



STATE OF CALIFORNIA • NATURAL RESOURCES AGENCY Gavin Newson, Governor
DEPARTMENT OF FISH AND WILDLIFE Charlton H. Bonham, Director

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June 5, 2023

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Subject: Santiago Creek Dam Outlet Tower and Spillway Improvements Project, Notice of Preparation (NOP) of a Draft Environmental Impact Report (DEIR), SCH# 2023050097

Dear Andy Uk:

The California Department of Fish and Wildlife (CDFW) received a Notice of Preparation (NOP) of a Draft Environmental Impact Report (DEIR) from Irvine Ranch Water District (IRWD) for the Santiago Creek Dam Outlet Tower and Spillway Improvements Project (Project) pursuant to the California Environmental Quality Act (CEQA) and CEQA Guidelines.

Thank you for the opportunity to provide comments and recommendations regarding the activities involved in the Santiago Creek Dam Outlet Tower and Spillway Improvements Project that may affect California fish and wildlife. Likewise, we appreciate the opportunity to provide comments regarding those aspects of the Project that CDFW, by law, may be required to carry out or approve through the exercise of 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, subdivision (a) & 1802; Pub. Resources Code, § 21070; CEQA Guidelines, § 15386, subdivision (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 (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

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related activities that have the potential to adversely affect state 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 as provided by the Fish and Game Code, including lake and streambed alteration regulatory authority (Fish & G. Code, § 1600 et seq.). CDFW also administers the Natural Community Conservation Planning (NCCP) program, a California regional habitat conservation planning program. The Irvine Ranch Water District (IRWD) participates in the NCCP program through its role as a Participating Landowner under the County of Orange Central and Coastal Subregion Natural Community Conservation Plan/Habitat Conservation Plan (NCCP/HCP). To the extent implementation of the Project as proposed may result in "take" (see Fish & G. Code, § 2050) of any species protected under the California Endangered Species Act (CESA; Fish & G. Code, § 2050 et seq.) or the Native Plant Protection Act (NPPA; Fish & G. Code, § 1900 et seq.), CDFW recommends the Project proponent obtain appropriate authorization under the Fish and Game Code.

PROJECT DESCRIPTION SUMMARY

Proponent: Irvine Ranch Water District

Objective: IRWD and Serrano Water District (SWD) have been working to evaluate the different structural elements of the existing Santiago Creek Dam including the analysis for seismic retrofits or replacement of the outlet tower. After the evaluation, the Division of Safety of Dams (DSOD) requested that the tower and spillway need to be improved because the current design does not meet current construction standards. The improvements and replacement of the Santiago Creek Dam outlet tower and spillway facilities are necessary to address the seismic safety concerns and to meet current DSOD regulatory standards. The proposed Project involves demolishing existing structures, including the outlet tower, spillway, portions of the upstream dam embankment concrete facing, storage building on the dam crest, portions of the outlet works, portions of the Irvine Lake pipeline (ILP), catwalks/stairs across Santiago Creek, and piezometers/monitoring wells. The existing spillway will be replaced with a new side-channel spillway at the left abutment. The Project also includes raising the spillway 6 feet to 797.9 feet, which is 2 feet higher than current water storage elevation.

Location: The Project is located at the Santiago Creek Dam at the northwest end of Irvine Lake in Orange County, California. The Project site is south of State Route (SR) 261 and east of SR 241 and Santiago Road. The Project is also located in the Central and Coastal Subregion NCCP/HCP. The Santiago Dam is in "Non-Reserve Open Space." The surrounding land uses include NCCP/HCP Reserve which include Irvine Regional Park, Limestone Canyon Regional Park, and Oak Canyon Park.

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Biological Setting: As stated above, the Project site is located in “Non-Reserve Open Space within the NCCP/HCP plan area. The area surrounding the lake and dam is largely undeveloped and includes sensitive habitat. Per the Initial Study (IS), the habitat types that occur in the survey area include: sagebrush scrub, disturbed sagebrush scrub, sagebrush-coyote bush scrub, southern cactus scrub, disturbed southern cactus scrub, disturbed floodplain sage scrub, toyon-sumac chaparral, annual grassland, ruderal riparian herb, southern willow scrub, mulefat scrub, disturbed mulefat scrub, southern sycamore riparian woodland, southern sycamore-coast live oak riparian woodland, southern black willow forest, disturbed southern black willow forest, southern black willow forest/riparian herb, coast live oak woodland, and western sycamore and vegetated fluctuating shoreline. Other land cover includes cliff, open water, fluctuating shoreline, perennial stream, ornamental vegetation, and developed areas associated with the lake.

The Project site has the potential to support several sensitive wildlife species, including but not limited to coastal California gnatcatcher (*Polioptila californica californica*; Federal Endangered Species Act listed-threatened (ESA), California Species of Special Concern (SSC), NCCP/HCP Covered Species)), least Bell's vireo (*Vireo bellii pusillus*; ESA listed endangered, California Endangered Species Act (CESA) listed endangered, NCCP/HCP Covered Species)), coastal cactus wren (*Campylorhynchus brunneicapillus sandiegensis*; SSC, NCCP/HCP Covered Species), bald eagle (*Haliaeetus leucocephalus*; California Fully Protected Species), western spadefoot (*Spea hammondi*; SSC, NCCP/HCP Covered Species), orange-throated whiptail (*Aspidoscelis hyperythra*; NCCP/HCP Covered Species), two-striped gartersnake (*Thamnophis hammondi*; SSC), western mastiff bat (*Eumops perotis californicus*; SSC), and pallid bat (*Antrozous pallidus*; SSC).

The Project site also has the potential to support a variety of sensitive plant species including but not limited to intermediate mariposa lily (*Calochortus weedii* var. *intermedius*; California Rare Plant Rank (CRPR) 1B.2, NCCP/HCP Covered Species)), Allen's pentachaeta (*Pentachaeta aurea* ssp. *Allenii*; CRPR 1B.1), chaparral nolina (*Nolina cismontana*; CRPR 1B.2), Braunton's milk-vetch (*Astragalus brauntonii*; ESA listed-endangered, CRPR 1B.1), white rabbit-tobacco (*Pseudognaphalium leucocephalum*; CRPE 2B.2), and many-stemmed dudleya (*Dudleya multifcaulis*; CRPR 1B.2).

Project Timeline: The Project would take approximately three years to complete. The initial construction schedule anticipates that the spillway and inclined outlet structure improvements would be constructed over multiple dry seasons.

COMMENTS AND RECOMMENDATIONS

CDFW offers the following comments and recommendations to assist IRWD in identifying and/or mitigating Project impacts on biological resources to ensure regional

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conservation objectives in the County of Orange Central and Coastal Subregion NCCP/HCP are met and the Project is compliant with the NCCP/HCP.

Specific Comments

- 1) Biological Direct, Indirect, and Cumulative Impacts. This Project includes the use of heavy machinery for the construction of the new dam facilities. An increased amount of noise and artificial light are associated with construction activities. Artificial light can change normal wildlife behavior, often altering their nesting and foraging behavior. Edge effects, such as light pollution, are known to result in extirpation of species from an area. Due to the proximity of the Project site to sensitive habitat types and to Santiago Creek, it is essential to understand how the open space and biological diversity within it may be impacted by Project activities. This area is part of an essential wildlife corridor and open space that supports biological diversity in the area. CDFW recommends providing a thorough discussion of direct, indirect, and cumulative impacts expected to adversely affect biological resources, with specific measures to offset such impacts. The following should be addressed in the DEIR:
 - a) A discussion regarding indirect Project impacts on biological resources, including resources in nearby public lands, open space, adjacent natural habitats, riparian ecosystems, and any designated and/or proposed or existing reserve lands (e.g., preserve lands associated with an NCCP (NCCP, Fish & G. Code, § 2800 et. seq.). Impacts on, and maintenance of, wildlife corridor/movement areas, including access to undisturbed habitats in adjacent areas, should be fully evaluated in the DEIR;
 - b) A discussion of potential adverse impacts from lighting, noise, temporary and permanent human activity, and exotic species and identification of any mitigation measures;
 - c) A discussion on Project-related changes on drainage patterns downstream of the Project site; the volume, velocity, and frequency of existing and post-Project surface flows; polluted runoff; soil erosion and/or sedimentation in streams and water bodies; and post-Project fate of runoff from the Project site. Mitigation measures proposed to alleviate such Project impacts should be included;
 - d) An analysis of impacts from land use designations and zoning located nearby or adjacent to natural areas that may inadvertently contribute to wildlife-human interactions. A discussion of possible conflicts and mitigation measures to reduce these conflicts should be included in the DEIR; and,
 - e) A cumulative effects analysis, as described under CEQA Guidelines section 15130. General and specific plans, as well as past, present, and anticipated

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future projects, should be analyzed relative to their impacts on similar plant communities and wildlife habitats.

- 2) Sensitive Bird Species. Based on the location of the Project, there is potential for special-status bird species. Project activities occurring during the breeding season of nesting birds could result in the incidental loss of fertile eggs or nestlings, or otherwise lead to nest abandonment in habitat directly adjacent to the Project boundary. The Project could also lead to the loss of foraging habitat for sensitive bird species.
 - a) CDFW recommends that measures be taken, primarily, to avoid Project impacts to nesting birds. Migratory nongame native bird species are protected by international treaty under the Federal Migratory Bird Treaty Act (MBTA) of 1918 (Code of Federal Regulations, Title 50, § 10.13). Sections 3503, 3503.5, and 3513 of the California Fish and Game Code prohibit take of all birds and their active nests including raptors and other migratory nongame birds (as listed under the MBTA).
 - b) Project activities including (but not limited to) staging and disturbances to native and nonnative vegetation, structures, and substrates should occur outside of the avian breeding season which generally runs from February 15 through August 31 (as early as January 1 for some raptors) to avoid take of birds or their eggs. If avoidance of the avian breeding season is not feasible, CDFW recommends surveys by a qualified biologist with experience in conducting breeding bird surveys to detect protected native birds occurring in suitable nesting habitat that is to be disturbed and (as access to adjacent areas allows) any other such habitat within 300-feet of the disturbance area (within 500-feet for raptors). Project personnel, including all contractors working onsite, should be instructed on the sensitivity of the area. Reductions in the nest buffer distance may be appropriate depending on the avian species involved, ambient levels of human activity, screening vegetation, or possibly other factors.
- 3) Coastal California Gnatcatcher and Least Bell's Vireo. There is a strong possibility that these two species occur on or near the Project site. The DEIR should include a complete, recent habitat assessment for suitable coastal California gnatcatcher (*Polioptila californica californica*) and least Bell's vireo (*Vireo bellii pusillus*) habitat. If suitable habitat for the coastal California gnatcatcher and least Bell's vireo is present onsite or adjacent to the Project site, CDFW recommends protocol level surveys for gnatcatcher and vireo to determine presence or absence of this species. Mitigation for direct, indirect, and cumulative impacts to this species should be determined after the completion of these surveys.

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- 4) Biological Baseline Assessment. CDFW recommends providing a complete assessment and impact analysis of the flora and fauna within and adjacent to the Project site, with emphasis upon identifying endangered, threatened, sensitive, regionally, and locally unique species, including any Covered Species under the NCCP/HCP, and sensitive habitats. The Project impact analysis should therefore address direct, indirect, and cumulative biological impacts, as well as provide specific mitigation or avoidance measures necessary to offset those impacts. The DEIR should include the following information:
- a) A complete floristic assessment within and adjacent to the Project area, with particular emphasis upon identifying endangered, threatened, sensitive, and locally unique species and sensitive habitats. This should include a thorough, recent, floristic-based assessment of special status plants and natural communities.
 - b) A complete, recent, assessment of the biological resources associated with each habitat type onsite and within adjacent areas that could also be affected by the Project. CDFW's California Natural Diversity Database (CNDDDB) should be reviewed to obtain current information on any previously reported sensitive species and habitat. CDFW recommends that CNDDDB Field Survey Forms be completed and submitted to CNDDDB to document survey results. Online forms can be obtained and submitted at <https://wildlife.ca.gov/Data/CNDDDB/Submitting-Data>.
 - c) Vegetation mapping should follow criteria and definitions developed for the subregional NCCP/HCP. More specifically, areas of the property which may show invasion by non-native forbs (e.g., mustards, etc.) should nonetheless be identified as non-native grassland vegetation and any impacts mitigated accordingly. Such areas should not be categorized as 'Disturbed' or ruderal unless there is strong documentation that the property had been subject to an authorized use which caused a truly disturbed condition of the vegetation.
 - d) The DEIR should have a complete, recent, assessment of rare, threatened, and endangered, and other sensitive species onsite and within the area of potential effect, including California Species of Special Concern and California Fully Protected Species (Fish & G. Code, §§ 3511, 4700, 5050 and 5515). Species to be addressed should include all those which meet the CEQA definition of endangered, rare, or threatened species (CEQA Guidelines, § 15380). Seasonal variations in use of the Project area should also be addressed. Focused species-specific surveys, conducted at the appropriate time of year and time of day when the sensitive species are active or otherwise identifiable, are necessary. Acceptable species-specific survey procedures should be developed in consultation with CDFW and USFWS; and,

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- e) A recent, wildlife and rare plant survey. CDFW generally considers biological field assessments for wildlife to be valid for a one-year period, and assessments for rare plants may be considered valid for a period of up to three years as long as there was not a prevailing drought during the time of the botanical survey. Some aspects of the proposed Project may warrant periodic updated surveys for certain sensitive taxa, particularly if build out could occur over a protracted time frame, or in phases.

General Comments

- 1) County of Orange Central and Coastal Subregion Natural Community Conservation Plan/Habitat Conservation Plan (NCCP/HCP) CDFW issued Natural Community Conservation Plan Approval and Take authorization for the County of Orange Central and Coastal Subregion NCCP/HCP (Central and Coastal NCCP/HCP) per section 2800, et seq., of the California Fish and Game Code on July 17, 1996. The Central and Coastal NCCP/HCP establishes a multiple species conservation program to minimize and mitigate habitat loss and provides for the incidental take of covered species in association with activities covered under the permit.

Compliance with approved habitat plans, such as Central and Coastal (NCCP/HCP), is discussed in CEQA. Specifically, section 15125(d) of the CEQA Guidelines requires that the CEQA document discuss any inconsistencies between a proposed Project and applicable general plans and regional plans, including habitat conservation plans and natural community conservation plans. An assessment of the impacts to the Central and Coastal NCCP/HCP as a result of this Project is necessary to address CEQA requirements.

The proposed Project occurs within the area and is subject to the provisions and policies of the Central and Coastal NCCP/HCP. To be considered a covered activity, Permittees need to demonstrate that proposed actions are consistent with the Central and Coastal NCCP/HCP and its associated Implementing Agreement.

- 2) Lake and Streambed: Santiago Creek is located just east of the Project site. Santiago Creek is a blueline stream which enters Irvine Lake and continues downstream to the dam flowing north to west, ultimately reaching the Santa Ana River. This Project will impact the watersheds surrounding Santiago Dam and Irvine Lake. CDFW has regulatory authority over activities in streams and/or lakes that will divert or obstruct the natural flow, or change the bed, channel, or bank (which may include associated riparian resources) of any river, stream, or lake or use material from a river, stream, or lake. For any such activities, the Project applicant (or "entity") must provide written notification to CDFW pursuant to section 1600 et seq. of the Fish and Game Code. Based on this notification and other information, CDFW

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determines whether a Lake and Streambed Alteration Agreement (LSAA) with the applicant is required prior to conducting the proposed activities. CDFW's issuance of an LSAA for a Project that is subject to CEQA will require CEQA compliance actions by CDFW as a Responsible Agency. To minimize additional requirements by CDFW pursuant to section 1600 et seq. and/or under CEQA, the DEIR should fully identify the potential impacts to the stream or riparian resources and provide adequate avoidance, mitigation, monitoring, and reporting commitments for issuance of the LSAA. CDFW recommends the Applicant submit a Lake and Streambed Alteration Notification to CDFW.

- 3) Mitigation and Avoidance of Project-Related Biological Impacts: The DEIR should include mitigation measures for adverse project-related impacts to sensitive plants, animals, and habitats. Mitigation measures should emphasize avoidance and reduction of project impacts. For unavoidable impacts, onsite habitat restoration or enhancement should be discussed in detail. If onsite mitigation is not feasible or would not be biologically viable and therefore not adequately mitigate the loss of biological functions and values, offsite mitigation through habitat creation and/or acquisition and preservation in perpetuity should be addressed.

ENVIRONMENTAL DATA

CEQA requires that information developed in environmental impact reports and negative declarations be incorporated into a data base 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://wildlife.ca.gov/Data/CNDDDB/Submitting-Data>

The completed form can be mailed electronically to CNDDDB at the following email address: CNDDDB@wildlife.ca.gov. The types of information reported to CNDDDB can be found at the following link:

http://www.dfg.ca.gov/biogeodata/cnddb/plants_and_animals.asp.

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.)

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CONCLUSION

CDFW appreciates the opportunity to comment on the NOP to assist IRWD in identifying and mitigating Project impacts on biological resources and ensuring Project consistency with the requirement of County of Orange Central and Coastal Subregion NCCP/HCP.

Questions regarding this letter or further coordination regarding the implementation of the Central and Coastal NCCP/HCP should be directed to Emily Gray, Environmental Scientist, at Emily.Gray@wildlife.ca.gov.

Sincerely,

DocuSigned by:

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David Mayer
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ec:

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