in lieu of lethal beaver management. Installation of these devices and equipment may be done proactively to prevent beaver damage or may be pursued to abate damage as an alternative to pursuing depredation.

COMMENT 11: East Solano Plan or California Forever

Issue: As previously stated, CEQA requires analysis of reasonably foreseeable future projects and cumulative impacts. The East Solano Plan (also referred to as California Forever), is a very large development project that is proposed in Solano County within the Project area.

Evidence impact would be significant: The East Solano Plan or California Forever, is a planned 17,500-acre new community designed to support 400,000 residents.

Recommendation: CDFW highly recommends the DEIR include a thorough analysis of all short-term and long-term impacts, including cumulative impacts, of the East Solano Plan community which is proposed to be located within the Project area.

COMMENT 12: Incidental Take Permit - Term

Issue: The NOP states that DWR is seeking State and federal ITPs that each remain in effect for a permit term of 50 years.

Evidence impact would be significant: CESA is a California environmental law that conserves and protects plant and animal species at risk of extinction. CDFW ITPs allow a permittee to take a CESA-listed species if such taking is incidental to, and not the purpose of, carrying out an otherwise lawful activity. Due to the unpredictable future of many CESA-listed species, it is very difficult to know how Project activities may impact certain species within a 50-year period. Additionally, changes in conservation practices, adaptive management actions, monitoring requirements, and general scientific protocols are likely to evolve over a 50-year timeline.

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Recommendation: CDFW recommends DWR request a reduced term in the proposed ITP application. Please be advised that CDFW typically issues ITPs for periods of 10 years with the possibility of renewal at the end of the 10-year term. CDFW recommends early consultation to further discuss an appropriate ITP term.

ENVIRONMENTAL DATA

CEQA requires that information developed in environmental impact reports and negative declarations be incorporated into a database which may be used to prepare subsequent CEQA documents or to make supplemental environmental determinations. (Pub. Resources Code, § 21003, subd. (d) & (e)). Accordingly, please report any special-status species and natural communities detected during Project surveys to the CNDDDB. The CNDDDB field survey form can be filled out and submitted online here: <https://wildlife.ca.gov/Data/CNDDDB/Submitting-Data>. The types of information reported to CNDDDB can be found here: <https://www.wildlife.ca.gov/Data/CNDDDB/Plants-and-Animals>.

ENVIRONMENTAL DOCUMENT FILING FEES

CDFW anticipates that the proposed Project, will have an impact on fish and/or wildlife, and assessment of environmental document 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 environmental document filing fee is required in order for the underlying Project approval to be operative, vested, and final. (See Cal. Code Regs, tit. 14, § 753.5; Fish & G. Code, § 711.4; Pub. Resources Code, § 21089.)

CONCLUSION

CDFW appreciates the opportunity to comment on the NOP in order to assist DWR in identifying and mitigating Project impacts on biological resources.

Questions regarding this letter or further coordination should be directed to Benjamin Huffer, Senior Environmental Scientist (Specialist), at (707) 815-9950 or Benjamin.Huffer@wildlife.ca.gov; or Brenda Blinn, Senior Environmental Scientist (Supervisory), at (707) 339-0334 or Brenda.Blinn@wildlife.ca.gov.

Sincerely,

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Attachment A

ec: Office of Planning and Research, State Clearinghouse (SCH No. 2024060959)

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ATTACHMENT A

Inventory of Fully Protected, Threatened or Endangered, Candidate, and Other Special-Status Species

Common Name	Scientific Name	Status (Federal/State)
Invertebrates		
Crotch's bumble bee	<i>Bombus crotchii</i>	None/SC
western bumble bee	<i>Bombus occidentalis</i>	Under Review/SC
monarch butterfly	<i>Danaus plexippus</i>	FC/None
vernal pool fairy shrimp	<i>Branchinecta lynchi</i>	FT/None
vernal pool tadpole shrimp	<i>Lepidurus packardi</i>	FE/None
Conservancy fairy shrimp	<i>Branchinecta conservatio</i>	FE/None
Delta green ground beetle	<i>Elaphrus viridis</i>	FT/None
valley elderberry longhorn beetle	<i>Desmocerus californicus dimorphus</i>	FT/None
Amphibians and Reptiles		
California red-legged frog	<i>Rana draytonii</i>	FT/SSC
foothill yellow-legged frog	<i>Rana boylei</i>	FT/SE
western spadefoot	<i>Spea hammondi</i>	PT/SSC
California tiger salamander	<i>Ambystoma californiense</i>	FT/ST
Alameda whipsnake	<i>Masticophis lateralis euryxanthus</i>	FT/ST
giant gartersnake	<i>Thamnophis gigas</i>	FT/ST
northwestern pond turtle	<i>Emys marmorata</i>	FC/SSC
Blunt-nosed leopard lizard	<i>Gambelia sila</i>	FE/SE, FP
California glossy snake	<i>Arizona elegans occidentalis</i>	None/SSC

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Birds		
tricolored blackbird	<i>Agelaius tricolor</i>	BCC/ST, SSC
western burrowing owl	<i>Athene cunicularia hypugaea</i>	BCC/SSC1
Swainson's hawk	<i>Buteo swainsoni</i>	None/ST
white-tailed kite	<i>Elanus leucurus</i>	None/FP2
Golden eagle	<i>Aquila chrysaetos</i>	None/FP
Bald Eagle	<i>Haliaeetus leucocephalus</i>	None/SE, FP
Northern harrier	<i>Circus hudsonius</i>	None/SSC
California horned lark	<i>Eremophila alpestris actia</i>	None/WL
American peregrine falcon	<i>Falco peregrinus anatum</i>	None/None
Prairie falcon	<i>Falco mexicanus</i>	None/WL
Least Bell's vireo	<i>Vireo bellii pusillus</i>	FE/SE
Song sparrow ("Modesto population")	<i>Melospiza melodia pop. 1</i>	None/SSC
Mammals		
San Joaquin kit fox	<i>Vulpes macrotis mutica</i>	FE/ST
San Francisco dusky-footed woodrat	<i>Neotoma fuscipes annectens</i>	None/SSC
Salt marsh harvest mouse	<i>Reithrodontomys megalotis distichlis</i>	FE/SE, FP
San Joaquin valley woodrat	<i>Neotoma fuscipes riparia</i>	FE/SSC
American badger	<i>Taxidea taxus</i>	None/SSC
Riparian brush rabbit	<i>Sylvilagus bachmani riparius</i>	FE/SE
Pallid bat	<i>Antrozous pallidus</i>	None/SSC
Western red bat	<i>Lasiurus frantzii</i>	None/SSC
Townsend's big-eared bat	<i>Corynorhinus townsendii</i>	None/SSC

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Fish		
Delta smelt	<i>Hypomesus transpacificus</i>	FT/SE
longfin smelt	<i>Spirinchus thaleichthys</i>	FC/ST
Sacramento River winter-run chinook salmon	<i>Oncorhynchus tshawytscha</i> pop. 7	FE/SE
Central Valley spring-run chinook salmon	<i>Oncorhynchus tshawytscha</i> pop. 11	FT/ST
southern DPS of North American green sturgeon	<i>Acipenser medirostris</i> pop. 1	FT/None
white sturgeon	<i>Acipenser transmontanus</i>	None/SSC
California Central Valley steelhead	<i>Oncorhynchus mykiss irideus</i> pop. 11	FT/None
Central California coast steelhead	<i>Oncorhynchus mykiss irideus</i> pop. 8	FT/None
Sacramento Perch	<i>Archoplites interruptus</i>	None/SSC
Sacramento splittail	<i>Pogonichthys macrolepidotus</i>	None/SSC
Plants		
Colusa grass	<i>Neostapfia colusana</i>	FT/SE
Solano grass	<i>Tuctoria mucronata</i>	FE/SE
Delta button-celery	<i>Eryngium racemosum</i>	None/SE
Livermore tarplant	<i>Deinandra bacigalupii</i>	None/State Rare
Palmate-bracted birds beak	<i>Cordylanthus palmatus</i>	None/State Rare
Sanford's arrowhead	<i>Sagittaria sanfordii</i>	None/State Rare

Notes: DPS = Distinct Population Segment; pop. = population Status; WL = Watch List

Federal Endangered Species Act: PT = Proposed Threatened; FC = Candidate; FT = Threatened; FE = Endangered Other Federal Status; BCC = Bird of Conservation Concern

California Endangered Species Act: SC = Candidate; ST = Threatened; SE = Endangered; FP = Fully Protected Other State Status; SSC = Species of Special Concern

*Species in Blue were not included in Table 1 of the NOP but should be evaluated in the DEIR.

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