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California Department of Fish and Wildlife
South Coast Region
3883 RUFFIN RD.
SAN DIEGO, CA 92123

California Endangered Species Act
Incidental Take Permit No. 2081(b)-2026-043-05

SANTIAGO DAM IMPROVEMENT PROJECT

I. Authority:

This California Endangered Species Act (CESA) incidental take permit (ITP) is issued by the California Department of Fish and Wildlife (CDFW) pursuant to Fish and Game Code section 2081, subdivisions (b) and (c), and California Code of Regulations, Title 14, section 783.0 *et seq*. CESA prohibits the take[1] of any species of wildlife designated by the California Fish and Game Commission as an endangered, threatened, or candidate species.[2] However, CDFW may authorize the take of any such species by permit pursuant to the conditions set forth in Fish and Game Code, section 2081, subdivisions (b) and (c). (See Cal. Code Regs., tit. 14, § 783.4.)

Permittee:	**Irvine Ranch Water District**
Principal Officer:	**Paul Cook, General Manager**
Contact Person:	**Fiona Nye, (949) 453-5325**
Mailing Address:	**15600 Sand Canyon Avenue** **Irvine, CA 92618**

II. Effective Date and Expiration Date of this ITP:

This ITP is effective as of the date signed by CDFW below. Unless renewed by CDFW, this ITP and its authorization to take the Covered Species shall expire on **November 17, 2036**.

Notwithstanding the expiration date on the take authorization provided by this ITP, Permittee's obligations pursuant to this ITP do not end until CDFW accepts as complete the Permittee's Final Mitigation Report required by Condition of Approval 6.7 of this ITP.

[1]Pursuant to Fish and Game Code section 86, "'take' means hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill." (See also *Environmental Protection Information Center v. California Department of Forestry and Fire Protection* (2008) 44 Cal.4th 459, 507 [for purposes of incidental take permitting under Fish and Game Code section 2081, subdivision (b), "'take' … means to catch, capture or kill".)

[2]The definition of an endangered, threatened, and candidate species for purposes of CESA are found in Fish and Game Code sections 2062, 2067, and 2068, respectively.

Docusign Envelope ID: 9F4C3D7D-9BD0-8A90-8018-3BBCEDC1C253

III. Project Location:

Santiago Creek Dam Improvement and Mitigation Site Project

The Project site is located at Santiago Creek Dam at the northwest end of Irvine Lake in unincorporated Orange County, California (Figure 1). It is located approximately 0.6 miles south of State Route (SR) 261 and 1.3 miles east of SR-241 and Santiago Canyon Road; Latitude 33.78605 N, Longitude -117.72526 W. The Project site is located on the U.S. Geological Survey's Black Star Canyon 7.5-minute quadrangle at Township 4 South, Range 8 West, Section 33. The Project is located in the Central/Coastal Subregion of the Natural Communities Conservation Plan/Habitat Conservation Plan (NCCP/HCP). Santiago Dam and its associated infrastructure fall within designated Non-Reserve Open Space, while the lands surrounding Irvine Lake encompasses a mosaic of native vegetation communities, including riparian woodlands lining the lake's margins dominated by willows (*Salix* spp.), Fremont cottonwood (*Populus fremontii*), and California sycamore (*Platanus racemosa*). These vegetation communities also have a supporting understory of mulefat, California blackberry, and native annuals. Beyond the riparian corridor, upland plant communities include coastal sage scrub, chaparral, oak woodland, and grassland. These habitat types are typical of the Central/Coastal Subregion vegetation within the NCCP/HCP. These diverse habitats provide essential ecosystem services and form part of a larger, regionally protected network under the NCCP/HCP framework.

The Mitigation Site for permanent impacts is located downstream of Limestone Canyon Creek, southeast of Irvine Lake (see Figure 2; Assessor's Parcel Number 105-361-01); Latitude 33.455869 N, Longitude -117.424292 W. The property is already owned by Irvine Ranch Water District (IRWD). Temporary impacts will be mitigated onsite.

IV. Project Description:

The Project proposes to rehabilitate and replace the Santiago Creek Dam outlet tower and spillway facilities and to modify the embankment to permit operation of the facilities for a long-term water resource benefit. The Project includes construction of a new inlet/outlet works, including an inclined inlet/outlet structure, intake riser pipelines and platforms, bifurcation valve vault, emergency outlet pipeline, and emergency outlet valve vault. The existing spillway would be replaced with a new side-channel spillway, and a portion of the Irvine Lake pipeline would be upsized and relocated to below ground beneath the proposed spillway structure. The Project includes improvements to the dam crest, removing the dam face, installing a filter drain system within new embankment shell material, widening the dam crest, raising the elevation of the dam crest by up to one foot, and installing protective railings. Ancillary site improvements are also proposed for the Project, including a new inlet/outlet access roadway, spillway bridge, dam control building, and emergency access walkway and stairs. The Project also includes raising the spillway by six feet to approximately 797.9 feet, which is two feet higher than the existing maximum water storage elevation with the flashboards installed. Raising the spillway would allow the dam to impound water up to the 797.9- foot elevation contour year-round, which would allow for storage of an additional approximately 1,300 acre-feet of water. All Project improvements can be seen in Figure 3.

Docusign Envelope ID: 9F4C3D7D-9BD0-8A90-8018-3BBCEDC1C253

Timeframe

The Project is anticipated to begin in fall 2026 and take approximately five years to complete, including anticipated downtime due to weather restrictions. Initial work would include relocating the Southern California Edison overhead power lines and poles outside the construction limits. Site preparation would then begin with lake dewatering and grading an access road along the edge of the dewatered lakebed to connect the staging area to the dam. Vegetation clearing would occur before the first nesting bird season. Dam construction would follow during the dry seasons over the remainder of the Project schedule.

Covered Species Subject to Take Authorization Provided by this ITP:

This ITP covers the following species:

Name	CESA Status[3]
1. Crotch's bumble bee (*Bombus crotchii*)	Candidate[4]
2. least Bell's vireo (*Vireo bellii pusillus*)	Endangered[5]

These species and only these species are the "Covered Species" for the purposes of this ITP.

V. Impacts of the Taking on Covered Species:

Project activities are expected to result in incidental take of individuals of the Covered Species. Activities that may result in take include initial site preparation; heavy equipment operation; grading; excavation; trenching and backfilling; installation and/or removal of structures and equipment; vehicle and foot traffic; access road construction, repair, and resurfacing; handling of stockpiles and stored materials; soil compaction; vegetation clearing and maintenance, including mowing and grubbing; revegetation requiring disking and/or excavation; lake dewatering; change in inundation area once the lake is refilled; and creation, enhancement, maintenance, and monitoring of the of the woody riparian mitigation area (Covered Activities).

Incidental take of Crotch's bumble bee in the form of mortality ("kill") may occur when individuals of the Covered Species are struck, crushed, buried, or otherwise harmed during ground disturbance, vegetation removal, equipment operation, vehicle travel, inundated with water, or mitigation work.

For least Bell's vireo, incidental take may occur through removal or degradation of riparian nesting habitat at an established breeding location which may displace birds from breeding territories and reduce nesting success. Least Bell's vireos exhibit high site fidelity and may return to the same area to nest, and the size and condition of a riparian habitat patch may affect its suitability for breeding. Displaced birds may encounter less suitable habitat, competition, or increased predation risk. Noise

[3] Under CESA, a species may be on the list of endangered species, the list of threatened species, or the list of candidate species.

[4] The species status may change following the decision of the Fish and Game Commission to designate the species as threatened or endangered but if there is such a designation, the species will remain a Covered Species.

[5] See Cal. Code Regs., tit. 14, § 670.5, subd. (a)(5)(I)

Docusign Envelope ID: 9F4C3D7D-9BD0-8A90-8018-3BBCEDC1C253

and vegetation disturbance during the nesting season, including disturbance associated with mitigation site work may also affect nesting birds.

Incidental take may also occur for both Covered Species during species monitoring needed to document compliance with this ITP and the effectiveness of required mitigation, and during mitigation site maintenance, including installation of permanent protective fencing, trash removal, and non-native vegetation control.

The Project Area consists of the on-site disturbance area in and around Irvine Lake and the off-site mitigation property, as shown in Figure [4] and Figure [2], respectively. Authorized take is expected to occur within the portions of the Project Area shown in Figure [5] where Covered Activities may affect the Covered Species.

The Project is expected to cause the permanent loss of **3.5** acres of habitat for Crotch's bumble bee, short-term temporary loss of **0.08** acre and long-term temporary loss of **4.26** acres of habitat for Crotch's bumble bee, totaling **7.84** acres. The Project is expected to cause the permanent loss of **0.98** acre of habitat for least Bell's vireo, short-term temporary loss of **13.74** acres and long-term temporary loss of **6.64** acres of habitat for least Bell's vireo, totaling **21.36** acres. Short-term temporary impacts are impacts that will last less than three years, while long-term temporary impacts will last more than three years. All temporary habitat impacts will be restored on-site in place of habitat that is currently classified as non-native herbaceous and eucalyptus.

Impacts of the authorized taking also include temporal habitat loss, habitat fragmentation, edge effects, and the Project's contribution to cumulative impacts (indirect impacts). Potential indirect effects include stress from noise and vibrations; displacement from preferred habitat; reduced food availability; competition for food and space; exposure to contaminants, including pesticides and fuels; and increased vulnerability to predation.

This ITP does not cover any emergency repair work or other undescribed activities that may become necessary under unforeseen circumstances. Emergency repair work, or any other proposed work not included in the Project Description, should be covered under an amendment of this ITP or a new Incidental Take Permit.

VI. Incidental Take Authorization of Covered Species:

This ITP authorizes incidental take of the Covered Species and only the Covered Species. With respect to incidental take of the Covered Species, CDFW authorizes the Permittee, its employees, contractors, and agents to take Covered Species incidentally in carrying out the Covered Activities, subject to the limitations described in this section and the Conditions of Approval identified below. This ITP does not authorize take of Covered Species from activities outside the scope of the Covered Activities, take of Covered Species outside of the Project Area, take of Covered Species resulting from violation of this ITP, or intentional take of Covered Species.

Docusign Envelope ID: 9F4C3D7D-9BD0-8A90-8018-3BBCEDC1C253

VII. Conditions of Approval:

Unless specified otherwise, the following measures apply to all Covered Activities within the Project Area, including areas used for vehicular ingress and egress, staging and parking, and noise and vibration generating activities that may/will cause take. CDFW's issuance of this ITP and Permittee's authorization to take the Covered Species are subject to Permittee's compliance with and implementation of the following Conditions of Approval:

1. **Legal Compliance:** Permittee shall comply with all applicable federal, state, and local laws in existence on the effective date of this ITP or adopted thereafter.

2. **CEQA Compliance**: Permittee shall implement and adhere to all mitigation measures related to the Covered Species in the Santiago Creek Dam Improvement Project Final Environmental Impact Report (State Clearing House No. 2023050097) that was certified by IRWD on November 12, 2025, pursuant to the California Environmental Quality Act (CEQA) (Pub. Resources Code, § 21000 *et seq*.).

3. **LSA Agreement Compliance:** Permittee shall implement and adhere to the mitigation measures and conditions related to the Covered Species in the Lake and Streambed Alteration Agreement (LSAA; Notification No. EPIMS-ORA-48911-R5) which is currently being prepared for the Project and will be executed by CDFW pursuant to Fish and Game Code section 1600 *et seq.*

4. **ITP Time Frame Compliance:** Permittee shall fully implement and adhere to the conditions of this ITP within the time frames set forth below and as set forth in the Mitigation Monitoring and Reporting Program (MMRP), which is included as Attachment 1 to this ITP.

5. **General Provisions:**

   5.1. Designated Representative. Before starting Covered Activities, Permittee shall designate a representative (Designated Representative) responsible for communications with CDFW and overseeing compliance with this ITP. Permittee shall notify CDFW in writing before starting Covered Activities of the Designated Representative's name, business address, and contact information, and shall notify CDFW in writing if a substitute Designated Representative is selected or identified at any time during the term of this ITP.

   5.2. Designated Biologists. Permittee shall submit to CDFW in writing the name, qualifications, business address, and contact information of the Designated Biologist(s) using the Biologist Resume Form (Attachment 2) or another format containing the same information at least 30 days before starting Covered Activities. Permittee shall ensure that the Designated Biologist(s) are knowledgeable and experienced in the biology, ecology, and collecting and handling of the Covered Species. The Designated Biologist(s) shall be responsible for monitoring Covered Activities to avoid, minimize and mitigate

Docusign Envelope ID: 9F4C3D7D-9BD0-8A90-8018-3BBCEDC1C253

the incidental take of individual Covered Species and to minimize disturbance of Covered Species' habitat. Permittee shall obtain CDFW approval of the Designated Biologist(s) in writing before starting Covered Activities and shall also obtain approval in advance, in writing, if the Designated Biologist(s) must be changed.

5.3. Designated Biologist Authority. To ensure compliance with the Conditions of Approval of this ITP, the Designated Biologist shall immediately stop any activity that does not comply with this ITP and/or order any reasonable measure to avoid the unauthorized take of an individual of the Covered Species. Permittee shall provide unfettered access to the Project site and otherwise facilitate the Designated Biologist in the performance of their duties. If the Designated Biologist is unable to comply with the ITP, then the Designated Biologist shall notify the CDFW Representative immediately. Permittee shall not enter into any agreement or contract of any kind, including but not limited to, non-disclosure agreements and confidentiality agreements with its contractors and/or the Designated Biologist that prohibit or impede open communication with CDFW, including but not limited to, providing CDFW staff with the results of any surveys, reports, or studies or notifying CDFW of any non-compliance or take. Failure to notify CDFW of any non-compliance or take or injury of a Covered Species because of such agreement or contract may result in CDFW taking actions to prevent or remedy a violation of this ITP.

5.4. Worker Education Awareness Program. Permittee shall conduct a Worker Education Awareness Program (WEAP) for all persons employed or otherwise working in the Project Area before performing any work. The WEAP shall consist of a presentation from the Designated Biologist that includes a discussion of the ecology of the Covered Species, information about the distribution and habitat needs of the Covered Species, sensitivity of the Covered Species to human activities, its status pursuant to CESA including legal protection, recovery efforts, penalties for violations and Project-specific protective measures described in this ITP. Permittee shall prepare and distribute wallet-sized cards or a fact sheet handout containing this information for workers to carry in the Project Area. Permittee shall provide interpretation for non-English speaking workers, and the WEAP shall be provided to any new workers before they are authorized to perform work in the Project Area. Upon completion of the WEAP, employees shall sign a form stating they attended the WEAP and understand all protection measures. This training shall be repeated at least once annually for long-term and/or permanent employees that will be conducting work in the Project Area.

5.5. Construction Monitoring Documentation. The Designated Biologist(s) shall maintain construction-monitoring documentation on-site in either hard copy or digital format throughout the construction period, which shall include a copy of this ITP with attachments and a list of signatures of all personnel who have successfully completed the WEAP. Permittee shall ensure a copy of the construction-monitoring documentation is available for review at the Project site upon request by CDFW.

Docusign Envelope ID: 9F4C3D7D-9BD0-8A90-8018-3BBCEDC1C253

5.6. Trash Abatement. Permittee shall initiate a trash abatement program before starting Covered Activities and shall continue the program for the duration of the Project. Permittee shall ensure that trash and food items are contained in animal-proof containers and removed, ideally at daily intervals but at least once a week, to avoid attracting opportunistic scavengers that may cause a disturbance on site.

5.7. Dust Control. Permittee shall implement dust control measures during Covered Activities to facilitate visibility for monitoring of the Covered Species by the Designated Biologist. Permittee shall keep the amount of water used to the minimum amount needed and shall not allow water to form puddles.

5.8. Erosion Control Materials. Permittee shall prohibit use of erosion control materials potentially harmful to Covered Species and other species, such as monofilament netting (erosion control matting) or similar material, in potential Covered Species' habitat.

5.9. Pre-Project Delineation. Prior to initiating Covered Activities in each active construction area downstream of the dam, Permittee shall clearly delineate, using fencing, stakes, or flags, the boundaries of adjacent biologically sensitive areas outside the limits of Covered Activities. Delineation shall not be required in dewatered areas upstream of the dam. Permittee shall maintain the fencing, stakes, or flags until Covered Activities in the adjacent construction area are complete.

5.10. Delineation of Habitat. Following pre-construction surveys, Permittee shall clearly delineate habitat occupied by the Covered Species remaining within the Project Area after initial site clearance with posted signs, posting stakes, flags, and/or rope or cord, and place fencing as necessary to minimize the disturbance of remaining Covered Species' habitat.

5.11. Project Access. Project-related personnel shall access the Project Area using existing routes and designated access routes identified in the 100% design plans, and shall not cross Covered Species' habitat outside of, or en route to, the Project Area. Permittee shall restrict Project-related vehicle traffic to established and designated roads, staging, and parking areas identified in the 100% design plans. Permittee shall ensure that vehicle speeds do not exceed 15 miles per hour to avoid Covered Species on roads. If Permittee determines construction of routes for travel are necessary outside of the Project Area, the Designated Representative shall contact CDFW for written approval before carrying out such an activity. CDFW may require an amendment to this ITP, among other reasons, if additional take of Covered Species will occur as a result of the Project modification.

5.12. Staging Areas. Permittee shall confine all Project-related parking, storage areas, laydown sites, equipment storage, and any other surface-disturbing activities to the Project Area using, to the extent possible, previously disturbed areas. Additionally, Permittee shall not

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use or cross Covered Species' habitat outside of the marked Project Area unless provided for as described in Condition of Approval 5.11 of this ITP.

5.13. Hazardous Waste. Permittee shall immediately stop and, pursuant to pertinent state and federal statutes and regulations, arrange for repair and clean up by qualified individuals of any fuel or hazardous waste leaks or spills at the time of occurrence, or as soon as it is safe to do so. Permittee shall exclude the storage and handling of hazardous materials from the Project Area and shall properly contain and dispose of any unused or leftover hazardous products off-site.

5.14. CDFW Access. Permittee shall provide CDFW staff with reasonable access to the Project Area and mitigation lands under Permittee control and shall otherwise fully cooperate with CDFW efforts to verify compliance with or effectiveness of mitigation measures set forth in this ITP.

5.15. Refuse Removal. Upon completion of Covered Activities, Permittee shall remove from the Project Area and properly dispose of all temporary fill and construction refuse, including, but not limited to, broken equipment parts, wrapping material, cords, cables, wire, rope, strapping, twine, buckets, metal or plastic containers, and boxes.

6. Monitoring, Notification and Reporting Provisions:

6.1. Notification Before Commencement. The Designated Representative shall notify CDFW 14 calendar days before starting Covered Activities and shall document compliance with all pre-Project Conditions of Approval before starting Covered Activities.

6.2. Notification of Non-Compliance. The Designated Representative shall immediately notify CDFW if the Permittee is not in compliance with any Condition of Approval of this ITP, including but not limited to any actual or anticipated failure to implement measures within the time periods indicated in this ITP and/or the MMRP. The Designated Representative shall follow up within 24 hours with a written report to CDFW describing, in detail, any non-compliance with this ITP and suggested measures to remedy the situation.

6.3. Compliance Monitoring. The Designated Biologist shall be on-site daily when Covered Activities occur. The Designated Biologist shall conduct compliance inspections to:

(1) Minimize incidental take of the Covered Species;

(2) Prevent unlawful take of species;

(3) Check for compliance with all measures of this ITP;

(4) Check all exclusion zones; and,

Docusign Envelope ID: 9F4C3D7D-9BD0-8A90-8018-3BBCEDC1C253

(5) Ensure that signs, stakes, and fencing are intact, and that Covered Activities are only occurring in the Project Area.

The Designated Representative or Designated Biologist shall prepare daily written observation and inspection records summarizing oversight activities and compliance inspections, observations of Covered Species and their sign, survey results, and monitoring activities required by this ITP.

During periods of Project inactivity, or after vegetation clearing and initial grading have been completed, compliance inspections by the Designated Biologist may be reduced to a minimum of one day per week only after Permittee obtains written approval from CDFW. Permittee shall immediately resume daily compliance inspections if the Designated Biologist or CDFW finds the Permittee is out of compliance with any Conditions of Approval of this ITP, upon written notification from CDFW, and/or if the Covered Species, including nests or overwintering queens, are suspected or confirmed in the Project Area.

6.4. Monthly Compliance Report. During periods of active construction, the Designated Representative or Designated Biologist shall compile the observation and inspection records identified in Condition of Approval 6.3 into a Monthly Compliance Report and submit it to CDFW along with a copy of the MMRP table with notes showing the current implementation status of each mitigation measure. Monthly Compliance Reports shall be submitted to the CDFW offices listed in the Notices section of this ITP and via e-mail to CDFW's Regional Representative and Headquarters CESA Program. At the time of this ITP's approval, the CDFW Regional Representative is Baron Barrera, Senior Environmental Scientist Supervisory (Baron.Barrera@wildlife.ca.gov and copy R5Cesa@wildlife.ca.gov) and Headquarters CESA Program email is CESA@wildlife.ca.gov. CDFW may at any time increase the timing and number of compliance inspections and reports required under this provision depending upon the results of previous compliance inspections. If CDFW determines the reporting schedule must be changed, CDFW will notify Permittee in writing of the new reporting schedule.

6.5. Annual Status Report. Permittee shall provide CDFW with an Annual Status Report (ASR) no later than January 31 of every year, beginning with issuance of this ITP and continuing until CDFW accepts the Final Mitigation Report identified below. Each ASR shall include, at a minimum: (1) a summary of all Monthly Compliance Reports for that year identified in Condition of Approval 6.4; (2) a general description of the status of the Project Area and Covered Activities, including actual or projected completion dates, if known; (3) a copy of the table in the MMRP with notes showing the current implementation status of each mitigation measure; (4) an assessment of the effectiveness of each completed or partially completed mitigation measure in avoiding, minimizing and mitigating Project impacts; (5) all available information about Project-related incidental take of the Covered

Docusign Envelope ID: 9F4C3D7D-9BD0-8A90-8018-3BBCEDC1C253

Species; (6) an accounting of the number of acres subject to both temporary and permanent disturbance, both for the prior calendar year, and a total since ITP issuance; and (7) information about other Project impacts on the Covered Species.

6.6. CNDDB Observations. The Designated Biologist shall submit all observations of Covered Species to CDFW's California Natural Diversity Database (CNDDB) within 60 calendar days of the observation, and the Designated Biologist shall include copies of the submitted forms with the next Monthly Compliance Report or ASR, whichever is submitted first relative to the observation. The Designated Biologist shall submit a notification of observation (including species name, date of observation and GPS coordinates) by email to CDFW's Regional Representative within 24 hours of observation.

6.7. Final Mitigation Report. No later than 45 days after completion of all mitigation measures, Permittee shall provide CDFW with a Final Mitigation Report. The Designated Biologist shall prepare the Final Mitigation Report which shall include, at a minimum: (1) a summary of all Monthly Compliance Reports and all ASRs; (2) a copy of the table in the MMRP with notes showing when each of the mitigation measures was implemented; (3) all available information about Project-related incidental take of the Covered Species; (4) information about other Project impacts on the Covered Species; (5) beginning and ending dates of Covered Activities; (6) an assessment of the effectiveness of this ITP's Conditions of Approval in minimizing and fully mitigating Project impacts of the taking on Covered Species; (7) recommendations on how mitigation measures might be changed to more effectively minimize take and mitigate the impacts of future projects on the Covered Species; and (8) any other pertinent information.

6.8. Notification of Take or Injury. Designated Biologist shall immediately notify the Designated Representative if a Covered Species is taken, needs to be relocated, or is injured by a Project-related activity, or if a Covered Species is otherwise found dead within the vicinity of the Project. The Designated Biologist or Designated Representative shall provide initial notification to CDFW's Regional Representative (Baron.Barrera@wildlife.ca.gov and copy R5CESA@wildlife.ca.gov) and by calling the Regional Office at (858) 467-4201. The initial notification to CDFW shall include information regarding the location, species, and number of animals taken or injured and the ITP Number. Following initial notification, Permittee shall send CDFW a written report within two calendar days. The report shall include the date and time of the finding or incident, GPS location (including GPS error estimated in feet and datum) of the animal or carcass, and if possible, provide a photograph, explanation as to cause of take or injury, and any other pertinent information.

6.8.1. Covered Species Salvage. If a Covered Species is taken or otherwise found deceased, the Designated Biologist shall salvage, photograph, and place the carcass in a labeled, clean Ziplock bag or vial and store it in a freezer. The label shall include a unique

Docusign Envelope ID: 9F4C3D7D-9BD0-8A90-8018-3BBCEDC1C253

identifier (collection number), species name, time and date of collection, collection location, GPS location (including datum and horizontal error in feet), circumstances surrounding death (if known), collector name and contact information (phone number or email), and ITP Number 2081(b)-2026-043-05. The Designated Biologist shall deliver the carcass (on dry ice if possible) to the following address and notify CDFW's Regional Representative at the time of shipping:

CDFW Wildlife Genetics Research Unit (Wildlife Health Lab)
Attention: Michael Buchalski
1415 North Market Blvd., Suite 9
Sacramento, CA 95834

7. Take Minimization Measures: The following requirements are intended to ensure the minimization of incidental take of Covered Species in the Project Area during Covered Activities. Permittee shall implement and adhere to the following conditions to minimize take of Covered Species:

7.1. Daily Work Area Coverage. Permittee shall ensure that each daily work area is adequately covered by a Designated Biologist. Permittee shall proceed with Covered Activities in a systematic manner to facilitate the Designated Biologist(s) in performing surveys required by Condition of Approval 7.5 and 7.9. If there are multiple, separate work areas on a given workday, Permittee shall provide a Designated Biologist for each separate work area.

7.2. Immediately Stop Covered Activities. Permittee shall immediately stop all Covered Activities in the vicinity if a Covered Species nest is found. Permittee shall notify the Designated Biologist and CDFW's Regional Representative (Baron.Barrera@wildlife.ca.gov and copy R5CESA@wildlife.ca.gov) if a Covered Species is taken, needs to be relocated, or is injured by a Project-related activity, or if a Covered Species is otherwise found dead or injured (see Condition of Approval 6.8). Covered Activities may resume in the vicinity where a Covered Species nest is found after Permittee receives written approval from CDFW's Regional Representative.

Least bell's Vireo

7.3. Work Outside of the Nesting Season. Permittee shall conduct all initial vegetation clearing between September 16 to March 14 of each calendar year. Prior to use, any areas proposed for staging shall be surveyed for the Covered Species.

7.4. Least bell's Vireo Surveys. Permittee, in consultation with the Designated Biologist, shall conduct surveys for Least Bell's vireo (LBVI) within the Project area. Permittee shall conduct surveys for LBVI every year for the first three (3) years, then every other year following the third year of LBVI surveys. Permittee shall follow U.S. Fish and Wildlife

Docusign Envelope ID: 9F4C3D7D-9BD0-8A90-8018-3BBCEDC1C253

Service's least Bell's vireo survey protocol[6]. Permittee shall submit a survey report to CDFW within 30 days after the last field survey.

7.5. Brown-headed Cowbird Trapping Plan. Permittee shall implement a program to control brown-headed cowbirds annually within the Project area. Within ninety (90) days of issuance of this ITP, Permittee, in consultation with the Designated Biologist, shall submit to CDFW for its review and approval a Brown-headed Cowbird Trapping Plan. The Brown headed Cowbird Trapping Plan shall provide, at a minimum, the following information: 1) trap locations and a justification of each location as it relates to Covered Species occupancy and territories; 2) standard trapping season (i.e., month, how many trap days); 3) trap equipment, conditions, and setup; 4) methods to attract brown-headed cowbirds; 5) deployment of traps in the field; 5) trap operation, monitoring, and maintenance; 6) protection of non-target species; and 7) sample field datasheets. Cowbird trapping shall be implemented for a period of ten years and shall commence within ninety days of CDFW's approval of the Permittee's Brown-headed Cowbird Trapping Plan (unless otherwise mutually agreed upon). If the Brown-headed Cowbird Trapping Plan needs to be revised by the Permittee or CDFW, Permittee shall notify CDFW via email and meet with CDFW at CDFW's request to discuss any proposed changes to the Brown-headed Cowbird Trapping Plan. Permittee shall obtain CDFW approval prior to revising the Brown-headed Cowbird Trapping Plan. Permittee shall revise the Brown-headed Cowbird Trapping Plan to incorporate any and all additional measures that CDFW may require. Permittee shall submit to CDFW a revised Brown-headed Cowbird Trapping Plan within seven (7) days of CDFW's approval of revisions.

7.6. Brown-headed Cowbird Annual Report. Permittee shall submit a report summarizing brown-headed cowbird trapping activities performed within 30 days of the last trap day. Permittee shall provide, at a minimum, the following information: 1) trap locations; 2) trap conditions; 3) trap operation, monitoring, and maintenance; 4) total captures of brown headed cowbird and non-target species; 5) observations of brown-headed cowbird parasitism; 6) suggestions for improvement of methods for implementation the following season. Permittee shall revise the Brown-headed Cowbird Trapping Plan according to any suggestions made by CDFW to the annual report.

Crotch's bumble bee

7.7. Timing of Vegetation Removal. Permittee shall remove vegetation after plants have stopped blooming in the fall and outside of the Colony Active Period and Gyne Flight Season (approximately February 1 through August 31; varies based on the location/year and can be confirmed via pre-construction surveys), to the maximum extent feasible.

[6] https://www.fws.gov/sites/default/files/documents/survey-protocol-for-least-bells-vireo.pdf

Docusign Envelope ID: 9F4C3D7D-9BD0-8A90-8018-3BBCEDC1C253

When vegetation removal is occurring by mower, Permittee shall set mower blade heights no lower than 4 inches, unless otherwise approved by CDFW in writing.

7.7.1. Patched Vegetation Removal. If vegetation needs to be removed during the bloom period and the Crotch's bumble bee (CBB) is present, Permittee shall remove flowering vegetation in a patched manner to the maximum extent feasible leaving areas of floral resources as refugia for foraging CBB or wait until bloom has ceased. During the bloom period and colony active period, removal of non-native plants should be prioritized over native plants.

7.8. Crotch's Bumble Bee Pre-Construction Surveys. Prior to Covered Activities occurring during the Colony Active Period (generally February 1 through August 31), the Designated Biologist shall search for CBB through an area planned for Covered Activities. The Designated Biologist shall perform two surveys consisting of meandering transects no more than 10 days prior to the commencement of Covered Activities in that area[7]. The Designated Biologist shall conduct surveys at least four days apart from the second survey occurring within two days prior to starting Covered Activities in that area. The Designated Biologist shall focus attention on areas with blooming native and non-native nectar and pollen resources for CBB . The survey duration shall be appropriate to the size of the area planned for Covered Activities plus 50 feet based on a minimum of one person-hour of searching per three acres of suitable habitat. The Designated Biologist shall conduct surveys between 8:00 AM and 4:00 PM (Pacific Standard Time) on sunny days between 55- and 90-degrees Fahrenheit with sustained wind speeds measuring less than 10 miles per hour. If CBB is detected or suspected during surveys, the Designated Biologist shall flag the area where the observation was made and closely monitor the areas that were flagged during Covered Activities to further minimize take of CBB.

7.8.1. Locating Nests. The Designated Biologist shall make every effort to locate nests if CBB is suspected or confirmed within the Project Area. The Designated Biologist shall observe any ground animal burrow entrances for signs of CBB. To confirm a suspected CBB nest[8], the Designated Biologist may block/cover any burrow entrance with a jar/vial (or similar) of appropriate size for no more than 30 minutes or until a bumble bee is detected. The Designated Biologist shall also observe bunch grasses, thatched annual grasses, brush piles, old bird nests, dead trees, or hollow logs to determine if a potential nest could be present. The Designated Biologist shall identify the species of bumble bee if a bumble bee is detected.

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[7] The following are example protocols that can be used in survey method development:
- CA Bumble Bee Atlas non-lethal protocol (volunteer handbook)-https://www.cabumblebeeatlas.org/point-surveys.html
- USFWS Rusty patched bumble bee protocol https://www.fws.gov/sites/default/files/documents/Survey_Protocols_RPBB_12April2019.pdf

[8] Because worker bees are actively foraging, they should arrive and exit an active nest site with frequency during the active period, such that their presence would be apparent after a few minutes of observation much like other bee, wasp, or hornet species

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7.8.2. Nest Buffer. If a CBB nest is detected or suspected, Permittee, in consultation with the Designated Biologist, shall prohibit or immediately stop all Project Activities within 50 feet of the nest. Designated Biologist shall delineate the 50-foot buffer and notify all workers not to enter the environmentally sensitive area. The Designated Representative or Designated Biologist shall contact CDFW's Regional Representative within 24 hours for further consultation (see Condition of Approval 6.4 for contact information). The Designated Biologist shall record the nest location with a GPS (including datum and horizontal accuracy in feet) and include photographs and a map of the nest location as part of notification to CDFW's Regional Representative. Designated Biologist shall increase the size and/or modify the environmentally sensitive area buffer upon notice from CDFW. Permittee shall maintain buffers until further instructions from CDFW's Regional Representative. To determine if a nest has senesced, the Designated Biologist shall monitor the nest for senescence in late summer and fall. Nest senescence can typically be denoted after the presence of reproductives (gynes and males) are observed. Nests should be monitored a minimum of one hour per day for three consecutive days during optimal weather conditions (i.e. from 8am-4pm, low wind, and low cloud cover conditions, etc.). If there has been no nest activity after the above conditions are met, then the no disturbance work buffer may be removed if CDFW approves.

7.8.3. Exposed Nest. If excavation or vegetation removal exposes a CBB nest, the Designated Biologist shall halt work in the area and immediately contact and consult with CDFW. The designated Biologist shall set up a structure to shade the exposed nest and set up a 50 foot no disturbance buffer until the nest has senesced or project activities are completed, whichever one comes first.

7.8.4. Overwintering Site Buffer. If any overwintering CBB are found during Covered Activities, the Permittee, in consultation with the Designated Biologist shall immediately stop and prohibit all Covered Activities within 50 feet of the queen and/or hibernaculum. Permittee shall delineate the 50-foot buffer and notify all workers not to enter the environmentally sensitive area. If an overwintering queen is exposed, the Designated Biologist shall cover and protect the queen bumble bee using the substrate it was found in/under and return any materials removed during surveys (e.g., grass, vegetation, bark, and debris) to re-create pre- disturbed conditions. The Designated Representative or Designated Biologist shall contact CDFW's Regional Representative within 24 hours for further consultation. The Designated Biologist shall record the queen's location with a GPS (including datum and horizontal accuracy in feet) and include photographs and a map of the queen's location as part of notification to CDFW's Regional Representative. Permittee shall increase the size and/or modify the environmentally sensitive area buffer upon notice from CDFW. Permittee shall maintain buffers until the overwintering queen leaves the area, which typically occurs

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in the early spring, depending on the location and local climate conditions. Permittee shall confer with CDFW's Regional Representative for approval of further instructions.

7.8.5. Repeat Surveys Following Periods of Inactivity. If Covered Activities are suspended for longer than three days between February 1st and August 31, the Designated Biologist shall perform one visual survey when survey conditions are met (see Condition of Approval 7.3) prior to re-starting Covered Activities.

7.8.6. Daily Visual Sweeps. If there is a period of inactivity longer than three days, the Designated Biologist shall conduct daily visual sweeps of the daily work area by walking ahead of grading and vegetation removal equipment for Covered Species at the start of daily work and throughout the daily workday. The Designated Biologist shall intermittently repeat visual sweeps throughout the daily work window because CBB are unlikely to be active before the start of daily Covered Activities that initiate prior to 8:00 AM. If CBB is detected or suspected, the Designated Biologist shall follow requirements under Conditions of Approval 7.8.1 and 7.8.2. After initial vegetation clearing has been completed, the frequency of daily visual sweeps may be modified after the Designated Representative consults with, and obtains written approval from, CDFW.

7.9. Weed Management Plan. Permittee shall submit to CDFW for its review and approval a Weed Management Plan (WMP) within 90 days of commencing Covered Activities, if weed management activities have not otherwise been addressed in another project plan to the satisfaction of CDFW. The WMP shall include measures to ensure that non-native invasive plant species do not become established within or adjacent to the Project Area or proliferate because of Covered Activities. The WMP shall address non-native plants within and adjacent to the Project Area during construction and post-construction. The WMP shall also address Covered Species habitat. The WMP shall prohibit the establishment of any plant listed on the California Invasive Plant Council's (Cal-IPC) Invasive Plant Inventory (High, Moderate, Limited, and Watch lists). The WMP shall address sources of non-native plant introduction and establishment; measures to minimize the potential of non-native plant spread and/or proliferate in the Project Area and adjacent to the Project Area; management of stockpiles; identification/Early Detection Rapid Response; and methods to eradicate nonnative plants prior to seed set. Prevention Best Management Practices and guidelines for invasive plants can be found on Cal-IPC's Prevention webpage and Cal-IPC's Preventing the Spread of Invasive Plants: Best Management Practices for Land Managers.

7.10. Pesticide Use. Permittee shall not use pesticides such as herbicides, insecticides, or rodenticides within the Project Area. If pesticides must be used, including for habitat restoration and enhancement, Permittee shall consult with CDFW and may only use pesticides upon CDFW's written approval (see Condition of Approval 7.11 below).

Docusign Envelope ID: 9F4C3D7D-9BD0-8A90-8018-3BBCEDC1C253

7.11. Pesticide Use Plan. If pesticide use is approved by CDFW, Permittee shall submit to CDFW for its review and approval a Pesticide Use Plan to Avoid and Minimize Impacts to CBB (Pesticide Use Plan). The Pesticide Use Plan shall describe Best Management Practices to avoid and minimize adverse effects of pesticide use on CBB individuals and CBB habitat adjacent to the Project Area.

Permittee shall incorporate the following (at a minimum) into the Pesticide Use Plan: (1) follow best management practices described by Xerces Society's Guidance to Protect Habitat from Pesticide Contamination, California Department of Pesticide Regulation, and the University of California's Division of Agriculture and Natural Resources Statewide Integrated Pest Management Program's Best Management Practices to protect bees from pesticides; (2) avoid mixtures with adjuvants containing alkylphenol ethoxylates, (3) avoid use of soil fumigants, which penetrate the soil and can poison ground nesting bees; (4) avoid spraying herbicides, especially on plants that are in bloom to minimize direct or indirect contact the CBB; (5) use targeted methods only; (6) pesticide application shall be conducted when CBB is overwintering (i.e., outside of the Colony Active Period) to the maximum extent practicable; (7) avoid the use of pesticides marked with the U.S. Environmental Protection Agency's bee hazard icon; and (8) preferentially use chemicals that are rated green/III in the University of California Integrated Pest Management Bee Precaution Database and chemicals of the least toxic products at the least concentrated application when possible.

8. Habitat Management Land Acquisition: CDFW has determined that permanent protection and perpetual management of compensatory habitat is necessary and required pursuant to CESA to fully mitigate Project-related impacts of the taking on the Covered Species that will result from implementation of the Covered Activities. This determination is based on factors including an assessment of the importance of the habitat in the Project Area, the extent to which the Covered Activities will impact the habitat, and CDFW's estimate of the protected acreage required to provide for adequate compensation.

The Covered Activities will result in permanent impacts to 3.5 acres of LBVI habitat and 0.98 acres of CBB habitat, which will be mitigated at 3:1 and 1.5:1, respectively, for a total of 10.5 and 1.47 acres (Table 1). The Covered Activities will also result in long-term temporary impacts to 4.26 acres of CBB habitat and 6.64 acres of LBVI habitat, requiring compensatory mitigation at ratios of 1.25:1 and 2:1, respectively, for an additional 5.33 acres and 13.28 acres of mitigation. Covered Activities will also result in temporary, short-term impacts to 0.08 acre of CBB habitat and 13.74 acres of LBVI habitat, requiring compensatory mitigation at a 1:1 ratio for each species. Permittee shall provide all compensatory mitigation for long-term and short-term temporary impacts onsite**.** The onsite property contains year-round floral resources preferred by CBB (Figure 6). The remaining habitat on site provides a natural buffer and connectivity to neighboring habitats that is beneficial for both Covered Species. The mitigation site for permanent impacts is located downstream of Limestone Canyon Creek, southeast of Irvine Lake (see Figure 2; Assessor's Parcel

Docusign Envelope ID: 9F4C3D7D-9BD0-8A90-8018-3BBCEDC1C253

Number 105-361-01); Latitude 33.455869 N, Longitude -117.424292 W. The property is already owned by IRWD and contains habitat consistent with the ecological requirements of the Covered Species

Table 1. Impacts to Covered Species and Associated Mitigation Requirements. The required mitigation ratio is listed below each respective impact type identified herein.

Covered Species	**Type of Impact**			**Off-Site Mitigation for Permanent Impacts**	**On-Site Mitigation for Temporary Impacts**
	Permanent	Long-Term Temporary	Short-Term Temporary		
Least Bell's Vireo (*Vireo bellii pusillus*)	3.5 acres (3:1)	6.64 acres (2:1)	13.74 (1:1)	10.5 acres	13.28 acres + 13.74 acres
Crotch's bumble bee (*Bombus crotchii*)	0.98 acres (1.5:1)	4.26 acres (1.25:1)	0.08 acres (1:1)	1.47 acres	5.33 acres + 0.08 acres
TOTAL				**11.97 acres**	**32.43 acres**

Permanent protection and funding for perpetual management of HM lands must be completed before starting Covered Activities, or within 18 months of the effective date of this ITP if Security is provided pursuant to Condition of Approval 9 below for all uncompleted obligations.

8.1. Cost Estimates. For the purposes of determining the Security amount, CDFW has estimated the cost sufficient for CDFW or its contractors to complete acquisition, protection, and perpetual management of the HM lands as follows:

Docusign Envelope ID: 9F4C3D7D-9BD0-8A90-8018-3BBCEDC1C253

8.1.1. Land acquisition costs for HM lands identified in Condition of Approval 8.2 below, estimated at $20,591 per acre for 44.4 acres: **$914,240;**

8.1.2. All costs necessary to review and record a conservation easement as described in Condition of Approval 8.2.1 and 8.2.2 below: **$17,440**;

8.1.3. Start-up costs for HM lands, including initial site protection costs as described in Condition of Approval 8.2.5 below, estimated at **$42,625**.

8.1.4. Long-term management funding as described in Condition of Approval 8.3 below, estimated at $15,081/acre for 44.4 acres: **$669,596**. Long-term management funding is estimated initially for the purpose of providing Security to ensure implementation of HM lands management.

8.1.5. Related transaction fees include but are not limited to account set-up fees, administrative fees, title and documentation review and related title transactions, expenses incurred from other state agency reviews, and overhead related to transfer of HM lands to CDFW as described in Condition of Approval 8.4, estimated at **$6,000**.

8.1.6. All costs associated with CDFW engaging an outside contractor to complete the mitigation tasks, including but not limited to acquisition, protection, and perpetual funding and management of the HM lands and restoration of temporarily disturbed habitat. These costs include but are not limited to the cost of issuing a request for proposals, transaction costs, contract administration costs, and costs associated with monitoring the contractor's work estimated at **$75,000**.

8.2. Habitat Management Lands Acquisition and Protection. If the Permittee elects to provide for the acquisition, permanent protection, and perpetual management of HM lands to complete compensatory mitigation obligations, then the Permittee shall:

8.2.1. Fee Title. Transfer fee title of the HM lands to CDFW pursuant to terms approved in writing by CDFW. Alternatively, CDFW, in its sole discretion, may authorize a governmental entity, special district, non-profit organization, for-profit entity, person, or another entity to hold title to and manage the property provided that the district, organization, entity, or person meets the requirements of Government Code sections 65965-65968, as amended.

8.2.2. Conservation Easement. If CDFW does not hold fee title to the HM lands, CDFW shall act as grantee for a conservation easement over the HM lands or shall, in its sole discretion, approve a non-profit entity, public agency, or Native American tribe to act as grantee for a conservation easement over the HM lands provided that the entity, agency, or tribe meets the requirements of Civil Code section 815.3. If CDFW elects not to be named as the grantee for the conservation easement, CDFW shall be

Docusign Envelope ID: 9F4C3D7D-9BD0-8A90-8018-3BBCEDC1C253

expressly named in the conservation easement as a third-party beneficiary. The Permittee shall obtain CDFW written approval of any conservation easement before its execution or recordation. No conservation easement shall be approved by CDFW unless it complies with Civil Code sections 815-816, as amended, and Government Code sections 65965-65968, as amended and includes provisions expressly addressing Government Code sections 65966(j) and 65967(e). Because the "doctrine of merger" could invalidate the conservation interest, under no circumstances can the fee title owner of the HM lands serve as grantee for the conservation easement.

8.2.3. HM Lands Documentation. Provide a recent preliminary title report, Phase I Environmental Site Assessment, and other necessary documents (please contact CDFW for document list). All documents conveying the HM lands and all conditions of title are subject to the approval of CDFW, and if applicable, the Wildlife Conservation Board and the Department of General Services;

8.2.4. Land Manager. Designate a long-term land manager approved by CDFW. The long-term land manager may be the landowner or another party. Permittee shall notify CDFW of any subsequent changes in the land manager within 30 days of the change. If CDFW will hold fee title to the mitigation land, CDFW will act as both the interim and long-term land manager unless otherwise specified. A grantee for the conservation easement cannot serve as the interim or long-term manager without the express written authorization of CDFW in its sole discretion.

8.2.5. Start-up Activities. Provide for the implementation of start-up activities, including the initial site protection and enhancement of HM lands, once the HM lands have been approved by CDFW. Start-up activities include, at a minimum: (1) preparing a final management plan for CDFW approval (see optional management plan template at https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=227736) (2) conducting a baseline biological assessment and land survey report within four months of recording or transfer; (3) developing and transferring Geographic Information Systems (GIS) data if applicable; (4) conducting litter removal; and (5) installing signage.

8.3. Endowment Fund. If the Permittee elects to provide for the acquisition, permanent protection, and perpetual management of HM lands to complete compensatory mitigation obligations, then the Permittee shall ensure that the HM lands are perpetually managed, maintained, and monitored by the long-term land manager as described in this ITP, the conservation easement, and the final management plan approved by CDFW. After obtaining CDFW approval of the HM lands, Permittee shall provide long-term management funding for the perpetual management of the HM lands by establishing a long-term management fund (Endowment). The Endowment is a sum of money, held in a CDFW-approved fund that is permanently restricted to paying the

Docusign Envelope ID: 9F4C3D7D-9BD0-8A90-8018-3BBCEDC1C253

costs of long-term management and stewardship of the mitigation property for which the funds were set aside, which costs include the perpetual management, maintenance, monitoring, and other activities on the HM lands consistent with this ITP, the conservation easement, and the management plan required by Condition of Approval 8.2.5. Endowment as used in this ITP shall refer to the endowment deposit and all interest, dividends, other earnings, additions, and appreciation thereon. The Endowment shall be governed by this ITP, Government Code sections 65965-65968, as amended, and Probate Code sections 18501-18510, as amended.

After the interim management period, Permittee shall ensure that the designated long-term land manager implements the management and monitoring of the HM lands according to the final management plan. The long-term land manager shall be obligated to manage and monitor the HM lands in perpetuity to preserve their conservation values in accordance with this ITP, the conservation easement, and the final management plan. Such activities shall be funded through the Endowment.

8.3.1. Identify an Endowment Manager. The Endowment shall be held by the Endowment Manager, which shall be either CDFW or another entity qualified pursuant to Government Code sections 65965-65968, as amended.

Permittee shall submit to CDFW a written proposal that includes: (i) the name of the proposed Endowment Manager; (ii) whether the proposed Endowment Manager is a governmental entity, special district, nonprofit organization, community foundation, or congressionally chartered foundation; (iii) whether the proposed Endowment Manager holds the property or an interest in the property for conservation purposes as required by Government Code section 65968(b)(1) or, in the alternative, the basis for finding that the Project qualifies for an exception pursuant to Government Code section 65968(b)(2); and (iv) a copy of the proposed Endowment Manager's certification pursuant to Government Code section 65968(e).

Within thirty days of CDFW's receipt of Permittee's written proposal, CDFW shall inform Permittee in writing if it determines the proposal does not satisfy the requirements of Fish and Game Code section 2081(b)(3) and, if so, shall provide Permittee with a written explanation of the reasons for its determination. If CDFW does not provide Permittee with a written determination within the thirty-day period, the proposal shall be deemed consistent with Section 2081(b)(3).

8.3.2. Calculate the Endowment Funds Deposit. After obtaining CDFW written approval of the HM lands, long-term management plan, and Endowment Manager, Permittee shall prepare an endowment assessment (equivalent to a Property Analysis Record (PAR)) to calculate the amount of funding necessary to ensure the long-term management of the HM lands (Endowment Deposit Amount). Note that the

Docusign Envelope ID: 9F4C3D7D-9BD0-8A90-8018-3BBCEDC1C253

endowment for the easement holder should not be included in this calculation. The Permittee shall submit to CDFW for review and approval the results of the endowment assessment before transferring funds to the Endowment Manager.

8.3.2.1. Capitalization Rate and Fees. Permittee shall obtain the capitalization rate from the selected Endowment Manager for use in calculating the endowment assessment and adjust for any additional administrative, periodic, or annual fees.

8.3.2.2. Endowment Buffers/Assumptions. Permittee shall include in the endowment assessment assumptions the following buffers for endowment establishment and use that will substantially ensure long-term viability and security of the Endowment:

8.3.2.2.1. 10 Percent Contingency. A 10 percent contingency shall be added to each endowment calculation to hedge against underestimation of the fund, unanticipated expenditures, inflation, or catastrophic events.

8.3.2.2.2. Three Years Delayed Spending. The endowment shall be established assuming spending will not occur for the first three years after full funding.

8.3.2.2.3. Non-annualized Expenses. For all large capital expenses to occur periodically but not annually such as fence replacement or well replacement, payments shall be withheld from the annual disbursement until the year of anticipated need or upon request to Endowment Manager and CDFW.

8.3.3. Transfer Long-term Endowment Funds. Permittee shall transfer the long-term endowment funds to the Endowment Manager upon CDFW approval of the Endowment Deposit Amount identified above.

8.3.4. Management of the Endowment. The approved Endowment Manager may pool the Endowment with other endowments for the operation, management, and protection of HM lands for local populations of the Covered Species but shall maintain separate accounting for each Endowment. The Endowment Manager shall, at all times, hold and manage the Endowment in compliance with this ITP, Government Code sections 65965-65968, as amended, and Probate Code sections 18501-18510, as amended.

Notwithstanding Probate Code sections 18501-18510, the Endowment Manager shall not make any disbursement from the Endowment that will result in expenditure of any portion of the principal of the endowment without the prior written approval of CDFW in its sole discretion. Permittee shall ensure that this requirement is included in any agreement of any kind governing the holding, investment, management, and/or disbursement of the Endowment funds.

Docusign Envelope ID: 9F4C3D7D-9BD0-8A90-8018-3BBCEDC1C253

Notwithstanding Probate Code sections 18501-18510, if CDFW determines in its sole discretion that an expenditure needs to be made from the Endowment to preserve the conservation values of the HM lands, the Endowment Manager shall process that expenditure in accordance with directions from CDFW. The Endowment Manager shall not be liable for any shortfall in the Endowment resulting from CDFW's decision to make such an expenditure.

8.4. Reimburse CDFW. Permittee shall reimburse CDFW for all reasonable costs incurred by CDFW related to issuance and monitoring of this ITP, including, but not limited to, transaction fees, account set-up fees, administrative fees, title and documentation review and related title transactions, costs incurred from other state agency reviews, and overhead related to transfer of HM lands to CDFW.

9. Security: The Permittee may proceed with Covered Activities only after the Permittee has ensured funding (Security) to complete any activity required by Condition of Approval 7 that has not been completed before Covered Activities begin. Permittee shall provide Security as follows:

9.1. Security Amount. The Security shall be in the amount of **$1,724,901** or in the amount identified in Condition of Approval 8.1 specific to the obligation that has not been completed. This amount is determined by CDFW based on the cost estimates identified in Condition of Approval 8.1 above, sufficient for CDFW or its contractors to complete land acquisition, property enhancement, startup costs, initial management, long-term management, and monitoring.

9.2. Security Form. The Security shall be in the form of an irrevocable letter of credit (see Attachment 3) or another form of Security approved in advance in writing by CDFW's Office of the General Counsel.

9.3. Security Timeline. The Security shall be provided to CDFW before Covered Activities begin or within 90 days after the effective date of this ITP.

9.4. Security Holder. The Security shall be held by CDFW or in a manner approved in advance in writing by CDFW.

9.5. Security Transmittal. Permittee shall transmit security to CDFW by way of an approved instrument such as an escrow agreement, irrevocable letter of credit, or other.

9.6. Security Drawing. The Security shall allow CDFW to draw on the principal sum if CDFW, in its sole discretion, determines that the Permittee has failed to comply with the Conditions of Approval of this ITP.

9.7. Security Release. The Security (or any portion of the Security then remaining) shall be released to the Permittee after CDFW has conducted an on-site inspection and received

Docusign Envelope ID: 9F4C3D7D-9BD0-8A90-8018-3BBCEDC1C253

confirmation that all secured requirements have been satisfied, as evidenced by:

- Written documentation of the acquisition of the HM lands;
- Confirmation that start-up activities have been completed, as per Condition of Approval 8.2.5;
- Copies of all executed and recorded conservation easements;
- Written confirmation from the approved Endowment Manager of its receipt of the full Endowment; and
- Timely submission of all required reports.

Even if Security is provided, the Permittee must complete the required acquisition, protection and transfer of all HM lands and record any required conservation easements no later than 18 months from the effective date of this ITP. CDFW may require the Permittee to provide additional HM lands and/or additional funding to ensure the impacts of the taking are minimized and fully mitigated, as required by law, if the Permittee does not complete these requirements within the specified timeframe.

VIII. Amendment:
This ITP may be amended as provided by California Code of Regulations, Title 14, section 783.6, subdivision (c), and other applicable laws. This ITP may be amended without the concurrence of the Permittee as required by law, including if CDFW determines that continued implementation of the Project as authorized under this ITP would jeopardize the continued existence of the Covered Species or where Project changes or changed biological conditions necessitate an ITP amendment to ensure that all Project-related impacts of the taking to the Covered Species are minimized and fully mitigated.

IX. Stop-Work Order:
If CDFW determines the Permittee has violated any term or condition of this ITP or has engaged in unlawful take, CDFW may issue Permittee a written stop-work order instructing the Permittee to suspend any Covered Activity for an initial period of up to 30 days or risk suspension or revocation of this ITP. CDFW can issue a stop-work order to prevent or remedy a violation of this ITP, including but not limited to the failure to comply with reporting or monitoring obligations, or to prevent the unauthorized take of any CESA endangered, threatened, or candidate species, regardless of whether that species is a Covered Species under this ITP. Permittee shall stop work immediately as directed by CDFW upon receipt of any such stop-work order. Upon written notice to Permittee, CDFW may extend any stop-work order issued to Permittee for a period not to exceed 30 additional days.

If Permittee fails to remedy the violation or to comply with a stop-work order, CDFW may proceed with suspension and revocation of this ITP. Suspension and revocation of this ITP shall be governed by California Code of Regulations, Title 14, section 783.7, and any other applicable law. Neither the

Docusign Envelope ID: 9F4C3D7D-9BD0-8A90-8018-3BBCEDC1C253

Designated Biologist nor CDFW shall be liable for any costs incurred in complying with stop-work orders.

X. Compliance with Other Laws:
This ITP sets forth CDFW's requirements for the Permittee to implement the Project pursuant to CESA. This ITP does not necessarily create an entitlement to proceed with the Project. Permittee is responsible for complying with all other applicable federal, state, and local laws.

XI. Notices:

Written notices, reports and other communications relating to this ITP shall be delivered to CDFW by email or registered first class mail at the following address, or at addresses CDFW may subsequently provide the Permittee. Notices, reports, and other communications shall reference the Project name, Permittee, and ITP Number (2081(b)-2025-033-05) in a cover letter and on any other associated documents.

Original cover with attachment(s) to:

Kevin Thomas, Deputy Director of Regional Operations
California Department of Fish and Wildlife
South Coast Region 5
Attn: CESA Permitting Program
3883 Ruffin Road
San Diego, CA 92123
R5CESA@wildlife.ca.gov

and a copy to:

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

Unless Permittee is notified otherwise, CDFW's Regional Representative for purposes of addressing issues that arise during implementation of this ITP is:

Baron Barrera, Senior Environmental Scientist Supervisory
California Department of Fish and Wildlife
South Coast Region 5
3883 Ruffin Rd.
San Diego, CA 92123

Docusign Envelope ID: 9F4C3D7D-9BD0-8A90-8018-3BBCEDC1C253

(858) 539-9109
Baron.Barrera@wildlife.ca.gov

XII. Compliance with the California Environmental Quality Act:
CDFW's issuance of this ITP is subject to CEQA. CDFW is a responsible agency pursuant to CEQA with respect to this ITP because of prior environmental review of the Project by the lead agency, Irvine Ranch Water District. (See generally Pub. Resources Code, §§ 21067, 21069.) The lead agency's prior environmental review of the Project is set forth in the Final Environmental Impact Report for the Santiago Dam Improvement Project (SCH No.: 2023050097) that was certified by Irvine Ranch Water District on November 12, 2025. At the time the Lead Agency certified the EIR, and approved the Project, it also adopted various mitigation measures for the Covered Species as conditions of Project approval.

This ITP, along with CDFW's related CEQA findings, which are available as a separate document, provide evidence of CDFW's consideration of the lead agency's EIR for the Project and the environmental effects related to issuance of this ITP (CEQA Guidelines, § 15096, subd. (f)). CDFW finds that issuance of this ITP will not result in any previously undisclosed potentially significant effects on the environment or a substantial increase in the severity of any potentially significant environmental effects previously disclosed by the lead agency. Furthermore, to the extent the potential for such effects exists, CDFW finds adherence to and implementation of the Conditions of Project Approval adopted by the lead agency, and that adherence to and implementation of the Conditions of Approval imposed by CDFW through the issuance of this ITP, will avoid or reduce to below a level of significance any such potential effects. CDFW consequently finds that issuance of this ITP will not result in any significant, adverse impacts on the environment.

XIII. Findings Pursuant to CESA:
These findings are intended to document CDFW's compliance with the specific findings requirements set forth in CESA and related regulations. (Fish & G. Code § 2081, subs. (b)-(c); Cal. Code Regs., tit. 14, §§ 783.4, subds, (a)-(b), 783.5, subd. (c)(2).)

CDFW finds based on substantial evidence in the ITP application, the Santiago Dam Improvement Project Final Environmental Impact Report, the results of site visits and consultations, and the administrative record of proceedings, that issuance of this ITP complies and is consistent with the criteria governing the issuance of ITPs pursuant to CESA:

(1) Take of Covered Species as defined in this ITP will be incidental to the otherwise lawful activities covered under this ITP;

(2) Impacts of the taking on Covered Species will be minimized and fully mitigated through the implementation of measures required by this ITP and as described in the MMRP. Measures include: (1) permanent habitat protection; (2) establishment of avoidance zones; (3) worker education; and (4) Monthly Compliance Reports. CDFW evaluated factors including an

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assessment of the importance of the habitat in the Project Area, the extent to which the Covered Activities will impact the habitat, and CDFW's estimate of the acreage required to provide for adequate compensation. Based on this evaluation, CDFW determined that the protection and management in perpetuity of **44.4 acres** of compensatory habitat that is contiguous with other protected Covered Species habitat and/or is of higher quality than the habitat being destroyed by the Project, along with the minimization, monitoring, reporting, and funding requirements of this ITP minimizes and fully mitigates the impacts of the taking caused by the Project;

(3) The take avoidance and mitigation measures required pursuant to the conditions of this ITP and its attachments are roughly proportional in extent to the impacts of the taking authorized by this ITP;

(4) The measures required by this ITP maintain Permittee's objectives to the greatest extent possible;

(5) All required measures are capable of successful implementation;

(6) This ITP is consistent with any regulations adopted pursuant to Fish and Game Code sections 2112 and 2114;

(7) Permittee has ensured adequate funding to implement the measures required by this ITP as well as for monitoring compliance with, and the effectiveness of, those measures for the Project; and

(8) Issuance of this ITP will not jeopardize the continued existence of the Covered Species based on the best scientific and other information reasonably available, and this finding includes consideration of the species' capability to survive and reproduce, and any adverse impacts of the taking on those abilities in light of (1) known population trends; (2) known threats to the species; and (3) reasonably foreseeable impacts on the species from other related projects and activities. Moreover, CDFW's findings are based, in part, on CDFW's express authority to amend the terms and conditions of this ITP without concurrence of the Permittee as necessary to avoid jeopardy and as required by law.

XIV. Attachments:

FIGURE 1	Regional Location and Local Vicinity
FIGURE 2	Proposed Mitigation Site
FIGURE 3	Project Improvements
FIGURE 4	Conceptual Planting Plan-Long-Term Temporary Impact Areas
FIGURE 5	Project Impacts to Crotch's Bumble Bee and Least Bell's Vireo Location
FIGURE 6	Project Impacts to Vegetation

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ATTACHMENT 1	Mitigation Monitoring and Reporting Program
ATTACHMENT 2	Biologist Resume Form
ATTACHMENT 3	Letter of Credit

ISSUED BY THE CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE ON 11/17/2026

DocuSigned by:
Julie Vance
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Julie Vance, Acting Regional Manager
South Coast Region 5